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Ethnic and Gender Variation in Religious Involvement: Patterns of Expression in Young Adulthood

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Abstract

This study used latent class analysis to empirically derive profiles of religious involvement among a sample of 808 young adults and describe ethnic and gender differences within such religious involvement patterns. Items on the Duke Religion Index were included as part of a larger longitudinal survey of emotional, physical, and behavioral health. The scale measured the organizational, nonorganizational, and intrinsic dimensions of religiosity (Koenig et al. 2001) in a sample of young adults at two waves of the study—age 27 and age 30. At age 27, five religious profiles were distinguishable in the sample while at age 30 six profiles emerged. Ethnic differences were found for each of the religious profiles where religious involvement manifested in different ways. Religious profiles between ages 27 and 30 changed over time and were affected by gender and ethnicity.

Keywords

religiosity; profiles; spirituality; ethnic variation; intrinsic

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Sociological and psychological theories have hypothesized that age, gender, and ethnicity are factors that contribute to socio-emotional development, religious/spiritual development, and coping. Religiosity and spirituality have been described as individual and unique constructs in past literature, but more recent work has adopted a more integrated perspective (Zinnbauer and Pargament 2005).

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Consistent with an integrative perspective, the model for this study recognized spirituality as a broad construct and religiosity as a narrower construct that is nested within spirituality. Thus, religiosity is a manifestation of spirituality in the traditional sacred context. Religious behaviors and orientation are the focus of this profile analysis. Based on this theoretical foundation, this study examines: 1) whether religious profiles (i.e. subtypes of religiosity) can be empirically distinguished in a sample of young adults at two different points in their development, and 2) to assess how these profiles vary by gender and ethnicity.

Profile studies provide multiple measures on a single person on a particular construct. We expect that people will manifest different highs and lows on each measure and we make no assumptions about predetermined groupings (subtypes of religiosity). By using a profile analysis, we examine the respondent's complete set of responses to the variables involved and classify the variables into clusters to describe people in terms of discrete groupings. These groupings we refer to as "profiles." For example, traditional statistical methods would have a person complete a questionnaire and based on their score, the person would be placed into a predetermined group. There is often an assumption that a high score in one area can correspond with a group. In profile analysis, all of a person's responses are considered and the *pattern* of high's and low's determines the profile. One of the strengths of latent class analysis, the statistical approach for such profile studies, is that the method allows for the examination of dimensions and profiles without predetermination of group constructs. In this study, we seek to explore dimensions of religiosity and determine religious profiles or subtypes of religious involvement.

Demographic Variables and Religious Research

Religious research has found that the manifestation of religious involvement is complex. Pargament (2002) suggested that the interaction of variables such as social context, individual characteristics (majority versus minority status), and the situation of the individual impacted a person's religious experience. A few examples of such characteristics that influence this complexity are age, geographic location, gender, and ethnicity.

Age

Studies exploring differences in religiosity across age are limited, as few cross-sectional or longitudinal studies have been done. Those studies that have addressed age have shown that young adults are more likely to consider themselves to be spiritual, but are less likely to participate in organized religious services or activities (Shahabi et al. 2002). Glover (1996) and Becker and Hofmeister (2001) explain that some changes in religious involvement are associated with societal expectations about maturity and adulthood. For example, organized religious participation has been shown to be greater when young adults have children than when they do not. Also, longitudinal studies suggest that spirituality increases from middle adulthood until older adulthood (Moberg 2001; Schlehofer et al. 2008; Wink & Dillon 2003).

Fowler (1994) provides a stage model of faith development. Fowler sees the beginning of faith development to be a prestage called *undifferentiated faith.* Undifferentiated faith is held at infancy, and involves a fused sense of trust, courage, hope and love. Individuals transition to stage 1, *intuitive projective faith*, when they begin to develop thought and language. According to Fowler, from the ages of two to seven, children hold a fantasy filled and imitative faith that is not limited by logical thought and is quite fluid. Stage two (*mythic literal faith*) involves the individual personalizing the stories and beliefs that belong to their community. In stage three (*synthetic-conventional faith*), an individual's main task is reflection on multiple perspectives relating to the self and the teachings of faith. Young adults are typically considered to be in stage four, or *individuative-reflective faith.* This

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stage is characterized by individuals forming a new identity based on group and personal affiliations that leads to a particular "lifestyle." Here, personal responsibility for actions and commitments is realized while developing a personal identity (the self) and outlook (worldview). The ideal time for individuals to transition between stage three and stage four is in the early to mid-twenties, but some adults may not reach this stage until age thirty or forty. It would be reasonable to think of the members of this study sample to be somewhere within these two stages. Following stage four is stage five- *conjunctive faith*. Conjunctive faith, according to Fowler, is a perspective that includes both the big picture of faith as well as the small details. It moves beyond the "either/or" perspective to revealing many sides of faith simultaneously. Fowler notes that it is unusual to reach this stage before midlife, so it is unlikely our sample participants would have reached this stage.

Geographic location

Where a person lives also affects how religious involvement manifests. Shahabi et al (2004) writes about the relationship between religion and geographic location. She describes the United States as having "an almost unrivaled variety of religions, reflecting both historic factors and contemporary socio-economic processes." Further breaking the country down into regions, she identifies the Pacific Northwest as being dominated by Protestant Christianity, while also having low religious affiliation. This characterization is also reported by Iannaccone and Makowsky (2007) who call the western United States "relatively irreligious." By contrast, Shahabi et al. (2002) found that people in the South were more religious than spiritual. Overall there is variation in perspectives across the nation. However, the sample for this study included individuals in the Pacific Northwest and western US.

Gender

Gender differences are also revealed in religious research. Overall, research has shown that women consistently score higher on measures of both public and private religious practices and spiritual beliefs (Shahabi et al. 2002; Maselko & Kubzansky 2006). The magnitude of this difference depends upon a number of other factors, such as age, religious denomination, region, and educational level. This effect might be especially strong in a sample of young adults, as male college students have been found to be skeptical of religion and men have been found to become increasingly spiritual and religious with age, as they take on more mature, family-oriented roles in society (Becker & Hofmeister 2001; Bryant 2007).

Racial and ethnic minorities

According to Pargament (2002) one of the individual characteristics that influences how religious involvement is exhibited is minority vs. non-minority status. During the past two decades, studies have increasingly addressed the impact of spirituality on the coping of ethnic minorities. In the African American community, the church is a well-documented source of support (Christian & Barbarin 2001; Jagers & Mock 1993). Haight (2002) and Coles (1990) researched children's spiritual lives and observed their spiritual development over time. Coles (1990) found that the African American children he interviewed had self worth, comfort and hope that stemmed from their religious beliefs. He described interviews with African American children who accessed rich spiritual traditions to deal with the stress of racial hatred in the 1960's.

In recent years, research has shown that spiritual beliefs can be a source of resiliency in African American children (Jones 2007; Haight 2002; Garbarino & Bedard 1996). The spiritual lifestyle is internalized and provides a sense of empowerment and purpose greater than self, which assists African Americans in coping with challenges and environmental stressors (Littlejohn-Blake & Darling 1993). In her longitudinal study of religious

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socialization in the African American church, Haight (2002) found that adults within the church felt a sense of responsibility for the spiritual development of children and used Sunday School as an opportunity to help children apply the protective “armor of God” to help the children cope with difficulties in their everyday lives.

When examining religiosity among Asian Americans, it is important to understand that this group generally contains a higher degree of religious diversity than is present in other ethnic groups. This is because Asian American is a population category and is made up of many ethnic groups of Asian ancestry. Thus, we will use the term Asian American with the understanding that the term is inclusive of a heterogenous group of individuals of Asian ancestry. Asian American religious affiliation includes a number of traditions including Protestantism, Catholicism, Buddhism, Hinduism and Islam Ecklund & Park, 2007). A study by Yeh et al. (2006) found that Asian American families used spirituality as a collectivistic coping mechanism in response to the World Trade Center attacks of September 11, 2001. For individuals who had family members who were killed during the attacks, it was found that all but one of the participants coped with their loss through believing in a higher order, and in some individuals, by increasing their religious and spiritual activities. When looking at second-generation Asian Americans’ religious socialization, Park and Ecklund (2007) found that for college-aged Asian Americans, families were the most significant influence on their current religiosity. Parents were also found to be the link to ethnic churches, which was also found to be a central influence on religious and moral socialization.

The influence of religion on Native Americans is also a prominent and central feature of daily living. Bucko (2007) writes that Native American resiliency is most evident in their work to maintain religious and family institutions. He writes that contemporary Native American cultures are in a continued struggle to return to traditional religion. This may cause a split for some groups and individuals who accept a Christian identity (Bucko 2007). Tinker (1996) found that for Native Americans, all existence is spiritual. While there are a great variety of cultures among Native Americans, the universal starting point is spirituality, with many tribal ceremonies expressing spirituality (Tinker 1996). Experiential aspects of religion are extremely important in Native American religious tradition. Vision questing by fasting, ingesting peyote, running long distances, dancing tribal dances, prolonged periods of isolation as well as communal stays in a Spirit Lodge are all ways Native Americans experience the sacred (Paper 2007; Treat 1996).

Few studies have focused on spirituality and/or religiosity in nonminorities as compared to ethnic minorities. However, in a study of multiple ethnic minority groups, Shahabi et al (2002) found that non-minority individuals are more likely to consider themselves spiritual, but not religious. The majority of these studies addressed within-group and between-group differences. One of the strengths of this study was our ability to analyze the groups without predefinition and then determine representation post hoc.

DIMENSIONS OF RELIGIOSITY

This study focuses on three dimensions of religiosity: nonorganizational religiosity, organizational religiosity, and intrinsic religiosity (Koenig et al. 2001). The first two of these dimensions can be viewed as describing religious behaviors occurring in different contexts, while the latter reflects the degree of religiosity as well as religious commitment/motivation.

Nonorganizational

Personal religious practices fit within the nonorganizational realm of religious behaviors. Private prayer, according to Koenig et al. (2001) is the primary religious activity associated with nonorganizational religiosity. Prayer can also be seen as an individualized ritual. Prayer

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can be motivated by needs and directed toward something outside of the self, with hope for varied effects. Spilka (2005) defines a ritual as “a prescribed pattern of behavior” with some rituals being rigidly patterned. He notes that rituals serve an important function with religion —as an individual and social control mechanism. Spilka also notes that elements from public worship may be incorporated into an individual’s prayer ritual. Meditation, reading religious documents, and watching religious television in one’s home are also included in nonorganizational religiosity.

Organizational

Koenig et al. (2001) describe organizational religiosity as the social aspect of religion, where individuals participate in church, synagogue, temple or other religious ceremonies. Participation in a religious congregation has also been termed “religious affiliation” (Dougherty et al. 2007). Presser and Chaves (2007) identify weekend attendance at religious services to be the most common form of social religious participation in the United States. Other behaviors that are considered organizational activities include attendance at religious social meetings, religious study groups, holding an office in the religious congregation, and participation in community rituals and sacraments (Koenig et al. 2001). Within religious practice, Spilka (2005) identifies worship as a community activity where participants may engage in community rituals as part of the religious ceremony. He theorizes that participation in these corporate activities increases commitment to one’s faith on the individual level. This demonstrates that while the different aspects of religiosity can be identified separately, they are still interrelated.

Intrinsic Religiosity

Intrinsic religiosity refers to what Allport and Ross (1967) used to identify a person whose “master motive” is religion. The person lives out their religion—it is internalized and is the primary need that all other parts of life are brought into. Byrd et al. (2007) define intrinsic religiosity as the degree to which religious behavior is a primary reinforcement and is rewarding in and of itself. According to Koenig et al. (2001) the best indicator of religious commitment is through assessing an individual’s level of intrinsic religiosity. Although intrinsic religiosity is a commonly used term, other studies have used different terminology to address the same construct. For example, in a meta-analysis of five national studies, Taylor et al. (1999) used the term “subjective religiosity” to describe the relative importance of religion in the life of the individual. This study used the term “intrinsic” to remain consistent with the theoretical framework of the assessment measure that was selected.

With these three dimensions as the foundation, the analyses described below examined whether more specific religious profiles could be empirically distinguished in this sample of young adults and whether the profiles vary by demographic characteristics. We anticipate the following: a) a set of religious profiles will appear in each cross sectional analysis; b) these profiles will resemble the theoretical constructs within Koenig et al (2001) model of religiosity but be reflected in specific subtypes; c) the profiles of religiosity will be consistent between the ages of 27 and 30; and d) transitions between the profiles will occur at different rates based on gender and ethnicity.

METHOD

Sample

This study used data collected from an ongoing longitudinal study called the Seattle Social Development Project (SSDP). The SSDP project includes interview data on risk factors and protective factors as they relate to emotional, physical, and behavioral health outcomes. Risk factors such as substance use, delinquency, and violence are explored as well as protective

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factors such as social support, religiosity, and social and ethnic identity. Data collection began in 1985 with a sample of fifth grade students in 18 Seattle Elementary schools and has continued through 2008 with the collection of data at age 30. A total of 808 participants are included in the longitudinal study and are examined in the current analyses. This study focuses on the 8th and 9th wave of the study when the participants were 27 years old (2002) and 30 years old (2005). Of the 808 participants, 47.2% (n= 381) were Caucasian, 25.6% (n=207) were African American, 5.3% (n=43) were Native American, and 21.9% (n=177) were Asian. The gender distribution was relatively even where 51% (n=397) were male. Further discussion of the SSDP sample and methods of recruitment can be found in an earlier paper (Hawkins et al. 1999).

Measures

During the 8th and 9th wave of the SSDP project, items from the Duke Religion Index were included as part of the larger survey of emotional, physical, and behavioral health. The Duke Religion Index (DRI) was developed by Koenig et al. (1997) in order to gain a quick and comprehensive snapshot of individual’s religiosity. The DRI is a five-item scale that measures three dimensions of religiosity: organizational, non-organizational, and intrinsic dimensions (Storch et al. 2004; Chatters et al. 1992; Koenig et al. 2001). The DRI is most often used in health research, as an efficient and reliable battery to assess religious variables that may play a role in individuals’ coping and healing (Storch et al. 2004; Koenig et al. 1997) and has been shown to correlate with other common scales of religiosity, such as the Santa Clara Strength of Religious Faith Questionnaire (Plante et al. 1999). With a Cronbach’s Alpha of .91, it has also been shown to be reliable in both adult and young-adult populations (Storch 2004). *Organizational* religiosity was measured by the question “How often do you attend religious services or activities,” which was rated on a 4-point scale that ranged from annually or “never” to “weekly or more”. *Nonorganizational* religiosity was measured by the question “How often do you spend time in private religious activities such as prayer, meditation, or bible study?” The response options ranged from “never” to “more than once a day”. *Intrinsic* religiosity was measured by three statements and one question. The three statements included: “In my life, I experience the presence of the Divine,” “My religious beliefs are what really lie behind my whole approach to life,” and “I try hard to carry my religion over into all other dealings in life.” Response options were on a 5 point scale and ranged from “definitely not true” to “definitely true”. The question that measured the intrinsic dimension of religiosity was: “In general, how important are religious or spiritual beliefs in your daily life?” Responses ranged from “not at all important” to “very important.” All aspects of religiosity were recoded so that higher scores were associated with higher levels of religiosity. Responses to the four items that measured intrinsic religiosity were entered into a Latent Class Analysis (LCA). This is consistent with the way that the other items of the DRI were handled within the LCA.

Analyses

Latent class analysis—This study used latent class analysis (LCA) to identify a profile of religious involvement among respondents. The latent class analysis was accomplished using Mplus version 5.2 (Muthen & Muthen, 2006). Latent class analysis is a “person-centered” approach which is designed to divide the population under study into a set of latent subpopulations that share a distinct interpretable pattern of relationships among the indicators (Meiser & Ohrt 1996). Because membership in the subpopulation is generally unknown to the researcher, a latent categorical variable (composed of ‘classes’) is assumed to exist and is inferred from the data. The classes represent subgroups of individuals who have a similar profile on each of the variables entered into the analysis, and a different profile from individuals in the other subgroups. LCA was performed to identify classes of

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individuals and examine differences in the profiles of religious involvement across the demographic characteristics.

To analyze the sample, a latent class model was computed in MPlus 5.2 (Muthen & Muthen 2006) with only one class. Several more latent class models we computed by increasing the number of classes by one in each model. A total of 6 latent class models were run for each wave of the study (age 27 and age 30)—checking each model for best fit and significance. To guide the decision on the appropriate number of classes, a combination of statistical information criteria (IC) such as the Bayesian Information Criterion (BIC) and likelihood based indices were used to determine the best model fit. For example, the Loglikelihood, entropy, BIC, and number of parameters were compared between the class models. Rather than using the standard likelihood ratio test (LRT) that assumes a Chi-Square distribution, the Lo-Mendell-Rubin (LMR) was selected—an approximation of the LRT. The LMR test compares the fit between prior class models (e.g., $k-1$ and the k class model) and gives a p value that indicates whether significant improvement occurs with adding the additional class. According to Nylund et al. (2007) calculating the Lo-Mendell-Rubin (LMR) has an adequate type I error rate for continuous variables when compared to model fit analyses using standard tests with Chi Square distributions. To further confirm the class decision, the Lo-Mendell Adjusted Likelihood Ratio test (LM-ALRT) was also analyzed. This estimates the distribution of the loglikelihood differences as well. It, too, provides a p value that compares model fit when one class is added to the model (Nylund 2007).

Chi Square test of significance—To determine the relationship between the religious profiles at age 27 and the profiles at age 30, a chi-square test with control variables was completed. The first control variable entered was gender and a second analysis was completed with ethnicity as the control variable. If at least one variable entered is nonsignificant, there is a control “effect.” The results of the latent class analysis and Chi square analyses follow in the results section.

RESULTS

The means and standard deviations of the responses to the items of the DRI are provided in Table 1. The table shows the data for ages 27 and 30 of the study and identifies the means by overall sample and by gender.

The results of the LCA are shown in Table 2 revealing that a set of religious profiles could be empirically determined at both ages 27 and 30. Following the interpretive approach of Nylund, Asparouhov, and Muthen (2007), the data reveal that the best model fit of the latent class analysis at age 27 was a five-class model of religiosity. “Best fit” means that the distribution of responses is best represented by five religious profiles at age 27. This five-class model had the lowest Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC), Adjusted BIC values. The 5-class model also had the highest loglikelihood statistic. These values indicate that the 5-class model best described the religious profiles for study participants at age 27. The LM-ALRT (Lo Mendell- Adjusted Likelihood Ratio Test) showed also that the 5-class model had a significant p value, indicating improvement over the 4-class solution.

At age 30, also shown in Table 2, the participants showed differences in their religious profiles. Based on the suggestions of Nylund et al. (2007), the 6-class model was determined to be best fitting because the majority of the model fit statistics favored the 6-class structure. Thus, the age 30 data is best explained by a 6-class solution (i.e., six subtypes of religiosity).

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Determining the labels for each of the classes is much like the process of factor analysis. Differences between each of the groups were analyzed to determine the unique characteristics of each class. The characteristics of each class are assessed in terms of theory and compared to constructs in the literature. After determining the unique characteristics of the class and linking to current constructs (i.e. subtypes of religiosity), we labeled each class and began referring to them as “profiles.”

As shown in table 3, at age 27, twenty-eight percent (N=229) of the sample were classified as having a *low religiosity* profile (class 1). These were individuals who were low on all dimensions (organizational, nonorganizational, and intrinsic) of religiosity. They were not likely to pray or attend religious services, nor did they utilize religious beliefs as a way of responding to daily life. In contrast, sixteen percent (N=132) of the sample were in class 5, *high religiosity*. These people had high scores on all dimensions of religiosity. Specifically, they were highest in intrinsic motivation as well as participation in religious practices such as church attendance and prayer. The three other classes represented other unique expressions of religiosity. Membership in class 2 (29%, N=233) included individuals who showed a *personal/experiential* religious profile (Potvin and Lee 1982). These were individuals who think about their religious beliefs but who were not active in traditional religious practices such as prayer or religious service attendance. Ten percent of the sample (N=82) were in Class 3, the *personal ritual* profile. This profile included individuals who approached life with a spiritual attitude and strong religious convictions, but the social aspects of religion were not as important. They were likely to engage in private religious activities such as prayer, but did not attend religious services. Class 4, *involved religiosity*, represented the opposite pattern from Class 3 in some respects. These individuals were more involved in the social aspects of religion and less involved in the private realm (prayer). They reported strong religious beliefs similar to the personal-experiential profile (Class 2), but were also active in religious service attendance and other organized participation. The involved profile was sixteen percent of the sample (N=132).

At age 30, the same five profiles (with similar proportions of representation), and one additional profile emerged. Table 3 shows that twenty-eight percent of the sample fell into the *low religiosity* group (N=222); another 27% fell into the *personal-experiential* group (N=220); and 13% were in the *personal ritual* group (N=103). There were 9% members in the *involved* group (N=72) and 16% in the *high religiosity* group (N=131). The new group that emerged when the participants were 30 years old was the *spiritual-not religious* group (Fuller, 2001). This new group comprised 7% of the sample. According to Fuller (2001), "spiritual but not religious" individuals pick and choose elements from a variety of beliefs and practices as they construct an individualized spirituality. They do not ascribe to a single form of organized religion. This group reports that they experience the Divine and their spiritual beliefs are important to their daily life.

Overall, religious class membership empirically supported the three Koenig et al. (1997) dimensions of religiosity. Figure 1 illustrates the overlap of Koenig’s dimensions of religiosity as well as the profiles found within this sample. For example, the *Involved* profile included individuals who demonstrated religiosity elements of both the organizational dimension and the intrinsic dimension. They were involved in the social aspects of religion including being active in service attendance and organized participation. The *personal ritual* profile showed characteristics of the nonorganizational dimension as well as the intrinsic dimension. They were not active in religious services, but their beliefs were strong and they participated in prayer and other personal or private representations of religiosity. The *personal/experiential* profile was even more private in their religious expression. All of their defining characteristics fell within the intrinsic dimension and did not overlap with the other two dimensions. As a result, they were a subset of individuals whose primary form of

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religious expression was through the intrinsic domain. The new group that emerged at age 30, *spiritual but not religious*, is shown only in the outer circle of Figure 1 with no overlap with religiosity.

For the overall sample, the number of individuals in the *low, personal experiential, high*, and the *involved* groups dropped as individuals got older. The number of individuals in the *personal ritual* group increased and the new, *spiritual-not religious* group emerged at age 30. Since we examined the religious profiles at two different ages with the same sample, we have the ability to describe transitions from one profile to another between the ages of 27 and 30. Table 3 shows these transitions using frequency counts. These data show that religious profiles are not stagnant during this developmental period. Only 26% (N=59) of individuals with low religiosity profile at age 27 remained there when they were 30 years old. Similarly, 24% (N=57) of those in the personal experiential profile remained in that group at age 30. Even smaller percentages were apparent for personal ritual, involved, and high religiosity (12%, 10%, and 13 % respectively.). The pattern of transitions between profiles is even more interesting when analyzed in the context of demographic characteristics.

Gender Differences

Table 4 shows the percent of representation in each class by gender and racial and ethnic group. With respect to gender, there were differences between men and women in their religious profiles. When participants were 27 years old, males were predominantly in the *low religiosity* and *personal experiential* groups while females were more evenly distributed among the *low, personal experiential, involved*, and *high religiosity* profiles. Thus, men were more likely to be characterized by private forms of religious expression, while women were more active in demonstrative participation and the social aspects of religiosity. When participants were 30 years old, males continued to be prominent with the *low religiosity* profile, with increased representation in the *personal ritual* profile and the new *spiritual, not religious* profile. Females increased representation in the *personal-experiential* profile, remained in the low and high profiles, but decreased representation in the *involved* profile. These shifts indicate that, at age 30, men disproportionately identified with the new profile —spiritual, not religious, and women began to adopt more private characteristics of religious expression in addition to the social aspects they were already exhibiting.

The chi square significance test (χ^2) was used to compare religious profiles at age 27 with participants' religious profile when they were three years older. The chi square test for gender revealed that the shift between groups was significantly different for three of the groups: *low religiosity personal experiential*, and the *involved* groups. Females were more likely to shift out of the *low* group and into the *personal experiential* group (χ^2 (5, N=229)=12.7, p<.05). There were also significant gender differences for the *personal experiential* profile. While females were more likely to remain in the *personal experiential* group, men were more likely to shift to the *low* profile, χ^2 (5, N=233)=14.7, p<.05. The final significant chi square test included the *involved* profile. With this profile, 38% of males shifted from the *involved* group to the low group, χ^2 (5, N=132)=11.7, p<.05. There were no significant gender differences for the *personal ritual* or the *high* group.

Racial and Ethnic Variation

Table 4 also provides data on the religious profiles within ethnic groups. We were particularly interested in how members within ethnic minority groups distributed among the profiles. At age 27, forty-five percent of White/Caucasian Americans identified with the *low religiosity* group. The next largest proportion of Whites had the *personal experiential* profile (24%). When the white participants were 30 years old, they continued to demonstrate

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predominantly the *low religiosity* (29%) and *personal experiential* profiles (28%), but in smaller proportions than three years prior. African Americans at age 27 showed predominantly the *high religiosity* profile (31%) with the *personal experiential* (25%) and *involved* (22%) profiles as the next highest profile for the group. However at age 30, the *personal experiential* (31%) and the *low religiosity* (25%) profiles were the most demonstrated profiles among African Americans. Such shifts were also apparent for Native Americans in the sample. At age 27 most fell in the *personal experiential* profile (44%) but at age 30, the majority were in the *low religiosity* group. Asian Americans were predominantly ascribing to the *personal-experiential* group at both ages 27 and 30.

Within ethnic groups, there were a few interesting trends. At age 27, the highest proportion of White/Caucasian Americans were in the low religiosity group. Asian Americans and Native Americans were most likely to demonstrate a personal experiential religious profile. African Americans were most likely to be represented in the high religiosity group where all forms of religious expression were endorsed strongly. However, at age 30, ascribing to a *spiritual, not religious* profile appeared for all groups, particularly Native Americans. While large proportions of African Americans and Asian Americans increased in the *low religiosity* profile.

A chi square test (χ^2) of significance was used to compare the ethnic distribution across groups at age 27 with participants' religious profiles when they were 30 years old. This test revealed significant differences for two of the religiosity profile groups: *low religiosity* and *personal experiential*. For the *low* group, there was a significant trend where 71% of White Americans in this group shifted out of the low group and moved into other groups, with the majority from this group moving into the personal experiential group, χ^2 (15, N=229)=28.2, $p<.05$. There were also significant ethnic changes in the *personal experiential* group. While African Americans were more likely to remain in the *personal experiential* group (32%), Asian Americans were more likely to shift to the *low* group, χ^2 (15, N=233)=29.9, $p<.05$. There were no significant ethnic differences for the *involved, personal ritual* or *high* groups.

Summary

Consistent with our expectations, we were able to empirically determine a set f religious profiles at both age 27 and age 30. These profiles were consistent with the constructs defined by Koenig et al. (2001), but add to the literature in a unique way because several of the profiles are hybrids of the three in the theoretical model. These "hybrids" we define as subtypes. The one result that was not consistent with our expectations was that the profiles were not all the same between the ages of 27 and 30. All five of the profiles from age 27 continued to be present but a new one emerged. Finally, we expected variation within groups and that transitions between profiles would occur at different rates based on gender and ethnicity. The results indicate that such variability does occur in a statistically significant way.

DISCUSSION

This study built on the theoretical definitions of spirituality and religiosity where spirituality is recognized as a broader construct that includes religiosity and incorporates the work of Zinnbauer as well as Koenig and his colleagues (Koenig, McCullough, and Larson 2001; Zinnbauer and Pargament 2005). The integration of Koenig's work lent itself well to use the Duke Religion Index (DRI) as a measure of religiosity—or religiosity in the context of spirituality. The use of latent class analysis (LCA) allowed the exploration of unique patterns of religiousness in context.

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The fact that some people exhibited religiousness that was a hybrid of Koenig's dimensions (e.g. nonorganizational, organizational, intrinsic) should not be surprising. All people are unique and see and experience the world differently. Such variations in expression should be expected, but are rarely measured. The statistical method used allowed for the exposure of different construct than solely the dimensions that were identified by Koenig et al in the development of the DRI. The high religiosity and low religiosity groups are defined only by the amount of endorsement of the items. Those in the high group endorsed items indicating that they are highly active in the personal, social, and ritualistic aspects of the search for the Sacred. Women fell into the high religiosity category more than men at age 27, but equally at age 30. This is consistent with the literature (Maselko and Kubzansky 2006; Shahabi, Powell, Musick, Pargament, Thoresen, Williams, Underwood, and Ory 2002). Although men fell in the group at lower rates than women, they did show an increase in representation in the high group as they got older. This is consistent with the findings of Bryant (2007) and likely attributable to a developing spiritual maturity due to family oriented roles and responsibilities. By contrast, the low religiosity group showed low levels of endorsement of involvement, personal, and the ritualistic aspects of religiosity. Consistent with Shahabi et al. (2002), at age 27, the majority of Whites were in the low religiosity group; however, as they got older, they shifted to other forms of religious expression.

It is important to note that most of the items included language that was invoking connections with the term religiosity. One item used the word spiritual as well as religious. People who responded strongly to that item in the absence of high ratings on the other items fell in the "spiritual, not religious" group (Shahabi et al. 2002). This style of religiousness included being more private about religious expression but the importance of their "spiritual beliefs" was strong and guided their daily life. More Native Americans and African Americans shifted into this profile when the participants were 30 years old. The emergence of the new group could be representing the transition between Fowler's (1994) stages of faith when the individual moves from the synthetic-conventional faith to an individuative-reflective faith. For Native Americans and African Americans, this style resembled a unique individualized manifestation of religious formation.

The *personal experiential* group was one with a large membership within the sample as a whole. While Native Americans and Asian Americans had the highest proportion of membership at age 27, African Americans in the group were more likely to remain in the group as they got older. The gender effect revealed that women remained in the group while more men shifted out of the group to the *low* group as they got older.

The last two groups were related to the social and community aspects of religiosity. The *personal ritual* group had a spiritual attitude and a strong personal conviction toward their faith. They participated in prayer and meditation, but they did not participate in religious services. Native American and Asian American women were most likely to be within this group at age 27, but men were more likely at age 30. The *involved* group was the opposite. They were ones who were less likely to pray and meditate, but they were involved in religious service attendance and had strong religious beliefs. Women remained dominant at both age 27 and age 30, confirming that this style resonates with females. It is possible that the community affiliation is one of the rewards of this style of religious expression.

Consistent with Moberg (2001), there was an overall increase in religiosity overall for one particular group—men. This trend was not apparent for the women overall, but did exist within some of the religious subtypes.

There were several limitations to our study that must be considered. Although an adequate sample size existed to provide the statistical power for the latent class analyses, the sample

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did not have equal representation of the different ethnic groups included. This limitation is particularly salient for the Native Americans in the sample. Interpreting the trends based on culture is difficult considering they only represented a very small proportion of the sample. To address this, we completed within-group analyses rather than between-group analyses. Another limitation of our study is that we analyzed only two waves of data. Inclusion of more waves of data would have allowed for more comprehensive analyses of the longitudinal trends within each group. Examining two waves of data allowed us to begin such a process by making within group comparisons over a three-year time span.

IMPLICATIONS

Our findings have important implications for future research on religiosity and spirituality. It is clear that the dimensions of religiosity and spirituality, as we have conceived of them, are not distinctly different and there is inherent overlap in these constructs. As a result multidimensional measurement is required to get a sense of how these constructs are manifested in people. Aside from the theoretical model, our analyses allowed groups to emerge as indicated by the data. Using this approach the resulting model is inclusive not only of well respected prior research (Koenig 1997), but also includes new constructs that help explain the complexity of religiousness and spirituality.

The findings related to ethnic and gender variation show within group variability over time while also showing similar patterns of religious and spiritual development. Our results support Fowler's (1994) theory that religiousness changes over time as a result of developmental and life changes. It appears that our sample was shifting into and out of the *individuative-reflective faith* and possibly the *conjunctive faith* perspective at age 30. Because this study analyzed the ethnic variation in religious expression, it also demonstrates patterns within groups. This has important implications for sociological-research. Most multicultural research has identified common cultural themes within groups, but has not focused significantly on variations within groups. While understanding cultural nuances is important, future research can (and should) allow for identification of variation within groups. Knowledge of these within group variances can inform training of clinicians and the practice of mental health care.

In summary, spirituality and religiosity appear to be nested constructs that manifest differently in people. Despite the method of expression, the approach is a guiding framework for how the person lives their life. This framework may include a need for action within a community context, a private set of beliefs, and/or a set of rituals that occur as part of daily life. Having an understanding of the approach in the context of the individual may lead to optimal outcomes for health and mental health.

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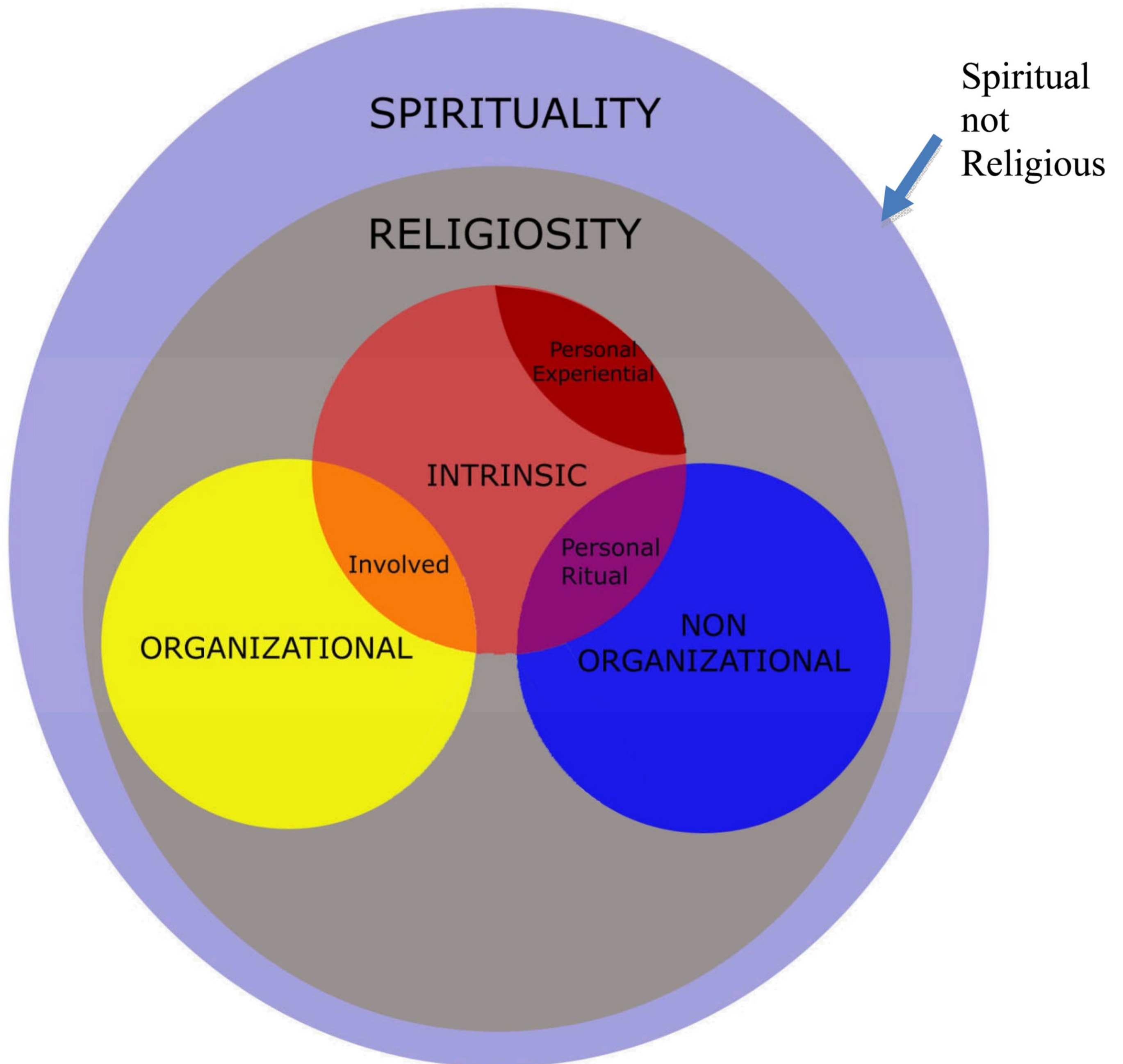

Figure 1.
Model of Religious Profiles

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Table 1

Descriptive Statistics of overall responses to the items of the Duke Religion Index (DRI)

	Overall Sample				Male				Female			
	Age 27[5]		Age 30[6]		Age 27		Age 30		Age 27		Age 30	
DRI Item	***M***	**SD**	***M***	**SD**	***M***	**SD**	***M***	**SD**	***M***	**SD**	***M***	**SD**
Prayer	*2.51*	1.63	*2.69*	1.79	*2.42*	1.65	*2.61*	1.76	*2.73*	1.61	*2.73*	1.80
Experience	*3.15*	1.32	*3.21*	1.44	*3.01*	1.29	*3.23*	1.43	*3.34*	1.36	*3.16*	1.44
Beliefs	*3.09*	1.39	*3.11*	1.49	*2.94*	1.43	*2.97*	1.51	*3.22*	1.36	*3.17*	1.48
Carry all	*2.89*	1.39	*2.88*	1.43	*2.70*	1.39	*2.79*	1.43	*3.11*	1.39	*2.89*	1.42
Attendance	*1.91*	1.13	*1.95*	1.18	*1.74*	1.08	*1.88*	1.16	*2.11*	1.16	*1.97*	1.18
Importance	*2.91*	1.04	*2.91*	1.05	*2.80*	1.06	*2.88*	1.09	*3.04*	.99	*2.91*	1.02

[5] Data are from 2002 survey

[6] Data are from 2005 survey

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Table 2

Fit indices for LCA Models with 1–6 classes at ages 27 and 30

# of Classes	1	2	3	4	5	6
			Age 27 sample (N=808)			
# of Free parameters	16	27	38	49	60	71
Log Likelihood	−8822.61	−7807.58	−7404.76	−7297.66	−7156.35[a]	−7308.72
AIC	17677.23	15669.16	14885.51	14693.32	14432.71[a]	14759.44
BIC	17750.85	15793.39	15060.36	14918.78	14708.78[a]	15092.75
ABIC	17700.04	15707.66	14939.70	14763.19	14518.26[a]	14867.29
LM- ALRT	N/A[b]	.0000	.0000	.0913	.0001[a]	.5796
			Age 30 sample (N=808)			
# of Free Parameters	16	27	38	49	60	71
Log Likelihood	−8651.08	−7556.98	−7120.92	−7004.59	−6847.17	−6759.01 [a]
AIC	17334.15	15167.95	14317.83	14107.18	13814.34	13660.03[a]
BIC	17409.26	15294.71	14496.23	14337.21	14096.02	13993.34[a]
ABIC	17358.46	15208.97	14375.55	14181.61	13905.48	13767.88[a]
LM-ALRT	N/A[b]	.0000	.0002[a]	.1666	.0572	.2144

Note. AIC= Akaike Information Criterion; BIC= Bayesian Information Criterion; ABIC= Adjusted BIC; LM-ALRT= Lo-Mendell Adjusted Likelihood Ratio Test

[a]Best Fitting model according to that index

[b]LM-ALRT not available for the one class model

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Table 3

Frequency matrix of profile transitions between the ages of 27 and 30 (N=808)

		Age 30							
	Profile	Low religiosity	Personal-experiential	Personal ritual	Involved	High religiosity	Spiritual, not Religious	N	%
Age 27	Low religiosity	**59**	64	26	18	41	21	229	.28
	Personal-experiential	62	**57**	31	29	39	15	233	.29
	Personal ritual	29	22	**10**	2	9	10	82	.10
	Involved	38	31	18	**13**	25	7	132	.16
	High religiosity	34	46	18	10	**17**	7	132	.16
	N	222	220	103	72	131	60		
	%	.28	.27	.13	.09	.16	.07		

Note: Frequency counts in bold represent the number of individuals who remained in the same group

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Table 4

Percent representation in each class by gender and ethnicity

	Latent Class (Religious profile)										
	Low	Personal Experiential	Personal ritual	Involved	High	Low	Personal experiential	Personal ritual	Involved	High	Spiritual not religious
	Age 27					Age 30					
Male	31.2	34.4	7.9	12.9	13.6	34.2	19.1	13.6	8.4	16.1	8.7
Female	25.5	23.3	12.4	19.8	19.1	20.8	35.4	11.9	9.4	16.3	6.2
White	45.7	23.9	4.5	12.6	13.4	28.6	27.8	11.0	8.1	17.6	6.8
African American	9.2	25.1	12.6	21.7	31.4	24.6	30.9	12.6	7.7	15.9	8.2
Native American	18.6	44.2	23.3	11.6	2.3	37.2	7.0	16.3	7.0	20.9	11.6
Asian American	15.8	40.1	16.4	19.2	8.5	26.0	27.2	12.7	12.4	12.4	6.8