

Research in the Social Scientific Study of Religion

Research in the Social Scientific Study of Religion

Series Editor

RALPH L. PIEDMONT

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Ralph L. Piedmont

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PREFACE

This volume continues to reflect the change in the publication process for RISSR. Historically, RISSR has been published at the end of the calendar year. In this way, the volume would provide a useful overview of the salient issues and trends noted in the research literature across a number of fields. Over the years, however, RISSR began to search out and publish more cutting edge research. Instead of being simply a review of work, it began to capture more of the latest trends in the field. As such, it seemed awkward to keep the volume emerging in the later half of the year; an earlier publication date appears warranted. As such, the decision was reached to put the series on a new publication schedule. This new publication schedule seems to be working well. Important information is reaching the field at an earlier point in time. The regular articles featured in this volume contain a wide array of theoretically interesting and empirically useful information.

The first paper by Leslie Francis and colleagues examines the issue of incremental validity for the Francis Attitude Towards Christianity Scale (FACS) in predicting satisfaction with life over the personality dimensions of the five-factor model (FFM) of personality. His results suggest that the FACS does not provide much new information over personality. Establishing the incremental validity of spirituality measures over personality is an important issue in the field. In order to justify their use, users of spiritual and religious measures need to demonstrate that their instruments do carry independent personological value and are not merely the “reification” of personality constructs. The paper by Piedmont and colleagues examines the psychometric value of the *Assessment of Spirituality and Religious Sentiments* (ASPIRES) scale, short form. This report provides important reliability and validity evidence on the utility of this brief version. Although it contains about one third the number of items as its longer parent, this short form does evidence adequate levels of reliability, structural validity, and predictive incremental validity in samples of both adults and college students. One important feature of the ASPIRES is that it specifically aims to assess aspects of spirituality that are independent of the FFM dimensions. From the perspective of this model, overlap with personality undermines the scientific integrity of spiritual and religious measures.

Taking a different tack on this question is the paper by Cramer, Griffin, and Powers. This report extends this line of work by correlating two measures of spirituality to the FFM to determine the extent of overlap these two sets of constructs have. These authors noted that the FFM explained 16% and 32% of the variance in the spirituality measures. Agreeableness was the largest consistent predictor for both spirituality measures. Such a large overlap was not considered to be problematic for the spirituality scales. Instead, these relations were seen as one way to develop a better understanding of spiritual constructs and their personological significance.

The value of religious and spiritual constructs for understanding human behavior is noted in a number of reports. Maher and Sever demonstrate how religious values are significant predictors of attitudes towards euthanasia, abortion, and capital punishment. Using a sample of undergraduates from a Catholic university, the authors noted how religious and non-religious students were different in their attitudes on these topics. They raise the need to study how religious training influences the development of moral attitudes. Smith and Peyrot analyze data from the General Social Survey and find that religious involvement does have a small “spill over” effect on involvement in other non-religious, social organizations. Thus, although the type of social involvement was not studied, these findings support the contention that religious involvement does inform one’s sociopolitical involvements. Perhaps the most engaging report on religious faith’s impact on behavior is the Hood and Williamson article, who study Christian serpent handlers. These individuals view the handling of snakes as part of their own religious faith. Hood and Williamson overview how a multilevel paradigm research approach can help to elaborate on and provide insights into the various motivations impinging snake handling. Their multimodal research approach is certainly one with much value for the field. Finally, the article by Masters outlines how religious/spiritual motivations can have a direct impact on health status and functioning. Although such relations have been noted before, this article presents a new model for understanding how numinous construct effect health. Important to this model is that it controls for other constructs that also have been shown to relate to health status (e.g., social support). Thus, this approach is clearly attempting to demonstrate that spirituality and religiosity’s effects are not mediated by other psychosocial processes.

Maltby and Hill argue for compatibility between the study of religion and the area of Positive Psychology. Specifically, the comparative study

of religions can provide important insights into how character strengths and virtues are conceived and developed. The basic revelatory stories of different faith groups provide a ground for how these virtues are sustained in the social context. Are some religious faiths more adept at promoting some virtues than others? How do virtues develop among non-religious individuals? These authors argue that there are many conceptual points of departure from the combination of comparative religion and positive psychology. Finally, Boyatzis and Quinlan examine how religious constructs may be related to disordered eating patterns in women. These authors note that in some instances religion can be a helpful factor in treating eating problems. However, religion can also be employed by women to sustain or justify their disorders. Religious beliefs can have important implications for not only etiology but treatment as well. There are also religiously-based intervention strategies available as well. Their review of the literature provides a useful overview of the research and clinical context as it pertains to the role and value of religiosity.

This volume of *RSSSR* also includes a Special Section on Adolescent spirituality. Dr. Christopher Boyatzis was series editor and has selected three articles that provide a wide range of perspectives on the topic. Certainly not exhaustive, these articles raise important issues on topics of interest to both researchers and clinicians. Dr. Boyatzis' overview outlines the content of these articles, but suffice it to say here that examining adolescent spirituality is a cutting-edge area for the field. There is much to be learned about how individuals develop their sense of spirituality. What factors contribute to it, and how does the maturing individual grow his/her faith? There is a need for psychological models that explicitly focus on spiritual/religious development. Such work can help articulate how spirituality comes to influence and direct adult functioning. However, this is only part of the process. The field is in need of a life-span development approach to spirituality. Understanding how spirituality impacts all aspects of life (including the elderly and oldest old) is necessary if a full understanding of the value of spiritual and religious constructs is to emerge. Certainly, these developmental-related issues are ones that *RSSSR* will re-visit in the future.

Overall, this volume provides a broad base of information useful for a wide range of professionals. The studies presented here document the impact of religious and spiritual constructs on a wide array of psychosocial outcomes. However, these data also indicate that these effects, although diverse, may at times be of modest magnitude. Thus,

numinous constructs should not be conceived as “master predictors”; constructs that will tell us everything about peoples’ motivations. Rather, numinous constructs will best be used as one component to a larger predictive model. Even then, researchers should be careful about which constructs they chose to employ. If numinous variables are to be used, then those that are nonredundant with already existing constructs need to be chosen. Given the variety of perspectives presented on this topic in this volume, it seems that some discussion on the value of incremental validity for numinous constructs needs to occur.

It is hoped that this edition of *RSSSR* will continue to stimulate interest and thinking in this area. The studies included here continue this series’ tradition of presenting diverse methodological approaches to studying religious issues. It can only be hoped that future research will move towards employing multi-method designs that aim to capture numinous effects at different levels of analysis simultaneously. This would promote the development of more integrated conceptual models that can chart spirituality’s multiple influences on functioning. Aside from the empirical value of these studies, findings generated here also have important applied implications as well. Clinicians can find in these pages ways to understand how religion and spirituality shape clients’ sense of self and social identities. Such knowledge can help therapists empathize and understand their religiously oriented clients. These studies can also be helpful in identifying potentially new ways of intervening with clients. Religious and spiritual dimensions may offer potential therapeutic pathways for facilitating change.

ACKNOWLEDGEMENTS

The editorial staff and I are grateful for the contributions and cooperation of a large number of people without whom publication of *RSSSR* would not be possible. Most obvious among them are the authors and coauthors of the published articles. There were a number of researchers, scholars, and clinicians who have served as anonymous reviewers (see p. XXX) of the manuscripts that were received for current publication. They not only have functioned as professional referees evaluating the appropriateness of the respective manuscripts for publication, but they also have given the authors significant suggestions to improve the quality and scope of their future research in this area. Their efforts helped to insure a high quality among those reports that are published.

I would also like to acknowledge the efforts of Dr. Christopher Boyatzis for his wonderful work in managing the Special Section on Spiritual Development in Children and Adolescents. This is a particularly salient topic area in the social sciences and they have obtained a number of highly stimulating and relevant articles in this area.

Mary Beth Nazzaro has served as the editorial assistant for this volume. Her experience, talent, and painstaking work contributed immeasurably to the high standards of production. As she now moves into the final phases of her doctoral work, she will be moving out of this position so that she can devote herself more fully to her dissertation work. I wish her well on her future endeavors. Thank You for all your efforts! Rochelle Peirera, another doctoral student, will be taking her place.

My own academic institution has provided many critical necessities for the production of this volume. Loyola College in Maryland, especially its graduate Department of Pastoral Counseling, has provided office space, funds for the editorial assistant, telephone services, computer technology, postage, access to its admirable support infrastructure, and related services. I am very grateful to both the Department's and Graduate Administration's support for this worthy endeavor.

I am grateful, too, to Regine Reneke and the production staff of Brill Academic Press who have efficiently published this attractive and useful volume. Brill's marketing department (www.brill.nl or e-mail brill@turpin-distribution.com for R.O.W. and cs@brillusa.com for North

America) is eager to fill orders for either single volumes or on-going subscriptions to RSSSR.

Please recommend RSSSR to your professional and academic colleagues. Also support its addition or continuation in your academic, religious, research, and public libraries for its rich contents are relevant to everyone, both lay and professional, who is interested in keeping up with the rapidly expanding frontiers of scientific knowledge about spirituality and religion.

Ralph L. Piedmont, Ph.D., Editor

MANUSCRIPT INVITATION

For future volumes we welcome the submission of manuscripts that report on research contributing to the behavioral and social science understanding of religion, whether done by members of those disciplines or other professions. RSSSR is an annual interdisciplinary and international volume that publishes original reports of research, theoretical studies, and other innovative social scientific analyses of religion. (However, we do not include studies that are purely historical or theological.) Manuscripts should be original contributions (not reprints) based upon any of the quantitative or qualitative methods of research or the theoretical, conceptual, or meta-analytical analysis of research on religion in general or on any specific world religion. They should not be under consideration for publication by any other journal or publication outlet and should comply with the professional ethical standards of psychology, sociology, and other social science professions.

Manuscripts may be submitted at any time during the year, although those received within the calendar year have the best chance of inclusion in the next volume. Send four copies, double spaced on standard paper to:

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Manuscripts that are judged by the editor as relevant to the coverage of RSSSR are reviewed anonymously for quality and then either accepted (usually along with constructive suggestions for revision) or rejected. Those accepted for publication must conform to the style guidelines of the *Publication Manual of the American Psychological Association*, *Publication Manual* 5th edition. (Authors of accepted manuscripts who lack access to the *Publication Manual* may contact Dr. Piedmont for sample materials to help in the final preparation of their papers.) Manuscripts relevant to our subject that are not accepted for publication also receive the benefit

of critiques and suggestions that can aid their improvement for submission elsewhere.

RSSSR is also interested in developing “special topic sections” for inclusion in future editions. Special topic sections would include a series of papers (5–7) on a specific theme. These sections would be “guest edited” by a single individual who would be responsible for the solicitation of the manuscripts and their review. If you have a suggestion for a special topic section or would be interested in editing such a section, please do not hesitate to contact Dr. Piedmont for details.

RELIGION, PSYCHOLOGICAL WELL-BEING, AND PERSONALITY: A STUDY AMONG UNDERGRADUATE STUDENTS IN CANADA

*Leslie J. Francis, Peter R. Hills, Eduard Schludermann,
and Shirin Schludermann**

ABSTRACT

The aim of this study was to clarify the association between religion and psychological well-being after controlling for individual differences in personality. Data were provided by a sample of 507 undergraduate students in Canada who completed three instruments: the short-form Francis Scale of Attitude toward Christianity (Francis, Lewis, Philipchalk, Lester, & Brown, 1995), the Satisfaction with Life Scale (Diener, Emmons, Larson, & Griffin, 1985) and the five-factor model short form of the NEO-PI (Costa & McCrae, 1989). These data demonstrated that, when personality was taken into account, an apparent (small but significant) association between religion and psychological well-being vanished. These findings are interpreted against the background of previous studies employing the same index of religiosity alongside various measures of psychological well-being.

KEY WORDS: Five-factor personality model, Francis Scale of Attitude toward Christianity, religiosity, Satisfaction with Life Scale, psychological well-being.

The relationship between religion and aspects of psychological well-being (including subjective well-being, happiness, satisfaction with life and quality of life) has been a lively field of psychological enquiry since the beginning of the twentieth century. James (1902) and Pratt (1920) proposed early psychological links between religion and happiness. In more recent years a considerable number of empirical studies have confirmed a positive link between happiness and religion, as documented and reviewed in the mid 1990s by Robbins and Francis (1996) and brought more up-to-date by Francis, Jones, and Wilcox (2000). For example, Inglehart (1990) analysed Eurobarometer data covering 14

* *Author Note:* Sadly, Peter R. Hills died before the completion of this paper. Its publication is dedicated to his memory and in appreciation of his expert, perceptive and supportive contribution to the research group at the Welsh National Centre for Religious Education.

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European countries (a total of 163,000 respondents) and identified a modest association between happiness and church involvement: 85% of those who attended church once a week or more often said they were 'very satisfied' with life compared with 77% of those who never attended church. Witter, Stock, Okun, and Haring (1985) found a similar effect in a meta-analysis of 56 relevant studies. There are also indications that the association between religiosity and well-being becomes stronger with increasing age. Harris (2002) conducted a meta-analysis of ten studies of older people and found that those with higher levels of religiosity reported greater levels of life satisfaction and happiness.

Christian denominations and other faiths demonstrate a link between religiosity and well-being. Cohen (2003) found a positive relationship between the public practice of religion and measures of happiness, life satisfaction, and quality of life for Protestants, Catholics, and Jews. However, religious belief was a better predictor of happiness and quality of life for Protestants and Catholics than for Jews. A South Korean survey of Protestants, Catholics, and Buddhists report a similar relationship between religious faith and satisfaction (Eung-Kim, 2003). On the other hand, data from the World Value Survey (where each of the 41 nations included was represented by a randomly drawn sample of 1000 adult respondents), Diener and Clifton (2002) found that the relationship between well-being and religiosity was not strong, in comparison with a range of other predictors of well-being. Moreover, the extensive reviews of the literature provided by Robbins and Francis (1996) and by Francis, Jones, and Wilcox (2000) found that there were a number of studies, which had failed to find any significant association between religion and psychological well-being.

Robbins and Francis (1996) suggested that the equivocal findings from previous studies may, at least in part, be a consequence of the variety of ways in which the two elusive constructs of 'religion' and 'psychological well-being' have been operationalised and measured. They suggested that a significant advance could be made to the literature by a coherent program of studies which could agree on a common measure of religiosity applied among different samples and alongside different measures of psychological well-being. The measure of religiosity suggested was the established Francis Scale of Attitude toward Christianity (Francis, 1978; Francis & Stubbs, 1987) and the cognate instruments designed for application among other faith groups: the Sahin-Francis Scale of Attitude toward Islam (Sahin & Francis, 2002), the Katz-Francis Scale of Attitude toward Judaism (Francis & Katz, 2007), and the Santosh-

Francis Scale of Attitude toward Hinduism (Francis, Santosh, Robbins, & Bhanot, in press).

While a number of different aspects of religion have been assessed by many different instruments, as reviewed for example, by Hill and Hood (1999), Francis (1978) argued for the primacy of the attitudinal dimensions for the following reasons. Attitudes represent deep-seated underlying predispositions which are more pervasive and more stable than the more surface dimensions of affiliation, practice and belief. It is possible to assess attitudes with considerable sophistication and precision through well-calibrated attitude scales. Unlike indicators of religious behaviour, it is less likely for social and contextual constraints (like parental pressure to attend church or peer pressure to stay away) to contaminate attitudes. Unlike indicators of religious beliefs, attitudes are less likely to be specific to denominational doctrines (like Protestant emphases on the word and Catholic emphases on the sacrament).

Francis (1978) describes the development of a 24-item Likert scale of attitude toward Christianity intended for use among children over the age of 8 years, adolescents, and adults. The scale comprises both negative and positive items concerned with an affective response to five components of the Christian faith accessible to and recognised by both children and adults, namely God, Jesus, bible, prayer, and church. Each item is assessed on a five-point scale (agree strongly, agree, not certain, disagree, disagree strongly), producing a range of scores from 24 to 120. The reliability and validity of the scale have been supported by studies among school pupils in England (Francis, 1987, 1989; Lewis, Cruise, McGuckin, & Francis, 2006), Kenya (Fulljames & Francis, 1987), Nigeria (Francis & McCarron, 1989), Northern Ireland (Francis & Greer, 1990; Greer & Francis, 1991), Scotland (Gibson, 1989; Gibson & Francis, 1989), and South Africa (Francis, Kerr, & Lewis, 2005). Another series of studies have supported the reliability and validity of the scale among adults in Australia and Canada (Francis, Lewis, Philipchalk, Brown, & Lester, 1995), England (Francis & Stubbs, 1987; Francis, 1992), the Republic of Ireland (Maltby, 1994), Northern Ireland (Lewis & Maltby, 1997), and the USA (Lewis & Maltby, 1995).

In order to explore whether the correlates of religiosity being established among English speaking communities through the use of the Francis Scale of Attitude toward Christianity also hold good among samples within other linguistic communities, a series of studies have examined the psychometric properties of a number of translations of the scale including work in France (Lewis & Francis, 2003, 2004),

Germany (Francis & Kwiran, 1999; Francis, Ziebertz, & Lewis, 2002), Greece (Youtika, Joseph, & Diduca, 1999), Hong Kong (Francis, Lewis, & Ng, 2002), Israel (Munayer, 2000), the Netherlands (Francis & Hermans, 2000), Norway (Francis & Enger, 2002), Portugal (Ferreira & Neto, 2002), Spain (Campo-Arias, Oviedo, Dtaz, & Cogollo, 2006), Sweden (Eck, 2001), and Wales (Evans & Francis, 1996; Francis & Thomas, 2003).

In the mid 1990s Kay and Francis (1996) reviewed over one hundred studies which had employed the Francis Scale of Attitude toward Christianity in a variety of ways. Since the publication of that review in the mid 1990s the number of studies using this instrument has grown considerably.

Against this background one series of studies examined the relationship between scores recorded on the Francis Scale of Attitude toward Christianity and the Oxford Happiness Inventory, an instrument fully discussed by Argyle, Martin, and Crossland (1989), who build on the earlier paper by Argyle and Crossland (1987). Argyle and Crossland (1987) suggest that happiness comprises three components: the frequency and degree of positive affect or joy; the average level of satisfaction over a period; and the absence of negative feelings, such as depression and anxiety. Working from this definition, they developed the Oxford Happiness Inventory by reversing the 21 items of the Beck Depression Inventory (Beck, Ward, Mendelson, Hock, and Erbaugh, 1961) and adding eleven further items to cover aspects of subjective wellbeing not so far included. Three items were subsequently dropped, leading to a 29-item scale. The test constructors report an internal reliability of 0.90 and a seven week test-retest reliability of 0.78. Validity was established against happiness ratings by friends and by correlations with measures of positive affect, negative affect and life satisfaction. In a later study, from a factor analysis of the Oxford Happiness Inventory, Hills and Argyle (1998) concluded that the scale contained elements of well-being, optimism, cheerfulness, empathy, personal efficacy and self-esteem, as well as satisfaction with life.

Six papers in the series of studies employing the Francis Scale of Attitude toward Christianity alongside the Oxford Happiness Inventory, based on eight separate samples, all report positive correlations between the two instruments ($r \sim .35$, $p < .001$). For the first study (Robbins & Francis, 1996) participants were 360 undergraduate students in the United Kingdom. The second study (Francis & Lester, 1997) replicated the original study among 212 undergraduate students in

the United States of America. For the third study (French & Joseph, 1999) participants were 101 undergraduate students in the University of Essex. The fourth study (Francis, Jones, & Wilcox, 2000), employed three separate samples drawn from the United Kingdom: 994 15- to 16-year-old secondary school pupils attending four state-maintained secondary schools in England, 456 first-year undergraduate students in Wales, and 496 English members of a branch of the University of the Third Age, a relatively informal education network for senior citizens. For the fifth study (Francis & Robbins, 2000) participants were 295, ranging in age from late teens to late seventies, attending a variety of workshops and courses on the psychology of religion in England and Wales. For the sixth study (Francis, Robbins, & White, 2003) participants were 89 undergraduate students in Wales.

However, there is a seventh study (Francis, Ziebertz, & Lewis, 2003) which does not support the general consensus of the above six studies. Among a sample of 331 German undergraduates the zero order correlation between the Francis Scale of Attitude toward Christianity and Oxford Happiness Inventory was weak ($r = .13, p < .05$) and in a multiple regression controlling for the Eysenckian personality dimensions (extraversion, neuroticism, psychoticism) on happiness, religiosity as measured by the Francis Scale of Attitude toward Christianity did not achieve significance.

Taking this strand of research one stage further, two studies examined the relationship between scores recorded on the Katz-Francis Scale of Attitude toward Judaism alongside the Oxford Happiness Inventory. The first study (Francis & Katz, 2002) was conducted among 298 female Hebrew speaking undergraduate students. The second study (Francis, Katz, Yablon, & Robbins, 2004) replicated the original study among 203 male Hebrew speaking undergraduate students. Both studies reported a significant association between the two variables after controlling for the Eysenckian personality dimensions.

A second series of studies examined the relationship between scores recorded on the Francis Scale of Attitude toward Christianity and the Satisfaction with Life Scale, an instrument fully discussed by Diener, Emmons, Larson, and Griffin (1985). The Satisfaction with Life Scale is a less complex instrument than the Oxford Happiness Inventory. It comprises five items measured on a seven-point scale. An example item is, "The conditions of my life are excellent". Diener, Emmons, Larson, and Griffin (1985) reported a test-retest reliability of 0.82 and an internal consistency of 0.87. The Satisfaction with Life Scale is a

measure of the cognitive aspects of well-being, and is closely related to the perceived quality of life.

Three papers in the series of studies employing the Francis Scale of Attitude toward Christianity alongside the Satisfaction with Life Scale, based on three separate samples, all report no significant correlations between scores on the Francis Scale of Attitude toward Christianity and scores on the Satisfaction with Life Scale. The first study (Lewis, Joseph, & Noble, 1996) was conducted among 150 undergraduate students at the University of Ulster at Colrairie. The second study (Lewis, Lanigan, Joseph, & de Fockert, 1997) was conducted among 154 undergraduate students at the University of Ulster at Londonderry. The third study (Lewis, 1998) was conducted among 141 undergraduate students at the University of Ulster at Londonderry.

However, there is a fourth study also reported by Lewis (1998) which does not support the general consensus of the previous three studies. Among a sample of 55 Northern Irish adults the zero order correlation between the Francis Scale of Attitude toward Christianity and the Satisfaction with Life Scale was significant: for both males ($r = .43$, $p < .05$) and females ($r = .54$, $p < .05$).

These findings indicate that when the Francis Scale of Attitude toward Christianity is employed as the measure of religiosity, a positive relationship is generally reported with well-being when well-being is assessed by the Oxford Happiness Inventory, but that no relationship is generally reported when well-being is assessed by the Satisfaction with Life Scale. These findings could be explained by the fact that the Oxford Happiness Inventory and the Satisfaction with Life Scale assess different aspects of well-being. Subjective well-being is usually considered to comprise an emotional or affective component, and life satisfaction, which is a cognitive-judgemental component. Shin and Johnson (1978) defined life satisfaction as a global assessment of a person's quality of life according to his chosen criteria. In the development of the Satisfaction with Life Scale, Diener, Emmons, Larson, and Griffin (1985) were careful to exclude all candidate items that related to the affective aspects of well-being and so the instrument is a personal assessment of an individual's quality of life, entirely free from emotional elements, and in clear contrast with the Oxford Happiness Inventory.

There are also difficulties in mapping the relationship between religion as assessed by the Francis Scale of Attitude toward Christianity, and well-being as assessed by the Oxford Happiness Inventory or the Satisfaction with Life Scale, because all three instruments are known

to be related to individual differences in personality. Different studies have established the relationship between the three-dimensional model of personality proposed by Eysenck (Eysenck & Eysenck, 1975) and the Francis Scale of Attitude toward Christianity (Francis, Lewis, Brown, Philipchalk, & Lester, 1995), the Oxford Happiness Inventory (Hills & Argyle, 1998) and the Satisfaction with Life Scale (Heaven, 1989). Although some of the studies examining the relationship between Francis Scale of Attitude toward Christianity and well-being have controlled for individual differences in personality using the Eysenck model, not all of these studies have done so, and this is especially the case for the second series of studies concerned with the Satisfaction with Life Scale.

Within the last two decades, an alternative model of personality, operationalised by Costa and McCrae (1985) and comprising five factors, has gained increasing acceptance. In addition to extraversion and neuroticism as represented in the Eysenckian model, the five-factor model includes the personality dimensions of agreeableness, conscientiousness and openness to experience, and various studies have reported on the associations between these five factors and different aspects of religiosity. The results of 14 such studies were meta-analyzed by Saraglou (2002). Agreeableness, conscientiousness, and extraversion were the principal correlates of intrinsic and mature religion, although agreeableness and conscientiousness correlated marginally more strongly with intrinsic than mature religiosity. On the other hand, the correlations of extraversion were stronger for mature than for intrinsic religiosity. Fundamentalism correlated positively with agreeableness as well, but there were negative associations with neuroticism and openness to experience. The only substantial correlate of extrinsic religiosity was neuroticism. These results suggest that use of the five-factor model of personality might provide information on the interrelationships between well-being, religiosity, and life satisfaction additional to that already obtained using the Eysenck dimensions of personality.

Against this background the aim of the present study is to build on the research tradition employing the Francis Scale of Attitude toward Christianity alongside measures of psychological well-being in four ways. First, attention is given to the Satisfaction with Life Scale, since less attention has been given previously to this strand of research. Second, a recognized measure of personality is being included in the study, since this component has not been routinely included in the previous studies

in this strand of research. Third, the model of personality employed is the five factor model proposed by Costa and McCrae (1989), since this model has not been tested in the previous studies concerned either with the Oxford Happiness Inventory or the Satisfaction with Life Scale. Fourth, the sample studied is based in Canada, a nation not previously included in these strands of research.

METHOD

Participants

Undergraduate students aged from 17 to 19 years ($N = 507$, 239 men, 268 women) enrolled in the introductory psychology course at a large secular provincial university in Canada were invited to complete questionnaires in return for academic credit. Participants attending the introductory psychology course were drawn from various faculties, including arts, sciences, social studies and commerce; some 85% were of European extraction, about 50% of British descent, with the remainder originating from Asia, mainly from Hong Kong and the Phillipines. Nearly one-third (30%) of the participants stated that they were not religious and 27% considered themselves to be committed Christians.

Measures

Participants completed the following three instruments:

The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larson, & Griffin, 1985) is a five-item instrument concerned with the cognitive-judgmental aspect of satisfaction. Typical items are “In most ways my life is close to my ideal” and “If I could live my life over [*again*] I would change almost nothing”. Items were answered on a five-point scale, ranging from “strongly disagree” (1), through “not sure” (3), to “strongly agree” (5). Higher scores indicate greater satisfaction with life. The reported alpha coefficient for this scale is .87.

The short-form Francis Scale of Attitude toward Christianity (FSAC; Francis, Lewis, Philipchalk, Lester, & Brown, 1995) is a seven-item instrument concerned with attitudes towards God, Jesus, the Bible, prayer and church. Typical items are “I know that Jesus helps me” and “I think the bible is out of date” (scored in reverse). Items were answered on a five-point scale, ranging from “disagree strongly” (1),

through “uncertain” (3), to “agree strongly” (5). Higher scores indicate a more positive attitude toward Christianity. The reported alpha coefficient for this scale is .92.

The five-factor model short-form NEO-PI (Costa & McCrae, 1989) is a 60-item instrument that taps the five NEO personality dimensions of extraversion, neuroticism, agreeableness, conscientiousness and openness to experience. Typical items are “I try to be courteous to everyone I meet” (agreeableness), “I strive for excellence in everything I do” (conscientiousness), and “I am often intrigued by the patterns I find in art and nature” (openness to experience). Items were answered on a five-point scale ranging from “strongly disagree” (1), through “neutral” (3), to “strongly agree” (5). The reported alpha coefficients for these five scales are in excess of .65.

RESULTS

The first aim of this study was to explore the zero-order correlations between life satisfaction (Satisfaction with Life Scale) and religiosity (Francis Scale of Attitude toward Christianity). Given the general finding that men and women record significantly different scores on indices of religiosity (Francis, 1997), these data were analysed separately for the two sexes. Considering the whole sample and men and women separately, it was shown that life satisfaction and religiosity are positively but weakly associated for the whole sample ($r \sim .11, p < .05$), that the association was marginally stronger for men ($r = .13, p < .05$) and that the association did not achieve significance for women ($r = .08, p > .05$).

The second aim was to establish the extent to which the personality dimensions of the five-factor model (Costa & McCrae, 1985) might influence the relationship between satisfaction with life and religiosity. Table 1 summarises the results of a hierarchical multiple linear regression of gender, the five-factor personality dimensions and religiosity on satisfaction with life, for the whole sample and for men and women separately. Gender was entered first (for the mixed sample only), the personality dimensions next, and finally religiosity. The table shows that, after taking into account personality, religiosity offers no further predictive power with respect to satisfaction with life, neither for the complete sample nor for men and women considered separately. In each instance, the proportion of the total variance in satisfaction with life that is explained by religiosity is $< 1\%$. The table also shows that, of

Table 1. *Summary of hierarchical regression analysis for variables predicting satisfaction with life*

Variable	Men and women		Men		Women	
	R^2	ΔR^2	R^2	ΔR^2	R^2	ΔR^2
Gender	.001		.001		—	
Extraversion	.106***	.105	.096***		—	
Neuroticism	.270***	.164	.210***	.096	.114***	.114
Agreeableness	.282**	.011	.243**	.114	.329***	.215
Conscientiousness	.291*	.009	.256*	.033	.330	.001
Openness to experience	.302**	.011	.273*	.014	.336	.006
				.016	.344	.008
Religiosity (FSAC)	.308	.006	.282			

Note: Asterisks indicate the F change for reach incremental change in ΔR^2 : * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 2. *Correlations of satisfaction with life and religiosity with gender and personality dimensions*

Variable	SWLS	FSAC
Gender	.03	.11**
Extraversion	.33***	.11*
Neuroticism	-.49***	.00
Agreeableness	.30***	.16***
Conscientiousness	.30***	.21***
Openness	.11*	-.15***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.

the personality variables, extraversion and neuroticism are the greater predictors of satisfaction with life, with agreeableness, conscientiousness, and openness to experience making significant but smaller contributions for men and women taken together and for men, but not for women.

Table 2, which presents the zero-order correlations of satisfaction with life and of religiosity with respect to gender and the five factor model personality dimensions, provides a simpler illustration of these inter-relationships, Satisfaction with life is gender independent, and correlates significantly with all of the personality factors. The negative association with neuroticism is particularly strong ($r = -.49$), and the correlation with openness to experience is comparatively weak. For religiosity, on the other hand, there is a significant gender effect (women

scoring higher than men), and all correlations with the personality factors are smaller in magnitude than those for satisfaction with life. Most notably, whereas the negative correlation of satisfaction with life with neuroticism is the strongest observed, the correlation of religiosity with neuroticism is zero.

The work described above provides some fresh insights into the discrepancies among previous studies that have reported fugitive or zero associations between well-being and religiosity. The data show that, at the margins of statistical significance, sample size, gender and individual personality differences confound the results. Aspects of personality are the major predictors of satisfaction with life and, once the analyses take personality differences into account, religiosity offers no further predictive power with respect to satisfaction with life as assessed by the Satisfaction with Life Scale.

DISCUSSION

The growing literature on the relationship between religion and psychological well-being has produced equivocal findings. Although a number of studies have reported a positive association between religion and well-being, by no means all studies have confirmed this association. The main conclusion drawn from the present paper, by reviewing previous empirical studies and by adding a new empirical study to the sequence of work, is that two problems in particular may contribute to the lack of consistency in the literature. The first problem concerns the operationalisation of the constructs involved. Both religion and psychological well-being are open to multiple definitions and each has been operationalised in a variety of ways within previous studies. The second problem concerns the potential contaminant of personality in disguising the relationship between religion and well-being. More specifically the importance of these two problems has been well-illustrated by the new analyses undertaken in the present paper.

The first problem, regarding the operationalisation of the two constructs of religion and psychological well-being, was recognized in a pioneering study by Robbins and Francis (1996) which proposed a series of studies using the Francis Scale of Attitude toward Christianity, as a standard measure of religiosity, among different samples and using different measures of psychological well-being. One subsequent series of studies using the Francis Scale of Attitude toward Christianity or the

Katz-Francis Scale of Attitude toward Judaism alongside the Oxford Happiness Inventory has generally reported a positive association between religion and well-being (Robbins & Francis, 1996; Francis & Lester, 1997; French & Joseph, 1999; Francis, Jones, & Wilcox, 2000; Francis & Robbins, 2000; Francis & Katz, 2002; Francis, Robbins, & White, 2003; Francis, Katz, Yablon, & Robbins, 2004). A second, but smaller, series of studies using the Francis Scale of Attitude toward Christianity alongside the Satisfaction with Life Scale has generally reported no significant association between religion and well-being (Lewis, Joseph, & Noble, 1996; Lewis, Lanigan, Joseph, & de Fockert, 1997; Lewis, 1998). The present study has added to this cumulative body of knowledge by employing the Francis Scale of Attitude toward Christianity alongside the Satisfaction with Life Scale among a sample of Canadian undergraduate students, a group not previously included within the series of studies. Moreover, the findings have confirmed the absence of an association between religion (as measured by the Francis Scale of Attitude toward Christianity) and psychological well-being (as measured by the Satisfaction with Life Scale).

The significance of the second problem, regarding the potential contaminant of personality in disguising the relationship between religion and well-being, has been clearly demonstrated by the present study employing the five-factor model of personality. Before controlling for individual differences in personality, the zero-order correlations between scores recorded on the Francis Scale of Attitude toward Christianity and the Satisfaction with Life Scale reported a significant positive association for men and no significant association for women. After controlling for the effects of personality, the multiple regression models found no significant association between religiosity and well-being for men, for women, or for both sexes considered together. After controlling for the effects of personality, the findings from the present data set collected among undergraduate students in Canada are consistent with the findings of the three earlier studies employing the Satisfaction with Life Scale among students in Northern Ireland (Lewis, Joseph, & Noble, 1996; Lewis, Lanigan, Joseph, & de Fockert, 1997; Lewis, 1998). Future research concerned with the relationship between religiosity and psychological well-being would be well-advised to incorporate a recognized measure of personality. The present study suggests that it is useful to employ the five-factor model proposed by Costa and McCrae (1985) and the earlier studies in the series suggested that it is useful to employ the three dimensional model proposed by Eysenck and Eysenck

(1975). Both models, therefore, could have a proper place in future research within this tradition.

Two weaknesses with the present study concern the reliance on undergraduate students to provide the data and the failure to include more than one measure of psychological well-being. Future research designed to extend this series of studies employing the Francis Scale of Attitude toward Christianity or related instruments would benefit from including both the Satisfaction with Life Scale and the Oxford Happiness Inventory and from drawing on non-student samples.

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YOUNG CATHOLICS AND PRO-LIFE THINKING: HOW CATHOLIC COLLEGE STUDENTS VIEW THE ISSUES OF ABORTION, EUTHANASIA, AND CAPITAL PUNISHMENT

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ABSTRACT

The researchers conducted a survey of undergraduates at Loyola University Chicago. The distinctly Catholic linkage of abortion, euthanasia, and capital punishment is reflected in the survey results. Catholics showed significant differences in their responses to items on abortion and euthanasia when compared to other groups. In the area of capital punishment, no significant difference was found between religious groups with a majority of all groups in opposition. The correlation between responses on all three items was clearer in Catholics than in any other group. While the issue of capital punishment seems to be more influenced by factors other than faith, the link of the issue to both abortion and euthanasia is a matter of faith for many young Catholics.

KEY WORDS: pro-life, pro-choice, abortion, capital punishment, euthanasia, death penalty, Catholics, seamless garment ethic, right to die, right to life, college/university students.

Catholic universities are naturally places where fundamental questions, such as life issues, must be discussed. Because they include non-Catholics, Catholic universities involve discussions between denominations and in the larger culture (Wildes, 1997). Catholic universities have also recently been places where great debate has occurred around the ability of theologians to dissent from official Catholic teaching (Beattie Jung & Shannon, 1988).

This study is an examination of a phenomenon that came out of a larger two-phase study conducted at Loyola University Chicago. The first phase of the study was a survey conducted in April, 2003. The second phase was a set of three focus groups conducted in March, 2004. The researchers wanted to look at a broad range of topics facing Catholics and to see not so much *what* young Catholics think about

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these issues, but rather *how* they think about these issues. The survey was composed of twenty statements to which students were asked to respond with some level of agreement or disagreement. Responses were then analyzed by factor analysis in order to look at the relationships that existed between items. Focus groups were used to comment on and add qualitative data to assist in interpreting the survey results.

In this article, the researchers describe the relationship between three items dealing with what are generally considered to be the hallmarks of the Catholic “Pro-Life” position: abortion, euthanasia, and capital punishment.

REVIEW OF LITERATURE

Catholics have always been a minority in the United States. Today, they make up about one quarter of the population, or 62,000,000 (D’Antonio et al., 2001; Hoge et al., 2001). The 1960s and 1970s were a time of great change both within the Church and in American culture. In this period, American culture saw civil rights movements, the anti-war movement, and the sexual revolution which was influenced by easier access to birth control and legalized abortion (Avella & McKeown, 1999; Fulton, 2000). Not all Catholics embraced the changes occurring in the Church and in American society. The Second Vatican Council left deep rifts in the Church (D’Antonio et al., 2001; Fulton, 2000; Hoge et al., 2001; O’Brien, 1990; Oldenski, 1997). While the American bishops took positions in favor of the civil rights movement against the Vietnam War, and in the 1980s against the nuclear arms race and critiqued American economics (United States Catholic Conference, 1968, 1979, 1983, 1986), the increasingly more affluent Catholic laity began to drift away from the Church’s progressive social teachings (Avella & McKeown, 1999; D’Antonio et al., 2001; McNamara, 1992). Since the 1970s, loud protests from the Catholic hierarchy and many Catholic organizations against birth control and abortion as well as renewed demands for public funding for Catholic schools caused a renewed trend of seeing the Catholic Church as “other” in American culture (Avella & McKeown, 1999; Kane, Kenneally, & Kennelly, 2001).

Chicago’s Joseph Cardinal Bernardin chaired the committee of the U.S. Catholic bishops that wrote the 1983 *The Challenge of Peace*. At the same time, he began a series of speeches tying together issues of war, poverty, abortion, and other “life issues” into what would be known as

“The Consistent Ethic of Life” and “The Seamless Garment Ethic.” This would become the major way in which the Church hierarchy would discuss many of these issues (Sunshine, 1988). Originally, the ethic focused on connecting the issues of war and abortion. The focus is on dignity and value of the human who is created in the image of God. Bernardin acknowledged the growing challenges presented by advancing technology in many life issues (Bernardin, 1986). While Bernardin’s thinking was popular, it was also criticized by both the left and the right. Theologians questioned if true consistency can exist (Beattie Jung & Shannon, 1988). Protestant theologian Messer (2000) characterized the Catholic “seamless robe” ethics as “one size fits all.” Some argue that the Catholic position on pro-life issues has had almost no effect on the Catholic vote in the United States (Hudson, 1999).

In the 1970s, Catholic priest and sociologist Andrew Greeley put forward the idea of “selective Catholicism” or “theological individualism” to describe many Catholics, especially young Catholics, who tended to distrust Church authority and pick-and-choose what Catholic teachings to abide by (McNamara, 1992; O’Brien, 1990). Greeley also introduced the concept of “communal Catholics” who like being Catholics and do not want to belong to another religion but who also pay little attention to the institutional Church; they place greater emphasis on culture and their own experiences in moral decisions rather than the Church (Hoge et al., 2001).

D’Antonio, Davidson, Hoge, & Meyer (2001) conducted large scale Gallup surveys of adult American Catholics in 1987, 1993, and 1999. Over time, the respondents showed an increased reliance on personal conscience for issues of sex and reproduction and a decline in agreement with the Church on social teachings. In the 1999 survey, women were less likely than men to look to Church leaders as moral authorities on matters of sexuality.

Fulton, Abela, Borowik, Dowling, Marler, & Thomas (2000) conducted a qualitative study of young adult Catholics in six Western countries in 1997 and 1998, including the United States. In the U.S., the more participants were involved in the Church, the greater their conviction of the sanctity of life in cases of abortion, euthanasia, and capital punishment. In cases of abortion and euthanasia, however, there was a sympathy factor of relating to people having to make difficult choices. Also, even “former Catholics” supported these issues in Catholic terms of “respect for life” (Marler, 2000).

Euthanasia

In 1906, the first euthanasia bill was introduced in the United States in Ohio. In 1938, the Euthanasia Society of America was founded. As technology has advanced throughout the decades, the issue of euthanasia has become more complex (Zucker, 1999). Some argue that changes in technology have made old distinctions between euthanasia and “allowing to die” irrelevant (Beauchamp, 1997). What was in the past unthinkable has now become open debate in Christian circles because of the complexity of medical technology in sustaining life (Porter, 1998). Support for euthanasia and physician-assisted suicide has increased in the American public since the 1970s (Gula, 1994; Lachenmeier, Kaplan, & Caragacianu, 2000). Studies indicated that Americans are more comfortable with physician-assisted suicide if the patient has discussed options with his or her physician (Kaplan & Bratman, 2000; Wooddell & Kaplan, 2000). There is growing concern that the issue of health care cost will become linked to the issue of euthanasia (Kaplan, 2000b). Some fear that if euthanasia is allowed for extreme cases it will eventually grow to be commonplace (Porter, 1998). Persons who support physician-assisted suicide also tend to support abortion rights (Lachenmeier, Kaplan, & Caragacianu, 2000). The Catholic Church tends to tie together the issue of abortion and the issue of euthanasia. The declaration from the Second Vatican Council, *Gaudium et Spes*, condemned both abortion and euthanasia (United States Catholic Conference, 1995; Kaplan, 2000a).

Oftentimes, the public confuses euthanasia with allowing a person to die and with physician-assisted suicide (Gula, 1991 & 1994; Porter, 1998). The Catholic Church is opposed to euthanasia, even when it is the desire of the person suffering, because the Church holds that the individual is not the owner of his or her own life; God owns human life for which the individual is the steward. The Church does allow for a person (or those acting on behalf of an incapacitated person) to reject extraordinary means to stay alive and also allows, under “the principle of the double-effect,” that pain killers might shorten a life in the interest of relieving suffering but not to intentionally cause death (Congregation for the Doctrine of the Faith, 1980; Crawford, 2000; Gula, 1991 & 1994; Kaplan, 2000a; Porter, 1998). Some have criticized Pope John Paul II’s reference to the support of euthanasia as a “culture of death” because in reality both sides are concerned with the care of the patient (Porter, 1998).

Most Protestant churches condemn euthanasia, but accept the principle of the double-effect (even if not in the same name) and also the right to refuse treatment. Protestant churches are more willing to discuss euthanasia in extreme cases (war, accidents, isolated areas) while the Catholic Church is more inclined to discuss extraordinary and ordinary means (Crawford, 2000). Judaism allows euthanasia for extreme reasons and accepts the double-effect. Buddhism provides for “allowing to die,” but opposes euthanasia strongly. It does accept the principle of the double-effect. Sikhs allow euthanasia as a last resort, and provide for “allowing to die” (Crawford, 2000).

Capital Punishment

In 1965, only about thirty countries did not have the death penalty, but by 2003, over half of the countries of the world no longer had it either in law or in practice. Up until the 1950s the Church accepted the right of the state to punish with death, but starting in the 1950s, Catholic theologians and Catholic members of the hierarchy began to publicly oppose it. This grew in the 1960s and burst forth in the 1970s with widespread Catholic opposition to the death penalty. Catholic arguments against the death penalty are largely based on the Gospels. The 1997 *Catechism of the Catholic Church* does not outright condemn the death penalty, but it gives such restrictions that it would be almost impossible to justify. The American Catholic bishops condemned the use of capital punishment in 1974 and later issued pastoral letters condemning the practice, *Statement on Capital Punishment* (1980) and *A Culture of Life and the Penalty of Death* (2005). They also called on Catholics to pressure the government in their 2005 pamphlet, *Catholic Campaign to End Use of the Death Penalty*.

Pope John Paul II was a major voice against the death penalty based on the dignity of the human person. His 1995 encyclical, *Evangelium Vitae*, was a centerpiece (Brugger, 2003). While the traditional approach to capital punishment has been that it is permitted in order to restore justice to an injustice caused by a serious crime, Pope John Paul II argued against capital punishment because taking a life is so serious that it can only be justified as a necessary defense of society as a last resort which is unlikely (Langan, 1997). Well-known death penalty opponent Sister Helen Prejean (1997) sharply criticized John Paul II for not completely condemning capital punishment in *Evangelium Vitae*. She argued that Catholic lawmakers could use this lack of complete

condemnation to justify the death penalty. Weigel (1997), on the other hand, argued that the pope's personal life, as witness to absolute the evil of Nazism, for which capital punishment is the only restoration, is what made him stop short of completely condemning it.

Jewish Scriptures gave wide use of the death penalty. Based on interpretation of the Gospels, early Christianity opposed capital punishment. Saint Augustine argued for it, based on the Hebrew Scriptures, and Christianity adopted this position. Luther and Calvin both allowed capital punishment. Today, the World Council of Churches opposes the death penalty as do most Christian churches. Islam allows for capital punishment, but in most Muslim states, prison is most often ordered for crimes that could be punished by death. Judaism, in general, accepts capital punishment (Crawford, 2000).

Abortion

While early Christianity considered abortion murder, Augustine and Aquinas only considered abortion murder if it occurred after 40 days when "ensoulment" occurred. They still condemned abortion before 40 days, but as a form of birth control, not as murder. In 1869, Pope Pius IX finally condemned all abortion as murder or "anticipated homicide" as the debate continued in the Catholic Church over when the fetus became human. Abortion to save a mother's life was the only reason allowed. The 1917 *Code of Canon Law* prescribed excommunication for abortion for mothers, doctors, and nurses (Crawford, 2000; Melton, 1989). Some argue that the Catholic Church's stronger position on abortion started in the late 1800s, coinciding with both a stronger devotion to the Virgin Mary and also coinciding with decline in papal power in Europe resulting in the hierarchy finding new avenues of power in the area of Catholics' private lives and a desire to increase the Catholic population (Melton, 1989). Throughout the Twentieth Century until currently, popes, the Second Vatican Council, and the United States bishops have condemned abortion as murder (Kopaczynski, 1995; Melton, 1989; Secretariat for Pro-Life Activities of the United States Conference of Catholic Bishops, 2005). While some characterize the Catholic arguments as having to do with the Catholic position on sex, it is influenced by this but is much more about the Catholic position on the right to life (Lotstra, 1985).

Until the 1860s, abortions were legal in the U.S. until "quickening" when a child's movements could be felt. In the 1860s, the American

Medical Association (AMA) began to oppose abortion in the U.S. with little religious participation. This was related to the AMA's general opposition to midwifery. Starting in the 1860s, many states began to restrict abortions at the same time that restrictions began to take place around the world. Concerns about overpopulation influenced the discussion, but so too did racial concerns about birth rates of whites versus those of other races (Melton, 1989).

Changes in American sexual morality in the 1960s and the *Roe v. Wade* and *Doe v. Bolton* 1973 decisions by the U.S. Supreme Court attracted the interest of religious perspectives more publicly than before in the United States (Melton, 1989). Pope Paul VI's 1968 statement on the use of artificial birth control, *Humane Vitae*, attracted huge media attention in the United States (Tentler, 2004).

Church positions on abortion tended to follow liberal/conservative positions on other social issues. After 1973, Catholics and conservative Protestants allied in an effort to re-criminalize abortion and took on a general conservative stance connecting abortion to issues of sexuality and Feminism. However, the alliance of U.S. Catholic bishops with conservative Protestants has not been without tension, as the Catholic bishops have also taken stances different from conservative Protestants on other issues, and the theology of the two is also very different (Melton, 1989). The current state of over one million abortions each year in the United States, or about one quarter of pregnancies ending in abortion (Secretariat for Pro-Life Activities of the United States Conference of Catholic Bishops, 2005), has caused concern not only for anti-abortion forces, but also for some abortion rights advocates (Beattie Jung & Shannon, 1988; Melton, 1989; Wolf, 2001). The 1980s saw abortion become an increasingly important political debate with increased protests at clinics, and even violence (Beattie Jung & Shannon, 1988; Melton, 1989). Questions around Catholic politicians' positions on abortion became increasingly important (Beattie Jung & Shannon, 1988; Cuomo, 1984). Some have argued for abortion rights as a type of *religious* freedom (Wenz, 1992). While Operation Rescue is one of the most visible protest organizations, it condemns violence (Leber, 2001). Polls tend to show that Americans believe that abortion is wrong but that it is also the mother's role to choose (Melton, 1989).

Catholics have fewer abortions than the general public and support abortion rights less than the general public (Beattie Jung & Shannon, 1988). McNamara (1992) surveyed almost all graduating seniors of a single Southwestern Catholic high school from 1977 to 1989 for a total

of over 2,000 students. More “religious” students were more orthodox on questions of premarital sex and abortion. Throughout the study, students continued to be overwhelmingly opposed to abortion for unwanted pregnancy but less so for reasons of defective fetus.

Abortion is often seen as the key issue in Feminism. Canadian Stella Browne argued in 1915 that abortion must be unrestricted because women must control their own bodies. Simone de Beauvoir argued for abortion rights in her 1949 *The Second Sex* arguing that the Church is hypocritical for allowing for “just war” and for historically waging war (Kopaczynski, 1995). The 1960s Feminist Movement rejected all other arguments concerning abortion in favor of the woman’s right to control her own body (Melton, 1989). Carol Gilligan’s influential work, *In a Different Voice* (1982) studied women’s abortion decisions. Gilligan found that women made moral decisions not in the abstract, like men, but in the context of their own experiences for them at that moment (Kopaczynski, 1995). Cannold (2000) found that women view abortion not just as a moral decision about the woman’s control of her own body but her control over the fetus, and therefore, her decision to be a mother. There is, however, an anti-abortion Feminist movement. They argue that abortion puts pressure on women to choose between motherhood and education and careers (Callahan, 1986 & 2001; Grenier Sweet, 1985; Secretariat for Pro-Life Activities of the United States Conference of Catholic Bishops, 2005). Carmody (1986) argued that Catholic Feminists have been betrayed (“double-crossed”) by the Church hierarchy on women’s ordination and by secular Feminism on abortion, because the secular Feminist movement has placed abortion as a central cause.

Some Catholic theologians have supported abortion rights as a legitimate Catholic position (Dombrowski & Deltete, 2000; Maguire, 2001) including famed Catholic Feminist theologian Mary Daly (Kopaczynski, 1995). “Catholics for a Free Choice” was founded in 1973 by Joan Harriman, Patricia Fogarty McQuillan and Meta Mulcahy. One of the most notable acts of the organization was the 1984 advertisement in the *New York Times* by “Catholics for a Free Choice” with signatures to coincide with the Geraldine Ferraro’s campaign for Vice President which moved the internal Catholic debate into the public. The Vatican pressured many to publicly retract their signing (Beattie Jung & Shannon, 1988; Melton, 1989). The ad was signed by two priests, two brothers, and 24 nuns. The men retracted, yet the women refused, but their superiors refused to dismiss them. Some resigned. Lay and religious teaching theologians were disciplined and in some cases removed from universities. The controversy over the 1984 abortion ad became

more about dissent and less about abortion (Ruether, 1985). Debate about abortion among Catholic theologians continues. Some Catholic Feminist theologians, such as Margaret Farley and Lisa Sowle Cahill, have argued that the role of women in society must be informed by the Catholic call to social justice and that such a call necessitates gender equality which must be considered in matters of reproduction (Farley, 2006; Sowle Cahill 2006).

Non-Catholic Christian Churches run a wide gamut on the question of abortion. In general, all consider abortion to be a serious matter that should only be accepted for special reasons but the list of acceptable reasons varies greatly (Crawford, 2000; Melton, 1989). Protestant theologian Beverly Wildung Harrison wrote *Our Right to Choose* in 1983 arguing that women must have access to abortion as a matter of social justice and self-determination in order to have equality in society (Kopaczynski, 1995). Both Protestants and Jews tend to look to scripture for answers on abortion. Generally, Judaism does not consider a fetus as human because the soul is associated with breath, but abortion is still considered a serious matter in Judaism and must be for a reason. Judaism has always supported abortion in cases where the mother's life is in danger. Islam allows for abortion generally up to five months after which it is considered murder. Again, abortion must be for a reason in Islam. While with less strong official statements, Buddhism, Hinduism, and Sikhism generally consider abortion a serious matter that should only be done for good reasons (Crawford, 2000; Melton, 1989).

METHOD

Participants

The first phase of the study was a survey of undergraduates living in residence halls at Loyola University Chicago. When the study was initiated, 2,188 undergraduates lived in Loyola's residence halls. Based on the attendance rate at the meetings and the participation rate of the RA's, a potential pool of approximately 1,088 residents was available. The response rate to the survey was very high. A total of 764 surveys were returned representing a response rate of 70.2%.

The second phase of the study was focus groups used to better understand the results of the survey study. One focus group was composed of nine members of the Loyola Ministry staff, and two were composed of Catholic undergraduate students (12 student participants total) recruited through advertising by Ministry.

Instruments

The focus of the survey was students' responses to 20 statements on social issues within the Church and society. The researchers developed these statements largely through a focus group of University Ministry staff and through some informal polling of students conducted at on-campus Catholic Masses in January, 2003. The researchers made a decision to keep wording of the survey items very broad because the focus of the study was on how students categorized the issues in the survey. For example, one item read, "Homosexuality is wrong." The Catholic Church makes a distinction between homosexual behavior and homosexual orientation. The researchers intentionally did not make this distinction, but wrote the item with broad wording to see how students would respond and what relationships with other items would emerge.

The researchers field-tested their instrument for validity with 10 Loyola students. Respondents selected from five response options on a Likert-type scale: "strongly agree," "agree," "unsure," "disagree," and "strongly disagree." Field-testing revealed that a very large number of students chose the "unsure" option. When asked, they explained that the questions were difficult because they "depended on the situation." Seeking greater variability in responses, the researchers decided to remove this response option and add the options of "somewhat agree" and "somewhat disagree" (total of six response options) and to add the following instructions to the survey: "We realize that for many people, answers to these questions depend upon a variety of circumstances. Please select the answer that best describes your opinion in most cases under the most common circumstances."

For the second phase of the study, questions were posed to the focus groups. Questions were designed to better understand the factors and also to explore specific points in the results. The questions included:

- What pulls together the items in Factor A?
- Why was it more common to disagree with these items in general?
- Why were males more likely to agree on Factor A?
- What name would you give to those who tend to agree for Factor A?
- What name would you give to those who tend to disagree for Factor A?
- What pulls together the items in Factor B?
- Why was it more common to agree with these items in general?
- What name would you give to those who tend to agree for Factor B?
- What name would you give to those who tend to disagree for Factor B?
- Why is there high correlation between the items on abortion, capital punishment, and euthanasia?
- Why is capital punishment still in another factor?

Procedures

The first phase of the study took place in the spring of 2003. Resident Assistants (RA's) at Loyola University Chicago's residence halls distributed and collected the survey to undergraduate students at their "floor meetings." While the survey was distributed to all students, a clear intention of the study was to understand how Catholic students thought about these issues. Under the guidance of the university's Institutional Review Board, instructions were provided for RA's to insure confidentiality for the students. Students sealed their responses in individual envelopes that they then placed in large envelopes which the RA's sealed and turned into the Residence Life Office where the researchers collected them. RA's also clarified that students could choose not to participate in the study and gave them instructions on how to do so easily. Each student was also provided with a cover letter explaining this process. Because the target population of the study was traditional undergraduates, the survey instructions requested that students not participate in the study if they were graduate students, under the age of 18, or over the age of 23. Based on the population of those living in residence halls, the majority of the students would have been freshmen, with sophomores making up most of the rest. Very few respondents would have been juniors or seniors.

For the second phase of the study, the focus groups, researchers asked participants questions regarding the factors and a specific question regarding the correlations between the items on abortion, euthanasia, and capital punishment. In March, 2004, the researchers conducted three focus groups. Under the guidance of the university's Institutional Review Board, participants were advised of the difficulty in confidentiality posed by focus groups. All sessions were audio-taped. Students were not asked how they would (or did) respond to any of the survey items but were asked to speculate about the response patterns in the data. It should be noted that the factors were not named at the time of the focus groups; they were referred to simply as "Factor A," "Factor B," and so on.

RESULTS

For the first phase of the study, the survey, responses were compared by sex and by religion (see Tables 1, 2, & 3). As the literature indicates, these have been shown to be significant variables in this area. While

Table 1. *Percentage Expressing Agreement with Statements from 2003 Spring Ministry Survey Compared by Religion*

Statement	Total N=764	Catholics N=491	Non-Catholic Christians N=117	Other Religious N=49	Non- Religious N=105
*1. I believe it is important to very strictly follow the official laws and teachings of my religion.	65.6%	64.3%	75.7%	77.1%	NA (N<30)
*2. I trust and respect the leadership of my religion.	85.1%	86.3%	86.2%	89.6%	NA (N<30)
*3. I believe it is important to attend public worship services regularly.	71.2%	74.1%	74.1%	63.8%	NA (N<30)
*4. Abortion is wrong.	57.7%	67.6%	51.7%	43.8%	23.8%
5. War is wrong.	60.9%	59.8%	66.4%	62.5%	60.0%
*6. <u>Not</u> serving the poor is wrong.	78.7%	81.1%	71.6%	79.2%	74.3%
*7. Women should <u>not</u> be allowed to be clergy (priests, pastors, imams, rabbis, etc.).	17.2%	19.7%	17.1%	12.8%	7.8%
*8. Homosexuality is wrong.	18.3%	17.2%	36.2%	14.9%	4.8%
*9. Having sex before being married is wrong.	28.1%	28.7%	37.1%	42.6%	8.6%
10. Capital punishment (the death penalty) is wrong.	59.9%	61.5%	53.4%	56.3%	61.5%
*11. I believe that many people in my age group are lacking in morals.	66.4%	67.3%	72.6%	72.9%	51.5%
*12. Divorce is wrong.	35.0%	40.2%	34.2%	36.7%	11.5%
13. Racial discrimination is wrong.	94.1%	94.1%	94.9%	95.9%	92.4%
14. Discrimination based on religion is wrong.	93.8%	93.1%	97.4%	95.9%	92.4%
*15. Clergy (priests, pastors, imams, rabbis, etc.) should <u>not</u> be allowed to marry.	24.2%	31.0%	7.0%	23.4%	11.9%

*16. I believe that many people in my age group are lacking in religious faith.	71.0%	74.8%	50.9%	77.1%	49.5%
*17. Euthanasia (mercy killing) is wrong.	56.1%	64.3%	89.6%	42.6%	30.1%
*18. Harming nature's environment is wrong.	93.1%	93.6%	89.6%	100.0%	91.3%
*19. Using artificial birth control (the pill, condoms, etc.) is wrong.	11.8%	14.3%	7.7%	16.3%	2.9%
20. Sexism is wrong.	87.3%	86.7%	87.8%	89.1%	88.5%

* Indicates Kruskal-Wallis Test significant difference at $\leq .05$ level.
Note: Kruskal-Wallis Analysis of Variance was used as opposed to One-Way Analysis of Variance because the distributions underlying several survey items were non-normal.
Note: Because items 1–3 generally do not pertain to persons who do not identify with a religion, a response option was provided on these stating “Does not apply because I am not religious.” In fact, only a very small number ($N \leq 30$) of respondents who identified as non-religious chose any other response items for these three statements; therefore, no agreement level is reported in this table.

Tables 1, 2, and 3 report the total percentage indicating some form of agreement with the statements (that is, those selecting one of the options of “strongly agree,” “agree,” or “somewhat agree”), all six response options were used in conducting the *t*-Test and Kruskal-Wallis Test for significant variance. Statistically significant differences were found in 16 of the 20 statements when compared by religion (see Table 1). The items on abortion and euthanasia showed significant differences while the item on capital punishment did not. Statistically significant differences were found in nine of the 20 statements when compared by sex (see Table 2). The items on abortion and capital punishment showed significant differences while the item on euthanasia did not. When comparing Catholic males to Catholic females, statistically significant differences were found in eight of the 20 statements (see Table 3). For Catholics, the item on abortion showed a significant difference when compared by sex while the items on capital punishment and euthanasia did not.

The researchers then conducted a factor analysis of all 20 items. Given the content of the survey and the relatively small number of non-Catholic respondents, the decision was made to only conduct the factor analysis based on Catholic students. Four factors emerged (see Table 4). The researchers did not hypothesize *a priori* how items would cluster because the items represented a variety of different social issues. Upon examination of the four factors, however, it became clear that the item groupings were conceptually meaningful forming distinct subscales.

The items on abortion and euthanasia fell into the “Sexuality and Authority Factor” while the item on capital punishment fell into the “Social Justice Factor.” While these three items fell into two different factors for Catholics, there still was a high level of correlation among the three items (see Table 5). It is important to note that when compared by religion, correlations were consistently positive for all items. Correlations for non-religious respondents were lower across the board for the three items. Correlations for the items on abortion and euthanasia were the highest for each of the populations describing themselves as belonging to some sort of religion. Correlations for the three items were higher for Catholics than non-Catholic Christians on all three comparisons. While non-Christian religious showed a very high correlation between the item on abortion and the item on euthanasia, they showed a low correlation between the items on abortion and capital punishment.

Table 2. *Percentage Expressing Agreement with Statements from 2003 Spring Ministry Survey Compared by Sex*

Statement	Total N=764	Male N=164	Female N=600
*1. I believe it is important to very strictly follow the official laws and teachings of my religion.	65.6%	76.1%	62.8%
2. I trust and respect the leadership of my religion.	85.1%	82.7%	85.7%
3. I believe it is important to attend public worship services regularly.	71.2%	73.6%	70.6%
*4. Abortion is wrong.	57.7%	65.6%	55.5%
5. War is wrong.	60.9%	56.4%	62.1%
6. <u>Not</u> serving the poor is wrong.	78.7%	77.4%	79.0%
*7. Women should <u>not</u> be allowed to be clergy (priests, pastors, imams, rabbis, etc.).	17.2%	29.0%	14.0%
*8. Homosexuality is wrong.	18.3%	36.3%	13.4%
9. Having sex before being married is wrong.	28.1%	34.4%	26.4%
10. Capital punishment (the death penalty) is wrong.	59.9%	55.9%	61.0%
11. I believe that many people in my age group are lacking in morals.	66.4%	66.5%	66.4%
*12. Divorce is wrong.	35.0%	47.2%	31.6%
13. Racial discrimination is wrong.	94.1%	91.4%	94.8%
*14. Discrimination based on religion is wrong.	93.8%	90.8%	94.7%
*15. Clergy (priests, pastors, imams, rabbis, etc.) should <u>not</u> be allowed to marry.	24.2%	29.6%	22.7%
16. I believe that many people in my age group are lacking in religious faith.	71.0%	73.1%	70.5%
17. Euthanasia (mercy killing) is wrong.	56.1%	57.6%	55.6%
18. Harming nature's environment is wrong.	93.1%	89.4%	94.1%
*19. Using artificial birth control (the pill, condoms, etc.) is wrong.	11.8%	18.4%	10.0%
20. Sexism is wrong.	87.3%	86.2%	87.6%

* Indicates t-test significant difference at $\leq .05$ level.

Table 3. *Percentage Catholics Expressing Agreement with Statements from 2003 Spring Ministry Survey Compared by Sex*

Statement	Catholics Total N=491	Catholic Males N=102	Catholic Females N=389
*1. I believe it is important to very strictly follow the official laws and teachings of my religion.	64.3%	79.6%	60.5%
2. I trust and respect the leadership of my religion.	86.3%	84.5%	87.8%
3. I believe it is important to attend public worship services regularly.	74.1%	79.8%	72.6%
*4. Abortion is wrong.	67.6%	78.4%	64.7%
5. War is wrong.	58.8%	54.9%	61.1%
6. <u>Not</u> serving the poor is wrong.	81.1%	81.4%	81.1%
*7. Women should <u>not</u> be allowed to be clergy (priests, pastors, imams, rabbis, etc.).	19.7%	37.3%	15.1%
*8. Homosexuality is wrong.	17.2%	34.3%	12.7%
*9. Having sex before being married is wrong.	28.7%	39.0%	26.0%
10. Capital punishment (the death penalty) is wrong.	61.5%	61.8%	61.4%
11. I believe that many people in my age group are lacking in morals.	67.3%	66.3%	67.5%
*12. Divorce is wrong.	40.2%	56.4%	35.9%
13. Racial discrimination is wrong.	94.1%	93.1%	94.3%
14. Discrimination based on religion is wrong.	93.1%	93.1%	93.1%
*15. Clergy (priests, pastors, imams, rabbis, etc.) should <u>not</u> be allowed to marry.	31.0%	38.2%	29.1%
16. I believe that many people in my age group are lacking in religious faith.	74.8%	78.0%	74.0%
17. Euthanasia (mercy killing) is wrong.	64.3%	69.4%	62.9%
18. Harming nature's environment is wrong.	93.6%	92.0%	94.0%
*19. Using artificial birth control (the pill, condoms, etc.) is wrong.	14.3%	24.8%	11.6%
20. Sexism is wrong.	86.7%	88.0%	86.4%

* Indicates t-test significant difference at $\leq .05$ level.

Table 4. *Rotated Factor Loadings and Communalities*

Factor	Statements in Factor	1	2	3	4	Com
Sexuality and Authority Factor	I believe it is important to very strictly follow the official laws and teachings of my religion.	.67	.20	-.11	.25	.53
	I trust and respect the leadership of my religion.	.57	.18	-.14	.19	.38
	I believe it is important to attend public worship services regularly.	.64	.31	-.11	.31	.55
	Abortion is wrong.	.60	.32	.06	.21	.48
	Women should <u>not</u> be allowed to be clergy (priests, pastors, imams, rabbis, etc.).	.70	-.30	.13	-.12	.52
	Homosexuality is wrong.	.68	-.31	-.13	.08	.43
	Having sex before being married is wrong.	.71	.24	.01	.21	.61
	Divorce is wrong.	.63	.05	.01	.20	.56
	Clergy (priests, pastors, imams, rabbis, etc.) should <u>not</u> be allowed to marry.	.69	-.18	.13	-.10	.60
	Euthanasia (mercy killing) is wrong.	.55	.30	.17	.16	.59
	Using artificial birth control (the pill, condoms, etc.) is wrong.	.75	.22	.04	-.04	.73
Social Justice Factor	War is wrong.	.01	.70	.11	-.12	.44
	<u>Not</u> serving the poor is wrong.	.12	.64	.14	.04	.83
	Capital punishment (the death penalty) is wrong.	.23	.68	.16	-.18	.84
	Harming nature's environment is wrong.	.03	.48	.33	.27	.55
Discrimination Factor	Racial discrimination is wrong.	.02	.15	.90	.01	.72
	Discrimination based on religion is wrong.	.00	.18	.90	.03	.44
	Sexism is wrong.	.08	.31	.39	.19	.36

Table 4 (*cont.*)

Factor	Statements in Factor	1	2	3	4	Com
View of Peers Factor	I believe that many people in my age group are lacking in morals.	.26	-.02	.06	.80	.60
	I believe that many people in my age group are lacking in religious faith.	.19	-.13	.13	.82	.29

Note. Extraction method: Principal components analysis Rotation method: Varimax.

Table 5. *Correlations between Statements from 2003 Spring Ministry Survey
Compared by Religion*

Statements being Correlated	Catholics N=491	Non-Catholic Christians N=117	Other Religious N=49	Non- Religious N=105
“Abortion is wrong.” with “Euthanasia (mercy killing) is wrong.”	0.48*	0.44*	0.60*	0.27*
“Abortion is wrong.” with “Capital punishment (the death penalty) is wrong.”	0.33*	0.30*	0.19	0.29*
“Euthanasia (mercy killing) is wrong.” with “Capital punishment (the death penalty) is wrong.”	0.36*	0.28*	0.35*	0.21*

* *Note.* Significant at $p < .05$

Catholic were unique in showing the highest overall level of correlating responses on all three items.

In the second phase of the study, the focus groups overwhelmingly stated that the items in the Sexuality and Authority Factor are issues on which the Catholic Church has very definite positions that are widely known. Catholics are taught the Church’s positions on these issues early on in Catholic schools and youth groups. Some stated that these are “foundational” positions for Catholics. It was also noted that these are

issues faced almost daily by Catholics (in contrast to the Social Justice Factor) and are controversial topics both in society and in the Church. The “disagree” stances reflect positions of society in general; those who disagree with these statements may identify more with the larger society, and those who agree feel they are counter-cultural.

The focus groups described the items in the Social Justice Factor as social and political issues. They also described them as having to do with a consistent ethic of life. They stated that the Pope John Paul II had spoken out on these issues, that Catholic education tends to address these issues, and that the university addresses these issues. Despite this, they stated that Catholics perceive these issues as more negotiable within the Church than issues in the Sexuality and Authority Factor. The Church, while having positions on these topics, is less clear on these issues than on sexuality issues found in the Sexuality and Authority Factor. They also remarked that these issues are often “less personal” than some of the issues in the Sexuality and Authority Factor. They noted as well that many people who agree with these statements do so without linking them to faith. One student participant stated, “While the people who did this survey consider themselves Catholic, whether or not they practice their faith, their views of this have more to do with how they feel toward mankind.” Another student stated, “You don’t have to believe what the pope says in order to agree with these statements.”

Regarding the difference in responses on the abortion item based on sex, focus group participants saw this as linked to the direct impact that abortion has on women’s lives. One student respondent stated, “Abortion, well, now, even though we say it’s a shared issue with a couple, the man doesn’t really have to deal with it. So I think that they would be more prone to accept what the magisterium says completely because it would have less implications on them directly.” Some also saw this also having effects on other issues in the Sexuality and Authority Factor. One campus minister shared,

I also think that it is true about there being a link between authority and sex. I would think it might play a factor in women’s disagreement with this and who are the people making these rules? And guess what, none of them look like them. So maybe there’s an inherent skepticism of the rules that men are making for them, and maybe male students are more likely to identify with the rule-makers, and therefore believe that their interests are at heart.

Some also saw the difference as a reflection of a more general tendency in males versus females in moral decision-making. One campus minister shared,

I think that men's sense of authority is institutions, and women's sense of authority is relational. It's more personal experience and being willing to be open about that, and maybe, 'I'm willing to make up my own mind about that.'

When asked why correlations were high between the items on abortion, euthanasia, and capital punishment for Catholics, respondents saw a connection with religion. They used terms such as "sanctity of life" and "consistent ethic of life." One student stated, "I think it goes along with the Catholic stance on life from the moment of conception to natural death." Another student stated, "They all have to do with 'killing is wrong.' So, if you have that one belief, that is going to decide how you answer on all of them." There was some concern about the idea of the correlation also working in terms of those who disagreed with the statements. One student shared, "If you can think of situations where taking a life could be okay, then I guess you could think of other situations where it could be justified." This issue was particularly concerning to the campus ministers. One shared,

What does that say about people who disagree on all three? That they reject a consistent ethic of life? Maybe not consciously, but somehow? That's weird, because you wouldn't have thought that people who think that abortion was okay would also have thought that capital punishment was okay.

Similarly, another campus minister made reference to Pope John Paul II's *Evangelium Vitae* (1995) when responding, "But look at the Democratic Party, like Gray Davis, John Kerry, I mean they're, I guess also like 'the culture of death' on the opposite end, marches along in that direction picking up other issues as it goes."

When asked why the item on capital punishment fell into a different factor from the items on abortion and euthanasia, some campus ministers observed that it had to do with politics. The American bishops have been outspoken with politicians on the issue (United States Conference of Catholic Bishops, 1980, 2005a, 2005b). Most consistently, however, respondents saw capital punishment as a different issue from abortion and euthanasia. One campus minister stated,

Capital punishment is a different moral issue because you're not talking about those innocent of wrongdoing. You're talking about someone who

in some method of thinking could themselves deserve to die. In abortion and euthanasia, you're talking about innocent life being taken.

One student stated,

Those who are facing capital punishment, people can justify those deaths in the sense that it's probably that they committed a crime. They've been found guilty, so people want to see them suffer. The other two would be considered innocent, and so there's no like, 'you deserve it.'

DISCUSSION

A distinct linkage of the issues of abortion, euthanasia, and capital punishment is reflected in the thinking of young Catholics. As Table 1 demonstrates, Catholic students in the study show a much higher rate of opposition to abortion than their religious and non-religious counterparts. While non-Catholic Christians show a higher rate of opposition to euthanasia, Catholics show a higher opposition than non-Christian religious and non-religious. In the area of capital punishment, no significant difference was found between religious groups, with a majority of all groups in opposition. What is distinct, however, is the correlation among responses on all three items shown in Table 5 which is clearer in Catholics than in any other group. This would seem to have to do with faith, according to focus groups. While the issue of capital punishment seems to be more influenced by factors other than faith, the link of the issue to both abortion and euthanasia is a matter of faith for many young Catholics.

It is important to note that all correlations on all three of these items for all four groups studied (Catholics, non-Catholic Christians, other religious, and non-religious) were positive correlations. That is, opposition to abortion was associated with opposition to capital punishment, opposition to capital punishment was associated with opposition to euthanasia, and opposition to euthanasia was positively associated with opposition to abortion, although not always strong correlations. This would seem to be in contrast to what most would assume as outcomes. Possibly the influence of attending a Catholic university was also felt by non-Catholic students.

The Catholic hierarchy's strong and public opposition to abortion, euthanasia, and capital punishment has made it a distinct voice in American culture. While finding some commonality with conservative Protestants on abortion and euthanasia and with liberal voices, both

secular and religious, on capital punishment, the link of the three in the context of faith has been somewhat unique.

For practitioners working with Catholic young people and other young people in Catholic educational environments, the study is significant. Efforts by the Catholic hierarchy to tie together these issues seem to be working. The tie, however, is not the perfect “seamless garment” envisioned by leaders such as Cardinal Bernadin. While showing relatively high correlations, capital punishment is still seen as somehow different from the other issues by young Catholics. Popular secular attitudes seem to have a strong influence in opinions on this issue more so than with attitudes on abortion and euthanasia. It is important to note, also, that the Catholic hierarchy has itself treated the issue of capital punishment differently, not giving an outright, uncompromising condemnation. Practitioners must also be aware that the linking of the three issues is somewhat distinct among Catholics, and this way of thinking runs counter to the larger culture. Training not so much the doctrines against all these practices, but in the tying together of them does place young Catholics “at odds” with the larger culture in a unique way, a way not clearly understood by their peers.

Further research is needed in this area. While other researchers have described *what* Catholics think on these issues, *how* Catholics think about them is still uncharted territory in terms of rigorous, empirical research. The writers encourage further research into this question and suggest qualitative methodologies may be better suited for such inquiries. Of particular importance is the role of faith and religion in shaping young peoples’ attitudes on life issues. It is clear that the larger, secular culture influences attitudes on these issues separately, so the question of how religion influences attitudes on them collectively is important. Also, the range of “life issues” studied should be expanded to include issues of war and extreme poverty in future research.

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A FIVE-FACTOR ANALYSIS OF SPIRITUALITY IN YOUNG ADULTS: PRELIMINARY EVIDENCE

*Robert J. Cramer, Michael P. Griffin, and David V. Powers**

ABSTRACT

This study examines predictive relations of the Five-Factor Model (FFM) domains of personality in relation to two aspects of spirituality. Specifically, FFM domains were analyzed as predictors of Spiritual Life Integration (SLI) and Social Justice Commitment (SJC). Participants were 135 young adults ($M = 18.82$ years, $SD = 1.07$). Results showed that agreeableness and conscientiousness predicted SLI. Additionally, extraversion, agreeableness, and gender predicted SJC. Implications, limitations, and future directions are discussed in the framework of personality theory and construct validity for the Spiritual Involvement Scale (SIS).

KEY WORDS: Personality, spirituality, social justice, Five-Factor Model, young adults

The importance of spirituality (e.g., Brodsky, 1999; Cait, 2004; Fabricatore, Handal, & Fenzel, 2000; Powers, Cramer, & Grubka, 2007) and personality (e.g., Hammen, 2005; Widiger & Trull, 1992) in psychological development has been shown in several studies, but there has been a recent call for more empirical work by personality psychologists in the area of spirituality (Ozer & Benet-Martinez, 2006; Saucier & Skrzypinska, 2006). One question that arises regarding personality predispositions and spirituality is how personality traits and spirituality relate to, and subsequently influence, each other. Person-related factors as well as life experiences likely influence the experience of spirituality. For example, those high in extraversion may seek positive emotions through engaging in prosocial behaviors. Understanding how personality components relate to spirituality can clarify areas of association and dissociation between these two constructs. Thus, we sought to examine personality predispositions as individual difference indicators of spiritual attitudes and practices.

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Personality traits, as defined by the Five Factor Model (FFM; Costa & McCrae, 1992), may be related to Spiritual Life Integration (SLI) and Social Justice Commitment (SJC; Fenzel, 1996, 2002) components of spirituality. Five-Factor Theory (FFT; Costa & McCrae, 1992) posits personality composition as biologically driven and, therefore largely stable, regardless of an individual's adoption of spiritual attitudes and practices. The FFM includes five overarching personality domains, each with six subfacets. The domains are neuroticism, extraversion, agreeableness, openness, and conscientiousness. Broadly speaking, neuroticism reflects emotional intelligence or emotional stability (e.g., depression and anxiety). Extraversion is the degree to which a person engages in interaction with their surroundings (e.g., excitement seeking and gregariousness). Agreeableness denotes the extent of harmony or accord with others (e.g., trust and cooperation). Openness is the degree to which a person engages in new, challenging experiences (e.g., ideas and aesthetics). Finally, conscientiousness represents how self-disciplined a person tends to be (e.g., dutifulness and self-discipline).

Examining which traits predispose an individual to different spiritual attitudes and practices may offer insight into the future direction of psycho-theological research and practice. For instance, future work may address questions such as which factors mediate the relationship between an individual's biological predispositions and strength of spiritual attitudes and practices. Provided the myriad of meanings associated with the term 'spirituality' it is important to define the construct for the purpose of this study in the broader context of the literature. To this end, we review definitions of spirituality and compare the construct of spirituality as reflected in the Spiritual Involvement Scale (SIS; Fenzel, 1996) to other conceptualizations. We then survey previous literature on the FFM and spirituality.

Defining spirituality

It is imperative to operationally define spirituality given its ever-changing nature in the psychological and theological literature. Some commonly utilized definitions are: 1) Integrating faith in God into one's life (Benson, Donahue, & Erickson, 1989), 2) Incorporating spiritual practices such as prayer, church attendance, and meditation into one's life (Carroll, 1993), 3) An independent, motivational personality trait (Piedmont, 1999; McDonald, 2000), 4) Actively exploring the sacred (Zinnbauer, et al., 1997; Zinnbauer & Camerota, 2004) and 5) Experi-

encing a significant, life-altering event of religious content and nature (Legere, 1984). From a non-traditional perspective, spirituality has been described as an introspective relationship with oneself, a strong drive to live a life that leads to stronger faith and a general perceived connection with a higher power (Ellison, 1983; Laubmeier, Zakowski, & Bair, 2004; Paloutzian & Ellison, 1982). Mascaro, Rosen and Morey (2004) further defined spirituality in terms of the degree to which we believe in a pre-ordained purpose from a higher-order being or some other source. In light of the disparate definitions, we approached spirituality as an attitude influenced by multiple factors, with particular interest in relations between spirituality and personality predispositions.

Fenzel (1996) defined SLI as the degree to which an individual practices prayer, sacred rituals, or other form of communication with God. This construct is similar to other commonly accepted definitions of spirituality (Benson, et al., 1989; Carroll, 1993). SJC is conceived as the degree to which one seeks to effect positive change in the lives of others through benevolent acts of kindness and charity. According to Fenzel (1996), SJC is similar to components of the Faith Maturity Scale (Benson, Donahue, & Erickson, 1993). Fenzel (2002) maintained that the Spiritual Involvement Scale (SIS) concepts of SJC and SLI were particularly crucial to developing populations such as young adults. The current authors further argue the Jesuit tradition of *Cura Personalis* ("caring for the whole person") embodied in spiritual young adults necessitates exploration of spirituality as a ritualistic practice and prosocial agent of change. Therefore, use of the SIS (Fenzel, 1996, 2002) is appropriate and valuable in light of the crucial developmental period of the sample used.

Existing literature and analysis of construction of the SIS allow for further explanation of SLI and SJC as components of spirituality. Concerning construct validity, Fenzel (1996) reported a strong positive correlation between SLI and the Faith Maturity Scale. Fabricatore and colleagues (2000) utilized the SIS and found SLI to be positively related to satisfaction with life and unrelated to a measure of affective well-being. Powers et al. (2007) found SLI was not related to depression or negative affect, but was positively associated with positive affect. The overall existing literature on SLI shows a conception of spirituality displaying appropriate construct validity relationships. SLI items depict a type of spirituality grounded in closeness with God similar to many of the definitions above, but also differentiated by an overt use

of spiritual attitudes and practices as a mechanism of comfort in times of duress (see Appendix).

Analyzing the construct validity of SJC is more problematic. Powers and colleagues (2007) reported negative relations between SJC and both negative affect and depression. Also, authors noted a significant positive association between SJC and positive affect. Because SJC involves spiritually-driven altruistic actions and social interaction, these relationships are sensible. However, a criticism of SJC can be raised that it solely reflects nothing more than altruism. Indeed, five of six items lack any overt expression of action derived from social justice means. The distinction between altruism and social justice-based spirituality can be seen in Jesuit tradition and scholarly works. From a spiritual perspective, altruism is a product of dedicating oneself to God. Moreover, a theistic view argues for service of others over and above oneself as a basic tenet of theological belief structure in many cases (Richards & Bergin, 1997). In particular, Jesuit tradition holds that life is “only lived well when it is lived generously in the service of others” (Byron, 2000, p. 53). Fenzel noted that service-based items were developed specifically in the theological and Jesuit tradition of service for others (personal communication, May 27, 2007). Although no studies have been conducted comparing SJC to altruism measures, the primary difference appears to be that SJC associates altruistic behavior with an underlying spiritual motive to serve God.

Spirituality and Personality

Extant research on FFM domains and spirituality can offer foundations for hypotheses for the present investigation. In their review of the state of spirituality research, Ozer and Benet-Martinez (2006) highlight McDonald's (2000) study showing that religiousness and cognitive orientation are related to conscientiousness and agreeableness. Cognitive orientation is categorized as traditional because it reflects one's attitudes about existence of spiritual beings as opposed to non-traditional, service-oriented spirituality. Saucier and Skrzypinska (2006) defined traditional religiousness (TR), or use of normative religious components (e.g., scripture), as well as subjective spirituality (SS) which focuses on critical analysis of existing practice and private beliefs. Because both TR and SS encompass traditional practices and private expressions of spirituality, respectively, they can be used as bases for SLI relations to FFM domains as well. Across three measures of FFM domains, TR

was negatively related to openness and positively related to agreeableness and conscientiousness. SS was positively associated with openness and agreeableness.

Additional personality correlates with spirituality include conscientiousness and agreeableness. High levels of conscientiousness and agreeableness were found to be associated with a strong desire for closeness with God in a sample of seminarians (Kosek, 2000). A meta-analysis by Saroglou (2002) showed religiosity to be associated with elevated levels of conscientiousness, agreeableness, and extraversion. Moreover, openness was found by Saroglou to be related to a type of spirituality centered on open-mindedness toward other's views. Additional research by Saroglou and Fiasse (2003) showed conscientiousness and agreeableness to be associated with religiosity in a sample of 122 young adults in Europe. The preponderance of empirical evidence points to positive relations between SLI and both agreeableness and conscientiousness. Because of the inconsistent findings pertaining to openness and extraversion in these studies, they are not hypothesized to be related to SLI.

To examine how SJC may relate to FFM domains, we turn to FFM literature on non-traditional forms of spirituality. Piedmont (1999) conducted a detailed investigation of the Five-Factor domains in the context of development of the Spiritual Transcendence Scale. He defined three subscales of spirituality, connectedness, universality, and prayer fulfillment, and assessed the relation of each to the FFM domains in order to assess construct validity. Similarly to SJC, Piedmont's conception of spirituality strays from traditional definitions based on closeness to God and ritualized practices. Concerning relations with FFM domains, none of the three types of spirituality showed relations to neuroticism, whereas all three were significantly positively related to extraversion across self and other ratings. While the other three FFM domains displayed differing results based on self and observer ratings, openness and agreeableness had a strong positive correlation with multiple types of spirituality.

Saroglou and Fiasse (2003) reported spirituality to be positively related to openness. Furthermore, McDonald (2000) found that existential well-being, or a sense of meaning or purpose to one's existence, was positively related to extraversion and negatively related to neuroticism. Existential well-being is similar to SJC in that it focuses on the existence of a defined purpose or goal, although SJC specifies that the goal more precisely as serving others. Hence, the overall picture would suggest

that SJC will display significant positive relations with extraversion, openness and agreeableness.

Goals of the Current Study

Spiritual life integration (SLI) and social justice commitment (SJC) are spirituality constructs that may be related to personality. Although previous studies have examined the relation between personality and personal spiritual beliefs and activity, few, if any, have fully investigated the nature of young adults' spirituality in relation to a comprehensive personality model. The goal of the present study is to examine the relation between personality in young adults and both ritualistic and prosocial aspects of spirituality. SLI was expected to be positively associated with agreeableness and conscientiousness, and SJC was expected to be positively related to extraversion, agreeableness, and openness because these FFM traits have been associated with similar conceptions of spirituality in prior studies, although these specific constructs have not been examined. Investigating these relations will provide: a) information on the relation between personality and spirituality, b) data regarding the construct validity of the SIS, and c) preliminary evidence for future research on the utility of spirituality measures in young adults.

METHOD

Participants

Participants were 136 undergraduate psychology students at a small, Jesuit university in the northeastern United States. Of those, 105 were female, 30 were male, and one did not identify gender. Participants reported their ethnicity as Caucasian ($n = 126$), African-American ($n = 3$), Asian-American ($n = 1$), and other ($n = 5$). One person did not identify their race. They reported religious affiliation as Catholic ($n = 108$), Protestant ($n = 13$), Atheist/Agnostic ($n = 5$), and other ($n = 10$). The mean age was 18.82 ($SD = 1.07$), with a range of 17–22.

Materials

Demographics. A demographics questionnaire included questions about participants' age, gender, year in school, ethnicity, religious orientation, and major.

Spiritual Involvement. The Spiritual Involvement Scale (Fenzel, 1996) is an 18-item Likert-type scale measure that assesses Spiritual Life Integration (SLI) and Social Justice Commitment (SJC) (see Appendix). Items are measured using a scale ranging from 0 (“Not at all true of me”) to 4 (“Definitely true of me”). Internal consistencies for SLI and SJC have been reported at .95 and .75, respectively (Fenzel, 2002). SLI items pertain to statements centering on communication with, and belief in, God. These include “I feel God’s love for me” and “My faith is an important part of everyday life.” SJC is characterized by more proactive statements such as “I desire to help other people” and “I try to change things that are unjust in the world.”

SLI was shown to have excellent concurrent and discriminant validity (Fenzel, 2002). For instance, SLI was shown to be significantly positively correlated with Faith Maturity ($r = .76, p < .001$), significantly negatively correlated with depression ($r = -.32, p < .01$) and hostility ($r = -.33, p < .01$), and to be unrelated to self-worth ($r = .00, p = ns$) and self-efficacy ($r = .17, p = ns$; Fenzel, 2002). SJC also possesses excellent concurrent and discriminant validity. It was shown to have a significant positive correlation with Faith Maturity ($r = .36, p < .01$), significant negative correlation with depression ($r = .18, p < .01$), and to be unrelated to self-worth ($r = -.10, p = ns$) and self-efficacy ($r = .08, p = ns$).

Personality Traits. Personality traits were measured with the NEO-PI-R (Costa & McCrae, 1992). The NEO-PI-R, which consists of 240 questions, scored on a 0–4 Likert-type scale, measures five personality domains: neuroticism (N), extraversion (E), openness to experience (O), agreeableness (A), and conscientiousness (C) (Costa & McCrae, 1992). Alpha reliabilities have been reported as follows: .91 for N, .90 for E, .87 for O, .88 for A, and .90 for C (Ross, Canada, & Rausch, 2002). Each domain is also comprised of six facets, for a total of 30 facets, and alpha coefficients for the facet scores range from .68 to .79 (McCrae & Costa, 2003). The present study featured converted T-scores, descriptive statistics of which are contained in Table 1.

Procedure

Participants were recruited by researchers through introductory and upper level psychology classes. In addition to the measures of interest in the present study, the participants completed additional questionnaires as part of a larger study. Participants signed consent documents that contained information about anonymity, confidentiality and the

Table 1. *Descriptive statistics for measures*

Variable	Range	M	SD	Skew
SLI	0–48	24.58	13.06	–.094
SJC	7–24	16.86	3.87	–.286
N	19.47–85.02	50.40	11.66	.041
E	17.85–74.35	51.72	11.41	–.891
O	28.60–81.23	53.67	9.69	.130
A	3.46–79.38	51.47	12.91	–.502
C	17.91–70.34	47.91	10.86	–.108

Note. SLI = Spiritual Life Integration, SJC = Social Justice Commitment, N = Neuroticism; E = Extraversion; O = Openness to Experience; A = Agreeableness; C = Conscientiousness.

** Five Factor Trait values in T-scores.

right to withdraw. Investigators administered the survey packet to the participants in a classroom setting, and all responses were anonymous. All participants were debriefed upon completion of the surveys. Regression analyses were conducted to assess the hypotheses.

RESULTS

Descriptive statistics for all measures are provided in Table 1. Zero order correlations are reported for each analysis in Table 2. Regression analyses and effect sizes are reported in Tables 3 and 4. Each of the constructs included in the Five Factor Model were included as level-one predictors of SLI and SJC independently. Due to gender differences in FFM domains indicated by previous literature (e.g., Costa & McCrae, 1992; Rubinstein & Strul, 2007) gender was included in each model as well.

Results showed a significant ability of personality to predict SLI, $F(6, 128) = 4.25, p < .001$. Gender was not a significant predictor of SLI. Agreeableness and conscientiousness were positively related to SLI (see Table 3), and these personality traits together accounted for approximately 16% of the variance in SLI. Neuroticism, openness, and extraversion failed to show significant relations with SLI. A difference between the zero-order correlations and the regression analyses with respect to SLI was that neuroticism showed a moderately significant negative correlation with SLI when analyzed alone. However, neuroticism was not a significant predictor of SLI in the overall regression

Table 2. *Zero-order correlations among measures*

Variable	1	2	3	4	5	6	7
1. SLI	—	.47**	-.19*	.16	-.05	.27**	.27**
2. SJC		—	-.30**	.26**	.23**	.54**	.20*
3. N			—	-.38**	-.24**	-.41**	-.43**
4. E				—	.33**	.13	.14
5. O					—	.13	.14
6. A						—	.14
7. C							—

Note. * = $p < 0.05$, ** = $p < 0.01$.

Table 3. *Regression analysis for personality variables predicting Spiritual Life Integration*

Variable	<i>B</i>	<i>SE B</i>	<i>Beta</i>
Gender	2.65	2.58	.09
Neuroticism	.05	.12	.04
Extraversion	.19	.10	.17
Openness	-.21	.12	-.15
Agreeableness	.27	.09	.26**
Conscientiousness	.29	.11	.24**

Note. $R^2 = .16$.

* = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$, $n = 135$.

model due to a suppression effect. Specifically, examination of partial and semi-partial correlation coefficients reveals that the relation between openness and SLI strengthened from the correlations to the regression model, whereas the relation between neuroticism and SLI showed the opposite change.

Personality traits predicted SJC, $F(6, 128) = 13.39$, $p < .001$. Gender was significantly related to SJC, such that men ($M = 17.11$, $SD = 3.88$) displayed higher levels than women ($M = 16.00$, $SD = 3.83$). Together with gender, agreeableness and extraversion were found to be significant, positive predictors of SJC, accounting for 38% of the variance in SJC scores (see Table 4). On the other hand, neuroticism, openness and conscientiousness failed to predict SJC in the simultaneous regression equation. This is different when considering the zero-order correlations that showed a significant relation of SJC with openness to experience and neuroticism at the .01 level, respectively, as well as

Table 4. *Regression analysis for variables predicting Social Justice Commitment*

Variable	<i>B</i>	<i>SE B</i>	<i>Beta</i>
Gender	1.90	.66	.21**
Neuroticism	.02	.03	.05
Extraversion	.07	.03	.19*
Openness	.04	.03	.11
Agreeableness	.16	.02	.53***
Conscientiousness	.03	.03	.09

Note. $R^2 = .39$, * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$, $n = 135$.

with conscientiousness at the .05 level. Examination of partial and semi-partial correlation coefficients showed that agreeableness appears to account for most of the variance in SJC while other predictors fail to show significance due to overlapping variance among the different personality traits. Therefore, it appears that extraversion, and more importantly agreeableness, account for a significant amount of the variance.

DISCUSSION

The first hypothesis was supported: Agreeableness and conscientiousness were positive predictors of SLI. Our findings are in accord with previous literature noting the impact of agreeableness and conscientiousness on similar conceptions of religiousness and spirituality (e.g., Kosek, 2000; Saraglou, 2002; Saucier & Skrzypinska, 2006). Because FFT holds that traits are biological determinants of attitude expression, among other components of human existence, this theoretical perspective would suggest that a desire for closeness to God and religious rituals such as prayer into an individual's life partly results from predispositions toward discipline (conscientiousness), as well as trait influences of harmony and trust (agreeableness). From a practical standpoint this explanation is plausible because ritualistic spiritual practices may also be religious expressions of traits such as discipline. In this way, both FFT and spiritual attitudes explicate current findings related to SLI. These two FFM traits and SLI attitudes/practices conceivably exhibit a reciprocal relationship with each other.

The second hypothesis was partially supported. As expected, agreeableness and extraversion predicted SJC. Prior investigations

(e.g., McDonald, 2000; Piedmont, 1999) are in line with these findings. From a Five-Factor standpoint, spiritually-based philanthropic objectives inherent in SJC are likely influenced by egalitarian focused, sympathy-possessing personalities of those high in agreeableness. Given that extraversion also positively predicted SJC, it may be that a combination of aspects such as friendliness, outgoingness and seeking out positive emotions, among other characteristics of those high in A and E domains, yields proactive attempts to meet and help other people. Hence, agreeableness and extraversion likely influence the manner in which spirituality is expressed in young adults; people high in these traits are more likely to devote themselves to spiritually altruistic endeavors above and beyond mere ritualistic spiritual behaviors like prayer, church attendance, and reading. Keeping in line with the idea that attitudes/practices can reciprocally influence traits, the resulting positive experiences of harmony, happiness and being with others may in fact strengthen expression of extraversion and agreeableness in these individuals.

Openness to experience was unrelated to SJC in the present investigation. While this is not entirely surprising given the mixed results in prior literature, openness has been linked to spirituality (e.g., Saraglou & Fiasse, 2003). FFT defines openness quite broadly. Although the present study did not analyze openness and SJC at the more specific facet level, examining components of openness may be completely unrelated to SJC (e.g., ideas and aesthetics). The possibility also exists that an individual does not need to be nonconforming, a characteristic associated with high openness, to engage in socially conscious spiritual behaviors. Also of note with SJC is that men were higher than women. The fact that men are more likely to engage in socially just forms of spirituality is intriguing for two reasons. First, the finding contradicts gender role stereotypes of masculine and feminine roles. Second, from a theological standpoint, it offers unique insight into how males may be prone to express their spirituality.

Overall, agreeableness, conscientiousness, and extraversion all seem to be important traits that influence the presence and expression of spirituality. Current findings extend previous literature in two ways. First, agreeableness and conscientiousness were shown to relate to ritualistic spiritual practices for American young adults. Second, openness was not shown to be predictive of either type of spirituality. Although Saraglou (2002) reported that openness was related to spirituality, the construct of spirituality in that study was defined as being open to others' views,

such that there was overlap built into the operational definitions of openness and spirituality. Neither SLI nor SJC include such a component in their respective definitions. Therefore, the significance of openness in regard to spirituality may be limited to a particular type, rather than being a significant influence across conceptualizations of spirituality. A point concerning the differing types of spirituality warrants attention in light of present findings. The influence of agreeableness seems to transcend disparate types of spirituality based on past and present research. Generally speaking, those high in agreeableness are likely to pursue spiritual and religious endeavors. This notion can help identify future educators and leaders in the field of theology.

The relation between personality and types of spirituality also merits comment. While personality matters when assessing the underlying relations to spirituality, it is certainly not the only integral factor. Indeed, personality and gender accounted for 16 percent of the variability in SLI and 38 percent of the variability in SJC. Personality appears to be more related to a socially conscious form of spirituality based on present findings because personality accounts for more variance in SJC than SLI. SJC, as stated earlier, is a pro-social type of spirituality geared toward aiding others.

Overall, personality is only one piece of a larger puzzle in predicting spiritual beliefs and practices. Spirituality in any form seems to be a more malleable attitude rather than a stable trait, is influenced by personality traits, attitudes, and personal experiences. The argument can be raised that reducing spirituality to a mere attitude largely shaped by personality demeans its value. We disagree. Spirituality is an important attitude partially explained by personality that yields a bevy of positive outcomes such as aid for others, belief in a higher power, and protection against negative psychological outcomes (e.g., Kim, Seidlitz, Ro, Evinger, & Duberstein, 2004; King, 2003; Poll & Smith, 2003).

Although the present study fails to completely resolve questions about the validity of the SIS, present findings do offer support for its use. Both SIS subscales largely matched expected relations with one of the most common conceptions of personality utilized in the psychological literature. In short, present findings strengthen construct validity of the SIS. Moreover, gender differences reported in SJC tentatively identifies an important spiritual construct warranting further empirical investigation. Assessing the implications of gender differences in spirituality can benefit both psychologists and theologians.

There are several limitations to the present study, including a relatively small and homogenous (predominantly Caucasian, Catholic) sample, which respectively decrease power and the ability to generalize findings. However, a stated goal of the study was to investigate personality within a social justice-oriented population in order to clarify the role of personality. Further, because spirituality is defined in varied ways across the literature, research in this area can prove difficult to replicate and assess. A potential concern about SJC is how it differs from altruism. SJC incorporates altruistic motives, but in the context of caring for, and serving, others as reflected in the Jesuit traditions of *Cura Personalis*. In short, SJC is a broader construct that includes serving others in the name of God. However, we must acknowledge that no studies have been conducted which attempt to empirically discriminate between SJC and altruism.

Further research should seek to replicate findings related to SJC and SLI, and to clarify the association of extraversion and spirituality. Also, samples of differing ethnicity and religious orientation should be examined in order to assess generalizability of findings of the present study. Deeper exploration of the relations between personality and spiritual engagement are needed, perhaps examining potential causal links through longitudinal analyses. On a theoretical level, differences between altruism and SJC (or a similar conception of spirituality) should be empirically validated. Finally, implications of these findings, such as the application of the SIS as an outcome for spiritual coping methods should be investigated.

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APPENDIX

Items from the Spiritual Involvement Scale (SIS; Fenzel, 1996, 2002)

1. I use prayer or some other form of communication with God to comfort me when I am troubled.*
2. My spirituality enables me to be comforted when I am mistreated.*
3. It is important to try to make the world a better place.**
4. My faith is an important part of my everyday life.*
5. I receive relief from stress through my spiritual life.*
6. I desire to help other people.**
7. I go to God for help.*
8. I feel close to God.*
9. My spirituality enables me to forgive when I am mistreated.**
10. I use prayer or some other form of communication with God to provide me with relief from anxiety.*
11. My spiritual beliefs lie behind my whole approach to life.*
12. I have no desire to get involved in social action.** (reverse scored)
13. My life is better when I set aside private spiritual time (as in prayer, meditation, or contemplation).*
14. It is important that I share my time and gifts with others in need.**
15. I feel God's love for me.*
16. I feel a sense of gratitude for what God has done for me.*
17. I try to change things that are unjust in the world.**
18. God has a major role in directing my life.*

* Spiritual Life Integration (SLI) items, ** Social Justice Commitment (SJC) items

Note: Adapted from Fenzel, 1996

CONTEMPORARY CHRISTIAN SERPENT HANDLERS AND THE NEW PARADIGM FOR THE PSYCHOLOGY OF RELIGION

*Ralph W. Hood Jr. and W. Paul Williamson**

ABSTRACT

The widely acknowledged call for a new multilevel interdisciplinary paradigm for the psychology of religion is illustrated by a survey of our research on the contemporary Christian serpent handlers of Appalachia. Over a fifteen year period, we have employed a variety of methodologies and levels of analysis to explore the history of this tradition. They included archival documentation of the early endorsement of the Church of God for this ritual as well as the role of the Gospel of Mark within Pentecostal denominations that eventually rejected this ritual. We collected oral histories of this tradition and explored the meaning that handling has for believers using phenomenological interviews and hermeneutical methods of exploring the thematic structure of not only handling, but also of the anointing, and of near-death experiences from serpent bites. We also have developed an empirically based formula for probability of bites based upon video taped documentations of handling that we have archived. In addition, we explored the legal history of laws against handling as well the reasoning that judges gave for upholding bans against serpent handling on appeals to state supreme courts. In quasi experimental studies we explored both rational rejection of this practice and the influence of personal and cultural prejudice against it. We also empirically demonstrated that attitudes toward both handlers and laws banning the practice could be changed based upon exposure to handlers' own justification for their beliefs and practices. Finally, we explored the symbolic and sign value of the serpent indicating how their confluence produces an intense emotional response that is viewed as holy by this tradition.

KEY WORDS: serpent handling, Pentecostal, phenomenology, hermeneutics, new paradigm

Evaluations of the contemporary psychology of religion range from Wulff's (2003) claim that it is "a field in crisis" to Emmons and Paloutzian's (2003) enthusiasm for a "new *multilevel interdisciplinary paradigm*" (p. 395, emphasis in original) to replace the older measurement paradigm identified by Gorsuch (1984). In our view, these different evaluations are not really at odds if one simply accepts that at least part of the "crisis" in

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the contemporary psychology of religion is its commitment to survey, experimental, and quasi-experimental methodologies as the gold standard by which all research is evaluated. We have provided criticisms of such a commitment elsewhere (Belzen & Hood, 2006). Likewise others have persuasively argued for methodological pluralism (Roth, 1987) which necessarily raises issues that Koch and Leary (1985, pp. 935–950) suggested are an emerging consensus in general psychology; hopefully, these same issues will find their way into the psychology of religion from those who heed the call for a new paradigm. Included are the limited applicability of experimental methods and an increasing awareness of the philosophical presuppositions contained within research methods. In this article we wish to champion the idea of a multilevel interdisciplinary paradigm and to demonstrate what we think is a good exemplar of what this paradigm might look like. In so doing, we assume not only the notions of multiple levels of analysis, but also *interdisciplinary* in the sense that psychologists might utilize a variety of methods often linked with other disciplines that are required for a fuller psychological treatment of a phenomenon. Perhaps more to the point, the very notion of disciplines has perhaps outlived its usefulness. Historians of necessity utilize implicit or explicit psychology; psychologists of necessity make historical claims. Thus, our survey of over fifteen years of research on the contemporary Christian serpent handlers of Appalachia is a methodological overview of what the “new” multilevel interdisciplinary paradigm might look like.

CREATING THE FRAME: A NEW MODEL OF FUNDAMENTALISM

All research is guided implicitly or otherwise by assumptions and intuitions about the object being studied. For a long time we had the sense that psychologists and other social scientists who studied fundamentalism had it wrong. The research seemed more like methodologically-biased studies confirming stereotypes held by those who claimed to be objectively studying fundamentalism (Hood, 1983). In a recent book (Hood, Hill, & Williamson, 2005), we not only documented these stereotypes, but also developed an explicit model of religious fundamentalism that had guided much of our research on serpent handlers. The key concept in our model is *intratextuality*, which connotes the fact that fundamentalists interpret all reality in light of their absolutely authoritative text. The tautology of the fundamentalist world view is not a vicious one,

for the text simply demands that the world can be meaningfully comprehended by the sacred text alone and need not be pieced together by knowledge scattered across many texts, none of which is absolutely authoritative (an alternative view we term *intertextuality*). This is not the place to describe our model fully (see Hood et al., 2005, Chap. 1), but it will be helpful to correct one common error: fundamentalists are not categorical literalists. The irony in claiming fundamentalists to be literalists is that their sacred text, most likely the King James Bible in the case of Christian fundamentalists, indicates when the text is to be literal and when it is not. For instance, the parables of Jesus have never been taken literally, nor do fundamentalists pluck out their eyes, nor do they try to push camels through the eye of a needle. However, they do handle serpents. Why? There are many levels to this, and the first is intratextual.

An Intratextual View—Mark 16:17–18

Serpent handlers are not simply fundamentalists (and few would apply this term to themselves). However, some would accept the term *Pentecostal*. We have documented the history of Pentecostals in their search for biblical evidence of legitimate emotional expressions and how tongues-speaking became widely accepted by Pentecostals as the biblically sanctioned evidence of baptism in the Holy Spirit (Williamson & Hood, 2004). However, where you have biblical sanction for tongues-speaking, you also have biblical sanction for handling serpents (Hood, 1998, 2003).

If there is a foundational text for serpent handlers, it is Mark 16:17–18. In the King James Bible (the only acceptable Bible to handlers), it reads:

17. And these signs shall follow them that believe; In my name shall they cast out devils; they shall speak with new tongues; 18. They shall take up serpents; and if they drink any deadly thing, it shall not hurt them; they shall lay hands on the sick, and they shall recover.

Contemporary handlers take the plain meaning of this text to heart. While one sign is conditional (“*if*”), the other four are perceived as mandates believers must follow.¹ This is an *intratextual* view, and it informed

¹ Our focus in this paper is only upon serpent handling. In other studies we have explored poison drinking (Hood & Williamson, in press).

the early Pentecostal movement and led to diverse discussions as what do to with this aspect of the Gospel of Mark. Intratextuality does not require agreement since even if one accepts a sacred text as infallible, the text is read and understood by fallible minds. So, as researchers, we needed to explore another level of why only some Pentecostals handle. This task was historical.

HISTORICAL CONSIDERATIONS

There were multiple levels to our historical work. One was tracing the actual history of serpent handling by Pentecostal denominations, and another was that of exploring the history of the gospel of Mark within the Pentecostal tradition.

Pentecostal Attitudes toward Serpent Handling

Early on we noted that few historians concerned with the rise of Pentecostalism paid much attention to the role of serpent handling in the early portion of the movement, say from which Wacker (2003) ends at 1925. Conn (1955, 1977, 1996), whose *Like a Mighty Army* has gone through several editions, began his first edition (Conn, 1955) by relegating serpent handling to but a single footnote. In the third and “definitive” edition of his history of the Church of God, Conn (1996) reluctantly devotes a bit more to the role of serpent handling in the Church of God, but still minimizes its influence and effect. However, we carefully documented both the Church of God’s and the Church of God of Prophecy’s (the splinter sister church’s) early endorsement of serpent handling using archival documents integral to their traditions (Hood, Hill & Williamson, 2005, Ch. 5; Williamson & Hood, 2004). Both these churches were headed by Tomlinson, and both early on illustrated what Conn in an interview with Deborah McCauley characterized as “Appalachia for export” (McCauley, 1995, p. 278).

In addition to using archival records, we personally documented the demolition of the old structure that once housed the Dolly Pond Church of God with Signs Following at Dolly Pond, a group once widely known for its serpent handling in the 1940s, by the more recent Church of God of Prophecy owners, who did not want the church property recognized for its infamy. It was obvious to us that the Church of God of Prophecy pastor was trying to minimize its support and endorsement of serpent handling in its formative years. Why this reversal? Before

we could answer this question, we needed to explore another historical issue: the challenge to the Gospel of Mark.

Historical and Hermeneutical Challenges to the Gospel of Mark

It is widely accepted by critical scholars that there are several “added” or latter endings to the Gospel of Mark. Here we need not explore the various endings, but simply note that the best authorities suggest that the second, unknown author of the latter Mark was inspired to write a coherent narrative in defense of the Christian faith (Thomas & Alexander, 2003; Kelhoffer, 2000; Wall, 2003). He wove the Gospel of Mark as a single narrative. While there is good evidence as to why this unknown author specified the handling of serpents, there is no historical evidence that early Christians ever handled serpents prior to the addition of Mark 16:17–18 (likely written in the early second century some seventy years after the early Mark), nor that they handled in subsequent years until near the end of the 19th century (Hood, 2005; Kelhoffer, 2000). So why was this inspired author of the latter Mark convinced that Jesus had told his followers to take up serpents?

Kelhoffer (2000) has documented the pressure of the early Christians to compete for a “market share” (as the rational choice sociologists would have it) among competing religious sects not simply Gnostics, but Roman and Greek sects as well. Within the Greco-Roman culture there was wide artistic representation of humans interacting with serpents, and there were non-Christian sects that handled serpents. Thus, the author of the latter Gospel of Mark appealed to Christians with the assurance that, like others, Christians could do “signs and wonders,” one of which is to handle serpents. So they did, but why only 1800 years later?² Here is where fieldwork was required.

The Renegade Churches of God

Serpent handling churches have a variety of fascinating names; most are scattered throughout Appalachia in isolated regions. However, most have some version of “Church of God” in their name (Hood, 2003). Examples are the Church of God in Jesus’ Name at Del-Rio, Tennessee,

² We accept the historical claim that early Christians prior to Mark 16:17–18 did not handle serpents. However, we have good reason to explore the historical likelihood that they did handle serpents after Mark 16:17–18. The task is for us to provide the historical evidence, and we are psychologists “on the hunt.”

or “Highway Holiness Church of God” in Fort Wayne, Indiana. They are small, and like most religious sects, as Holt (1940) long ago noted and as McCauley (1995) recently reminded us, are understudied. This is even more the case with sects who have minimal, if any, written records—as is common with Appalachian mountain religion (McCauley, 1995; Hood, 2005). The mainstream denominational Church of God refuses to recognize these churches, paralleling the Mormon’s refusal to recognize their renegade sisters that still endorse and practice polygamy (Williamson & Hood, 2004).

We have traveled thousand of miles interviewing handlers, collecting their oral histories and tracing the origin of handling in modern times (see Hood, 2005). Further illumination of “why handle?” comes from the historical studies noted above but also from movement into the twentieth century: Early Pentecostals sought to practice signs and wonders, including the astounding ability to handle serpents, or deadly vipers, without being bitten, or if bitten, without being maimed or killed—or so it seems.

SUNDËN’S ROLE THEORY

We have argued elsewhere that it is unlikely that serpent handling originated with one person (Hood, 2005; Hood & Williamson, in press). All that is required for the practice to emerge is an environment in which serpents are plentiful and a community of believers who accept and believe the plain meaning of Mark 16:18. Wacker (2003) has documented what we have also confirmed: The practice of handling emerged most strongly in geographical areas where non-religious handling of serpents was a common folk practice.

However, it is also true that one man, George Went Hensley, is as close to the “St. Paul” of serpent handling as one can find. His influence was immense, modeling the practice of handling serpents as he preached across the Appalachian Mountains until his death by a serpent bite in a religious service in Florida in 1955. He was the 35th person to die from a serpent bite, and, to date, 53 other believers have since followed. However, these are only documented deaths, and, likely, there have been others (Hood & Williamson, in press).

We have found Sundën’s role theory (Holm, 1995) useful in illuminating the influence of George Hensley for two reasons. First it is a social psychological theory that focuses upon religious experience and

thus is applicable to the Pentecostal tradition in general and to serpent handling Pentecostals in particular (Hood & Kimbrough, 1995). Both are experientially based faith traditions, where as it is often said, “Religion is better felt than told.” Second, it gives a sacred text a central role in explaining how religious experience is shaped, modeled, and thus made possible by what we have termed intratextuality (Hood & Williamson, in press).

George Went Hensley joined the Church of God in 1912 (Conn, 1996) and was licensed as a minister in 1915 (Williamson & Hood, 2004). However, before these dates, likely around 1909 or 1910, George began the handling of serpents (Burton 1993). As George was later to tell his story to a reporter from the *Chattanooga News Press*, he was atop White Oak Mountain, near Chattanooga, Tennessee, when he was confronted by a rattlesnake. He was on the mountain seeking solace and meditating on the Gospel of Mark (Collins, 1947). Here the text and a fortuitous presence of a serpent met in the mind of George. Without much forethought, Hensley impulsively grabbed the rattlesnake and to his amazement was unharmed. In terms of Sundén’s role theory, Hensley felt the power of the Holy Spirit in a behavioral response to Jesus’ imperative in Mark 16:18. Hensley descended the mountain to launch by example a religious practice that would hold tremendous meaning for those who believed the plain meaning of Mark 16:18. In obedience to its imperative, others would follow Hensley’s modeling of a practice that was promised to the early Christians as God’s granting them miraculous powers—the “signs and wonders” of the latter Mark.

If Hensley’s serpent handling began in 1909 (Conn, 1996), or even 1910 (Kimbrough, 1995/2002), evidence seems to indicate it to have produced only marginal results in Grasshopper Valley for the first few years (Collins, 1947). While Hensley and others handled serpents, it was often in response to scoffers, and those hoping to make a public spectacle, who brought venomous serpents to Hensley and his followers, challenging them to fulfill their claims as obedient believers of Mark 16:18. Concerning one such occasion, Homer Tomlinson was later to claim that a result of “this amazing miracle [was that] a revival broke out that brought thousands from everywhere, walking, and by every means of transportation” (1968, pp. 41–42). As Hensley’s serpent handling gained recognition, leaders in the Church of God applauded the practice. In addition, newspapers began to chronicle the rapidly spreading doctrine of serpent handling, largely by following the career

of Hensley. For instance, in September, 1914, Hensley and Bishop M. S. Haynes were conducting a revival meeting in the South Cleveland Church of God. Hensley was preaching on the gospel of the signs when a scoffer challenged him with a large serpent. The local newspaper, *The Cleveland Herald*, reported the story (Snakes in demand, 1914). A. J. Tomlinson (1914) summarized the events that followed:

On Friday night it was there. Some body [*sic*] had brought in a fierce “Rattlesnake Pilot.” None of the saints had made any plans or said what they would do about the matter and even went to the meeting with little or no expectation of such a thing. The power of God was demonstrated successfully, however, and several handled it and no one was injured by it. (pp. 2–3)

This is all the chronology of Hensley’s growing success with handling and his influence upon the early support of the Church of God that we need to present here. For what is now crucial is the last sentence of Tomlinson’s (1914) description that we deliberately left out in the above quote: “Some were bitten, but with no damage to them” (p. 3).

WHEN THE SERPENT MAIMS AND KILLS

Another level of explanation enters the picture when we began to explore the nature of serpent striking behavior. There is virtually no experimental work exploring venomous serpent striking behavior in the context of humans freely handling serpents. The irony is that, from both the secular and religious sides, the assumption is that there must be an explanation for why handlers are so seldom bitten. Likewise, if they are bitten, often they are not hurt. Why?

Field Observations

The early explanation from within the Church of God was that God protected the handler by placing a hedge around him or her so that no harm could come.³ Scoffers and outsiders, then and now, were more likely to claim fraud with stories that handlers “tame” their serpents, or that they “freeze” them before the service, etc. On several occasions, we have taken herpetologists to Services, and all have been amazed that

³ From Ecclesiastes 10:8, the Bible says, “He that diggeth a pit shall fall into it; and whoso breaketh a hedge, a serpent shall bite him.”

copperheads, rattlesnakes, water moccasins, cobras, and a variety of other vipers can be handled (and even tread upon) with impunity.⁴

Hood (2003) proposed an elegantly simple explanation based upon behavioral observations of frequency of handling, of bites, and of deaths. Based upon hundreds of hours of documented handling it is obvious that the single best predictor is that on any given handling a serpent will *not* strike. However, the probability of the serpent biting (B) is a function of three things: (1) the species of serpent (S); (2) unknown factors (X) that herpetologists have yet to identify; and (3) the frequency of handling (H).⁵ Here is the best description:

$$p(B) = S + X + f(H)$$

From this equation we can make and test a simple prediction: among individuals who handle frequently, the probability of bites increases. Among groups that have many handlers, the probability of bites increases. Thus, we can expect that as the practice became routinized within the early Pentecostal movement, more and more individuals began to get bitten simply because more individuals handled and believing individuals who began to handle more frequently increased the probability that they would be bitten. That is precisely what happened (Williamson & Hood, 2004). The question now is: Why do some not get hurt?

The Physiology of Bites

Before we consider the problem this created, we need but briefly explore another level of analysis, human physiological response to serpent bites which we have documented in detail elsewhere (Williamson, 2000; Hood & Williamson, in press). Basically we need mention three factors. First, part of the harm done by a serpent bite is dependent on the amount of venom injected by the serpent. Serpents can give “dry bites,” expelling no venom. Here is a simple secular response to Tomlinson’s (1914) comment above, “but with no damage to them” (p. 3). Second, the nature of venom varies with different species, some producing dangerous neurotoxins (rattlesnakes), and some producing

⁴ From Luke 10:19, the Bible says, “Behold I give unto you power to tread on serpents and scorpions, and over all the power of the enemies: and nothing shall by any means hurt you.”

⁵ Striking behavior is poorly understood. It remains the case that, even among experienced handlers, serpent strikes are unpredictable.

toxins that destroy the flesh (copperheads). Thus, there are no documented deaths from copperhead bites, but many documented examples of maiming, from missing fingers to atrophied arms from copperhead bites. Copperheads typically have 40–70 mg of venom, and it would take at least 100 mg to kill an adult (Minton & Minton, 1969, p. 215). Thus it would take multiple copperhead bites to be fatal. However, handlers do pick up “nests” of copperheads, sometimes handling six to ten at once. Thus, multiple copperhead bites can occur and could cause death. However, it remains the case that most deaths are from rattlesnakes or water moccasins. Third, it is the decision of the victim on whether to seek medical care for the bite. Many argue that it is up to God, and seek no care—we have documented on film individuals dying untreated from serpent bites. If medical care is sought, death still may not be prevented, but often critical medical care can prevent maiming from serpent bites.

Our formula leaves unanswered and worthy of scientific study whether particular species of venomous serpents are more likely to strike than others. We have seen puff adders, coral snakes, and cobras handled. However, given the formula above, the infrequent handling leaves us to predict a low probability of bites from such species. However, since most serpents are caught in the wild, those species common to Appalachia, such as rattlesnakes and copperheads, are most frequently handled and hence account for the majority of bites.

Given our simple formula above, and this quick caveat into physiological damage that can occur, the reader can anticipate the next move. It also is another level of analysis, this time into church/sect theory, most prominent in the sociology of religion.

CHURCH/SECT THEORY AND THE GROWTH OF PENTECOSTALISM ABSENT THE SERPENT

We need not document the rapid growth of Pentecostalism, first in America and then worldwide, here. However, we do want to briefly explore the abandonment of serpent handling by what were to become two mainstream Pentecostal denominations, The Church of God and the Church of God of Prophecy. Basic to our analysis is that, within church/sect theory, sectarian groups are those that have high tension with their host culture. They also are less likely to manage large numbers of adherents if the particular form of tension with the host culture is

radical. What is more radical than a religious ritual that maims and kills? Thus, it is easy to predict that, as publicity surrounding bites that maimed and killed believers increased, the churches would abandon the practice. As noted above, that is what the Church of God and the Church of God of Prophecy have done. Even more, they are in denial regarding the powerful role handling played in their early history (Williamson & Hood, 2004; Hood & Williamson, in press).

However, church/sect theory also allows that sectarian groups who have great tension with their host cultures can produce committed members who, by the very fact they make sacrifices to be in sects, avoid what has been called the “free rider” issue. The contemporary renegade churches of God exemplify this admirably. They are small, primarily scattered throughout Appalachia, and have developed a theology to understand why it is that they handle successfully most of the time, and why it is, at others times, that they are bitten, maimed, and killed.

Remember that, given our simple formula, individuals who handle frequently will have increased probabilities of bites. This also means some will be dry bites, some serious and likely to maim, others likely to kill. Handlers know this. Likewise churches realize that, as more members handle, bites are more likely. It is not unreasonable that bites occur more frequently during homecomings, when several churches join together to celebrate in worship over several days: more people, more handling, more bites.

Handlers have developed two basic arguments for handling. One is to handle by faith. This means that, simply because handlers believe the plain meaning of Mark 16:18, they will take up the serpent. If they are bitten, maimed, or even killed, it is simply God’s will. They are assured of their salvation if they have been obedient to God, and only faith itself propels an obedience that includes handling serpents.

Others handle by anointing, not in opposition to faith, but by a bodily sensation of the power of the Holy Ghost that protects them during handling. Many handlers will not handle unless they feel this anointing. If one is bitten when “anointed” the explanation is more likely to be that the anointing was misjudged or was for doing some sign other than handling. We will explore the anointing below, but for now there is need only to note that church/sect theory allowed us two things: (1) to predict the abandonment by groups that moved toward denominationalism (“churches”); and (2) to predict firm commitment by the renegade churches that maintain to this day the practice of handling serpents. However, as might be expected, we had to turn to

another level of analysis when we learned that, in most states where serpents were handled, laws had been passed to ban the practice. West Virginia is the exception, and we can explain that as well.

LEGAL ISSUES REGARDING SERPENT HANDLING

We have documented in some detail the emergence of laws against serpent handling in several Appalachian states (Hood & Williamson, in press). Basically the laws emerged as concerned parents or relatives demanded that the state protect loved ones who were at risk given the increased awareness of maiming and death. Especially crucial was the protection of children, following a widely publicized bite of a girl that was chronicled in the national media (Hood & Williamson, in press). However, despite the emergence of laws against serpent handling the practice continued. Handling was sometimes driven underground, but mostly found support by sympathetic communities and authorities who simply let the churches continue to handle despite the law. We have documented in a case study how serpent handling persisted in Carson Springs even after the death of two preachers, one who drank strychnine and the other who drank strychnine and handled a serpent that bit him (Kimbrough & Hood, 1995).

We also have documented that, when laws were passed, and when they were upheld on appeal, the court's ruling was not based upon factual knowledge. First, it seemed that the mere fact that serpents were handled led courts to believe that (a) it endangers the handler (which it does) and, (b) it endangers others (which it does not). There is not a case of a non-handler being bitten, despite being in the presence of handlers. Secondly, one is suspicious of the court belief that they must protect consenting adult handlers from a danger that pales in comparison to secular activities permitted from hang gliding, to auto racing, to professional sports. We suspected something disingenuous and decided to explore it in a quasi-experimental study. But before we explore the use of this methodology, we need to comment on how our field research had continued relevance.

The Case of West Virginia

Two factors are worth noting here. First, remember West Virginia? It has never had a law against serpent handling. There are two reasons. First, while there are variations in the way geographers draw maps of

the Appalachian region, in all versions only West Virginia is included in its entirety (McCauley, 1995, p. 243). Insofar as an oppositional stance to any imposition on the free biblically based experiential practice of religion characterizes what McCauley (1995) argues is essentially an oral tradition, much of West Virginia's religious history has been ignored by scholars who follow what can be called "paper trails." The second reason is that of the powerful Elkins family, Bob and Barb Elkins (both now deceased from natural causes), who headed the church at Jolo, West Virginia. Barb Elkins had begun handling when she witnessed George Hensley handling serpents in West Virginia in 1935. Because of their receptivity to media, the Jolo church and its handlers became major media figures. Jolo gained added media attention when Barbara Elkin's daughter, Columbia Gaye Chafin Hagerman, received a rattle-snake bite while she handled in the Jolo Church in 1961. Refusing medical treatment, she died at her parents' home four days later. In an interview with the nationally read magazine, *People*, Barbara said of Columbia: "She handled snakes quite awhile, and this was the first time she'd been bitten. We asked if she wanted us to take her to the doctor, but she said no. She wanted God to do what he wanted with her" (Grogan & Phillips, 1989, p. 82). Media attention focused upon Jolo and handling churches in other parts of West Virginia such as the Scrabble Creek Church of All Nations located in Fayette County. This church became famous for allowing video of its services, including the widely distributed film, *Holy Ghost People* (Boyd & Adair, 1968).

When the legislature of West Virginia met to consider a law banning serpent handling, Barb appealed to them to respect their religious freedom. West Virginia legislatures, more familiar with serpent handling than others, refused to pass a law against their practice and agreed that, for those who believe, handling was a legitimate religious right, despite the possibility of death and maiming. The clue here that we explored in another quasi-experimental study below is that factual information regarding handling can lead to attitude change regarding laws proposed to ban the practice.

A second factor to consider here is the distinction widely accepted by both the US Supreme Court and State Appellate Courts that, while freedom of religious belief is absolute ("the Supreme Court recognizes no heresy"), jurisdictions may restrict religious practice if they have a compelling interest. This is the justification for most states banning the handling of serpents as a religious ritual, despite the Gospel of Mark (Burton, 1993, Ch. 5). We mention this here only to emphasize

something that also guided our quasi-experimental research: there is a widespread assumption that, while many secular activities are allowed that include high risk behaviors (e.g., auto racing; professional sports, etc.), religious rituals ought not to entail risk. This is an assumption that can both be rationally defended and also mask a prejudice. How do we know?

Two Quasi-Experimental Studies

Changing Prejudiced Attitudes. Our first quasi-experimental study was designed to test the hypothesis that rejection of serpent handling could be for rationally reasoned considerations as well as for prejudice (Hood, Morris, & Williamson, 1999). The prejudice we expected was hypothesized based upon two factors. First, appellate court decisions upholding laws against serpent handling often cited inaccurate information, largely derived from sensationalized media reports of handling. For instance, it was claimed in one appellate court decision that non-handling church members were endangered due to the alleged frenzy of the handlers and of non-handling church members (Burton, 1993, pp. 77–81). This is gross distortion of the experience of anointing, as we will document below, and a failure to appreciate the emotionality inherent not only in serpent handling churches, but in much of Appalachian mountain religion (McCauley, 1995). Second, as noted above it is simply an unwarranted assumption, surely not biblically grounded, that religious rituals ought to be “safe” and involve no high-risk behaviors.

Using a common mainstream social psychology method, we created six different vignettes concerning a fictitious male named “Bill” whom we said rediscovered his faith after becoming involved in a Pentecostal church. We went on to say that Bill renewed his enthusiasm in a variety of ways—not the least of which was his commitment to the signs of Mark 16:17–18 that Christ said would follow those who believe. Thus, our six vignettes were identical except that each varied experimentally in specifying only one of six conditions: “handle snakes,” “drink poison,” “lay hands upon the sick,” “cast out demons,” “speak in tongues,” or “attend a Bible study group” (a control condition). Here is the “template” for two of the six vignettes, Bible study and handling serpents. The italicized terms, which are encased in parentheses, indicating how the vignettes varied:

Bill has rediscovered his faith as an adult as a result of being involved in a Pentecostal church. His renewed enthusiasm expresses itself in a variety

of ways not the least of which is his commitment to the signs Christ said would follow those that believe. In particular, he has been active among those in his church who (*attend a Bible study group/handle snakes*). Bill often talks to others about how his practice of (*Bible study/handling snakes*) has renewed and strengthened his faith. He is confident that he never again will participate in any church that does not enthusiastically endorse (*Bible study/the handling of serpents*).

Using six different groups to evaluate the six different vignettes, we explored how participants would evaluate the conversion of our hypothetical Bill based upon whether they thought Bill's conversion was (a) legitimate; (b) likely to be long-lasting; (c) well grounded; or (d) unfortunate.

Each vignette was included in a questionnaire packet containing items that allowed us to obtain a wide variety of information about the participant, including age, sex, religious orientation, and the importance of religion to the rater. We used this information to make sure that our participants were themselves religiously committed and that religion was a salient part of their own life. Note that we asked participants to judge Bill's conversion experience, not upon their own religion, but upon Bill's religion. Since our focus in this paper is on serpent handling we will restrict our discussion of the results to the vignette regarding handling as compared to the control Bible study condition.

As a general overall statement, Bill's conversion based upon serpent handling was perceived to be less legitimate, poorly grounded, and unlikely to be long-lasting compared to the Bible study condition and to the three low-risk signs. Based upon the handling of serpents, Bill's conversion was also judged to be unfortunate, even by religiously committed participants.

While this finding may seem merely to be a reasonable rejection of a unique Christian ritual, additional assessments suggest more than mere reasonable disagreement with religious beliefs and practices. We also included in our questionnaire packet a measure of prejudice. This measure allowed us to assess participants' prejudice based on three dimensions: (a) stereotyping, (b) negative emotional reactions against a group, and (c) behavioral avoidance. Thus our assessment of prejudice includes a behavioral indicator (avoidance of handlers), an affective indicator (negative emotional reaction to handlers), and a cognitive factor (stereotyping of handlers). We need not explore the detail of the data analysis here, but merely note that statistical controls indicated that people, who reject serpent handlers for rational reasons, also stereotype

them, have negative emotional reactions to them, and seek to avoid them. Thus, their rational rejection is not untainted by three different indicators of prejudice.

Prejudice and the Law. Our first quasi-experimental study reveals a more complex picture of attitudes toward serpent handling churches. Rejection can be for a mixture of rational and prejudicial concerns. Our rating categories for the vignettes assumed many would accept the “bizarre” nature of handling, a term often used to stereotype serpent handling churches in the media (Birkhead, 1993, 1997) and proven to deflect trained evaluators’ ability to correctly match MMPI profiles of handlers who tend not to show pathological profiles, but are stereotyped by clinicians as if they do (Tellegen, Gerrard, Gerrard, & Butcher, 1969). We wondered if such prejudices could be removed, and, if so, would attitudes toward serpent handling and the law be changed?

The procedure for our second quasi-experimental study involved making two sets of videotapes regarding serpent handling (Hood, Williamson, & Morris, 2000). One (experimental) tape was footage of actual services, including handling, preaching, and testimonies by believers justifying the practice. Another (control) tape included an equivalent amount of footage of actual services but without handling, preaching, or testimonies that justified handling. The design included three groups of randomly assigned participants: a control group and two experimental groups. Participants in the control group and first experimental group completed a pretest that included the prejudice measures used in the study discussed above and also opinion questions as to whether handlers were sincere in their faith and whether handling should be legal. The second experimental group, however, did not take the pretest. Next, the control group viewed the control video that included no handling and no preaching or testimonies that justified the practice, whereas both experimental groups viewed the experimental video that included not only handling, but also preaching and testimonies that explained the ritual. Then all participants, including the second experimental group, completed a posttest, which included the same instruments as the pretest. This research design assured that, if the two experimental groups did not differ on the posttest, then we could reasonably infer that the pretest did not sensitize participants to please the experimenter by changing their views about handlers after seeing the video. As we shall see, both experimental groups (pretest/posttest and posttest-only) did not differ in their prejudice scores on the posttest, and thus what social scientists call “expectancy effects” did not account for the changes. In view of

this, any changes in the stereotyping of serpent handlers, as reflected in posttest prejudice scores of both experimental groups, would likely be due to viewing factual information about serpent handlers presented in the experimental videotape.

Our results were encouraging in that persons presented with factual information from handlers themselves in their religious context changed their views. Prior to viewing their respective videotapes, both the control group and first experimental group felt handlers to be insincere and that laws against the practice should exist. After viewing the experimental videotape, however, both experimental groups changed their minds about handlers, felt them to be sincere, and felt that handlers should have a legal right to the practice of their beliefs. Furthermore, a reasonable inference is that these changes were due to the documented decline in stereotyping in that both experimental groups saw the tape with handling and testimonies explaining the practice. Thus, allowing handlers to express their own views in the setting of their ritual is an effective counter to the dominant media stereotyping of these believers. As expected, viewers of the control tape did not change their attitudes regarding what they perceived as the insincerity of handlers and thus continued to support laws against the practice. Nor was it surprising that the maintenance of these beliefs was likely rooted in the stereotyping assessed on the prejudice measure, which remained constant on the posttest. Thus, only actually seeing handling in its religious context, combined with explanations from handlers, serves to reduce stereotyping and change attitudes. We do not expect others to convert to handling serpents, but we do argue that it is only when others are knowledgeable about the tradition and its beliefs that they will allow handlers to practice what they believe, free from legal persecution. Here additional methods are relevant that are far removed from the experimental lab and are best described as phenomenological and hermeneutical.

PHENOMENOLOGICAL AND HERMENEUTICAL APPROACHES TO EXPERIENCED MEANING

If persons presented with factual information regarding handlers in their own religious context can change their views as to the sincerity of handlers' beliefs and also believe that religious freedom should encompass not only this belief, but also the practice of this belief (for consenting adults), it seemed to us that attention to detailed phenomenological

descriptions of what it is like to handle a serpent, to be anointed, and to be near death from a serpent bite would be crucial for outsiders to have some minimal empathic understanding of this tradition. In addition, we could use a hermeneutical method (described below) to derive the thematic structure of meaning of these experiences. We also applied it to spontaneous preaching by believers concerning the practice of serpent handling. We will first only briefly describe the particular phenomenological/hermeneutical method we employed and then briefly address its application to each of the four areas noted above.

Phenomenological Methodology

Fortunately as near the middle of our 15-year study of serpent handlers, the second author studied to complete his doctorate in psychology at the University of Tennessee at Knoxville, under Howard Pollio who has for decades now championed a particular phenomenological method as the lone voice in that department (Williamson, 2000). His method is ultimately traceable to the methods associated with Duesquene University, but Pollio's method is uniquely his own. It involves first and foremost (a) formulating the initial question; (b) having a bracketing interview; and (c) conducting phenomenological interviews with selected participants.

The initial question involves an attempt to formulate an appropriate opening question for the phenomenological interview to follow. The question must be sufficiently open to allow for multiple ways of taking it up in the interview. Van Manen (1990) has suggested that the process of coming to terms with this question begins with wondering "what something is really like" (p. 42) and evolves to a point where "we live this question...we 'become' this question" (p. 43). Ultimately what is sought is an empathic understanding of the other's experience (Pollio, Henley, & Thompson, 1997). This process parallels Robinson's (1995) definition of history: "History as we know it is disciplining of empathy by scholarship" (p. 12).

The bracketing interview is unique to Pollio's method and provides a process through which preconceived notions as to what a phenomenon may mean are brought to the forefront of the researcher's awareness. Before any participant interviews, a bracketing interview is conducted in which a variation of the same question to be used in later participant interviews is posed to the *researcher* (Pollio et al., 1997; Williamson & Pollio, 1999). In this case, a question might be: "What was it like for you to observe a person handle a serpent?" This careful process

assists the researcher in becoming aware of and bracketing personal biases, promotes the development of empathy with participants, and allows for the phenomenon of interest to unfold in its own light in later phenomenological interviews with participants. The immediate issue of importance for the bracketing interview here concerns the specific meanings the researcher brings to the phenomenon of study. Although it is impossible to bracket one's presumptions entirely, what is possible is to keep them in the forefront of awareness so as to enable the researcher to be mindful of his or her presuppositions when conducting interviews with participants.

Once a bracketing interview has been completed, the way is cleared for conducting a phenomenological interview with a participant that is aimed at gaining a first-person description of the particular lived experience under investigation (Pollio et al., 1997). The interview is unstructured and open-ended, and begins with the initial question as mentioned above. For example, an investigator concerned about the experience of handling serpents might pose the initial interview question in the following way: "Can you think about a time that you handled a serpent and describe it in as much detail as you possibly can?" In charge of the interview, the participant, who is considered an expert on his or her experience, proceeds to carefully describe a past experience. The focus is always upon the "what" of the experience and never the "why." Follow-up questions such as, "What was that like for you?" or "What was going on with you at that moment?" are asked by the researcher only for the purpose of clarifying the descriptions rendered by participants as they reflect upon their experience. Hence what is known of the experience, as contained in participant descriptions, reveals what is meaningful to the person, and such meanings are eventually characterized as themes, which are later derived, as we shall see, through an interpretive process. It is important here to note that one ought not judge the data derived from Pollio's phenomenological method by criteria appropriate to measurement-based empirical work, but allow phenomenology and empirical work to illuminate what they can about the phenomena under investigation—in this present case, various meaningful experiences within the serpent handling tradition. The material derived from phenomenological interviews supply a rich data source for interpreting the meaning of the phenomenon under study. This raises the question of hermeneutics.

Hermeneutical Considerations: Interpretation of Phenomenological Interviews

Ultimately our focus is upon the meaning of experience. Meaning is an inherently human phenomenon and the question of final interpretation is ever open-ended and negotiable (Belzen & Hood, 2006; Pollio et al., 1997). Once a phenomenological interview has been completed, the material is transcribed verbatim into textual form (a protocol) that can be both privately and publicly read. Interviews are read aloud and analyzed for meaning. The analysis includes a group interaction by researchers trained in dialogical procedures. This technique is unique to the procedures developed by Pollio at the University of Tennessee, Knoxville (Williamson & Pollio, 1999).

Concern with presuppositions about the phenomenon is essential throughout the entire research process, most especially during its interpretive phases. As each text is read aloud, group members are available as accountability partners to point out reactions to the unfolding text that seem to derive from personal bias and not from the text. In this way, preconceived theories and presumptions are noted, and taken into account, so as to allow the meaning of the phenomenon as presented in the text to emerge. There is an irony in that this method echoes the challenge of those within the fundamentalist tradition to interpretations of the Bible: "Do you have Bible for that?" Before any interpretation is accepted, it must meet the approval of all group members. It is always possible that dissenting opinions or reservations reveal some glimpse of the participant's experience yet unclear to the group. As group dialogue continues, such differences are freely considered and discussed until a common understanding of the protocol is reached. Again the irony is that this method parallels serpent handling churches which cluster together based upon shared understandings of scripture. Those who cannot agree simply move on to form their own church with their shared understanding of scripture.

Unique to Pollio's method is the use of hermeneutic interpretations beyond an idiographic description to produce a "global meaning" or a "nomothetic thematic description" based upon several interviewees who collectively exhaust the meaning options (Pollio et al., 1997). The process of considering these descriptive themes as they emerge with consistency and variation across protocols is an empirical procedure that compares with Husserl's personal and reflective use of "imaginative variation." As Belzen and Hood (2006, p. 19) have observed of hermeneutical methods in general, they are open-ended and ultimately depend upon human

judgments. However, the critiques of hermeneutical and phenomenology methods are inappropriate here as we explore the use of the new paradigm that is multilevel and interdisciplinary, which we take partly to mean methodological pluralism. How does Pollio's technique aid in deepening our understanding of serpent handling?

Applications of Phenomenological and Hermeneutic Methods to Serpent Handling

Handling Serpents. First, with respect to serpent handling, interviews with 17 handlers covering 105 handling events revealed a powerful and meaningful thematic structure (Williamson, 2000). Four themes emerged: (1) "Wanting to do," (2) "Death," (3) Connection with God, and (4) "Fear"/"Victory." While we cannot do justice to the richness of the meanings here, we can briefly note each.

"Wanting to do" is the desire and sense that Mark 16:18 is not only a belief, but also a call to obedience. Handlers reflexively are aware of both text and desire as they are inclined by faith and, for some, by anointing, to move either to take a serpent from another or to go to the box and retrieve one for themselves.

Accompanying this sense of desire is the recognition that, in a common phrase, "there is death in that box." The notion that one needs an explanation of how handlers "master" or "manipulate" serpents when handling not only is unnecessary, given our discussion of the probability of bites discussed above, but blatantly false as each handler is keenly aware that in the very act of handling he or she could at any moment die (Hood, 1998, 2000).

The recognition (not fear) of possible death is balanced by the sense of connecting with God. The faithful, as well as the anointed, handle by belief that God demands this of them. Thus, regardless of the outcome, handlers note, "The Word is still the Word."

Finally, each act of handling that is done with impunity arouses both a sense of fear and of victory. Otto's sense of the response to the Holy is echoed in the actual reality of handlers who take up serpents in trepidation and often are able to put them down with not simply a fascination, but a sense of victory. Literally in each case when a serpent is successfully handled there is victory over death (Hood & Williamson, in press).

The Anointing. We have also applied Pollio's method to the experience of the anointing (Williamson, Pollio, & Hood, 2000). From the 17 interviewees described above we selected 11 who had described handling

by the anointing. We sought the thematic structure of the meaning of the experience, which can be briefly described as follows:

The experience of anointing begins primarily with feeling the moving of God upon the person. This is felt in terms of various body sensations, but always includes a sense that God is taking control of the person. The sense of control often includes the hearing of God's directive voice. With this experience, there is a profound sense of empowerment that infuses a feeling of protection from all harm, combined with a feeling of being sufficiently empowered to do the will of God at the present moment, which is to handle the serpent. This experience is such that the person feels drawn away in varying degrees and no longer feels fully present to the immediate surroundings, date, or time; yet the person feels a flow that radiates through contact with others as they come into awareness. Indescribably good feelings—variously approximated as a high, joy, peace, love, and victory—are felt from the onset of the anointing and continue to linger after the experience lifts.

This experience is close to what some have argued is a trance state, common both to glossolalia and serpent handling. However, handlers themselves do not use such language, and our approach avoids asking whether or not the anointing is a trance state in favor of the recognition that how one narrates this experience is integral to its understanding (Smith, 2003). Thus, the anointing is narrated here, as for all handlers, in a distinctive religious context from which it derives its meaning.

Near-Death Bites. Finally, with respect to handling in general and by anointing in particular, we are never far from themes associated with death. In our final interview study we identified 13 individuals who had suffered severe serpent bites and had anticipated their impending death (Hood & Williamson, 2006). Our interest was in part how near-death experiences, encountered from a religious ritual known to cause death, would be structured with meaning. Again, we cannot present the richness of the data here, but only summarize the thematic structure of meaning that emerged from the interpretation our interviews.

We identified four themes that form the thematic structure of near-death experience as a result of being bitten during this ritual. As a description:

This structure involves first and foremost a feeling of being “hit” by the serpent in such a way that the strike is experienced as extremely serious, likely to maim or kill. This is followed by an experience of overcoming fear with “victory”—felt first as a sense of losing life in the face of doubt, and later as a confidence that, whatever the outcome, it is God's will. In all cases, there is severe physical suffering in terms of pain, swelling,

blurred or lost vision, breathing difficulties, and loss of consciousness in varying degrees. Next, anticipating death, the stricken believer backtracks over his life, contemplating both the reason for and the finality of his bite. Fear of the anticipation of death may be relieved by visions of luminous places in which the believer is contented to remain. Ultimate victory is experienced in the eventual acceptance of both the serpent bite and its outcome as God's will for the obedient believer, whether it means full recovery, maiming, or death.

It is only with methods such as we have employed in these three studies that the meaningfulness of serpent handling to its believers can be uncovered. Neither "bizarre" nor pathologically driven, neither a function of an impoverished people nor of ignorance, handling, by anointing or not, is a powerful experience whose meaning matches the intensity of the practice in the face of real risk.

Hermeneutical Methods Applied to Extemporaneous Sermons. It is common within religious studies to analyze the sermons of various religious traditions (Witten, 1992). We decided to use the hermeneutical techniques described to analyze extemporaneous sermons. Here there were no interviews, but the same hermeneutical method was applied to the extemporaneous sermons as if they were interviews (Williamson & Pollio, 1999).

To collect these sermons, a serpent handling congregation in northern Georgia was attended on various occasions from January 1995 through March 1996. During this period, segments of the services that included extemporaneous sermons were videotaped by permission. From the tapings, 18 sermons that were most descriptive of serpent handling were selected for study. Each sermon had been delivered while handling or just after handling a serpent, and more than one sermon was given by some handlers. All 11 of the preachers were male. (Females are not allowed to preach in the serpent handling tradition.) The preachers included the pastor of the Georgia congregation and various other ministers who had practiced the signs the night of their sermons. As is typical of serpent handling churches, sermons were impromptu and free associative in nature, lasting from a few minutes to over an hour in length. Each sermon was carefully transcribed verbatim, and the resulting text was used to obtain our thematic analysis.

Since most sermons were relatively brief, lasting from five to ten minutes, themes were not required to appear across all sermon protocols, as is the usual requirement for interpretive analysis (e.g., see Pollio et al., 1997). For present purposes, it seemed reasonable to require themes to

have been noted in over 75% of the sermons considered. In addition, any given thematic meaning defining the experience of serpent handling, derived from this procedure, could not be contradicted by the content of any sermon for it to be considered as critical to the meaning of the overall practice. The thematic structure of the meaning of serpent handling that emerged from our analysis is as follows:

Handling a serpent is an experience of the body being moved on by a pattern of special meanings within the broader context of Pentecostal worship. When feeling a particular moving of God in or on their body, persons take up serpents within that sacred context, consciously confront death and thereby come to encounter a renewed vitality in their present spiritual life. In taking up the serpent, the person feels a particular relationship, or specialness, to God that gives him or her distinction from all others who refuse the scriptural mandate. In addition, the person experiences an empowerment of true knowledge that is reflected in a transformed significance of self, in spiritual understanding, and in an enlightenment of the good way of life reserved for those who take up serpents. Finally, the experience of taking up serpents culminates in a “joy unspeakable and full of glory,” an ineffable feeling that escapes precise description but was sometimes referred to as “a bubbling in my soul.”

Based on the rhetoric of sermons, the phenomenon of religious serpent handling is a powerful, direct body experience charged with personal and religious meaning for the people who engage in this practice. The thematic structure that emerged from extemporaneous preaching parallels what we obtained from interviews of handlers.

OTHER QUALITATIVE METHODS APPLIED TO MUSIC

In the Pentecostal tradition in general, and in the serpent handling tradition in particular, music plays an integral role. Music helps facilitate religious experience. Also within the serpent handling tradition the lyrics of songs often parallel the messages that preachers deliver as their sermons. However, given the number and range of songs sung, the hermeneutical method used in the qualitative studies above seemed strained. Again, accepting methodological pluralism we used a variety of qualitative methods to explore the role of music in serpent handling services (Hood & Williamson, in press; Williamson & Hood, 2003). Here we focus upon three simple examples of part of our qualitative study of the music of serpent handlers.

Almost all of videotapes of church services housed in the Hood-Williamson Research Archives for the Serpent Handling Holiness Sects, Lupton Library, at The University of Tennessee, Chattanooga contain music, often instrumental solos as well as individual and collective singing. We selected 88 different services from a collection of videotapes that spanned seven years.

The videos included meetings of individual congregations who had gathered for local worship and multiple congregations who had gathered for homecomings. Homecomings are events at which several congregations come together to support a single church, usually over three days, beginning with a Friday night service and ending with a shared meal after a late Sunday morning service. Our attendance at these services involved multiple visits to six different congregations in four southern states: three churches in north Georgia; one in north Alabama; one in eastern Kentucky; and one in West Virginia. Among homecoming services used in this analysis, crowds ranged anywhere from 30 to 120 believers. Multiple visits, diversity of locations, and different types of service contributed to a large database of songs with rich variety of form and content. Here we simply wish to report some descriptive data, present a mini idiographic analysis and then summarize the meaning of music in the language of the handlers themselves.

A descriptive analysis of the recorded music data from these 88 services found a total of 1,114 songs (this number reflects the omission of instrumentals—that is, the performance of a musical selection without singing). The average number of songs per service was 12.66, and most services (about 68%) included a number that ranged from 8.34 to 16.98 songs ($SD = 4.32$). The largest number of songs in a single service was 24, whereas the least number was 4. There was no service that lacked music. Often the number of songs is simply a function of the length of the service.

To gain a sense of the temporal importance of music in a typical service, an individual church service was selected and analyzed as an idiographic exemplar. Here we will note some objective indices of the amount of time devoted to singing. The service was attended by 19 people (most of whom were children) and lasted 3 hours and 14 minutes from beginning to end. Congregants sung 16 songs. These songs were accompanied by as many as 3 guitarists (all males) at different times. The songs totaled 53 minutes and accounted for over 27% of the time spent in service. Among the singers were 3 adult males who

sang a total of 8 songs, and 5 females (2 of them children) who also sang 8 songs. The congregation often would join in with the person(s) when singing. The average time per song was 3 minutes and 20 seconds, whereas the range of time for songs was from 40 seconds to 5 minutes and 45 seconds. The duration of songs is typically longer at homecoming services than at individual church services such as this. For example, it is not uncommon for a song at homecomings to last 10 minutes; one of the most popular songs among serpent handling churches is "Little David, Play on Your Harp." It was sung at one homecoming for 25 minutes. At well-attended homecomings (over a hundred people), more singers are present, and believers tend to sing a greater number of songs for longer periods of time in anticipation of a highly emotional collective worship.

When believers describe the meaning of music they often do so in perceptive ways. One woman noted, "Music in church is a way of beginning a service, and getting your mind focused on God so we can praise and worship him as he wants us to." Music provides a way for believers to connect with their God. And as stated by another believer, "The song's text is the word of God" (Schwartz, 1999, p. 41), which makes the theme of the song important in that connection. Given this, it seems that a categorization based on themes of songs is useful for understanding something about the role of music in that connection without being reductive, as some (Moore, 1986; Young, 1926) have been. Among the 10 categories that emerged from our analysis, nearly 70% of songs in our sample were represented in three groups: Comfort/Mercy/Deliverance, Heaven, and Witnessing/Evangelization. The way in which believers experience their lives and the nature of their particular situation at the moment seem relative to the music (Van Hoorebeke, 1980). As believers experience the need for comfort, mercy, or deliverance, words of songs that relate to these needs afford connection with God in such a way that comfort, mercy, or deliverance is experienced. If need for becoming more focused on heaven and its rewards is present, music with that type meaning allows a connection with God such that eternity becomes experienced as a present reality. Since serpent handling churches do little in terms of organized evangelism outside the church, they oftentimes sing ballad-type songs that include words that resonate with their own past experiences of being woefully lost as sinners and delivered by God's love and grace; such heartfelt singing bears witness of God's presence in the service and invites conviction upon the lost who may be present. As one believer put it, "The music

fits your mood,” and by doing so, provides a doorway through which a spiritual connection with God can be experienced as a reality.

A FINAL INTERPRETATIVE EXPLORATION: PSYCHOANALYSIS AND EVOLUTIONARY PSYCHOLOGY

A commitment to methodological pluralism cannot refrain from exploring the immense influence of a variety of psychoanalytic and object relations theories that have been so culturally influential in bringing a particular version of social sciences across disciplines and to the general public. For some time the most influential book on serpent handling was La Barre's (1962), *They Shall Take up Serpents*. La Barre was an anthropologist, heavily influenced by classical Freudian (Oedipal) theory. It was La Barre who asked the obvious rhetorical question, the emphasis being his: “When is the serpent *not* a phallus?” (La Barre, 1962, p. 74).

We were intrigued by this question and explored applying Freudian theory to the serpent handling tradition. Accepting a symbolic significance to the serpent, it was obvious from folk tales and other cultural sources that, in the cultural imagination, body symbolism is associated not only with the phallic nature of serpents, but also with the vaginal (menstruation attributed to a serpent bite) and, most crucial, with death and resurrection (circumcision indicative of immortality as the penis is modified to mimic the shedding of the skin of the serpent, depicting its mortality). This latter point—of death and resurrection—gave us a clue to the power of the central ritual of serpent handling churches within a Christian context.

There is considerable evidence that if both primates and humans are not “hard wired” to fear serpents, they can easily be conditioned to fear them (Joslin, Fletcher & Emblem, 1964; Mineka, Davidson, Cook, & Deir, 1984; Mundkur, 1983). This obviously has survival value within an evolutionary psychology perspective. Thus, not only does the serpent *symbolize* immortality in the context of what can be argued is the central message of Christianity—death and resurrection—but the serpent also is an explicit sign of the probability of death as we have documented in our qualitative studies above. Thus, the power of the ritual of handling is understandable: the sign value and the symbolic value of the serpent meet in a ritual that not only symbolizes death and resurrection, but, each time it is performed successfully, death has in

fact been overcome. Outsiders fail to appreciate the central awareness of the power of the serpent to maim and kill that is on the mind of all who handle. With respect to the serpent, we think that the merger of sign and symbol also accounts for the close parallel that can be drawn between Otto's notion of fear and fascination as a response to the numinous and the fear and attraction that serpents hold both for those who do and for those who do not handle them. However, for those who do handle, this high-risk ritual is, as we have argued above, integral to a tradition that seeks not endangerment and death, but eternal life, as promised to "them that believe" and empowerment to follow the signs, including the imperative to take up serpents.

OVERVIEW AND SUMMARY OF THE NEW PARADIGM

The call for a new paradigm is loud and clear. It is not a call to simply more sophisticated measurement-based experimental or survey studies. They can be relevant, but only within limited contexts and with respect to particularly phrased questions. They are no gold standard to be applied to all investigations. Interdisciplinary, as we have tried to demonstrate, can mean not only cooperation among disciplines, but also the use of a variety of often discipline-favored methods by a single investigator or a team of investigators whose location within a particular "discipline" is both historically contingent and likely dated in terms of its usefulness, as we stated at the beginning of this paper. Likewise, the use of multilevel considerations means that the diversity of methods and approaches at various levels of abstraction is necessary to begin any study of religious phenomena in their immense complexity. Our study of serpent handlers involved us in archival research; hermeneutical explorations of textual criticism of the Bible; the study of court rulings that upheld (and continue to uphold) bans on handling; ethnography linked to videotapes that helped document part of our database and are archived for other scholars to use;⁶ phenomenological interviews analyzed in terms of a hermeneutical method that reveals the thematic structure of meaning of experience; and the extension of this hermeneutical technique to the analysis of extemporaneous

⁶ The Hood-Williamson Research Archives for the Serpent Handling Holiness Sects, Lupton Library, at The University of Tennessee at Chattanooga contains almost 200 videos, converted to DVD. Included are all the interviews referred to in this paper.

sermons. Likewise, refusing to apply one qualitative technique blindly, we found that the role of music in serpent handling churches was best illuminated by some simply descriptive data, an idiographic study of one service, and the exploration of believers' own description of the role and meaning of music in their tradition. Committed as we are to methods that explore the meaning of serpent handling from personal and cultural perspectives, we did not ignore the value of psychoanalytic and evolutionary psychological theories to link the symbolic and sign value of serpents that further does justice to the power of the serpent to elicit genuine religious experiences. Finally, we found quasi-experimental studies useful both to reveal prejudicial views involved even in the reasoned rejection of serpent handling and to demonstrate that attitudes can be changed such that even those who do not believe in serpent handling can come to respect the sincerity of those who do and their right to practice what they believe. Thus, the call for a new paradigm is welcomed by us—it may not be exactly a “paradigm” in the philosophical sense, but the call is taken by us to mean being open to levels of interpretation and to a variety of methodologies that hopefully we have illustrated to be useful in our ongoing study of the contemporary Christian serpent handlers of Appalachia. An extensive expansion of this talk and paper is in our forthcoming book, *Them That Believe: The Power and Meaning of Christian Serpent Handling*.

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MECHANISMS IN THE RELATION BETWEEN RELIGION AND HEALTH WITH EMPHASIS ON CARDIOVASCULAR REACTIVITY TO STRESS

*Kevin S. Masters**

ABSTRACT

There is evidence of a relation between religiosity and health. Some of the strongest support for this relationship is found among markers of cardiovascular functioning and related pathologies (e.g., primary hypertension). The specific behavioral, social, and psychophysiological mechanisms that influence this relationship have not been thoroughly tested in empirical studies. A general model of mechanisms through which religiosity and spirituality may influence health is presented followed by specific elucidation of the possible role of cardiovascular reactivity to stress as a link between religiosity and cardiovascular functioning. Preliminary supportive empirical evidence for this pathway is also provided. Investigators are encouraged to use this model as a guide when conducting investigations on religion and health and to specifically explore how religion may influence psychological processes that in turn influence cardiovascular functioning as a response to varying stressors.

KEY WORDS: religion, health, cardiovascular reactivity, religious orientation, primary hypertension

Through the ages there has been interest in the questions of if and how religious practices and beliefs influence health. In this article I will briefly discuss the scientific findings that address these questions and will suggest that there is sufficient evidence of a relationship between religion and health. Then, focusing specifically on hypertension as one health outcome, I will propose a model to investigate the mechanism (i.e., how religion influences health) of cardiovascular reactivity as related to religiosity and cite preliminary research in support of this model. Finally, proposals specifying the nature of subsequent empirical investigations will be offered.

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Before doing any of this, however, a statement of philosophy may be in order. There are those representing both the religious and scientific communities who object to this line of research. Religious individuals sometimes criticize this area of scientific inquiry as an attempt to “explain away” religious phenomena or reduce them to purely naturalistic-mechanistic constructs, robbing them of their supernatural and spiritual values. For their part, scientists are sometimes suspicious that research on religion and health is conducted by biased individuals with a pre-existing position that they are determined to support with empirical data, namely that religion relates to or even produces good health outcomes. (Of course we know this type of bias never exists in other areas of research)! Further, hard nosed empiricists, more past than present, have objected that phenomena such as religious experience or belief are simply beyond the scope of scientific inquiry.

In my opinion these perspectives are myopic. Working within a bio-psycho-social-spiritual framework, I view human experience as appropriate for investigation at numerous levels. These levels can be ordered based on current conceptualizations and foci of research questions from disciplines ranging from sub-atomic physics to theology, but *none is superior to or explains away the others*. None is “more real,” they simply address different questions and aspects of experience. For example, findings in neuroscience that certain regions of the brain are active when individuals think about God may have significant heuristic value for investigators in neurology, neuropsychology, and psychology, as well as scholars of philosophy, and theology, with each offering their own perspective on the experience and each, potentially, informing the other. It is in the context of this interactionist perspective that I discuss the nature of religious variables and how they may be related to health outcomes.

Religion and Health

Evidence of a Relation. A growing body of scientific literature has emerged suggesting that, indeed, there is a relationship between religion and health. Many of these findings come from large epidemiological studies. For example, Hummer and colleagues (Hummer, Rogers, Nam, & Ellison, 1999) used a nationally (US) representative sample of 21,024 individuals from the 1987 National Health Interview Survey. They were subsequently matched with the Multiple Cause of Death file in the National Death Index through 1995. Life expectancy was calculated as an estimate at age 20 based on religious attendance (divided into

four groups: never attend, attend less than once a week, attend weekly, attend more than once a week). Results demonstrated that for the overall population the life expectancy gap between those who attended more than once a week and those who never attended was over seven years; similar to the female vs. male and Caucasian vs. African American gaps. Further, when only African Americans were considered the gap was nearly 14 years. One could imagine that if this were an intervention study the ethical oversight panel would stop the research because it would be considered unethical to not offer the intervention (religious attendance) to the control group! Though the exact width of the gap varied by cause of death, the trend was the same across all reported causes. Further, when variables such as demographics, socioeconomic status, health selectivity, social ties/support, and health behaviors were entered into a regression analysis the effect for religious attendance on mortality, though reduced, was still significant. With all variables in the equation the risk of death for those who never attended religious activities was 50% higher than the risk for those attending more than once a week. Similar findings were reported for a group of 5,677 older adults during a five year period in the Cache County (Utah) Study on Memory and Aging (Hart, 2001).

McCullough, Hoyt, Larson, Koenig, and Thoresen (2000) took a somewhat different approach to addressing the question of religious involvement and mortality. They conducted a meta-analysis of 42 studies and found that religious involvement was significantly associated with lower mortality (odds ratio = 1.29; 95% CI: 1.20–1.39) indicating that religiously involved individuals were more likely to be alive at follow up than people who were not as religiously involved. Though several variables moderated the relationship (e.g., gender) the association was robust and of the magnitude expected for psychological factors that have been associated with mortality. Gillum (2005, 2006, in press) has conducted a series of analyses of large national databases yielding several findings. In a sample of over 18,000 adults he found that frequency of attendance at religious services was associated with lower smoking prevalence by both self-report and serum cotinine measures (Gillum, 2005). He also found that religious attendance in older women was related to greater leisure time physical activity but there were no relationships for men or younger women (Gillum, 2006). Finally, Gillum (in press) offers evidence of a positive association between prevalence of obesity or overweight and religious service attendance, however this was explained by sociodemographic and health variables.

The findings of Gillum, and the fact that moderators have been found in other investigations, point toward the next question. If religion, or aspects thereof, has/have health effects, what are the mechanisms whereby religion “gets under the skin” and influences health relevant physiological functions and biological structures? Several theoretical pathways and mechanisms have been proposed. These include: 1) adherence to religiously based behavioral practices with health consequences (e.g., abstinence from tobacco and alcohol); 2) early detection of disease and improved adherence to medical regimens based on religious beliefs regarding the sacredness of the body (e.g., the belief that the body is the “temple of the Holy Spirit”); 3) psychological effects resulting from religiously based social support; 4) the influence of religious ritual and rites on emotional adjustment; 5) the effects of belief systems or religious orientation motivations on psychological and physical functioning (e.g., autonomic nervous system, psychoneuroimmunology, cardiac innervation); 6) genetic factors; and 7) superempirical or ‘psi’ influences (George, Ellison, & Larson, 2002; Hill & Butter, 1995; Koenig, 2001; McIntosh & Spilka, 1990; Oman & Thoresen, 2002).

Basic Model of Pathways. Based on the above considerations, I propose the model depicted in Figure 1 as a descriptor of these possible pathways. This model provides a simple overview of the basic pathways that have been proposed to account for relations between religiosity or spirituality (R/S)¹ and health outcomes and will serve as a foundation to build upon as we move through the discussion. R/S factors are seen as having indirect effects on health outcomes via social support, behavior, and psychological factors and one additional pathway allows for a direct effect of R/S on health. Evidence for the effects of R/S via the indi-

¹ There has been significant discussion over the proper use of the terms religiosity and spirituality and how they may be both similar and different (e.g., Hill & Pargament, 2003; Hufford, 2005; Miller & Thoresen, 2003; National Institute for Healthcare Research, 1998; Pargament, 2002). Most agree that there is substantial overlap between the two constructs in that both deal with the non-material aspects of life and are concerned with that which is sacred or transcendent. They differ somewhat in that religiosity is more likely to connote affiliation with a formal institution whereas spirituality has more of an individual, non-institutional, sense of the search for the sacred. However, those who consider themselves religious almost uniformly also consider themselves spiritual whereas there may be a larger set of people who consider themselves spiritual but not religious. These differences are recognized and curious readers may choose to conduct their own literature review on the current existing propositions concerning these terms as this paper will not focus on this discussion. Consequently, in this manuscript the terms are used interchangeably staying with the popular use of R/S as the referent for both.

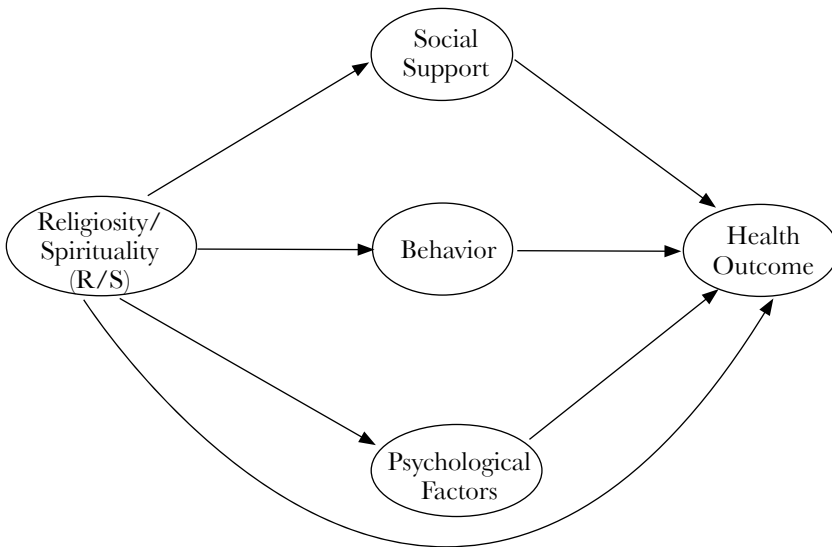


Figure 1. *Basic model of religiosity and health.*

rect pathways is accumulating whereas evidence via the direct pathway remains a possibility but one that is likely to render little agreement in terms of what constitutes appropriate or conclusive evidence.

Although the model is simple, the reality is much more complex. For example, when considering the R/S—behavior—health outcomes pathway one might be led to question what aspects of R/S concerning what behaviors as they influence what health outcomes are important? R/S itself has been proposed to be a multidimensional construct (Fetzer Institute/National Institute on Aging Working Group, 1999). Further, there are obviously a number of behaviors (e.g., dietary considerations, exercise, alcohol consumption) that could be considered to be impacted by R/S factors and that also impact health outcomes. These behaviors differ from one another and are only loosely related to each other. Finally, health outcomes cover a broad spectrum of variables that influence both quality of life and mortality. So this apparently simple figure acquires magnitudes of complexity upon rather casual reflection.

It is also useful to further expand the model. Figure 2 demonstrates variables that may be thought of as confounders or perhaps moderators of the R/S—health relationship. These are variables that have relationships, often predictive and perhaps causal, of R/S factors

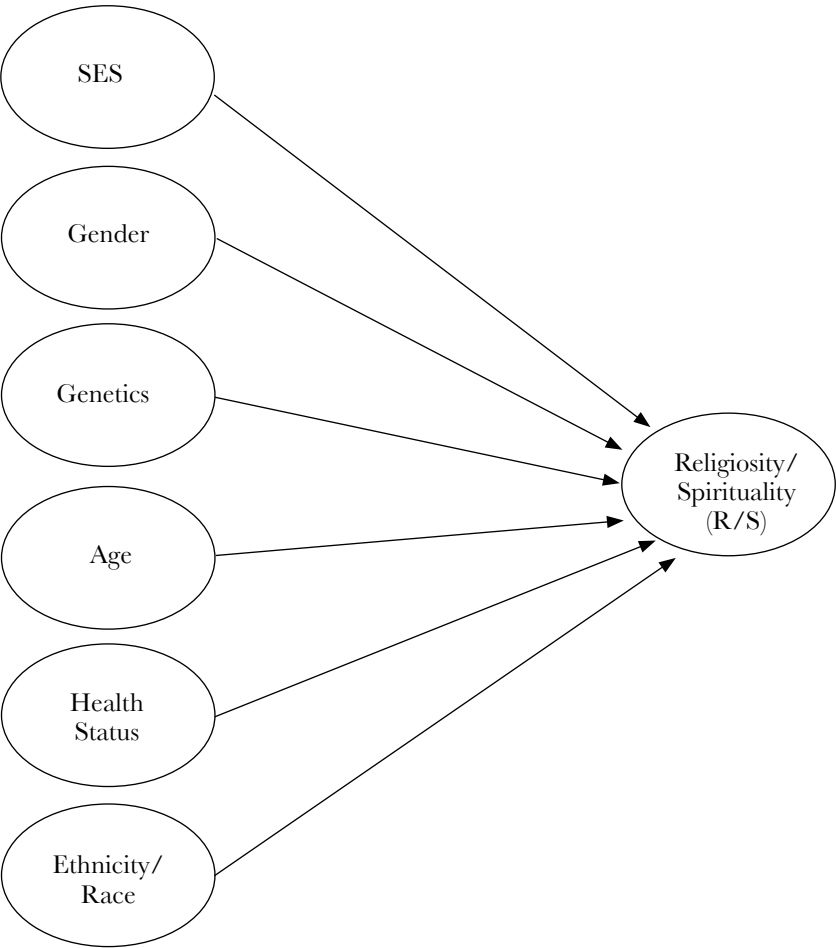


Figure 2. *Model of factors that influence the development of religiosity.*

themselves. For example, females, African Americans, those with lesser incomes, and older adults are consistently shown to have higher levels of religiosity than do males, Caucasians, those with more income, and younger persons, respectively. Health status is a particularly intriguing confounder/moderator to consider in light of the fact that it is health outcomes that are, ultimately, the end point of this model. In other words, a pathway could start with health and progress through R/S to one of the mediators and then end in health again! This might suggest that health is causing health; a rather tautological statement and a weak

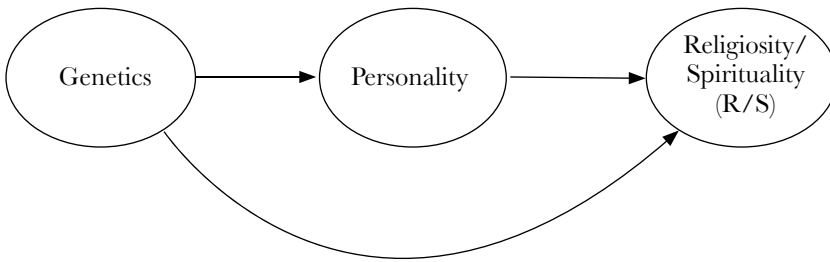


Figure 3. *Model of the genetics to personality to religiosity pathway.*

one upon which to develop a model of the relationship between R/S and health. An example might be informative.

It is known that when individuals are faced with receipt of a serious diagnosis (e.g., cancer or HIV/AIDS) a notable percent of them, for at least a time, raise their level of R/S as indicated by increased frequency and intensity of prayer and/or increased involvement with religiously affiliated organizations (e.g., Cotton et al., 2006; Ironson, Stuetzle, & Fletcher, 2006). In this instance, a health variable precipitates change in both R/S status and related behaviors. These, then, may also impact health outcomes via increased social support, changed attitude (e.g., increased hope), or perhaps relaxation accompanying prayer. So in this way health may be a precipitant that influences R/S and, ultimately, health outcomes but it is not simply a redundant path of health predicting health.

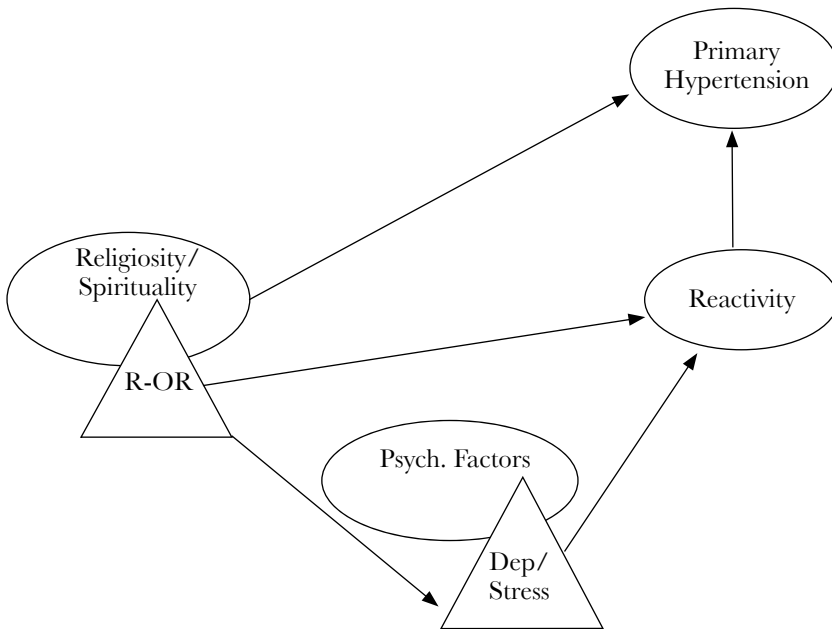
Genetics are another interesting confounder/moderator. Some authors have noted that certain religious groups tend to inter-marry and thus the resulting gene pool may become rather circumscribed. Consequently, to the extent that important health relevant genotypes are disproportionately present in these groups one may consider genetic factors as an influence on both R/S and health (Koenig, 2001). Another way of looking at the genetics—R/S relationship, however, may be through the indirect pathway of personality (see Figure 3). Basic temperamental or personality variables are known to often have genetic foundations to them (e.g., Kagan, 2005; Kagan, Reznick, & Snidman, 1988; for a superb example of one line of systematic research on this topic review the over 20 years of studies by Jerome Kagan). To the extent that these personality characteristics influence R/S they should be considered though, interestingly, there is some evidence that religiousness may be separate from the Five Factor Model of personality

(Saucier & Goldberg, 1998). Nevertheless, these “third variables” present formidable obstacles to strong scientific discovery pertaining to R/S and health and often lead scholarly reviewers to question whether the R/S effects are “really only” social desirability or some personality characteristic. These reviewers have a reasonable point and one that investigators need to consider, though I admit I wish other areas of research were as consistently held to this same high standard. Nevertheless, one obvious practical suggestion for anyone who plans to do research on R/S and health is to include measures of personality and social desirability in order to, at least to some extent, account for their effects.

The remainder of this manuscript will focus specifically on the pathway linking R/S—psychological factors—health outcomes. Consequently, the R/S—social support—health outcomes and R/S—behavior—health outcomes pathways will not be fully explicated. It is acknowledged that both are much more complex than they are presented in this article. They deserve thorough examination in their own rights and other investigators are encouraged to explore them in both theoretical and empirical terms.

In order for the R/S—psychological factors—health outcomes pathway to be potent two things must be true: 1) R/S variables must impact psychological variables and 2) these psychological variables must impact health outcomes. As before, the relatively simple depiction of this path hides its complex nature. Again, each of the components of the path is itself multidimensional. One could, for example, hypothesize that R/S factors may increase hope and optimism which can have effects on health outcomes. Alternatively, taking a different approach, one might suggest that aspects of R/S reinforce perfectionism which could lead to anxiety and subsequent negative health outcomes. Indeed, many such formulations are possible.

The particular R/S variables to be considered along this pathway for the present purposes are intrinsic and extrinsic religious orientations and how they might be related to psychophysiological (i.e., cardiovascular) reactivity to stress. In order to investigate this pathway in more detail I will present evidence relating; 1) cardiovascular reactivity in response to stress with health outcomes, particularly essential hypertension; and 2) relations between religiosity and hypertension. I will then offer a rationale for developing the hypothesis that religious orientation may influence reactivity to particular stressors and will subsequently present initial evidence of this relationship as well as further development



R-OR = Religious Orientation; Dep/Stress = Depression and Perceived Stress; Triangles represent aspects or dimensions of the associated construct. Thus, religious orientations are dimensions of religiosity/spirituality and likewise depression and perceived stress are two of many possible psychological factors.

Figure 4. *Model incorporating psychophysiological reactivity, psychological, and religious factors and health.*

regarding possible psychological mediators of it. Figure 4 models these relationships.²

Cardiovascular Reactivity and Hypertension

Primary (aka. essential) hypertension (PH) is high blood pressure of unknown origin. The American Heart Association currently utilizes the classification system in Table 1. Systolic pressure (larger, first number) is the pressure measured in the arteries when the heart is contracting whereas diastolic pressure (smaller, second number) is the measure

² For simplicity of presentation the entire figure is not presented each time, however, Figures 2, 3, and 4 are integrated, i.e., can be conceived as adding on to Figure 1. Figure 3 also adds on to Figure 2.

Table 1. *American Heart Association the classification system*

Normal blood pressure	$\leq 120 / \leq 80$
Prehypertension	120–139 / 80–89
Hypertension—Stage 1	140–159 / 90–99
Hypertension—Stage 2	$\geq 160 / \geq 100$

during the resting heart phase. PH substantially increases morbidity and mortality from coronary heart disease, the top cause of death in western countries. However, PH also increases the risk for cardiovascular accident (stroke), congestive heart failure, left ventricular hypertrophy (a condition enlarging the heart and leading to inefficient pumping), and end-stage renal disease. For these reasons, and because PH is relatively symptom free, it has been referred to as a “silent killer.”

Despite increased awareness of PH and improvements in prevention, detection, and treatment PH remains a major public health problem. Analysis of the 1999–2001 National Health and Nutrition Examination Survey (NHANES) demonstrated that 29.7% of the participants had PH, a 3.7% increase from the 1988–1991 NHANES (Hajjar & Kotchen, 2003). It is estimated that 50 million Americans have PH and the worldwide prevalence is thought to be as high as one billion individuals. Approximately 7.1 million deaths per year are attributable to PH (Chobanian et al., 2003). Even with improvements in detection, epidemiological data suggest that 30% of adults are unaware of their PH, 40% of people with sustained high blood pressure are not treated, and two-thirds of treated PH patients do not show adequate control of their blood pressure (Chobanian et al., 2003). Further, a disappointingly high 90% of the diagnosed cases of high blood pressure are classified as PH indicating that the cause of the hypertension remains a mystery.

Nevertheless, there are many known risk factors that predict the development of PH including advancing age, ethnic status (greater prevalence in African Americans), obesity, women taking birth control pills, family history, low levels of physical activity, and alcohol consumption. Those with diabetes mellitus, gout or kidney disease are also more likely to develop high blood pressure. There is mounting evidence that certain psychological variables predict PH possibly via their intimate connection with the central nervous system (CNS). The CNS mediates activity of the sympathetic nervous system (SNS) and the SNS may contribute to vascular changes that underlie PH. The recurrent activation

hypothesis (or reactivity hypothesis; Krantz & Manuck, 1984) suggests that sustained SNS hyperreactivity in response to stressful stimuli over decades may contribute to vascular changes that produce the elevated peripheral resistance characteristic of those with PH.

A closer examination reveals that the reactivity hypothesis currently takes two forms. The stronger form, noted above, views cardiovascular reactivity to stress as a causal agent in the development of PH and other cardiovascular diseases (e.g., Treiber, Kamarck, Schneiderman, Sheffield, Kapuku, & Taylor, 2003). This version postulates that heightened cardiovascular and neuroendocrine responses to stressful stimuli may actually cause or at least exacerbate disease processes. Although the specific physiological pathways accounting for these chronic changes await precise elucidation, it is known that inflated responses to stressors initiate excessive sympathetically mediated increases in heart rate, blood pressure, and stress-related hormones (i.e., cortisol and catecholamines) along with the release of free fatty acids and triglycerides. These factors, when experienced repeatedly over many years may, in and of themselves, lead to cardiovascular disease or the maintenance of PH (Schwartz et al., 2003). The second, or weaker, version of the reactivity hypothesis indicates that exaggerated psychophysiological reactivity to stress is a marker or predictor of subsequent cardiovascular disease but does not necessarily imply that it is in the causal chain linking stress and disease (Gerin et al., 2000; Lovallo & Gerin, 2003).

Two key assumptions of the reactivity hypothesis are that: 1) reactivity assessed in the laboratory has an acceptable degree of generalizability to reactivity in the natural setting; and, 2) reactivity is relatively stable within individuals across time when these individuals are assessed in similar contexts, making reactivity an individual difference variable. These assumptions have been challenged (e.g., Schwartz et al., 2003) and defended (e.g., Rutledge, Linden, & Paul, 2000; Sherwood et al., 1997; Treiber et al., 2003). Long-term follow-up of laboratory participants exposed to psychological stressors is necessary to confirm the relations between reactivity and cardiovascular outcomes, including hypertension, but currently these data exist in insufficient quality and quantity to make definitive statements. However, there are supportive data and a recent study by Ming and colleagues (2004) is quite exciting in this regard.

Air traffic controllers, as a group, are known to have high rates of hypertension (Cobb & Rose, 1973) and it has long been suspected that stress exposure and reactivity may play a role in the development of PH

among them. In Ming's study blood pressure reactivity to on-the-job stress was measured in a group of 218 air traffic controllers who were either normotensive or stage 1 hypertensive at time 1. They were then assessed 20 years later to determine if there was a relation between the time 1 measure of reactivity and hypertensive status. The results were impressive. Each standard deviation increase in baseline systolic reactivity was associated with a 1.7 ($p < .019$) increase in the relative-odds of developing hypertension. This increased risk was determined after controlling for age, body mass index, and clinic (i.e., time 1) systolic and diastolic blood pressure. Thus, this 20 year longitudinal study suggests that increased systolic blood pressure reactivity to work stress is associated with long-term risk of PH.

In addition to human studies, evidence for the reactivity hypothesis as it pertains to cardiovascular disease has also been found in animal research. For example, investigations with cynomolgus macaques show that high heart rate reactive animals demonstrated increased coronary and carotid artery blockage relative to low heart rate reactive animals exposed to the same challenges (Kaplan, Manuck, Williams, & Strawn, 1993).

Overall, improvements in research methods such as use of more ecologically valid stressors in laboratory studies (e.g., using interpersonal stressors; Larkin, Semenchuk, Frazer, Suchday, & Taylor, 1998; Linden, Rutledge, & Con, 1998; Waldstein, Neumann, Burns, & Maier, 1998), aggregating reactivity assessments across occasions and types of stressors and, similarly, aggregating naturalistic measures of blood pressure across these same variables have produced improved correlations between the lab and natural setting (Kamarck et al., 2003). Treiber and colleagues (2003) likewise noted that some inconsistencies in the literature might be related to differing types of stressors, lengths of follow-up, and age at time of assessment. They point out that consideration of moderator variables such as baseline levels of disease risk and type of psychosocial stress may improve precision in the reactivity hypothesis. When the important factors are considered, at this time it is safe to say that reactivity to stress *predicts* development of hypertension and it *may* be a cause of it.

Religiosity and Hypertension

To this point it has been established that: 1) religion is likely related to health status, in particular mortality; 2) hypertension is a significant

health variable; and 3) cardiovascular reactivity to stress predicts and may cause PH. Unexplored to this point is the relation between religiosity and hypertension. Is there evidence that religious variables are related to blood pressure level or the development of PH?

What follows is a brief overview of this literature and interested readers are referred to the reviews and primary studies cited below. Levin and Vanderpool (1989) provided an early review of the literature relating religion and hypertension. Interestingly, they opined that if salutary effects for religion were to be found for any health variables then they would be expected to be found for hypertension since religion is related to many factors likely to influence blood pressure. After examining the 20 studies available at the time, they concluded that religious commitment was probably inversely related with blood pressure and that certain religious denominations had lower rates of hypertension-related morbidity and mortality. Koenig, McCullough, & Larson (2001) updated this review of the literature and similarly concluded that religion was at least modestly related to lower blood pressure and lower rates of PH. The strongest findings seemed to occur when individuals were both behaviorally active in their religion (i.e., higher church attendance) and were more religiously committed (e.g., greater reading of scripture or prayer).

In a recent study (Masters, Hill, Kircher, Lensegrav Benson, & Fallon, 2004) in our laboratory we found baseline differences between individuals characterized as being intrinsically religious versus those described as extrinsically religious. In particular we found an age \times religious orientation interaction on systolic blood pressure such that among older individuals (ages 60–80 years) those characterized by intrinsic religiosity demonstrated lower baseline systolic blood pressure values than did the older extrinsic participants. No differences were found based on religious orientation for systolic blood pressure among younger participants (ages 18–25 years). It is also notable that the values for systolic blood pressure among the older intrinsic participants were below expected age based norms and were, in fact, similar to those found for their much younger counterparts. Findings for diastolic blood pressure revealed a main effect for religious orientation such that intrinsically religious participants, regardless of age, demonstrated lower diastolic blood pressure readings at baseline.

It has also been suggested that the effects of religiosity on blood pressure might be mediated by race or ethnicity. Steffen, Hinderliter, Blumenthal, and Sherwood (2001) found that religious coping was not

related to either ambulatory or laboratory based blood pressure readings in whites but was a significant predictor among African Americans. Specifically, among African Americans higher levels of religious coping were associated with lower clinic based blood pressure measures as well as awake and sleep ambulatory blood pressure readings. Koenig and colleagues (2001), based on a small number of studies, suggested in their review of the literature that religiously based social support associated with attendance at religious services may be a particularly effective mediator of blood pressure levels among immigrant groups such that those who attend more have lower blood pressure.

There are several mechanisms that may account for the religion—blood pressure relationship and the previous reviewers have considered them in some detail. They noted that factors such as heredity, behavior, social support, or psychological factors associated with either belief systems, religious ritual, or faith may play a role. Of particular interest for the present discussion is Koenig and colleagues' (2001) observation that psychosocial stress may lead to repeated blood pressure elevations that can ultimately lead to sustained hypertension. They therefore posit that any factor that can prevent or dampen reactions to psychological stress may help prevent the development of hypertension. Or as restated using the present terminology, if religiosity can reduce cardiovascular reactivity to stress then an important psychophysiological pathway between religiosity and hypertension may have been identified. In the next section I will offer a rationale for how religiosity may, in fact, be related to reduced cardiovascular reactivity to stress and will then cite preliminary data to support this hypothesis.

Religiosity and Cardiovascular Reactivity to Stress

Rationale. Religions provide their adherents with an overall cosmology that contains fundamental statements of value regarding humans and their experiences. These statements are often prescriptive and sometimes explanatory. For example, Christians are taught that relationships with both God and other people are to be characterized by love; the greatest Christian value. Christians are told, for example, to love their neighbors and even their enemies. Why? Because God also loves these people and Christians are to emulate God's love even as they receive it in their own lives.

Williams (1989) noted that the world's great religions instruct regarding the values of service, hope, trust, love, and kindness or compassion

toward others. Internalization of these characteristics into one's cognitive-religious schema, or even world-view, and accompanying behavioral response style could influence the nature and course of interpersonal interactions as well as their accompanying physiological states. On the other hand, religions typically denounce or try to restrain characteristics such as cynical hostility, self-absorption, and basic mistrust of others. Hill and Pargament (2003) noted that the world's great religions emphasize both the Golden Rule and the value of human relationships, understanding these relationships as a metaphor for the relationship with God (Buber, 1970). Consequently, if individuals view others with compassion and relationships are characterized by love, then conflict, anger, and hostility would seem less likely to result. Studies in health psychology have consistently demonstrated that hostility and conflict induce undesirable states of physiological arousal and are predictive of heart disease (Miller, Smith, Turner, Guijarro, & Hallet, 1995; Smith, Glazer, Ruiz, & Gallo, 2004; Suls & Bunde, 2005).

A related human transaction facilitated by religious creeds is forgiveness. Thus, when conflict happens or a breach in a relationship occurs forgiveness is encouraged. Worthington and colleagues (2007) recently reviewed research on forgiveness and found fascinating central and peripheral physiological correlates with different types of forgiveness and unforgiveness. Significant to our purposes here, they noted that forgiveness may contribute to better health both by quelling unforgiving responses and nurturing positive emotions. By halting unforgiving responses, forgiveness was found to limit increases in blood pressure both in terms of magnitude and duration likely because ruminative processes associated with unforgiveness were reduced or shortened. Practicing forgiveness is also likely to increase social support and add stability to one's social structure as granting and receiving forgiveness is prone to lengthen and deepen relationships. On several levels, then, forgiveness can be seen as potentially beneficial to health.

Religions also provide an explanatory structure in which to integrate life's events in ways that provide meaning. For example, many religions teach that God controls human events such that whatever challenges are presently faced, God is ultimately benevolent and will provide peace or a way of coping with these challenges in the present life with the promise of reward in the afterlife. Because of this orienting framework, stressful life events are viewed as purposeful and the challenge to the believer is to find the purpose, or meaning, that the event contains. In fact, going beyond the momentary, one of the major functions of

religious belief is the provision of a general sense of purpose or meaning in life. Many authors have discussed the importance of life meaning for psychological wellness (e.g., Frankl, 1962; Park, 2007) and two large studies (Ellison, 1991; Krause, Ingersoll-Dayton, Ellison, & Wulff, 1999) provided empirical support for this notion. After controlling for several demographic and other variables, both found lack of religious doubt (or an enhanced awareness of existential certainty) was related to better psychological and subjective sense of well-being. The global concept of meaning has been operationalized as a sense of coherence (Antonovsky, 1987, 1993). Sense of coherence represents a disposition to see the world as comprehensible, manageable, and meaningful and has been related to greater stress-resistance and better health (Amirkhan & Greaves, 2003; Anke & Fugl-Meyer, 2003).

Based on these factors, then, it is argued that religions contain within them seeds of strength, resilience, and resistance to stress that may increase the likelihood of perceiving life as less stressful and more beneficent. By loving and forgiving others and finding meaning and purpose in the midst of momentary trials and throughout life, religions offer a stress management program that, if internalized and practiced, is likely to reduce psychological and physiological reactions to stressful situations. Some might even argue that, from an evolutionary perspective, it is at least in part because of these characteristics that religions have survived through the centuries and are universally present in human societies.

Religious Orientation. Religious orientation has been identified as an understudied but fertile area for investigation in terms of clarifying the religion-health relationship (George et al., 2002; Harris, Thoresen, McCullough, & Larson, 1999). Allport and Ross (1967) developed the concept of different religious orientations as a potential mechanism for explaining contradictory findings regarding religiousness and prejudice. They noted that religiousness is not a unitary phenomenon but rather may take many forms and suggested that different religious orientations may relate differently with other important personality and social variables. Specifically, they defined intrinsic religious orientation (IR) as characteristic of individuals who view their religion as an end in itself, a master motive. These individuals are said to embrace a religious creed, internalize it, and attempt to follow it. Other needs are regarded as being of lesser significance and are, therefore, met only to the extent that they correspond with the religious belief. Attendance at church for IR individuals may be thought of as motivated by desire

for spiritual growth. Extrinsic religious orientation (ER), on the other hand, is found among people who use their religion as a means to an end. It is an essentially utilitarian and instrumental form of religious orientation that places ends such as security, status, self-justification, or sociability, rather than the core religious belief structure, as ultimate. Church attendance among individuals manifesting ER is less motivated by a desire for spiritual growth or development of internalized value systems and more influenced by other factors.

Over the years there has been some confusion regarding the essential aspects of IR and ER. Gorsuch (1994) provided important clarification when he developed the treatise that religious orientation is a motivational construct. This allows for manifest differences among individuals of the same religious orientation. For example, two individuals may both believe that their life is oriented around their religious beliefs (IR), but they may differ in terms of their spiritual maturity (McCullough, 1995) and thus may also differ in the degree of love, compassion, or forgiveness they demonstrate to others or in the degree of purpose or meaning they find in their lives.

The concept of religious orientation as developed by Allport and Ross is about 40 years old but the basic construct has existed since antiquity. For example, the biblical story of Job tells that Job was accused by his adversary as being a believer who would lose faith if he did not continue to acquire the material rewards to which he was accustomed. Job was accused of being ER. William James (1902) similarly discussed the concepts of firsthand direct religion (IR, spirituality) versus secondhand institutional religion (ER).

Donahue (1985) provided an extensive review and meta-analysis of the religious orientation literature and Masters and Bergin (1992) updated these findings. Throughout, IR demonstrated consistent and meaningful relationships with better mental health (e.g., decreased anxiety and depression, better self-esteem, increased meaning-in-life and sense of well-being, reduced fear of death, less insecurity, better ego functioning; Masters & Bergin, 1992; Smith, McCullough, & Poll, 2003) whereas ER consistently related to poorer functioning. Recently Smith and colleagues (2003) presented a sophisticated meta-analytic study on the relationship between religiousness and depression. Their analysis included a broad spectrum of religious measures. Notably, the strongest negative relations between depression and religiosity were discovered when IR was the religious construct. Though most religious variables related negatively with depression, IR did so at a significantly stronger

level than the others. Also important was that a notable exception to the pattern above was found for ER, i.e., ER significantly related *positively* with depression. Depression increases risk for a multitude of health problems including cardiovascular disorders.

Another important, recent, article (Contrada, Goyal, Cather, Rafalson, Idler, & Krause, 2004) reported the results of a prospective study of religiousness and recovery from heart surgery. This article is of particular note because of its novel measurement of IR and ER and because of the use of a population with cardiovascular disease. These authors conceptualized ER as the degree to which frequency of religious attendance exceeded what would be expected based on level of religious beliefs whereas IR was the opposite, i.e., frequency of religious attendance falling short of what would be expected based on level of religious beliefs. The provocative findings were that ER individuals were characterized by longer lengths of hospital stay than were IR patients. Without consideration of religious beliefs, religious attendance was associated with poorer recovery. Thus, this study highlights the importance of more sophisticated measures of religiosity that go beyond attendance. Further, it demonstrates a novel and interesting operationalization of IR and ER that provides support for the differential health effects of these two religious orientations.

Religious Orientation and Cardiovascular Reactivity. The previous sections established the foundation for generating hypotheses regarding religious orientation and cardiovascular reactivity to stress. To summarize, central to religious teachings are the qualities of love, compassion, forgiveness, and life meaning. These qualities are likely to reduce stress reactivity. Further, individuals who internalize their religious beliefs, i.e., are characterized by IR, increase the possibility that they will manifest these core teachings in their cognitive world-view, emotionality, and behavioral responses to situations. There is also strong evidence suggesting that IR predicts better mental health whereas ER is associated with greater depression and may be related to other negative psychological characteristics. Therefore, it is predicted that individuals characterized by IR will demonstrate reduced reactivity to stress when compared with ER individuals. Further, these effects may be mediated by compassion, love, meaning in life, and forgiveness.

One final question pertains to the type of stressor. As mentioned, the type of stressor is an important consideration in reactivity research and the field has gradually moved toward inclusion of more ecologically valid stressors when conducting lab based studies. Consequently there

has been a renewed emphasis on the use of interpersonal stressors rather than physical (e.g., cold pressor) or cognitive (e.g., non-harassed mental arithmetic) ones (Larkin, et al., 1998; Schwartz, et al., 2003; Waldstein, et al., 1998). Cardiovascular responses to non-interpersonal tasks may not be closely related to responses to interpersonally based tasks (Lassner, Matthews, & Stoney, 1994). Further, interpersonal events are central to the experience of stress for many people in their daily lives and are the most robust psychosocial risk factors in epidemiological studies (Adler & Matthews, 1994). Interpersonally stressful situations are also of particular importance for studying religious effects on stress reactivity because much of the emphasis in religious teaching is on proper ways of valuing and behaving with others. Consequently internalization of a religiously based view of others would seem to have greater effects on reactivity to an interpersonal stressor than to non- or less-interpersonal tasks.

To test these hypothesis, Masters and colleagues (2004) conducted a study with 178 participants that utilized Religious Orientation (IR vs. ER) and Age (older vs. younger) as between subjects independent variables and Type of Stressor (interpersonal vs. non-interpersonal) as a within subjects variable. Dependent measures were blood pressure and heart rate reactivity. The findings demonstrated that older-IR participants demonstrated significantly less systolic blood pressure reactivity than did older-ER participants. The older-IR participants were not distinguishable from their nearly 50-year younger counterparts in the younger age group. ER individuals also demonstrated greater reactivity to the interpersonal stressor than did the IR participants, providing some support for the specific stressor hypothesis. Findings for diastolic blood pressure mirrored those for systolic blood pressure except that the Religious Orientation X Stressor interaction only approached significance ($p = .082$). This study established that IR was related to dampened cardiovascular reactivity to stress experienced by older adults and there was a tendency for this effect to be more pronounced when the stressor was interpersonal in nature. Religious orientation did not produce differential effects among the younger subjects (18–25 years old). Though this study is a notable step, it left unaddressed the possible role of mediating variables such as compassion, love, or meaning in life.

A follow-up study (Steffen & Masters, 2005) using paper-pencil measures investigated the possible mediating role of compassion on IR as related to depression, perceived stress, social support, and marital adjustment in three separate samples, i.e., college students, community

residents, and couples in marital therapy. Using the criteria for mediation specified by Baron and Kenney (1986), this study demonstrated that both compassionate attitudes and compassionate behaviors were mediators between IR and depressive symptoms, perceived stress, social support, marital adjustment and commitment. Further, in each case when compassionate behavior was controlled compassionate attitude still mediated the relationship but when compassionate attitude was controlled, compassionate behavior did not. Thus, it appears that compassionate attitudes are stronger mediators of the IR relationship with these particular outcome variables.

Taken together these two studies provide suggestive evidence that religious orientation predicts cardiovascular reactivity to stress, particularly among older adults, and that this relationship may be mediated by important characteristics nurtured by the world's religions. However, the definitive test has yet to occur, i.e., no one has yet produced data that directly test the mediating properties of these variables with cardiovascular reactivity.

One other reactivity and religiosity study has appeared in the research literature. Tartaro, Luecken, & Gunn (2005) used a composite score on the Brief Multidimensional Measurement of Religiousness/Spirituality (BMMRS; Fetzer/NIA, 1999) and individual measures of "To what extent do you consider yourself a religious person?" and "To what extent do you consider yourself a spiritual person?" to address the reactivity question in a sample of college students. The stressor was a computer reaction time task and the dependent measures included salivary cortisol in addition to blood pressure and heart rate reactivity. Higher scores on both the BMMRS and the religious person item were associated with smaller increases in salivary cortisol but no effects were found for the spiritual person item. Results on cardiovascular measures demonstrated gender effects. For females higher BMMRS scores and higher religious person scores were associated with higher systolic blood pressure whereas for males the opposite was found, i.e., higher scores related with lower systolic blood pressure. Similar findings were demonstrated for diastolic blood pressure and there were no significant results for the spiritual person item or for heart rate reactivity. In exploratory analyses these investigators reported that greater use of prayer and forgiveness predicted lower cortisol reactivity.

Implications and Future Directions

In this manuscript a general model depicting pathways through which R/S may influence health outcomes was presented. Specific focus on the importance of studying cardiovascular reactivity as a bridge between psychological variables and health outcomes was elucidated as one means of exploring a mechanistic pathway connecting religion and health. Further, a specific rationale along with initial empirical studies suggesting that religious orientation may be a relevant religious construct was emphasized. Potential mediator variables of a religious orientation – reactivity relationship were suggested. Thus, it is my contention that the reactivity paradigm, and these particular religious variables and possible mediators, present an ideal research model for continuing investigation of the relationship between religiosity and health and may provide a possible explanatory mechanism for some religion-health findings. The fact that at least one other laboratory has published research investigating general measures of R/S and reactivity, and several have investigated forgiveness in a reactivity paradigm, suggests that the time may be right to build a coherent and systematic line of research utilizing the reactivity paradigm with religious constructs. Done in this manner, investigators could develop a better understanding of the workings of R/S in the lives of individuals as they respond to different types of stressors. Importantly, a number of independent laboratories working along these lines and building on the findings of each other would produce a body of knowledge investigating mechanisms in the religion—health relationship that currently does not exist. It is time to look beyond religious attendance and health outcomes to investigate the “how” question. The reactivity experimental paradigm provides an ideal context for this research.

Although there are many possible directions this research could take, I will highlight two. As noted above, the question of mediators of the religious orientation—reactivity relationship remains untested. Currently in our laboratory we are conducting a study investigating religious orientation (using intrinsic and extrinsic scales but also incorporating intrinsic, pro-religious, and non-religious orientation types) and reactivity to a confrontational interpersonal event vs. a non-interpersonal stressor among middle aged adults. This study also includes measures of hostility, compassion, and sense of coherence. Statistical analyses to determine whether these variables play a mediating role in any religious

orientation—reactivity relationships will be conducted. We hope to have the results of this study by late 2007.

Second, I suggest greater use of ecological momentary assessment and ambulatory measures of cardiovascular functioning in this research. By combining these naturalistic observations with laboratory data the external validity of lab based findings can be assessed and naturalistic responses to stress can be measured. If well done these studies can also help us to learn more about the daily lives and spiritual experiences of people who demonstrate IR, ER, or other religious constructs typically assessed by paper-pencil measures. In other words, what are the differences in the daily activities and experiences of individuals manifesting different religious orientations and do these have any bearing on how they respond to naturally occurring stressors in their daily lives? This type of study has not been done with religious variables and the time is ripe for it.

Not only is it time to bridge the gap between religion and health it is also time to bridge the gap between researchers investigating psychological aspects of religion and those investigating psychological aspects of health. Presently those with expertise in religiosity research have been generally absent from investigations that examine psychophysiological variables and those in the health and physiology context have not adequately included religious variables in their investigations or designed their investigations with specific hypotheses to be tested that relate to religion and health questions. I sincerely hope that these two camps can work together and gain the advantage of each others' expertise. In this way significant and directed progress will be made in examining the relation between two of life's most important experiences; religion and health.

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“SO FIRM A FOUNDATION”: WHAT THE COMPARATIVE STUDY OF RELIGION OFFERS POSITIVE PSYCHOLOGY

*Lauren E. Maltby and Peter C. Hill**

ABSTRACT

We undertake Haidt's (2003) recommendation to positive psychology researchers to look to other cultures and eras for guidance in understanding some of Peterson and Seligman's "ubiquitous, if not universal, virtues" (2004, p. 33). We propose that religion is a fertile ground for study by positive psychologists, and may be one area where "common denominators" or mechanisms of producing character strengths and virtues may be unearthed through more systematic study. To demonstrate this, we pose hypothetical relationships between Hinduism, Christianity, Islam, and Judaism and the character strengths of transcendence and justice (as typed by Peterson and Seligman, 2004), directly linking theological and cultural beliefs to the development of transcendence and justice. In so doing, we hope to open up new channels of communication between researchers in positive psychology and the psychology of religion.

KEY WORDS: religion, positive psychology, transcendence, justice

As positive psychology begins to define itself as a burgeoning field of study, researchers must carefully consider which sources to consult. Haidt (2003) provides four recommendations to positive psychology researchers if they are to be successful in contributing to a reappraisal of the discipline's subject matter: (a) begin with positive emotions, (b) look to other cultures and eras for guidance, (c) apply what is learned for the common good, and (d) examine peak experiences and moral transformations. Haidt's second recommendation suggests that there is not just one kind of flourishing and if psychology is to not repeat its mistakes from eras past, then we should recognize different cultural understandings and influences on human potential. Perhaps there is no better place to begin than to study the religious traditions that reflect and help shape a cultural perspective on human flourishing. Despite differences in epistemic claims and methodologies, a scientific positive psychology overlaps considerably with religion and spirituality in that both are concerned with virtue and successful living (Seligman, 2003)

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such that “the world’s religions offer highly developed and articulated visions of virtues, practices, and feelings, some of which may even be useful in a modern secular society” (Haidt, 2003, p. 286).

Actual religious and spiritual experiences differ between people considerably, and even the meanings of such words as religion and spiritual are far from self-evident. Our goal here is not to offer a concise and exhaustive definition of either religion or spirituality, nor even to advance the understanding of these terms beyond what has already been offered (see Hill et al., 2000; Pargament, 1997; Zinnbauer et al., 1997). Rather, our preference is to follow the recommendations of the religious scholar Wilfred Cantwell Smith (1962/1991) who proposed that religious experience be conceived through two alternative terms, *cumulative tradition* and *faith*. Faith, according to Smith, “is not an entity. It is rather the adjectival quality of a person’s living in terms of transcendence” (p. 331) and “is what happens to or in a man when he responds to the universe in a way that has been made available to him by a cumulative tradition” (p. 330). We agree that religion is fundamentally a social phenomenon, and spirituality occurs at the individual level within a social context (Miller & Thoresen, 2003; Thoresen, 1998). We maintain that major religious cumulative traditions often provide such a social context within which mature spirituality is defined. Positive psychology researchers would be well-advised to take into account this context when studying the composition and development of character strengths, particularly those that comprise what Peterson and Seligman (2004) refer to as virtues of transcendence.

CORRELATES OF RELIGION AND SPIRITUALITY

The potential contribution of cumulative religious traditions to positive psychology is underscored by the fact that religion and spirituality are robust predictors of important psychological phenomena. Religion and spirituality are useful to basic psychological research in that they develop across the lifespan, are inherently social-psychological phenomena, and are related to both cognition and affect (see Hill et al., 2000, for a summary of this research). To this end, they should also be relevant to the study of personality. Prominent psychologists (e.g., Freud, Fromm, James, Jung, Maslow) have long argued that the study of the person is incomplete without consideration of religion and spirituality.

However, the majority of research, especially in the past two decades, has investigated religion and spirituality in relation to its application

of psychological knowledge. We will briefly summarize some of that literature, mindful that the empirical research to date tends “to elucidate the nature of a very narrow spectrum of the whole of human religiousness” (Miller & Kelley, 2005, p. 472).

Physical Health and Religion

The linkage between religion and physical health is now established to the point that researchers are beginning to tackle the much more challenging issue of specifying the nature of that relationship (see Miller & Thoresen, 2003; Oman & Thoresen, 2005; Powell, Shahabi, & Thoresen, 2003; Seeman, Dubin, & Seeman, 2003). Powell and her colleagues provided what is perhaps the most methodologically conservative review of this literature and concludes that a religion-health relationship does exist, though it may be more limited and more complex than has been suggested by others (p. 50). Furthermore, virtually all such systematic reviews of the religion and health literature admit that we currently know very little about the linkage’s underlying processes, including those where religious or spiritual beliefs may have an adverse effect on health. For example, Seeman, Dubin, and Seeman (2003) maintain that a prudent interpretation (p. 61) of the available data suggests that religiousness and spirituality are somehow linked with cardiovascular, neuroendocrine, and immune function physiological processes. However, they also acknowledge that we are far from understanding the specific nature of those linkages. Oman and Thoresen’s (2005) proposal that one of the many possible mediating factors is religion’s fostering of such classical human strengths as compassion, love, hope, and self-control, prompted them to suggest that researchers more directly consult with religious professionals to better understand such religiously related virtues.

Mental Health and Religion

Researchers have frequently noted that spiritual and religious participation and commitment significantly predict such quality-of-life indicators as happiness, meaning in life, and life satisfaction (Chamberlin & Zika, 1992; Diener, 1984; Emmons, 1999; Levin, 2001; Poloma & Pendleton, 1990). This supports Peterson and Seligman’s (2004) notion that spirituality and religiousness is considered a character strength because people with this strength hold “coherent beliefs about the higher purpose and meaning of the universe and one’s place within it” (p. 533).

For example, in their comprehensive literature review, Poloma and Pendleton (1990) employed eight measures of religiosity and found that it was an important predictor of existential well-being, general life satisfaction and overall happiness. Similarly, Donahue and Benson (1995) conclude from their review of the literature on religiousness and adolescent well-being that largely positive correlations of religiousness (particularly intrinsic religiousness) exist with prosocial values and behaviors and primarily negative correlations with suicide attempts or ideation, alcohol and substance abuse, sexuality, and juvenile delinquency. This provides enough weight for them to suggest that “religiousness is associated with positive developmental outcomes” (p. 156). Subsequent reviews and studies by sociologists of religion (e.g., Regnerus, Smith, & Fritsch, 2003; Smith & Faris, 2003; Smith, 2003) echo these conclusions, and add that religious adolescents appear to suffer from fewer symptoms of depression and anxiety. Frederickson (2002) suggests that such associations could be partially due to the positive emotions activated by religious and spiritual experience that benefit health and well-being. The work by Ai and colleagues (Ai, Cascio, & Santangelo, 2005; Ai, Tice, & Peterson, 2005) points out that a spiritually based sense of hope and meaning contributed to positive attitudes as well as reduced depression and anxiety following the 9/11 attacks. Emmons (1999, 2005) argues that for the spiritual person, spiritual strivings (loving others, working on one’s marriage, reading sacred writings, etc.) are lived out on a daily basis within a framework of ultimate goals or concerns (knowing God or ultimate truth, achieving enlightenment, etc.) because of religion’s unique ability to function as a meaning system (see Hill, 2002; Hood, Hill, & Williamson, 2005; Paloutzian, 2005; Park, 2005; Park & Folkman, 1997; Silberman, 2005a, 2005b). Those spiritual strivings, Emmons maintains, have important implications for such psychological processes as personality integration and setting goals in coping with stress. Once religious meaning is established, it can be useful in understanding oneself, one’s purpose in life, and how one can effectively cope with environmental demands.

Religion as Social Capital

Religion may also serve the life of a community, thus creating what sociologists and political scientists refer to as *social capital*—an analytical framework of attributes of social organizations such as social trust, norms, and friendship networks that facilitate cooperative effort and

thereby lead to achievements that otherwise could not be attained (Smidt, 2003). Maton and Wells (1995) examined religion as a potential community resource through three avenues: primary prevention, healing, and group empowerment. Ninety percent of U.S. congregations have programs aimed at serving community needs (cited in Maton & Wells, 1995). There are certain preventive or protective factors associated with religion, such as a stronger emphasis on family and therefore greater stability for children during developmental years. Couples engaging in joint religious activities are found to have better marital functioning, perceive more personal benefits from marriage, and experience less marital conflict (Hansen, 1992; Mahoney et al., 1999). Also, "religion can contribute to the empowerment of disenfranchised groups, within or outside the congregation, by instilling a mobilizing vision and critical awareness anchored in socially-conscious religious principles (e.g., sanctity of all individuals; loving one's neighbor as oneself)" [Maton & Wells, 1995, p. 186]. This ability of religion to empower can benefit an entire community by helping specific social groups to flourish and succeed in new ways. Religion has also been strongly correlated with other prosocial behaviors, such as decreased use of alcohol, tobacco, and illicit drugs and may even be used successfully in treatment of substance abuse if so desired by the client (Benson, 1992; Burkett & White, 1974; Dudley, Mutch, & Cruise, 1987; Gorsuch, 1995; Gorsuch & Butler, 1976; Hadaway, Elifson, & Peterson, 1984; Middleton & Putney, 1962; Propst, 1988; Wuthnow, 1978).

The Dark Side of Religion and Spirituality

Given that both religion and mental health are complex, multidimensional constructs, some forms of religious commitment may be psychologically unhealthy in themselves while others may foster pathology and, indeed, the accumulating empirical evidence bears out that religion and spirituality are both positive and negative factors in predicting mental health (Bergin, 1994; Gartner, 1996; Miller & Kelley, 2005; Pargament & Park, 1995). That religion can be both healthy and unhealthy has long been recognized (James, 1902/1961) and though the balance of the following discussion may seem to indicate that religion and spirituality involve positive psychological dynamics, this is not always the case. For example, Gartner (1996) concludes that while a spiritual "moral net" may be personally beneficial and even necessary for societal structure, it may also snare one "who is progressing in a healthy autonomous

way along a path outside the boundaries of what is normally accepted” (p. 203). Clearly, various expressions of religion and spirituality that are characterized as more pathological or less healthy have been identified (Allport, 1950; Fromm, 1950; Hunt, 1972; Pargament, 1997). Religion and spirituality may provide resources for psychological coping as well as mechanisms that are associated with impaired mental health (for a more complete treatment of these, see Pargament et al., 1998). Not all religious and spiritual experiences are created equal.

Conclusion

We have maintained that religion and spirituality do not occur in a social vacuum but rather are influenced within a broader social context (i.e. cumulative religious traditions [Smith, 1962/1991]). Furthermore, religion and spirituality have been shown to be important predictors of physical and mental health as well as a provider of social capital. What is less clearly established is the extent to which there is a relationship between religion and the development of character strengths and virtues. We expect the relationship to be complex and we cannot say what might best predict whether or not a person is likely to develop a certain virtue. It could be whether the person is religious (or spiritual) or not, or which religion the person subscribes to, or how a person is oriented toward his or her religion. A beginning point is to better understand what is emphasized in various religious traditions that may have implications for the development of character strengths. It is to that issue that we now turn.

RELIGION AS A MEANS TO THE VIRTUE OF TRANSCENDENCE

For the sake of a thought-experiment, we will pose a hypothetical connection between four major religions and four personal characteristics that Peterson and Seligman (2004) categorize as character strengths of either justice (civic strengths that are foundational to life in community) or transcendence (the experience of a connection to the larger universe, or the non-physical world). While religious traditions are broad and complex, we seek to draw out only particular threads of each religion that could house potential relationships to a given character strength. Understanding how specific beliefs and teachings of religions contribute to the development of character strengths and virtues is not only a field ripe for study in itself, but one potentially useful to fuller and richer

conceptualizations for positive psychology. These cumulative traditions of faith are areas that should be systematically mined for insights into some of the mechanisms that contribute to the development of character strengths and virtues.

HINDUISM AND THE APPRECIATION OF BEAUTY AND EXCELLENCE

Appreciation of beauty and excellence (as well as the synonyms awe, wonder, and elevation), according to Peterson and Seligman (2004), “refers to the ability to find, recognize, and take pleasure in the existence of goodness in the physical and social worlds” (p. 537), thus allowing individuals to be elevated by their physical and social experiences to something beyond the physical or social world. The behavioral manifestations of this strength are often internal, and therefore harder to recognize. However, it is this internal experience, this ability to see in the physical world something that takes one beyond what is seen, which is a primary experience of Hinduism. Positive psychologists Jonathan Haidt and Dacher Keltner (Haidt, 2003; Keltner & Haidt, 2003) have introduced researchers to many of the unique insights offered by the Hindu religious tradition to the experience of awe. Keltner and Haidt (2003) propose two distinct themes of awe: (a) *vastness* or the experience of something far greater than the self, and (b) a Piagetian-like process of *accommodation* whereby mental structures that can no longer assimilate a new experience must be adjusted. Religions of all sorts incite these two components of awe when considering the majesty of the divine whether as some perceived form of supernatural (e.g., miracles) or natural (e.g., beautiful sunrises) manifestations. Indeed, even a century ago, James (1902/1961) spoke of a healthy-minded religion as one who emotionally responds to the world as a beautiful manifestation of divine character. However, Hinduism appears to speak with unusual emphasis on this character strength.

The Possible Relationship Between Hindu Beliefs and Appreciation of Beauty or Excellence

Despite significant variations between branches of Hinduism, common to virtually all religious Hindus is a belief “in a reality that transcends the mundane, empirical, or phenomenal world” (Puhakka, 1995, p. 123). To demonstrate its diversity, branches of Hinduism vary from each other to the extent that some are monotheistic and revere a

personal God while others are monistic and see divinity as pervading all reality. Thus, any description of Hinduism in terms of common features is likely simplistic and the best that can be done is to represent a significant portion of the broad religious tradition. We will explore a rudimentary understanding of (a) the hierarchy of the Hindu pantheon, (b) the creation myth, and (c) the idea of rebirth to understand how Hindu ritual, belief, sacred texts, religious myth and folklore may lend themselves to the development of appreciation of beauty and excellence (awe, wonder, and elevation).

Most branches of Hinduism are pantheistic, though not in the way pantheism is commonly understood. There are an infinite number of gods that are only *avatars* (manifestations) of the three primary manifestations of the one true Godhead: the *Vishnu* (that are actually all one), the *Trimutri*, (the three in one—sometimes called the Hindu trinity), and the *Brahman* (the Supreme Being). As pointed out in the Vishnu Purana (one of the medieval collections of laws, stories, and philosophy which reflects the teachings of older scriptures),

Just as light is diffused from a fire which is confined to one spot, so is the whole universe the diffused energy of the supreme Brahman. And as light shows a difference, greater or less, according to its nearness or distance from the fire, so there is a variation in the energy of the impersonal Brahman. Brahma, Vishnu, and Shiva are his chief energies. The deities are inferior to them; the yakshas, etc., to the deities; men, cattle, wild animals, birds, and reptiles to the yakshas, etc.; and trees and plants are the lowest of all these energies... (Vishnu Purana 1.22)

Thus, the Brahman or Ultimate Reality appears in many forms by emanation throughout the created order. Yet such manifestations are phenomena of a world that is only temporary and partial and conceals total Truth.

Also significant to Hinduism is the creation myth. Hindu stories about the creation of the world vary, but certain themes and plot points are consistent. Brahman dreams the world into existence, and forgets to wake up. The existence of the world is maintained by forgetfulness, it is only an illusion. The individual's experience of the world is real, but the world, which they think they are experiencing as physical phenomena, is false (Puhakka, 1995).

Another explanation of a part of creation brings forth the same point. Purusha is the primordial sacrifice-Person; it is from him that the cosmic phenomena and the four human classes (which eventually become castes) are derived. He is another manifestation of Brahman,

and he is said to have projected himself onto the universe and the social system, as well as earthly phenomena. The Atma Upanishad (one of the ancient *Vedas*) says of him, “The supreme Self is neither born nor dies. He cannot be burned, moved, pierced, cut, nor dried. Beyond all attributes, the supreme Self is the eternal witness, ever pure, Indivisible...” (Atma Upanishad, n.d.; p. 242). “Three quarters of Purusha remain un-manifest during his sacrificial self-distribution; only one quarter becomes manifest in the created world. It is a way of saying that Purusha (Supreme Being, *Brahman*, the absolute) remains whole and undiminished by the act of creation, a way of expressing simultaneous transcendence and immanence of divinity. But it also says that this created world “doesn’t count” (Knipe, 1991, p. 40).

It is precisely this “immanence of divinity” that makes Hinduism a likely breeding ground for those strong in appreciation of beauty and excellence. The divine can be found in anything, because it is everything—nothing but the Brahman really exists. It is this doctrine, that the Brahman manifests himself through the many faces of gods and deities that disguise themselves, that can make any small encounter a potentially divine experience. Because Brahma is “in all creatures and is not different from the Ultimate Reality called God” (Juthani, 1998, p. 272), any experience of the material and created world is divine, and should inspire awe.

Keltner and Haidt (2003) summarize one of the earliest and most powerful examples of awe found in the Hindu *Bhagavadgita*. In one episode in the Hindu epic *Mahabharata* (a foundational mythical text for Hinduism), the hero Arjuna is visited by Krishna (a form of the god Vishnu), and he asks Krishna if he can see the Universe. His request is granted, and she offers him a “cosmic eye” that allows him to see reality as it really is. “He is filled with amazement (*vismittas*). His hair stands on end. Disoriented, he struggles to describe the wonders he is beholding.” (Keltner & Haidt, 2003). Arjuna is clearly in a state of awe when he says “I rejoice in seeing you as you have never been seen before, yet I am filled with fear by this vision of you as the abode of the universe. Please let me see you again as the shining God of gods. Though you are the embodiment of all creation, let me see you again...” (Bhagavadgita 11.45–47).

One of the primary goals of psychological research is to establish theoretical connections that can both describe and explain phenomena, and this is no less true for researchers interested in exploring religion as a means of creating character strength and virtues. This task is especially

important in the early stages of any new field of study. Haidt (2003) has begun this work by conceptualizing elevation in Hinduism as a third-dimension, purity versus pollution, or elevation versus degradation. This third dimension dictates certain behaviors so that God and those closest to God are not desecrated or defiled; the impure (low) is kept from contaminating the pure (high). Haidt points out that any understanding of Hindu ethics requires consideration of this vertical purity-pollution dimension. Hinduism places all creatures along this third dimension, and to the degree that they act like a god or a demon, they rise and fall on this scale. How one is reborn into the next life is determined by one's behavior in the previous life (how pure or impure one was). For Hindus, all evil actions draw one down, away from Brahman, and all experiences of elevation, both doing good deeds and witnessing others' good deeds and thinking on them, draws one upwards. Elevation can be thought of as feelings of moral improvement, which can come about by the sight or imagination of a virtuous act, and it is elevation in this sense (being drawn upwards) that is critical to the success of the Hindu in achieving oneness with Brahman.

Haidt's proposal of elevation as a third dimension helps to describe and explain the Hindu emphasis on experiences of awe and appreciation of beauty. Whether his idea is solely applicable to Hinduism or may be found in lesser degrees or other variations in other faith traditions remains to be tested. Whether Hindus are higher in this character strength than adherents to other religions, or even how particular sects of Hinduism relate to other sects with different beliefs in terms of this character strength, are also questions worth asking. Hypothetically, however, Hindu beliefs could be a means of developing appreciation of beauty and excellence, elevation, awe, and wonder in the person; one step on the road to developing the virtue of transcendence.

JUDAISM AND CITIZENSHIP (SOCIAL RESPONSIBILITY, LOYALTY, TEAMWORK)

Unlike the other connections between religion and character strengths of transcendence, positive psychology's point of contact with Judaism is perhaps stronger with what Peterson and Seligman (2004) categorized as character strengths of justice, which they see as "broadly interpersonal, relevant to the optimal interaction between the individual and the group or community" (p. 357). Peterson and Seligman proposed

that strengths of justice be considered as strengths *among* whereas other character strengths be considered as strengths *between*. This suggests that the consideration of virtues should also include a collective focus. Though citizenship implies a legal status, it also represents a “feeling of identification with and sense of obligation to a common good that includes the self but that stretches beyond one’s own self-interest” (Peterson & Seligman, 2004, p. 370). Hence, such characteristics as a sense of duty, a working for the common good rather than just individual gain, and a sense of loyalty or commitment to one’s collective identity epitomize this character strength, and characterize the Jewish actualization of justice.

Judaism places a fundamental emphasis on religious practice and the regulation of community life according to the Torah or Law (the first five books of the Bible, but also commonly used to refer to all Jewish teachings and practices). The Hebrew Bible as a “national book of memories” (Fishbane, 1993, p. 394) has collectively served the Jewish people from “generation to generation, providing them with self-definition and historical consciousness as well as with rules governing divine-human and interpersonal relations” (Fishbane, 1993, p. 394). Indeed, what is preserved in the Torah is the description of a covenantal relationship based on the divine instructions Moses received at Mount Sinai. Though having undergone significant change and development, Judaism is nevertheless a historical religion and, therefore, God is not abstract or impersonal. As with any relationship, each party is obligated to uphold its responsibilities and, for the Jew, an active religious life is “not one of theory and deduction, but one entirely filled with ritual and moral obligations, constantly making the reality of God present in the most personal and concrete terms” (Fishbane, 1993, p. 397).

The Possible Relationship between Judaism and Citizenship

Life’s highest standard is derived from the character of deity. Of the many attributes of God described in the Hebrew Bible, probably none are more poignant and incisive than the notion of God as a just God. Divine justice is fundamentally premised as a commutative justice, “a measure for a measure” (Cohn, 1987, p. 515); God rewards those who obey him and punishes those who defy him (Deut. 7:9–10) because only a sovereign and omniscient God ultimately knows what is good. Indeed, for the Jew, God’s justice is an assurance that a sovereign and almighty God will not misuse omnipotence against the created order, as

pagan God's were believed to do (Moore, 1971). As Job (37:23) points out, God does no violence to justice and, thus, recorded deviations from such divine justice, such as threats of unbridled divine revenge or wrath (e.g., Ex. 22:24; Lev. 26–21–39), were believed necessary for purposes of deterrence.

Such commutative justice that—God renders to every one according to his or her deeds (Ps. 62:13)—could become a criterion for human justice only if understood in the complete context of the character of God, for God is not only a God of justice but also of mercy (Cohn, 1987). The Jewish God appears willing to accommodate the special needs of those less privileged who are most vulnerable to oppression: the poor, widows, orphans, those disabled, etc. As Cohn (1987) pointed out, “Not only does this preferment of the underprivileged not derogate from justice, it is one of its most important and characteristic elements; in addition, it demonstrates that justice and equality are not necessarily coextensive” (p. 517). It may also explain why the Torah specifically prohibits vengeance or carrying a grudge as a proper motivation (Lev. 19:18).

Still, justice is an important norm in that it helps regulate behavior for fair interactions that are not only mutually beneficial, but are good for society. Folger and Cropanzano (1998) points out that it is our sense of justice that provides a sense of predictability in human relationships and makes us aware of the boundaries of acceptable behavior. It also instills confidence that future outcomes will be equitably distributed (*distributive justice*), that the procedures for allocating resources are perceived to be fair (*procedural justice*), and that the distribution of resources and procedures will be communicated with a priority placed on respect and dignity (*interactional justice*). When these norms are violated, an *injustice gap* (Worthington, 2006) is created, the size and importance of which are determined by a number of factors including the severity of an offense, the intention behind the offense, and whether the victim was deserving or not (Exline, Worthington, Hill, & McCullough, 2003; Hill, Exline, & Cohen, 2005).

For the Jew, citizenship necessarily involves concerns for justice. Suggesting that a just God is indeed an imitable God, since humans were created in God's image, Jewish law is structured to foster a sense of loyalty and social responsibility with a primary concern for justice. Indeed, following God's law prevents injustice gaps; it is the violation of such laws that leads to the need to respond to injustice, and to do so properly is yet another indication of citizenship as a developed character strength.

Perhaps central to the concern for justice as a basis for citizenship is the willingness of the individual to forego immediate self-concerns and gratifications for the longer term interests of the group (Peterson & Seligman, 2004), thus displaying such personal character strengths as empathy (Batson, 1990) and a priority placed on loyalty and trustworthiness as a basis for moral reasoning (Higgins, Power, & Kohlberg, 1984). In this sense, citizenship can be considered a character strength of transcendence since its concerns run contrary to an orientation that stresses self-enhancement. That such individuals exist in sufficiently common numbers has been empirically validated (Dawes, van de Kragt, & Orbell, 1990), though it is a character strength likely better fostered in some cultures and social contexts than others.

Dawes et al. (1990) review a substantial literature suggesting that a strong social bond or sense of solidarity are more likely to manifest such character strengths as loyalty and obligation. Perhaps no organized religious tradition has a more developed sense of solidarity than Judaism, particularly through the biblical concept of being a “treasured possession among all peoples” (Ex. 19:5). This notion of being a *chosen people*, an election of a people by its god, does not imply superiority or inherent sanctity (though it does hint at *specialness*) as much as it stresses duties and responsibilities as part of a conditional choosing (Atlan, 1987).

As with all religious traditions and teachings, however, one must be on guard against misunderstandings and abuses. In the case of Judaism, citizenship is defined at birth (i.e., to be a Jew, one must be born of a Jewish mother) and access to the group by others is impossible, enhancing the possibility of in-group favoritism and out-group hostilities. To guard against such natural tendencies, Judaism stresses that the imitation of God yields an ethic based on compassion that knows no ethnic or religious boundaries. “As the omnipotent Creator sustains his creation in grace and loving-kindness, so we—with our mortal strength—are to emulate him and to do acts of grace and loving-kindness for those who may be disadvantaged...” (Harvey, 1987, p. 300). It is such justice, born of both strength and compassion and rooted in the moral imitation of God, which serves as the Jewish prescription for “the optimal interaction between the individual and the group or community” (Peterson & Seligman, 2004, p. 357).

The sense of solidarity experienced by Jews in their historical tradition of being a people set apart, has given rise to insulated orthodox Jewish communities in cultures where Judaism is otherwise not a major force (such as in America). These orthodox communities offer researchers

the opportunity to test the degree to which sociocultural values such as citizenship and justice are successfully transmitted without the “secularized” influence of the larger culture.

CHRISTIANITY AND HOPE (OPTIMISM, FUTURE-MINDEDNESS, FUTURE ORIENTATION)

Peterson and Seligman (2004) define hope, optimism, future-mindedness and future orientation as

...a cognitive, emotional, and motivational stance toward the future. Thinking about the future, expecting that desired events and outcomes will occur, acting in ways believed to make them more likely, and feeling confident that these will ensue given appropriate efforts sustain good cheer in the here and now and galvanize goal-directed actions. (p. 570)

They go on to highlight nuances between hope and its synonyms, such that *hope* is more affect-oriented, and *optimism* more closely involves the role of expectations. *Future-mindedness* and *future orientation* are focused on articulating a theory of how to get from one place in the present to a (desired) place in the future. Hope has historically referred to positive expectations about “matters that have a reasonable likelihood of coming to pass” (Peterson & Seligman, 2004, p. 751), and has a long history in the Judeo-Christian tradition as one of the chief virtues.

As indicated earlier in this article, optimism has been clearly linked with physical (Seligman, 1992; Visintainer, Volpicelli, & Seligman, 1982) and mental health benefits (Peterson, 2000). Some (e.g., Peterson, 2000; Tiger, 1995) have suggested that religion is linked to optimism because of the hope that it holds and the certainty with which it speaks. McClure and Loden (1982) found that more time spent in religious activity correlated with more overall satisfaction and happiness with life. Sethi and Seligman (1993) found in their study that members of fundamentalist religious groups were more optimistic than those in more moderate or liberal religions. Smith and Gorsuch (1989) discovered that religious conservatives use an underlying attributional logic that encourages optimism: a powerful personal God is viewed as an interested and active agent in everyday life events, but especially those that are positive in nature. They further discovered that religious conservatives view God as active through multiple channels (God may speak by various means) and as working collaboratively with humans, thus contributing to one’s sense of meaning and purpose. The work by Smith and Gorsuch serves

as but another example of the potential to describe and explain some phenomenon occurring in religious and positive psychological development (in this case, the optimism of religious conservatives).

Christianity is a religion based on the life and teachings of Jesus Christ. Jesus was an Israelite Jew who taught that he was the Son of God, thereby claiming a divine nature for himself. As recorded in the New Testament of the Bible, he was born, lived and taught, was crucified and buried; on the third day he is said to have risen again and to have ascended bodily into Heaven. Many Christians place a great deal of weight on Jesus' resurrection. They reason that because Jesus predicted his own death and resurrection, if he did not rise from the dead then he was a liar and his teachings are not true. Paul says in a letter to the Christians in Corinth that, "if Christ has not been raised, your faith is worthless; you are still in your sins... If we have hoped in Christ in this life only, we are of all men most to be pitied" (1 Cor. 15:17 & 19). In fact, hope is identified as one of the "Big Three" Christian theological virtues (faith, hope, and charity) that "provides respite during trials, brings perseverance during challenges, and provides assurance of eternal joy" (Emmons, 2005, p. 242).

The Possible Relationship between Christianity and Hope

The New Testament account of Jesus' teachings and the writings of Paul the Apostle emphasize not only the judgment of God, but also the salvific role of Jesus as the means to secure favor before God in said judgment. It is faith in the ability of Jesus to mediate between God and the human being that is the basis for belief in Christian doctrine.

The relationship between the teachings of Christianity and the character strengths of hope and optimism is evident in the Nicene Creed, a brief but densely packed summary of foundational Christian doctrine, which says of Jesus that, "...He shall come again, with glory, to judge both the quick and the dead..." (BCP, 1945). And so it is that in two important ways Christianity both requires hope as a part of the salvation process and produces hope as a byproduct of belief. Hope in the ability of Jesus to intercede for humankind before a righteous and judging God is a necessary part of the salvation process for Christians, perhaps even the central point of it. Once salvation or conversion has taken place, hope in an eternal heavenly bliss in the presence of God as well as the return of Jesus to establish an earthly kingdom (viewed

differentially among Christians as either literal or symbolic) is an important byproduct of belief in Christ's teachings.

Future-mindedness and *future orientation* require an articulation of how to move from one place in the present to a (desired) place in the future. Christianity attempts to move humankind from a place of separation from God to a place of communion with God. Psychological research on hope by Snyder and colleagues (Feldman & Snyder, 2005; Snyder, 1994; Snyder, Sigmon, & Feldman, 2002) suggests that hope be conceptualized in terms of the ability to think of goals, to perceive pathways related to those goals, and to believe one is capable of achieving those goals. If, indeed, the Christian hope is for closeness and communion with God, then Christian precepts not only articulate pathways to achieve such a blessed hope, but also exhort believers to "hold unswervingly to the hope professed" (Heb. 10:23). It is the believer's confidence in the ability of Jesus to reconcile humanity and God, the veracity of Christ's resurrection, and the expectation of Christ's return and ensuing afterlife which help shape the Christian devotional life. Together, these beliefs suggest that Christian tenets help foster a sense of hope and optimism. Snyder's model, already useful in uncovering hope as a mediator between religious involvement and health (Snyder et al., 2002), provides researchers with a specific theoretical framework by which to empirically test the relationship between Christian teaching and the construct of hope.

ISLAM AND SPIRITUALITY (RELIGIOUSNESS, FAITH, PURPOSE)

"*Spirituality* and *religiousness* refer to beliefs and practices that are grounded in the conviction that there is a transcendent (nonphysical) dimension of life. These beliefs are persuasive, pervasive and stable" (Peterson & Seligman, 2004, p. 600). Much of the research on spirituality and religiousness to date has focused on correlates of religious involvement, which have already been addressed. The correlation of religious involvement and pro-social or self-protective behavior has been well established in the literature (e.g., Mattis et al., 2000).

However, the character strength of spirituality goes beyond mere behavior to include other components, including affect. Research about the rituals of secular and religious Jews in Israel revealed that while participation in these rituals renders these groups indistinguishable, their experience of and motivation for participation in them can vary

dramatically (Lazar, Kravetz, & Frederich-Kedem, 2002). Peterson and Seligman (2004) write that, “People with this strength have a theory about the ultimate meaning of life that shapes their conduct and provides comfort to them. Furthermore, spirituality and religiousness are linked to an interest in moral values and the pursuit of goodness” (p. 533). Spirituality can thus be condensed into several component parts: belief, behavior and affect, and all of these with a moral flavor. This paper presupposes that the character strength of spirituality will most strongly take root when any religion or system of beliefs touches all three component parts, and the more direct the contact the stronger the likelihood that spirituality (religiousness, faith, and purpose) will appear. While all religions have a theological or divine-belief component with implications for behavior and affect, spirituality will flourish when a religion not only implies behavior but dictates it, and not only supposes affective reactions of a certain kind but systematically instills them. This presupposition regarding the relationship of belief, behavior, and affect for the development of spirituality is another example of research questions that can be addressed by positive psychology researchers.

The Possible Relationship Between Islam and Spirituality

Islam is a monotheistic religion that teaches belief in one God who is “creator, sustainer, ruler and judge of the universe” (Esposito, 2002, p. 4) and is a religion which descends directly from the Judeo-Christian traditions that had been established earlier. “Unlike other monotheistic religions, Islam, at its core, makes no distinction between the spiritual and the temporal. It is at one and the same time a set of religious beliefs and dogmas as well as a pattern of behavior designed to order the relations between man and man and between man and the state” (Moughrabi, 1995, p. 72).

Islam began with the prophet Muhammed in 610 A.D. when he is reported to have been visited by the archangel Gabriel and commanded to read from a silk scroll (Armstrong, 1993; Gordon, 2002). After finishing, he was commanded by Gabriel to be a prophet, and convey the messages from the scroll to the people. These messages were eventually written down in what is now called the Qur’an, and are taken to be the words of Allah, the God of Islam. In 622 A.D., Mohammed moved his people to Medina, and many Muslims mark this as the beginning of the Islamic era (Armstrong, 1993; Gordon, 2002).

Islam, like Judaism, emphasizes *acting out* basic beliefs, more specifically the five pillars of Islam (witness of the creed, worship/prayer, almsgiving, fasting during Ramadan, and a pilgrimage to Mecca) (Qur'an, n.d., trans. 2004). However, there are three distinctives of Islam that make this religion likely to be unusually capable of creating a strongly committed spirituality and religiousness in its adherents. Islam's inclusiveness of other religions, the breadth of the behavioral mandates in the Qur'an, and the sociopolitical, linguistic, and even architectural transmission of religion through culture all foster an unusual sense of the transcendent dimension of life.

Muslims believe that Muhammad was the last messenger sent by Allah. However, unlike other religions, which believe in prophets to the exclusion of other faith-traditions, Islam "requires its followers to believe that all the great religions of the world that preceded it have been revealed by God" (Muhammad Ali, 1990, p. 5). For example, the Qur'an says that, "Say: We believe in Allah and (in) that which has been revealed to us, and (in) that which was revealed to Abraham and Ishmael and Isaac and Jacob and the tribes, and (in) that which was given to Moses and Jesus, and (in) that which was given to the prophets from their Lord; we do not make any distinction between any of them" (2:136). Other Muslim writers affirm Islam's acceptance of previous religious systems based on the changeless nature of human needs, which all religions seek to satisfy (Abdalati, 1993). Islam, according to its followers, is the last and all-inclusive religion. It is this inclusion, in contrast to the exclusion of outside religions by other faith-communities, which endows Islam with a foundational power to make meaning of all other experiences. This inclusion gives Islam tremendous explanatory power, and is a cognitively simpler task than that of other religions (which affirm some, but not all tenets of other faiths), perhaps making it easier to sustain across the lifespan. This shapes the belief of Muslims that Allah's will can be expressed in all things, and is one example of the pervasive belief component mentioned in Peterson and Seligman's definition of spirituality and religion.

As stated previously, all religions satisfy the belief component, and these beliefs inevitably have implications for behavior. The religion of Islam, however, leaves the believer with not only implications, but mandates from the Qur'an. The holy book, which is taken to be the words of Allah passed through the prophet Muhammad, instructs adherents not only in the five pillars,

but also, and in richer detail, with the problems of the world around us, with questions pertaining to relations between man and man, his social and political life, institutions of marriage, divorce and inheritance, division of wealth and relations of labor and capital, administration of justice, military organization, peace and war, national finances, debts and contracts, rules for the service of humanity and even treatment of animals, laws for the help of the poor, the orphan and the widow, and hundreds of other questions the proper understanding of which enables man to lead a happy life (Muhammad Ali, 1990, p. 6).

The Qur'an dictates behavior for most spheres of life, leaving little question of how to act out beliefs. The breadth of topics discussed in the Qur'an means that there is little that Islam does not directly touch—and these explicit points of contact mean that there is little in the lives of Muslims that is not clearly “religious” in the strict sense of the word. The requirements of Islam have a moral taste, but so do their economic policy, their voting patterns, and their family interaction. Even a topical survey of the Qur'an will reveal the spiritual and religious nature of most behavior in the Muslim life, and this clearly satisfies the behavioral component of the definition of spirituality as a character strength: behavior with a moral character that is rooted in a conviction about a transcendent or non-physical reality.

This paper claimed earlier that when a religion not only supposes affective reactions of a certain kind but systematically instills them, the character strength of spirituality is likely to follow on its heels. Islam interweaves sociopolitical, linguistic, and architectural culture with religion, with the affective result of personal identity with Islam at its core. As is common in Eastern civilizations, communitarian thought locates the self primarily in the context of the collective community, or culture. Islam is synonymous with culture, and it is this that allows it to affectively identify the self for believers.

The political concept of the caliphate comes from the Arabic root *Kh-l-f*, which means to be a successor, and the word *caliph* refers to the successors of the Prophet. The caliphate combines both religious and secular power, which comes as no surprise since the successors of the prophet are supposed to follow in the footsteps of a man who was a religious, military, political and cultural leader. Historically, the separation of church and state, prized so highly in the West, is unknown within Islam. There is a sense in which political rulers are divinely appointed, manifesting the will of Allah, and this places even politics in a sacred and religious light.

Some knowledge of Arabic is crucial to a true understanding of Islam. “The sacred book of Islam, the Qur’an, ceases to exist when its words are translated into another tongue...” (Fry & King, 1980). Although the Arabic of the Qur’an differs from the colloquial Arabic spoken by most Middle-Easterners, it is a language that embodies the faith of a people, as well as functioning as an expression of the faith. It is common in some places to end sentences using future tense verbs with the phrase “if Allah wills,” another example of the way Islamic religious beliefs touch even casual speech.

Mosques are a central feature of the expression of Islamic faith, a place of worship that is the focal point of every Muslim city. A geographical scan of the map for most Muslim cities reveals that all roads lead to the Mosque, “and that not only is there a central mosque, but that each section—quarter of a city—has its own small version—sometimes very plain, sometimes very elaborate” (Fry & King, 1980, p. 10). The mosque, a religious building by nature, is also the place of community life, a symbolic fact indicating that religion touches and motivates all things: children are instructed there, students study inside, communities gather on summer evenings, public announcements are made there and much more (Muhammad Ali, 1990). The mosque is a symbol of Islam, but is also a center for community life—the two are inextricably linked both physically and symbolically.

Political figures with religious influence, as well as linguistic structures and architecture, all serve to instill a deep identity within the Islamic people—that Islam is not just a religion, but is a way of life. All things are religious and, therefore, one’s complete existence is interpreted in the context of a religious world. Children are thoroughly immersed by way of teaching (belief), modeling (behavior), and cultural infusion (affective identification), thus making Islam unusually capable at creating and sustaining the character strength of religiousness or spirituality.

DIRECTIONS FOR FUTURE RESEARCH

Although the bulk of our treatment of the relationship between religion and character strengths has been centered on specific tenets of four cumulative religious traditions, we have mentioned throughout various other ways in which religion may be related to the development of virtues such as transcendence and justice. As the relationship between religion and positive psychology is still just budding, we find several

broad areas or tasks to be of high importance in furthering its development. Specifically, creating theoretical models that describe and explain the role of religious teachings, practices, and other unique sociocultural influences in the creation and sustenance of character strengths and virtues is particularly valuable. Theoretical work by Haidt (2003) and Snyder (Snyder et al., 2002) serve as good exemplars. The extent to which these models apply only within specific religious traditions versus their universality across religious traditions. The development of theoretical models that can account for the multiplicity of factors both within and across cumulative religious traditions will also be crucial.

Research in comparative religious studies that focuses on analyzing positive psychological virtues is also likely to bear much fruit in the future. Are some virtues or character strengths conspicuously absent in some religious traditions? Do some religious traditions stress certain virtues or strengths at the expense of others? For example, does Christianity's emphasis on forgiveness from God and for others result in making justice a merely symbolic construct that is located within the person of Christ (whose sacrifice satiates the justice of God)? Do the emphases in Islam on religiosity and the obligation to act out of the five pillars of faith downplay the importance of affective components of faith?

Commonalities among religious teachings and practices across cultures and across time will also be useful in understanding the underlying mechanisms of religion for producing human flourishing. While it is certainly a possibility that some religions or traditions are better at producing some virtue or strength than others, and may do so in a unique way that other religions cannot emulate, it is also likely that religions share some common methods or beliefs. A systematic analysis of the religious literature and cultural artifacts will be beneficial in this pursuit.

The study of non-religious persons and their development of virtues will also prove fruitful for researchers. How do they ascribe value to certain virtues and moral stances? Is it similar to those in practicing religious traditions? Positive psychology could also undertake the study of spiritual transformation (Hill, 2002), including that of individuals who have converted either from no religion or from one religion to another. Is there a change in their character? Where in the personality are these changes situated? Although this last question is intriguing, caution to researchers to specify type of personality change and type

of religious conversion should be well heeded (Paloutzian, Richardson & Rambo, 1999).

The question of human flourishing is one that readily applies to all people, and thus our pursuit to understand it ought to incorporate interdisciplinary effort (including such disciplines as anthropology, history, literature) resulting in multiple levels of explanation. To this end we propose that collaboration between religious scholars, psychologists of religion, and positive psychology researchers is necessary to systematically probe the insights of religious traditions to better understand human flourishing.

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EXAMINING THE “SPILL-OVER” EFFECT OF RELIGIOSITY ON CIVIC INVOLVEMENT AND EFFICACY

H. Lovell Smith and Mark Peyrot

ABSTRACT

This study examines the hypothesis that religiosity increases civic involvement and efficacy, and especially whether this influence extends beyond involvement in one's own religious organization. Because of the way that religiosity and civic involvement/efficacy are entwined with race and gender, we consider the confluence of all these factors. Data are derived from the 1655 black or white adults who participated in the 1987 General Social Survey. The outcomes are involvement in faith-based and secular organizations, and political electoral participation, as well as perceived social and political efficacy. In addition to race and gender, potential correlates include cognitive and behavioral indicators of religiosity. Preliminary analysis used chi-square and ANOVA for group comparisons and multivariate analysis of outcomes used logistic regression. Results provide partial support for the hypotheses that faith-based organization involvement is higher among blacks and women and secular involvement/efficacy is higher among whites and men. Religiosity is strongly related to faith-based involvement, but not as strongly nor consistently associated with other forms of civic action and efficacy. Secular involvement is more strongly related than faith-based involvement to perceived social and political efficacy. Findings suggest that religiosity has a small “spill-over” effect, that religious behavior has a greater effect than religious beliefs, and that the effect on perceived social efficacy is greater than that on perceived political efficacy. It remains to be seen whether recent efforts to politicize religious activity have increased the “spill-over” effect.

EXAMINING THE “SPILL-OVER” EFFECT OF RELIGIOSITY ON CIVIC INVOLVEMENT AND EFFICACY

Are religious beliefs and worship practice sources of social capital? Do they enhance involvement in faith-based civic action? Does religiosity provide a “spill-over effect” into other forms of local civic involvement such as involvement in service groups, political clubs and the PTA? According to Andrew Greeley (1997) the answer is yes. Basing his evidence on trends observed in the European Value Studies (Halman &

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Vloet, 1994), Greeley concludes that (a) the rate of church attendance and volunteering has risen in western nations, particularly in the U.S. and, (b) these two phenomena are strongly correlated.

People who attend services once a week or more are approximately twice as likely to volunteer as those who attend rarely if ever. (1997, p. 70)

Although Greeley offers a definitive conclusion, several questions remain unanswered. Is the association between religion and civic involvement a result of confounding with race and gender? How much do faith-based and secular organization involvement contribute to perceived efficacy of person's civic action? In this study we examine the association of religiosity with faith-based and secular forms of civic involvement. Additionally, we dissect how these domains of civic involvement combine with race and gender. Finally, we assess the relationship of various forms of civic involvement with perceived efficacy of civil action.

REVIEW OF THE LITERATURE

Since Thomas Jefferson's 1802 letter to the Danbury Baptists, pundits and social thinkers have debated the legal "wall of separation" between church and state (Hutson, 1999). Despite this centuries-old discussion, what remains certain is that no such wall exists between personal beliefs and the manner in which they potentially transform one's public behavior. Alexis de Tocqueville documented this fact in 1840 when he observed that "Christianity, indeed, teaches that a man must prefer his neighbor to himself in order to gain eternal life... (1945, p. 125)." Although religiosity is not the sole source from which one develops a sense of service to others, its pervasiveness across regional, class, and racial boundaries suggest its prominent role in shaping civic consciousness (Smidt, 1999).

Evidence of this was reported in 2000 by the Saguaro Seminar of the John F. Kennedy School of Government at Harvard University (Saguaro Seminar, 2001). In a national study of American civic involvement, 48% of respondents were members of a local faith-based institution (church, mosque, parish, or synagogue) and involvement in religious communities was among the strongest predictors of giving and volunteering. Furthermore, a panel study of 2000 Americans surveyed between 1986 and 1989 revealed that faith-based volunteering was more stable across the four year period than "volunteering to help the elderly, to work for

political organizations or unions, and volunteering in connection with educational issues” (Wilson & Musick, 1999, p. 264).

As Greeley (1997) maintains, faith-based organizations are vehicles for developing social networks that encourage voluntary activities. Congregational culture can serve as a source of cultural capital through norms influencing monetary giving, service, and political involvement (Hoge & Yang, 1994; Lam, 2002; McKenzie, 2001; Park & Smith, 2000). Variations in the development of congregational civic norms are influenced by denominational orientation (Harris, 1994; Hoge, Zech, McNamara, & Donahue, 1998; Lam, 2002), educational and occupational composition (Musick, Wilson, & Bynum, 2000) civic orientation (Brown & Brown, 2003; Campbell, 2000), internal social supports (Pattillo-McCoy, 1998; Schervish & Havens, 1997; Taylor & Chatters, 1986; Taylor, Mattis, & Chatters, 1999), and fundamentalist orientation (Marsden, 1977; McKenzie, 2001).

Relatively few studies have examined influence of religiosity on civic involvement that can benefit one’s local community. A notable obstacle to this question has been the problem of operationally defining the “local community” (Mesch & Schwirian, 1996). The reality of social geography is that a shared definition of what constitutes “the community” is easier to manufacture the more broadly one expands the spatial reference (Peyrot & Smith, 1998). Constrained by our reliance on secondary data, our approach to the problem is to select proxies for civic involvement by focusing on the types of secular organizations in which the respondent’s involvement is likely to have benefits for the community rather than being specific to the organization’s membership (see methods section for details). We are unable to determine the degree to which involvement in faith-based organizations meets this criterion.

Nevertheless, the question remains the extent to which religious beliefs and behaviors are gateways to secular forms of volunteering in the local community. Recent scholarship has begun to address this question. Park and Smith (2000) found that dimensions of religiosity can have varying effects on faith-based and secular volunteering among churchgoing Protestants. For example, level of “church involvement” was significantly and positively associated with both faith-based and secular volunteering; however, high “church attendance” was significantly associated with reduced secular volunteering. In the political domain, McKenzie (2001) found that once the motivational effect of fundamentalism was

controlled for, church attendance had no significant effect on involvement in local government meetings.

A distinction is made between faith-based and secular civic involvement since several studies suggest that involvement in the former may not substantially impact involvement in the latter (Knoke & Thomson, 1977). Lam (2002) examined the impact of religion and voluntary involvement in secular associations such as professional groups, social services, and environmental groups. The author found that religious “membership and serving on a committee in a religious organization increase[d] the likelihood of being a member in a voluntary organization (p. 410).” On the other hand, faith-based volunteering and attendance significantly decreased the likelihood of secular volunteering.

There has been little research on the relationship between religiosity and the efficacy of civic action. Indeed, there is little reason to expect that religiosity would have an independent effect on efficacy of civic action beyond that which would arise from any impact on the number or level of involvements. Nevertheless, since there is a positive association between level of civic involvement and self-perceived efficacy of that involvement (Ahlbrandt, 1984; Booth & Babchuk, 1973; Unger & Wandersman, 1985), we expect the same types of association for both involvement and efficacy. Thus, we hypothesize the following: 1) The higher one’s *cognitive* religiosity (religious beliefs), the greater the likelihood of local civic involvement and efficacy; 2) The higher one’s *behavioral* religiosity (worship attendance), the greater the likelihood of local civic involvement and efficacy.

We contend that any analysis of the effects of religiosity on social capital formation (resources, networks, and initiatives) in the United States must take into account the confounding influence of race and gender. This argument begins with the premise that those firmly in the majority of society (i.e., whites and men) have greater access to public resources and opportunities than those who are more marginalized (i.e., blacks and women). Secondly, interest in taking civic action will be commensurate with one’s level of social enfranchisement (Coleman, 1990, p. 133). Musick et al. (2000) suggest that racial majority/minority status likely mediates volunteering opportunity. Specifically, white volunteering is less motivated by religiosity because white Americans have more access to secular organizations. For black Americans, religious organizations provide a nexus for forging a common identity and sense of purpose in a society where white privilege persists. Accordingly, worship attendance can have a major influence on black faith-based volunteering. We found partial confirmation of this observation in a study of African-American

male Catholics in Baltimore, Maryland (Smith, Fabricatore, & Peyrot, 1999) which showed that religious involvement was significantly associated with level of parish volunteering activity.

Mattis et al. (2004) suggest that African American civic involvement may develop, in part, to counter-balance the effects of racial degradation. Historically, the black church has been the principal venue for mobilizing black American cultural resources for the pursuit of societal change (Farmer, 2006). Numerous studies highlight the role that the church has played in the black community (e.g., Ellison & Sherkat, 1995; Taylor, Thornton, & Chatters, 1987; Wilcox & Gomez, 1990). Ellison and Sherkat (1995) state that “[d]uring decades of racial segregation, deprivation, and exclusion, the church was the only major institution organized and maintained primarily by Blacks, for the benefit of Blacks (p. 1417).” Faith-based organizations served as the central organizing institution for mutual aid and welfare (Billingsley, 1999; Frazier, 1963; Higginbotham, 1993; Taylor & Chatters, 1988), as well as political mobilization (Morris, 1984; Nelsen & Nelsen, 1975). Regarding race we hypothesize the following: 3) Faith-based involvement will be higher among blacks than whites; and 4) secular civic involvement will be higher among whites than blacks.

Level of civic involvement also has been examined across gender groups (e.g., Coke, 1992; Levin & Taylor, 1993). Roof and Hoge (1980) find that American women have significantly more participation in church-related activities than men. However, Uslaner (2002) finds that in North America women’s rate of secular volunteering is significantly lower than men’s. Thus, we hypothesize the following: Faith-based involvement will be higher for women than men, and secular civic involvement will be higher for men than women.

We anticipate that the latter two hypotheses will operate additively, so that black women should have the highest and white men the lowest faith-based involvement. Black women should have the lowest and white men the highest secular involvement and efficacy.

METHOD

All data are derived from the 1987 General Social Survey (GSS), a national probability sample of U.S. residents. Two criteria determined the selection of this data source: (1) its inclusion of questions concerning civic involvement, and (2) an over-sampling of blacks (30.2%) among the 1655 voting age (18 or older) respondents who were surveyed.

Respondents who were not black or white were excluded from our analyses because of their small numbers, as were those who had missing data on study measures. Thus, our study sample consists of 298 black women (18%), 202 black men (12.2%), 647 white women (39.1%) and 508 white men (30.7%).

Measuring Civic Involvement and Efficacy

We examine three behavioral measures of civic involvement and two measures of perceived civic action efficacy. All measures were dichotomous so that we could use the same type of analysis (logistic regression) for all outcomes. The behavioral indicators of organizational involvement were obtained through a two-step process. Respondents were first asked to indicate the types of organizations in which they were members. Members of an organization were asked whether they were actively involved. Only those who indicated they were active members were scored as being active in organizational involvement.

Active *faith-based organization involvement* was reported by nearly a quarter of the sample (24.5%). *Secular organization involvement* is a binary variable coded 1 for active involvement in one or more of several associations (political club, service group, school service, and/or youth group) and zero otherwise. Involvement in organizations such as fraternal groups, hobby clubs, labor unions, and professional societies were not included in this measure because we considered organizational benefits to be targeted more towards members than the general public. Active involvement in one or more secular associations was reported by 19.1% of respondents. Finally, *political electoral involvement* is coded 1 for respondents who reported voting in all local elections (sometimes miss, rarely vote, and never vote = 0); 34.7% reported having done so.

The two subjective measures of civic action efficacy included in the analysis are perceived social efficacy and perceived political efficacy. *Perceived social efficacy* is a measure of the respondent's perception that s/he has had an impact on solving problems or creating a new social group. Respondents scored as having social efficacy (coded 1) were those who answered yes to at least one of the following two items: has respondent helped to solve local problems, and/or has respondent helped to start a new local group. Those answering no to both questions were given a score of zero. A little more than 1 in 3 respondents (38%) answered yes to one or both items. *Perceived political efficacy* is a measure of the respondent's perception that s/he has had an impact on local political processes. Respondents were asked how much influence

they felt they had on local government (moderate amount or a lot of influence = 1; else = 0). Just under half the sample (48.2%) reported higher government influence.

Explanatory Variables

Religious indicators. The number of variables available for measuring religiosity in the 1987 GSS dataset is limited in comparison to the number of relevant questions asked in other years (e.g., 1984, 1991). Given this constraint, we use two measures of religiosity—one cognitive, one behavioral. The cognitive measure is a binary variable representing the feeling of nearness to God. Respondents indicating they felt extremely close (33.5% of sample) were coded 1, while those who felt somewhat close or not at all close were coded 0.

The behavioral indicator of religiosity is worship attendance. Frequency of attendance is represented by two binary variables: monthly attendance = 1 (20.5%) if a respondent indicated attendance at religious services either once a month, or 2 to 3 times a month (else = 0). Weekly attendance = 1 (34.3%) if a respondent reported attending services either nearly every week, every week, or, more than once a week (else = 0). The reference category consists of respondents who reported that they never attend services, attend services once a year or less, or attend services several times a year but less than once a month.

Control variables. To account for the independent effect of religiosity on the likelihood of participating in various forms of civic activity we control for several respondent characteristics, including two continuous interval-level variables, age ($M \pm SD = 44.7 \pm 17.5$) and number of children under 18 living with respondent ($M \pm SD = 2.0 \pm 1.9$). We also control for three measures of socioeconomic status (education, work status, class identification). Education is an interval variable indicating the highest number of years of schooling completed ($M \pm SD = 12.4 \pm 3.2$). For work status, two binary variables were created, one identifying all full-time workers (52.3% of sample), the second identifying all part-time workers (10.9%); the reference group was respondents who were neither working full-time nor part-time. The variable indicating class identification provided response options of lower class = 1, working class = 2, middle class = 3, and upper class = 4 ($M \pm SD = 2.5 \pm 3.2$).

The dependent variables (faith-based and secular organization involvement, political electoral involvement, and perceived social and political efficacy) presume a vested interest in the neighborhood. Accordingly,

we include a measure of length of local residency. Respondents are categorized as having lived locally less than one year = 1, 1 to 3 years = 2, 4 to 10 years = 3, greater than 10 years but not life = 4, or their entire life = 5 ($M \pm SD = 3.4 \pm 1.2$). We also include a measure of the urbanicity of the respondent's residence (10 categories ranging from open country = 1 to city with more than 250,000 residents = 10) ($M \pm SD = 6.7 \pm 2.9$).

Analytic Approach

Initial analyses present unadjusted race/gender comparisons for all variables in the study using chi-square and ANOVA to compare each race/gender subgroup to all others. Significance levels for overall race and gender comparisons were obtained by logistic regression models containing race and gender. These analyses provide comparisons for study outcomes without exercising controls for other potential confounds. We also conduct logistic regression analyses to isolate the unique influence of religiosity and respondent characteristics on the measures of civic involvement and civic action efficacy. All race/gender comparisons in the multivariate analyses are made relative to the same reference group (i.e., white men). We also conduct logistic regression analyses of perceived civic action efficacy by adding the different domains of civic involvement to the previously described models.

RESULTS

Race/Gender Comparisons

Table 1 presents the comparison of race/gender groups for each variable in the analysis and presents comparisons among each race/gender group. Table 1 also presents the significance levels for unadjusted tests of the race and gender hypotheses regarding the study outcomes.

Demographic factors and religiosity. Although we have not stated hypotheses for these measures, the results show that there are statistically significant differences among the groups for all measures except years residing locally. Thus, it is important to control for these factors when examining race/gender differences in civic action/efficacy.

Civic involvement and efficacy. Hypotheses 3 and 4 state that faith-based organization involvement will be higher among women and blacks. The preliminary (unadjusted) results support both of these hypotheses. When

specific race/gender groups are compared, faith-based organization involvement is significantly higher among black women (32.6%) than the remaining race/gender subgroups and significantly higher for white women (26.1%) than white men (16.5%), but not black men (21.3%).

Table 1. *Univariate Contrasts By Race and Gender*

Variables	N Sample (%)	1655 100%	WOMEN		MEN		Overall			
			White 647 (39)	Black 298 (18)	White 508 (31)	Black 202 (12)	Women 945 (57)	Men 710 (43)	White 1155 (70)	Black 500 (30)
Age (<i>M</i>)			46.5 A	42.6 B	44.7 A,B	41.9 B	44.6	43.3	45.6	42.3
Number of Children (<i>M</i>)			2.0 B	2.5 A	1.8 B	2.0 B	2.1	1.8	1.9	2.3
Years of Education (<i>M</i>)			12.6 A	11.7 B	12.9 A	12.0 B	12.2	12.5	12.8	11.9
Employed Part-time (%)			13.8 A	9.4 A,B	8.1 B	11.4 A,B	11.6	9.8	11.0	10.4
Employed Full-time (%)			41.7 C	44.3 C	68.1 A	58.4 B	43	63.3	54.9	51.4
Years Residing Locally (<i>M</i>)			3.5 A	3.4 A	3.4 A	3.4 A	3.45	3.4	3.5	3.4
Urbanicity (1 = Lo)			6.1 B	8.0 A	6.3 B	8.0 A	6.7	6.8	6.1	8.0
Class Identification (<i>M</i>)			2.6 A	2.3 B	2.5 A	2.3 B	2.45	2.4	2.6	2.3
Feeling of Nearness to God (%)			35.5 B	45.6 A	23.6 C	34.2 B	40.6	28.9	29.6	39.9
Attends Services Monthly (%)			16.7 B	31.2 A	16.5 B	27.2 A	24	21.9	16.6	29.2
Attends Services Weekly (%)			36.9 A	41.6 A	28.7 B	28.2 B	39.3	28.5	32.8	34.9
Faith-based Organization Involvement (%)			26.1 B	32.6 A	18.9 C	21.3 B,C	29.4***	20.1***	22.5*	27.0*
Secular Organization Involvement (%)			23.2 A	14.1 B	18.9 A,B	13.9 B	18.7	16.4	21.1***	14.0***
Political Electoral Involvement (%)			36.3 A	28.9 B	37.8 A	30.2 A,B	32.6	34	37.1**	29.6**
Perceived Social Efficacy (%)			37.9 A,B	33.6 B	41.1 A	37.1 A,B	35.8	39.1	39.5	35.4
Perceived Political Efficacy (%)			50.2 A	38.6 B	51.8 A	46.5 A,B	44.4	49.2	51.0***	42.6***

Note. Cell entries are means (*M*) or percent (%). For specific race/gender groupings significance of differences are assessed by pairwise ANOVA or chi-square. For each variable race/gender cells with the same letters are not significantly different; cells with different letters are significantly different ($p < .05$). Significance levels of overall race and gender comparisons were obtained by logistic regression models containing race and gender.

* $p < .05$; ** $p < .01$; *** $p < .001$.

Hypotheses 3 and 4 state that secular civic involvement will be higher among men and whites. The preliminary (unadjusted) results support the hypothesis concerning race, but not that for gender. When specific race/gender groups are compared, secular organization involvement is higher among white women (23.2%) than black women (14.1%) and black men (13.9%), but not white men (18.9%). Similarly, white men (37.8%) and white women (36.3%) report political electoral involvement at significantly higher rates than black women (28.9%), but not black men (30.2%).

Hypotheses 3 and 4 state that social and political efficacy will be higher among men and whites. The preliminary (unadjusted) results support the hypothesis concerning race and political efficacy, but not that for social efficacy nor gender. When specific race/gender groups are compared, significantly more white men (41.1%) perceive themselves as having high social efficacy than black women (33.6%), but not than white women (37.9%) or black men (37.1%). Significantly more white men (51.8%) and white women (50.2%) perceive themselves to have high political efficacy than black women (38.6%), but not black men (46.5%).

Logistic Regression Analysis of Civic Involvement and Efficacy

Table 2 presents the results of the logistic regression analysis of civic involvement and efficacy. Demographic measures were significantly related to all outcomes, race/gender was significantly related to two of five outcomes, and religiosity was significantly related to all outcomes in the predicted direction.

Demographic factors. Controlling for other factors, each demographic factor is significantly associated with at least one of the indicators of civic involvement/efficacy. Older respondents report significantly higher rates of political electoral involvement and perceived social efficacy. Additionally, most of the significant associations with socio-economic status (education, employment, class identification) are positive. Level of education demonstrates the strongest and most consistent impact across the five dependent variables. Although full-time employment status is significantly associated with a higher likelihood of perceived political efficacy, it is associated with a significantly lower likelihood of faith-based organizational involvement.

The measure of potential vested interest in the local community, number of years one has resided locally, was significantly and positively

associated with secular organizational involvement, political electoral involvement, and perceived social efficacy.

Race/gender. Hypotheses 3 and 4 predict that faith-based organization involvement will be highest among blacks and women, and secular civic involvement and efficacy will be highest among whites and men.

Table 2. *Logistic Regression Analysis of Civic Involvement and Efficacy*

		Faith-based Involvement	Secular Involvement	Political Involvement	Perceived Social Efficacy	Perceived Political Efficacy
Demographic Controls	Age	.01 (.01)	-.01* (.00)	.04*** (.00)	.02*** (.00)	.00 (.00)
	No. of Children	.04 (.04)	.15*** (.04)	.06 (.03)	.11*** (.03)	-.02 (.03)
	Years of Education	.15*** (.03)	.27*** (.03)	.18*** (.02)	.24*** (.02)	.16*** (.02)
	Employed	.18 (.22)	.13 (.23)	.02 (.21)	.37 (.19)	.27 (.19)
	Part-time ^b Employed	-.39* (.17)	.01 (.17)	-.08 (.15)	.03 (.14)	.27* (.13)
	Full-time ^b Class	.19 (.10)	.07 (.11)	.07 (.09)	.08 (.09)	.19* (.08)
	Identification	.19 (.10)	.07 (.11)	.07 (.09)	.08 (.09)	.19* (.08)
	Years Residing Locally	-.00 (.06)	.23*** (.06)	.31*** (.05)	.35*** (.05)	.08 (.04)
	Urbanicity	-.05* (.02)	-.05* (.02)	-.04* (.02)	-.01 (.02)	-.02 (.02)
	White Women	.14 (.17)	.37* (.16)	-.19 (.14)	-.18 (.14)	-.01 (.13)
	Black Women	.55*** (.21)	-.23 (.23)	-.24 (.19)	-.19 (.18)	-.32 (.17)
	Black Men	.26 (.25)	-.15 (.26)	-.05 (.20)	.03 (.19)	-.01 (.18)
	Feeling of Nearness to God	.51*** (.14)	.03 (.15)	.02 (.13)	.31*** (.12)	.20 (.12)
	Attend Services	1.85*** (.21)	.74*** (.18)	.27 (.16)	.28 (.15)	.16 (.14)
Religious Indicators	Monthly ^c Attend	2.64*** (.19)	.55*** (.16)	.57*** (.13)	.02 (.13)	.26* (.13)
	Services					
	Weekly ^c ΔR^2					
	Controls ΔR^2	.08	.14	.20	.16	.10
Nagelkerke's R-Square	Race/Gender ΔR^2	.03	.01	.00	.00	.00
	Relig. Indicators ΔR^2	.23	.02	.02	.01	.01
	Total	.34	.17	.22	.17	.11

Note. Table entries are unstandardized coefficients (and their standard errors).

a White men is the reference group for race/gender contrasts.

b Not employed is the reference group for employment contrasts.

c Infrequent attenders and non-attenders are the reference group for service attendance contrasts.

* $p < .05$; ** $p < .01$; *** $p < .001$.

Results in Table 2 show that both of these hypotheses are only partially confirmed. Black women are significantly more likely than white men to be actively involved in a faith-based organization. White women are significantly more likely than all other groups to be actively involved in secular organizations (the significance test is for the comparison to white men, but black men and women are less involved than white men). There were no race/gender differences in perceived social efficacy, but black women are significantly less likely than white men to have high perceived political efficacy (a supplemental test indicated that high perceived political efficacy also was significantly less likely among black women than white women). It should be noted that several race/gender differences found in Table 1 were not reproduced in Table 2 once controls were incorporated.

Religiosity and civic involvement/efficacy. The Nagelkerke R^2 shows that religiosity accounts for 23% of the variance explained for faith-based organization involvement. This is substantially more than the variance accounted for in secular organization involvement (2%), political electoral involvement (2%), perceived social efficacy (1%), and perceived political efficacy (1%).

Hypothesis 1 predicts a positive association between cognitive religiosity (nearness to God) and civic involvement/efficacy. Table 2 demonstrates that this hypothesis is only partially confirmed. Cognitive religiosity is significantly associated with active involvement in faith-based organizations, but not in secular organizations or political elections. For the two measures of civic action efficacy, feeling near to God is significantly associated with social efficacy, but not with political efficacy.

Hypothesis 2 predicts a positive association between behavioral religiosity (worship attendance) and civic involvement/efficacy. This hypothesis is supported for 4 of the 5 measures in Table 2. Higher worship attendance is associated with higher likelihood of faith-based and secular organization involvement and political electoral involvement; the associations are higher for faith-based involvement than secular involvement. Worship attendance is significantly associated with perceived political efficacy but not perceived social efficacy.

Logistic Regression of Perceived Civic Efficacy on Civic Involvement

Table 3 reports the regression of civic action efficacy on the three indicators of objective civic involvement (faith-based organization

Table 3. *Logistic Regression Analysis of Impact of Civic Involvement on Perceived Civic Action Efficacy*

		Perceived Social Efficacy	Perceived Political Efficacy
Nagelkerke's R-Square		.25	.14
Civic Involvement	Faith-based	.41**	-.23
	Involvement	(.15)	(.15)
		1.18***	.79***
	Secular Involvement	(.15)	(.15)
		.58***	.46***
Political Involvement		(.12)	(.12)

Note. Table entries are unstandardized coefficients (and their standard errors). Models include all variables listed in the corresponding analyses from Table 2.

* $p < .05$; ** $p < .01$; *** $p < .001$.

involvement, secular organization involvement, and political electoral involvement). Our model accounts for 25% of the variance in perceived social efficacy, and 14% of variance explained in perceived political efficacy. Adding the indicators of different domains of civic involvement accounted for 8% and 3% of variance in perceived efficacy over that accounted for in the models from Table 2. Perceived social efficacy is significantly associated with all three indicators of civic involvement, but the associations of secular involvements are substantially larger than that for faith-based involvement. Perceived political efficacy is positively associated with both domains of secular involvement, but not with faith-based involvement.

DISCUSSION

Our study partially confirms Greely's (1997) contention of the spill-over effects of religiosity on civic involvement. We found that frequent worship attendance was positively associated with four of the five measures of local civic involvement and efficacy. On the other hand, we found that religious belief was positively associated with only two of the five outcomes—faith-based organization involvement and perceived social efficacy. These findings contrast with Lam's (2002) results which indicate that worship attendance decreased the likelihood of civic involvement and that several other indicators of religiosity that were categorized as religious beliefs were positively associated with civic involvement.

One possible explanation for the divergent findings regarding the effect of worship attendance is that Lam controlled for two aspects of faith-based organization volunteering, each of which is positively associated with secular organization involvement. This analytic strategy partitions the association with worship attendance into two components—a negative direct relationship and a positive indirect relationship (worship attendance increases faith-based organization volunteering which in turn increases secular organization volunteering). It appears that the negative direct relationship is small relative to the positive indirect relationship (assuming that the association of worship attendance with faith-based organization volunteering in that study is large and positive as in our study). Thus, the net relationship (direct plus indirect) of worship attendance with secular organization involvement in the Lam study would be positive. This is consistent with our results, which indicate a positive total relationship.

The divergence between our results and those of Lam (2002) concerning religious beliefs may stem from differences in the measures. Lam's measures of "religious beliefs" include devotional practices (prayer and religious reading)—which we would regard as behavioral, paralleling our behavioral measure of worship attendance. Lam's measures of "religious beliefs" also include impact of religion on political thinking—which, although purely cognitive, is a subjective attribution of the association that the analysis seeks to identify, i.e., a respondent's claim that religion impacts his/her political thinking is associated with (has an impact on) political thinking/action. Disregarding the circularity of this line of reasoning, it is possible that the key ingredient in what Lam regards as measures of "religious beliefs" is political concern and a tendency to act to produce desired outcomes. In contrast, our measure of cognitive religiosity is an indicator of religious beliefs per se (without specific behavioral or political content). Thus, Lam's findings may identify types of religious beliefs that motivate civic involvement, while our results identify types of religious beliefs that do not motivate civic involvement, e.g., our measure might be regarded as a measure of religious well-being. Along the latter lines, we note that in Lam's study the indicator of religion's importance to the respondent was not related to civic involvement. This suggests that personalistic religious beliefs are less likely to generate civic involvement.

We also examined the strength of positive relationships between domains of civic involvement and two indicators of perceived civic action efficacy. Faith-based organization involvement had the weakest

association with both of these outcomes, and was significant only for perceived social efficacy. This suggests that faith-based organization involvement is seen as having a social impact but not a political impact. Faith-based organization initiatives such as ministry to the disadvantaged are likely to generate a sense of impacting social problems, but not political efficacy. Of course, some faith-based organizations are active politically, but political initiatives are less common than traditional initiatives such as evangelization (Caldwell, Green, & Billingsley, 1992; McRoberts, 1993; Schwadel, 2005; Taylor & Chatters, 1988). Political electoral involvement was significantly associated with both indicators of perceived civic efficacy, but secular organization involvement had the strongest associations. This finding supports the hypotheses that collective action has greater (perceived) impact than that of an individual's voting behavior (Greenberg, 2003; Simons & Cleary, 2006).

The hypotheses concerning race and gender were based on the principle that the greater one's mainstream or majority status (e.g., whites and men), the more likely one's civic actions and efficacy would be focused in secular domains. The more marginal one's societal status (i.e., blacks and women), the more likely one's local civic actions will take place within the setting of a supportive community (i.e., faith-based organizations). Our results showed strong support for the race hypothesis (four of five measures), but only weak evidence for the gender hypothesis (genders differed significantly only for faith-based involvement). However, the trends were in the predicted direction for all comparisons; consequently when specific race/gender groups were compared, the significant differences resulted from the cumulative effects of race and gender.

Prior research has found that higher socio-economic status (SES) is associated with more civic involvement (Ryan, Agnitsch, Zhao, & Mullick, 2005; Schwadel, 2005). Our results were generally consistent across several measures of SES; where relationships were significant, higher SES (especially education) generally was associated with higher rates of civic involvement and efficacy. The one exception was that full-time employment was associated with lower rates of faith-based involvement. This may be due to competition for scarce time; full-time employment may allow less time for civic involvement. It should be noted that employment and class identification were associated with higher perceived efficacy even though they were not associated with more civic involvement. One possible explanation is that the involvement of higher SES individuals has a greater impact; another possible

explanation is that higher SES individuals tend to overestimate the impact of their involvement.

Our analysis also examined the relationship between rootedness in the local community and various forms of civic involvement and efficacy. Other studies have found that local community rootedness (time living in a neighborhood and home ownership) is associated with increased civic involvement (Blum & Kingston, 1984; Payton & Fulton, 2005). Our findings revealed that tenure in the neighborhood was positively associated with secular and political involvement but not involvement in faith-based organizations. One possible explanation of this result is that a substantial number of local congregants attend services outside their local communities, e.g., they may stay involved with a faith-based organization after leaving the neighborhood in which it is located. Alternatively, congregants may become involved in faith-based initiatives quickly upon moving into a neighborhood as a result of searching out a worship community. Thus, rootedness in a neighborhood may exert less of an influence on one's decision to become active in the local faith-based institution than it does on secular and political involvement. And this neighborhood commitment contributes to a sense of social efficacy.

There are several limitations to this study. Because the study is correlational and cross-sectional, causal conclusions are unwarranted. And the measures of religiosity are limited. It would be preferable to have assessed a variety of beliefs and worship practices to see which, if any, were associated with civic involvement and efficacy. Moreover, the data did not allow us to assess whether our findings differed across different religious denominations. The measures of civic involvement did not quantify level of involvement, so it is difficult to compare the correlates of different domains of involvement. And the measures of social and political efficacy are not strictly parallel, so that it is difficult to compare the associations of religiosity with these measures. Finally, we do not know whether the respondents' involvement in faith-based organizations has a benefit for the community beyond the congregation. Nevertheless, this study does add to our knowledge regarding the associations among religiosity, civic involvement, and civic action efficacy.

This study shows that the associations of religiosity with civic involvement and efficacy are not a result of confounding with socio-economic status or race/gender. Religious beliefs and behaviors are associated with both faith-based and secular civic involvement, but the associations with

faith-based involvement are much stronger. Religious behavior is more strongly related to all domains of civic involvement than is religious belief. Taken together, religious belief, behavior and organizational involvement are related to both social and political civic efficacy, but are more strongly related to social efficacy than political efficacy.

While this research demonstrates that the spill-over effect of religion on forms of secular civic involvement and efficacy is modest, future research should seek to determine the degree to which religion could be harnessed to increase civic involvement and efficacy. Such research would need to assess civic involvement and efficacy before and after an intervention designed to enhance civic involvement. For example, what would happen if a new pastor committed to civic involvement were assigned to a congregation with modest levels of civic involvement? Also, would different congregations—those with particular sets of beliefs or located in different types of neighborhoods—be more likely to initiate civic action or increase their level of involvement? We know that community and denominational characteristics are related to community involvement (Peyrot & Smith, 1998; Schwadel, 2005), but are these due to differences in the commitment of organizational leaders to civic involvement, or differences in members' receptiveness to leadership initiatives? These questions call for additional research.

A final question regarding the implications of this study concerns the temporal generalizability of our findings. Like most large studies of the relationship between religiosity and civic action in the US, we rely on secondary data collected prior to the year 2000. Recent developments in the political involvement of conservative religious groups and leaders in the US suggest that the effects of religiosity on civic action/efficacy may have changed since the collection of data showing only a modest spill-over effect of religiosity. Whether there would be changes in the effects on non-political involvement/efficacy and whether any such effects would show up when examining the full range of religious denominations is open to question. But we note that during the civil rights era religious leaders and congregations were key participants in civic action, suggesting that the spill-over effect of religion depends in part on the particular social era one is studying. Thus, our findings need to be updated for the new millennium.

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A PSYCHOMETRIC EVALUATION OF THE *ASSESSMENT OF SPIRITUALITY AND RELIGIOUS SENTIMENTS* (ASPIRES) SCALE: SHORT FORM

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ABSTRACT

The purpose of this report was to examine the psychometric properties of the *Assessment of Spirituality and Religious Sentiments* (ASPIRES) scale self and observer version short forms. Samples of college undergraduates (229 women and 80 men) and community-based adults (249 women and 123 men) were included in this study. Results showed that the short forms were reliable, structurally valid, and possessed significant overlap with their long form parents. The results showed significant cross-observer convergence, providing evidence of discriminant validity. Scores on the short forms correlated significantly with a wide array of psychosocial outcomes, even after controlling for the predictive effects of personality. It was concluded that users can be confident that the short form versions validly represent the spiritual and religious constructs present in their parent versions.

KEY WORDS: ASPIRES, validity, reliability, short form

Spirituality and religiosity have received increased attention as important domains of study in the physical and social sciences. Such consideration is based on emerging research that continues to demonstrate the relation of spirituality and religiosity with salient outcomes such as well being, positive affect, and satisfaction with life (see Dy-Liacco, Kennedy, Parker, & Piedmont, 2005; Emmons & Paloutzian, 2003; Hill & Pargament, 2003; Idler et al., 2003; Piedmont, Ciarrocchi, Dy-Liacco, Mapa, & Williams, 2003). In other words, spirituality and religiosity contribute significantly and uniquely towards understanding and interpreting the human experience.

Although there are a myriad of scales that aim to measure spiritual and religious phenomena (e.g., Hill & Hood, 1999), few scales have developed much validity evidence for their utility (e.g., Gorsuch, 1984).

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Slater, Hall, and Edwards (2001) noted in their review of instruments that there exists a number of technical problems with these extant measures, including issues of ceiling effects, social desirability, and bias. Added to these problems are the additional limitations of a predominant Christian focus of many scales and the lack of much cross-cultural and interdenominational validity (Gorsuch & Miller, 1999; Piedmont & Leach, 2002). Nonetheless, the presence of such problems has not stunted research in this area.

In an effort to address many of these issues, the *Assessment of Spirituality and Religious Sentiments (ASPIRES)* scale was created. Piedmont (1999) proposed a systematic framework for scale development and assessment based on the Five Factor Model of personality (FFM; Goldberg, 1992). Within this approach, he conceptualized spirituality as a nondenominational motivational/trait construct. A motivational variable is a nonspecific affective force that drives, directs and selects behaviors. As an intrinsic source of motivation, spirituality is an endogenous quality that is relatively stable over time and impels individuals towards identifiable goals (Emmons, 1999). Consequently, spirituality would operate in ways consistent with other motivational traits, such as power, affiliation, and achievement. Such an approach also provides for a clear measurement model that is conducive to empirical analysis. Using this conceptual model, Piedmont has repeatedly shown that spirituality adds unique variance over and above the Five Factor Model in predicting salient psychosocial outcomes. These data support the contention that spirituality may represent a sixth factor of personality (Piedmont, 1999; 2001).

In defining spirituality as an individual's efforts to construe a broad sense of personal meaning within an eschatological context, Piedmont (1999) developed the Spiritual Transcendence Scale (STS) to operationalize the construct. The items of the STS were analyzed within the context of the Five Factor Model of personality (FFM; Digman, 1990; McCrae & John, 1992) and were shown to constitute an independent individual-differences dimension. The STS manifested a single overall factor comprised of three correlated subscales: *Prayer Fulfillment*, a feeling of joy and contentment that results from personal encounters with a transcendent reality; *Universality*, a belief in the unitive nature of life; and *Connectedness*, a belief that one is part of a larger human reality that is trans-generational and trans-group. The structure of the STS was found to be stable over several samples of mostly college students (Piedmont, 1999; 2001), religiously diverse groups (Goodman, Britton,

Shama-Davis, & Jencius, 2005), and several cross-cultural samples (see Bourdeau, Hinojosa, Perez, & Chu, 2004; Cho, 2004; Piedmont, 2007; Wilson, 2004). Further, the STS has been highlighted as one of the current inventories that demonstrates sound psychometric properties (King & Crowther, 2005; Slater, Hall, & Edwards, 2001).

In 2004, the STS was expanded to include a new dimension: *Religious Sentiments*. This aspect of the scale included two subscales. The first is *Religious Involvement*, which assesses the extent to which one is involved in, and committed to, the religious practices and rituals of one's faith group. The second scale is *Religious Crisis*, which assesses the extent to which one feels isolated from, and punished by, the God of his/her understanding (see Piedmont, 2004 for the development of these scales). Because these items capture religious involvements and experiences, they represent *personal sentiments*—aspects of functioning that are very different from those captured by the STS. The term “sentiment” is a classic term in psychology, and reflects emotional tendencies that develop out of social traditions and educational experiences (Ruckmick, 1920; Woodworth, 1940). Sentiments can be powerful motivators for individuals with direct effects on behavior. However, sentiments (like love, gratitude, and patriotism) do not represent innate, genotypic qualities like spirituality. This is why sentiments can, and do, vary across cultures and time periods and may be more amenable to change and modification than traits. Research has shown that spirituality and religious sentiments differentially predict outcomes (e.g., Piedmont et al., 2003; 2007). Together, measures of these two domains comprise the ASPIRES.

Although the ASPIRES long form has consistently shown psychometric viability (see Piedmont, 2004), the long form is not always the most effective means for measuring spirituality in certain contexts. For example, hospice patients, families in crisis, and bereaved individuals are often subject to significant amounts of stress that make it difficult for them to focus and complete lengthy tasks. Alternatively, when time constraints are salient, such as when either only a short time interval is available for assessment or one has a rather large assessment battery to begin with and cannot afford to add an additional lengthy measure. The ASPIRES short form (SF) was created to address the unique needs presented by these and other compromised populations and situations.

However, as Smith, McCarthy, and Anderson (2000) have noted, the use of a shortened form of an established inventory raises several serious

psychometric questions: Will the reduced number of items significantly attenuate the scale's reliability? Will the short form sufficiently replicate the factor structure of the original inventory? Will the short form have similar predictive power as its parent form? In order to examine the validity and reliability of the short form, the subsequent study sought to perform the following analyses:

1. An assessment of the reliability of the self and observer versions.
2. An exploration of the factor structure of the short form.
3. An examination of the correlations of the scores on the short form with scores on the external criteria.
4. An examination of the incremental validity of the short form over and above the FFM.

The goal of this report was to provide support for the psychometric and interpretive utility of the ASPIRES short forms, both the self-report and observer-rater versions.

METHOD

Participants

Community Sample: Consisted of 377 individuals, 67% women and 33% men, ranging in age from 15 to 90 years (Mean = 43.8). The majority of participants were Caucasian (68%), married (50%), Catholic (53%), employed full-time (54%), educated at the College level and above (93%), and reported incomes between \$25,000 and 50,000 per year (31%).

Student Sample: Consisted of 309 participants 74% women and 26% men, ranging in age from 18 to 42 years (Mean = 19.6) who completed self-report measures. The majority of participants were Caucasian (83%) and Catholic (47%) with the remaining 53% representing mainline Protestant (25%), other Christian (16%) and 10% representing other faith traditions including atheist/agnostic. These individuals were instructed to obtain two individuals who knew them for at least three months to serve as raters. Of the 512 raters with valid information, 68% were women and 32% were men, ranging in age from 13 to 80 years (Mean = 24.8). On average, raters knew the participants for 7.14 years (range 1 month to 61 years). Raters were asked to rate how well

they know the participant on a seven-point Likert-type scale from 1 *not very well* to 7 *extremely well*, with an average rating of 6.0, indicating raters knew participants very well. Students received course credit for their participation.

Measures

Assessment of Spirituality and Religious Sentiments-Short Form (ASPIRES-SF). Developed by Piedmont (2004), this instrument is a 13-item brief version of the longer version (ASPIRES). The first four items constitute the *Religiosity Index* and measure the frequency of involvement in religious rituals and related activity. Participants are asked to rate themselves on how often they: read the Bible/Torah/Koran/Geeta from 1 (*Never*) to 7 (*Several times a week*); read religious literature from 1 (*Never*) to 7 (*Several times a week*); pray from 1 (*Never*) to 7 (*Several times a week*); and, attend religious services from 1 (*Never*) to 5 (*Quite often*). The *Religiosity Index* score was computed by transforming responses to each item to a z-score and then summing. The sum of the z-scores provides a composite measure of religious involvement. The final nine items constitute the *Spiritual Transcendence Scale* (STS), which measures an individual's efforts to create a broader sense of meaning beyond the here and now. Participants are asked to rate themselves from 1 (*Strongly agree*) to 5 (*Strongly disagree*). Individuals high on this dimension derive meaning from a wider context such as nature and community, whereas individuals low on this dimension represent those who are more materially driven and more focused on the physical realities of the here and now. The STS contains three correlated facet scales: *Prayer Fulfillment*, *Universality*, and *Connectedness*. Piedmont (2004) reported alpha reliabilities for both the self-report and observer-rating long form versions ranging from .59 to .89. Significant correlations of .81 to .96 were found between the self and observer short and long forms. Both the STS facet scales and Religiosity Index demonstrated significant incremental validity over personality in predicting a variety of psychosocial outcomes (Piedmont, 2004), providing evidence of discriminant validity. Participants in both samples completed this measure.

Attitude Towards Abortion. This is a single-item 9-point bipolar scale designed to capture the participant's attitude toward abortion from "very pro-abortion" (−4) to "very pro-life" (+4). This measure was given to participants in both samples.

Bipolar Adjective Rating Scale (BARS). An 80-item scale that presents pairs of adjectives descriptive of personal experience. Respondents rate themselves on adjective pairs on a 1- to 7-point Likert-type scale given the following choices, “*Very Much Like Me*,” “*Like Me*,” “*Somewhat Like Me*,” or “*Neutral*.” Developed and validated by McCrae and Costa (1987), the BARS was designed to measure the domains of the Five-Factor Model of personality (FFM) in adults. These domains are: *Neuroticism* (N), the tendency to exhibit negative affect; *Extraversion* (E), the depth and breadth of interpersonal engagement; *Openness* (O), the degree to which one seeks and welcomes new experiences; *Agreeableness* (A), the quality of one’s interpersonal experiences; and *Conscientiousness* (C), the drive and motivation inherent in working towards goals. This measure was given to participants in both samples. Alpha reliabilities of scores in the community sample were .81, .82, .74, .82 and .86 for N, E, O, A, and C, respectively. Alpha reliabilities of scores in the student sample were .74, .79, .69, .79 and .79 for N, E, O, A, and C, respectively.

Bradburn Affect Balance Scale (ABS). This 10-item True-False scale was developed by Bradburn (1969) to measure affective well-being as operationalized in the dimensions of Positive Affect (PAS), Negative Affect (NAS), and Affect Balance (NAS subtracted from PAS). Inter-item correlations for the PAS ranged from .19 to .75, and between .38 and .72 for the NAS. ABS scores correlated between .45 and .51 with a general question of reported happiness, .47 and .40 with an item about life satisfaction and $-.33$ and $-.36$ with a question on an individual’s desire to change one’s life. Overall correlations between negative and positive scale items were less than .10 (Robinson, Shaver, & Wrightsman, 1991). Alpha reliabilities in the community sample for the PAS and NAS scales were .46 and .66, respectively. Alpha reliabilities in the college sample were .54 and .57 for self-rated PAS and NAS and .61 and .59 for the observer ratings. This measure was given to participants in both samples.

Delighted-Terrible Scale. Andrews and Withey (1976) developed this single item scale as a cognitive measure of global well-being. Participants rate their overall level of life satisfaction on a Likert-type scale of 1 (*terrible*) to 7 (*delighted*). This measure was given to participants in both samples.

Hope Scale. The State Hope Scale (Snyder et al., 1996), a 6-item questionnaire given to participants in both samples, measures beliefs about one’s success in pursuing current goals (agency) and one’s

confidence in finding ways to attain current goals (pathways). Three items measure agency (e.g., “at the present time, I am it energetically pursuing my goals”) and three measure pathways (e.g., “I can think of many ways to reach my current goals”). People respond to items on an 8-point Likert-type scale with answers ranging from definitely false to definitely true. Snyder et al. (1996) reported good internal reliability, no gender differences, and discriminant validity beyond dispositional hope, positive affect, negative affect, and self-esteem. For this study, internal consistency reliability was .81 for the community sample and .79 for the student sample.

Satisfaction with Life Scale (SWLS). Diener, Emmons, Larsen, and Griffin (1985) designed this inventory as a five-item, single factor measure of global cognitive life satisfaction. This measure has documented cross-cultural applicability as an index of happiness (Diener & Diener, 1995). This scale was given to participants in both samples. The alpha reliabilities of scores were .84 for both the community and student self-report samples and .88 for the observer sample.

Optimism Scale. Designed by Scheier, Carver, and Bridges (1994) The Live Orientation Test-Revised (LOT-R) measures optimism. This is a 10-item scale that reduces to six relevant questions after eliminating four filler items. Three of the items assess positive expectations for the future, for example, “I am always optimistic about the future;” and three items assess negative expectations, for example, “if something can go wrong for me, it will.” Responses range across a 5-point Likert-type scale from *strongly disagree* to *strongly agree*. The measure has a wide use in empirical research and has strong psychometric properties (Carver & Scheier, 2003). In the present study, the total scale is referred to as bipolar optimism and each 3-item component scale constitutes optimism or pessimism. In the community sample, alpha reliability was .72 for bipolar optimism, .31 for optimism, and .53 for pessimism. In the student sample, the alpha reliability was .50 for bipolar optimism, .52 for optimism and .52 for pessimism.

Self-Actualization Scale (SAS). This measure was given to participants in both samples. A 15-item scale designed by Jones and Crandall (1986) to measure an individual’s developmental level based on Maslow’s hierarchy of needs. Items are responded to on a Likert-type scale ranging from 1 (*disagree*) to 4 (*strongly agree*). In a sample of 500 undergraduate students, the scale discriminated between self-actualized and non-self-actualized individuals. Significant correlations were found between scale scores and the Personal Orientation Inventory, Eysenck’s Personality

Inventory and the Rational Behavior Inventory (Jones & Crandall, 1986). The alpha reliability in the community sample was .75. Alpha reliabilities of scores in the student sample were .53 for the self-report and .49 for the observer rater ratings.

Self-Esteem Scale. Developed by Rosenberg (1965), this ten-item Likert-type scale captures the extent to which individuals experience positive self-acceptance and an overall sense of value and worth. Self-esteem is only one component of the self-concept, which Rosenberg defines as “totality of the individual’s thoughts and feelings with reference to himself as an object.” Items are answered on a four-point scale—from *strongly agree* to *strongly disagree*. A total score is calculated by summing responses to the items, with higher scores indicated greater self-esteem. This measure was given to participants in both samples. The alpha reliability of scores in the community sample and student sample were .88 and .85, respectively.

Sexual Attitudes Scale (SEXOP). A 21-item scale created by Fisher, Byrne, White, and Kelly (1988) to measure attitudes about sexuality, SEXOP captures sexual attitudes ranging from erotophobic (negative attitudes towards sex) to very erotophilic (positive attitudes towards sex). Items are answered on a 7-point Likert-type scale with response alternatives ranging from 1 (*strongly agree*) to 7 (*strongly disagree*). Correlations of scale scores with affective response to erotica were .61 for men and .72 for women, respectively. Correlation of scale scores with social desirability were .05 for men and $-.05$ for women, respectively. In addition, this measure has been shown to correlate with authoritarianism, adherence to traditional sex roles, value orthodoxy, and various measures of sex-related topics (Fisher, Byrne, White, & Kelley, 1988). The alpha reliability in the community sample was .89.

Prosocial Scale. Developed by Rushton, Chrisjohn, and Fekken (1981), this 20-item scale captures altruistic behavior. Individuals rate the frequency with which they have engaged in altruistic behaviors on a 5-point Likert-type scale ranging from *never* to *very often*. Rushton et al. provided alpha reliabilities in five samples ranging from .78 to .86. Significant peer-self correlations were also obtained, whereas correlations with a measure of social desirability were nonsignificant. Rushton et al. also demonstrated significant convergence of the Prosocial Scale with both tests (e.g., Emotional Empathy Scale and the Social Interest Scale) and actual behaviors (e.g., volunteering to read to blind persons in response to a telephone solicitation). The alpha reliability of scores in the community sample was .90.

Individualism/Collectivism Scale. Developed by Dion and Dion (1991), this 15-item scale is an index of how much a person feels himself or herself to be a part of a larger community or group. Items are answered on a 1 (*Strongly Agree*) to a 5 (*Strongly Disagree*) Likert-type scale. Alpha reliability in the student sample was .55.

Prosocial Behavior Inventory (PBI). This is a 39-item scale, developed by De Conciliis (1993/1994), using an act-frequency paradigm. The behaviors selected for this scale were behaviors nominated by college students as descriptive of other students they believed to be prosocial. Participants were asked to answer each question on a 5-point Likert-type scale denoting the frequency with which they performed each activity over the previous six months. The alpha reliability of scores in the student sample was .89.

Procedure

Graduate students enrolled in a research methods class obtained the Community sample from among adults at a variety of churches and civic organizations. Each student was responsible for securing 15 participants. The order of presentation of the scales was varied systematically to control for any order effects. Participants were instructed to complete the scales in the order in which they found them and return the instruments in a sealed envelope.

The College sample was recruited from Introductory Psychology courses. All participants volunteered and received course credit for their participation. Students completed all materials in groups of from 10–20 individuals. The presentation of the scales was again counterbalanced to control for order effects.

RESULTS

Descriptive statistics and alpha reliabilities for the ASPIRES scales for both samples are presented in Table 1. As can be seen, with the exception of the Religiosity Index scores in the Community sample, all values are within normative limits (Piedmont, 2004). Six gender differences are noted, but the patterns of these differences are not consistent across the samples. Alpha reliabilities are acceptable; these values are especially noteworthy given that the facet scales contain only three items. The one exception is with the Universality scale in the rater sample. The alpha of .42 is very low and is in contrast to values found in the two

Table 1. Means and Standard Deviations for the ASPIRES Scales by Gender in the Two Samples

	Men		Women			
ASPIRES Scale	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	α
<i>Student Sample</i>						
Self-Report ^a						
Prayer Fulfillment	52.23	14.01	51.41	9.38	.57	.92
Universality	53.14	11.48	49.95	11.13	2.14*	.60
Connectedness	49.54	12.46	49.27	11.09	.18	.76
Total Transcendence	52.09	13.37	50.31	11.55	1.18	.72
Religiosity Index	50.53	11.04	51.26	10.39	−.52	.79
Observer Rating ^b						
Prayer Fulfillment	54.31	11.55	50.13	8.72	2.96**	.93
Universality	50.20	7.19	48.25	7.90	1.67	.42
Connectedness	49.47	7.86	48.43	8.89	.79	.71
Total Transcendence	51.77	9.55	48.83	8.32	2.28*	.80
Religiosity Index	50.71	11.42	50.91	9.52	−.14	.89
<i>Community Sample</i>						
Self-Report ^c						
Prayer Fulfillment	50.39	9.85	52.88	10.55	−2.15*	.88
Universality	56.50	14.78	48.30	12.12	5.59***	.61
Connectedness	52.14	8.64	49.35	11.32	2.37**	.66
Total Transcendence	52.66	10.42	50.39	11.57	1.81	.72
Religiosity Index	42.68	12.44	40.26	10.48	1.89	.84

^a *N* = 226 for women and *N* = 75 for men. ^b *N* = 209 for women and *N* = 56 for men. ^c *N* = 249 for women and *N* = 123 for men. All scores are presented as T-scores with a *M* = 50 and *SD* = 10, based on normative data from Piedmont (2004).

* *p* < .05; ** *p* < .01; *** *p* < .001; two-tailed.

self-report samples. It is not clear why raters appeared to be inconsistent in their assessments of the targets on these items. Nonetheless, this short form appears to have acceptable internal consistency and to generate appropriate mean levels.

Nunnally and Bernstein (1994) provide an equation for estimating the correlation between the short and long forms of an instrument. This equation is based on the reliabilities of the two instruments. Using the data in Table 1 and comparing it to reliability information given in the ASPIRES manual (Piedmont, 2004; Table 9, p. 23), an estimate of content overlap can be made. For the community sample, the correlation between the Prayer Fulfillment, Universality, Connectedness, Total Transcendence, and Religious Involvement scales are: .86, .47, .37, .64, and .70, respectively. In the student sample, the comparable values are: .83, .48, .32, .64, and .75, respectively. Content overlap estimated between the observer short and long forms are: .86, .32,

Table 2. *Pattern Matrix of the Principal Components Analysis of the Self-Report Religious Sentiments and Spiritual Transcendence Facet Scales of the ASPIRES for both Samples*

Religious Sentiments and STS Items	Factor			
	1	2	3	4
PF1	.81	.08	.08	.11
PF2	.84	.06	.12	.10
PF3	.85	.02	.17	-.03
CN1	.14	.67	-.03	-.30
CN2	.14	.85	-.02	-.07
CN3	-.14	.82	.01	.21
UN1	-.21	.19	.42	.50
UN2	.06	-.02	.85	.01
UN3	.25	-.05	.81	-.11
Frequency Read the Bible	.22	-.13	-.01	.79
Frequency Read other Religious literature	.14	-.11	.07	.78
Frequency of Prayer	.65	.01	-.01	.37
Frequency Attend Religious Services	.33	.01	-.15	.73

Note. $N = 678$, combined community and student sample. Values $\geq \pm .30$ are given in bold.

.39, .72, and .82, respectively. Clearly, the short form has substantial content overlap with its longer parent.

Construct Validity

Factor Analyses. Self-report ASPIRES scores on all items for participants from both samples were combined and the resulting data set was subjected to a principal components analysis. Four eigenvalues emerged with values greater than one and the scree plot suggested that a four-factor solution was appropriate (the first five eigenvalues were 5.07, 2.17, 1.14, 1.12, and .81). The four factors explained 73% of the total variance. These factors were obliquely rotated and the results are presented in Table 2. As can be seen, the items from each scale define their own factor. These findings support the putative structure of the instrument. Only one inter-factor correlation exceeded .30, which was between Prayer Fulfillment and Religious Involvement.

The combined observer rating items were subjected to a principal components analysis. Only three eigenvalues emerged greater than 1 and the scree test also indicated that only three factors be extracted (first four eigenvalues were 5.7, 2.1, 1.3, and .80). These three factors explained 70% of the total variance. Again, these factors were obliquely rotated

Table 3. *Pattern Matrix of the Principal Components Analysis of the Observer-Rated Religious Sentiments and Spiritual Transcendence Facet Scales of the ASPIRES*

Religious Sentiments and STS Items	Factor		
	1	2	3
PF1	.71	.35	.14
PF2	.73	.26	.19
PF3	.75	.28	.15
CN1	.43	.60	.07
CN2	.24	.70	.10
CN3	.35	.63	.10
UN1	.06	.37	.63
UN2	−.01	.20	.83
UN3	−.05	−.43	.86
Frequency Read the Bible	.90	−.10	−.22
Frequency Read other Religious literature	.82	−.09	−.15
Frequency of Prayer	.83	−.11	.13
Frequency Attend Religious Services	.85	−.03	.00

Note. $N = 266$. Values $\geq \pm .30$ are given in bold.

Table 4. *Cross-observer correlations for the self-reported and observer-rated scores on the ASPIRES scales in the Student Sample*

Self-Report Scales	Observer Ratings				
	1.	2.	3.	4.	5.
1. Prayer Fulfillment	.52***	.36***	.20***	.48***	.47***
2. Universality	.33***	.27***	.22***	.35***	.21***
3. Connectedness	.18**	.17**	.48***	.36***	−.03
4. Total Spiritual Transcendence	.47***	.36***	.41***	.55***	.31***
5. Religious Involvement	.56***	.31***	.05	.42***	.77***

Note. Convergent correlations are in bold. $N = 261$. ** $p < .01$, *** $p < .001$, two-tailed.

and the results are presented in Table 3. As can be seen, the three facets scales of the Spiritual Transcendence Scale each define a factor. Unlike findings found with the self-report data, the Religious Involvement items all loaded significantly on the factor defined by the Prayer Fulfillment items. Although the underlying structure of the spirituality dimension was found, the religiosity items appeared to be more strongly related with spirituality than noted with the self-report data.

Consensual Validity. To provide evidence of consensual validity, scores on the observer-rated and self-reported scales were correlated and Table 4 presents the findings. Each self-report scale converges significantly with

Table 5. *Correlations between the ASPIRES Short Form Scales and Psychosocial Criteria in both the Community and Student Samples*

Psychosocial Criteria	ASPIRES Scales				
	PF	UN	CN	TOTAL	RI
<i>Student Sample^a</i>					
Self-Actualization	-.01	-.10	.04	-.02	.12*
ABS Positive Affect	.15*	.23***	.28***	.29***	.06
ABS Negative Affect	-.05	.04	.07	.02	-.03
Hope	.17**	.11*	.22***	.24***	.08
Satisfaction with Life	.20***	.05	.21***	.23***	.07
Self-Esteem	.13*	.10	.15**	.18**	.08
Optimism	.23***	.27***	.18***	.31***	.15**
Delighted Scale	.22***	.10	.23***	.26***	.10
Attitude Towards Abortion (hi=pro-life)	.30***	.09	.01	.19***	.37***
<i>Community Sample^b</i>					
Delighted Scale	.11*	.10	.04	.11*	.04
Attitude Towards Abortion (hi=pro-life)	.17**	.09	-.15**	.04	.42***
Erotophilia	-.13*	.12*	.13*	.07	-.21***
Erotophobia	.11*	-.17**	-.15**	-.12*	.15**
ABS Positive Affect	-.01	-.06	.05	-.01	-.10
ABS Negative Affect	-.07	-.06	.03	-.05	-.19***
Self-Actualization	.13*	.16**	.08	.18**	-.03
Optimism	.07	.15**	.06	.12*	-.09
Prosocial Orientation	-.12*	-.17**	-.12*	-.19***	-.14*
Satisfaction with Life	.13*	.08	.08	.14*	.09
Hope	.19***	.13*	.13*	.22***	.06
Self-Esteem	.15**	.11*	.10	.19***	.02

Note. PF = Prayer Fulfillment, UN = Universality, CN = Connectedness, TOTAL = Total Spiritual Transcendence Score, RI = Religious Involvement.

^a $N = 298$; ^b $N = 310$.

* $p < .05$; ** $p < .01$; *** $p < .001$; two-tailed.

its corresponding observer-rating, indicating that what individuals have to say about their own spiritual and religious activities agrees significantly with what knowledgeable observers have to say about them. The level of convergence is consistent with convergence values found for traditional personality constructs (e.g., FFM domains), where average r s range from .30 to .48 (Funder, Kolar, & Blackman, 1995; McCrae & Costa, 1987; Piedmont, 1994). This level of agreement is noteworthy given only three or four items per scale. Some evidence of discriminant validity is also noted. In examining the Spiritual Transcendence Scales, the convergent correlations are the highest in their respective rows and columns, except for Universality. This indicates that the spiritual qualities represented in these scales are sufficiently distinct and observable so as to be recognized accurately by outside observers.

Correlations with external criteria. Scores on the ASPIRES scales were correlated with a range of psychosocial criteria, and these findings are presented in Table 5. The ASPIRES scales correlate significantly with all of these outcomes. The pattern of associations are similar to those found with the long form, and the magnitude of associations are comparable, although slightly smaller (see Piedmont, 2004). Thus, the short form continues to manifest the construct validity obtained with its larger parent. However, the important question is whether these shortened scales continue to manifest incremental validity over personality in predicting these outcomes.

Incremental validity. A series of hierarchical multiple regression analyses were conducted to examine the incremental validity of the ASPIRES scales. The psychosocial criteria in Table 6 served as the outcome measures. On the first step of these analyses, the FFM personality

Table 6. *Incremental Validity of the ASPIRES Short Form Scales over the Five-Factor Personality Domains in the Community and Student Samples*

Psychosocial Criteria	FFM <i>R</i> ²	ASPIRES ΔR^{2a}	Partial <i>F</i>	Scales
<i>Student Sample</i>				
Self-Actualization	.21***	.01*	5.21	CN
ABS Positive Affect	.08***	.07*	12.19	CN, UN
ABS Negative Affect	.23***	.01*	5.45	CN
Hope	.26***	.03**	10.31	CN
Satisfaction with Life	.32***	.02**	8.40	CN
Self-Esteem	.37***	.11	—	—
Optimism	.31***	.04***	16.18	UN
Delighted Scale	.39***	.03*	6.38	CN, PF
Attitude Towards Abortion	.06**	.11***	39.30	RI
<i>Community Sample</i>				
Delighted Scale	.22***	.00	—	—
Attitude Towards Abortion	.07***	.17***	69.97	RI
Erotophilia	.06**	.07*	7.66	RI, UN, PF
Erotophobia	.08***	.07*	6.52	RI, CN, UN, PF
ABS Positive Affect	.04*	.01*	3.99	UN
ABS Negative Affect	.03	.03*	9.68	RI
Self-Actualization	.29***	.00	—	—
Optimism	.16***	.03*	5.15	UN, RI
Prosocial Orientation	.13***	.03*	5.74	RI, CN
Satisfaction with Life	.18***	.01*	5.41	RI
Hope	.22***	.02*	6.41	PF
Self-Esteem	.39***	.00	—	—

Note. PF = Prayer Fulfillment, UN = Universality, CN = Connectedness, RI = Religious Involvement.

^a Variance explained by ASPIRES scales over and above FFM personality domains.

* *p* < .05; ** *p* < .01; *** *p* < .001; two-tailed.

domains were entered as a block. On step 2, using a forward entry procedure, the ASPIRES scales were entered. As can be seen in Table 6, the ASPIRES scales provided significant explanatory variance over personality in all but four instances. Self-esteem was not incrementally predicted in both samples suggesting that this aspect of the individual may not be uniquely related to the spiritual and religious constructs of the ASPIRES. An inconsistent pattern is noted for the prediction of Delighted Scale scores, where an effect was found in the student sample but not with the older, community sample. Future research needs to determine whether there is an age-related effect occurring here or if this anomaly is due to some sample specific phenomenon. However, some consistent patterns of findings do emerge. Similar ASPIRES scales were found to incrementally predict Positive Affect, Optimism, and Attitudes towards Abortion scales.

In order to examine the incremental validity of the observer form, a similar series of hierarchical multiple regression analyses were conducted using the observer versions of both the psychosocial criteria and the ASPIRES scales. Table 7 presents these results. The observer-rated ASPIRES scores provided significant explanatory variance over personality in all but one instance, with Satisfaction with Life. The observer version of the ASPIRES carries with it comparable construct and incremental validity as the self-report version.

Table 7. *Incremental Validity of the Observer-Rated ASPIRES Short Form Scales over the Five-Factor Personality Domains in the Student Sample*

Observer-Rated Outcomes	Observer-Rated ASPIRES			
	FFM <i>R</i> ²	ASPIRES ΔR^{2a}	Partial <i>F</i>	Scales
ABS Positive Affect	.12***	.04**	11.83	UN
ABS Negative Affect	.05*	.02*	5.77	UN
Delighted Scale	.22***	.04***	14.88	RI
Attitudes Towards Abortion	.14***	.06***	19.47	RI
Satisfaction with Life	.22***	.00	—	
Self-Actualization	.00	.03**	7.29	UN
Prosocial Orientation	.00	.05*	6.49	PF, CN
Individualism/Collectivism	.13***	.02*	6.21	UN

Note. PF = Prayer Fulfillment, UN = Universality, CN = Connectedness, RI = Religious Involvement.

^a Variance explained by ASPIRES scales over and above FFM personality domains.

* *p* < .05; ** *p* < .01; *** *p* < .001; two-tailed.

DISCUSSION

Creating a short form brings with it the advantage of time saving in both completing and scoring the reduced instrument. Short forms are well suited for situations where time is limited or an individual has reduced capacities for sustained testing. However, with these advantages come potential problems as well. Smith et al. (2000) have noted the numerous problems that arise in short form development. Simply stated, their concern is that one cannot assume that because the long form version is reliable and valid, the short form will be equally robust psychometrically. Smaller scales tend to be less reliable and, therefore, less valid than longer instruments. Factor structure can be compromised because the smaller set of items does not adequately sample the content domain of the construct as well as the original scale. This leads to the short form having inadequate overlapping variance with the full form. In other words, short forms may not be the valid reflections of their parent.

The findings presented here address many of these concerns. As was shown, both the self and observer versions of the short form were adequately reliable. The use of three- and four-item scales did not compromise the internal consistency of the instrument. The principal components analyses showed that the short forms replicate the underlying factor structure of the original version, and that these scales showed significant consensual validity. Thus, the short form scales may be viewed as structurally equivalent to their parent version. Estimated short-long form correlations showed the short forms to have substantial overlap with their longer parents. Correlations with the diverse psychosocial outcome criteria underscored the fact that the short forms have comparable content coverage as well: information contained on the scales related to as wide an array of outcomes as the longer original. Finally, evidence of the true utility of the short forms was found in tests of their incremental validity. The short form scales, like their parent, are able to provide significant explanatory variance over and above any predictive effects of personality. Users can be confident that the *ASPIRES* short forms, both self- and observer-versions, capture content comparable to their respective long forms. The data presented here show that the *ASPIRES* short forms avoid many of the problems outlined by Smith et al. (2000).

This naturally raises the question, "If the short forms are so comparable, why not use them exclusively?" The short forms do provide

important savings in time surrounding administration and scoring and their brevity makes them useful in a wide range of applications, especially with elderly or medical samples. However, it should be noted that the longer forms evidence higher reliabilities and incremental validity coefficients. Thus, when time and circumstance permits, one should always use the longer forms because they carry more psychometric power. Another reason for using the long form is that it contains the *Religious Crisis* scale, which measures the degree to which an individual feels abandoned, isolated, and punished by God. These items were not included on the short forms, but they do provide important information about the psychological stability of the individual (see Piedmont et al., 2007). Thus, the short forms do not contain *all* of the information of their parent scales.

Nonetheless, future research needs to outline more clearly the utility of these short forms by correlating them directly with long form scores. The positive findings noted here across two different samples (one adult, one college student) need to be replicated across other faith denominations and cultural contexts. The full ASPIRES has shown itself reliable and valid in these different applications (see Piedmont, 2004), and until the short forms receive comparable analysis, researchers and clinicians need to be careful in using these forms outside of a general US, Christian-oriented sample. Nonetheless, these findings contribute to the increasing research base showing the empirical value of the ASPIRES family of scales.

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WOMEN'S BODY IMAGE, DISORDERED EATING, AND RELIGION: A CRITICAL REVIEW OF THE LITERATURE

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ABSTRACT

This literature review examines published case studies and quantitative research on the relationship between women's body image, eating behavior, and religiosity. We begin with a historical perspective on the topic and then describe three basic ways that religion and body image/eating may be linked. Then, we describe many clinical case studies of highly pathological women and we next review quantitative empirical studies, some on samples of women diagnosed with eating disorders and some on normal non-diagnosed women. A general conclusion is that, in diagnosed and non-diagnosed women, several indices of religiosity are related in healthy ways to women's body image and eating behavior, although these links are often statistically modest; some religiosity indices are related in unhealthy ways to women's body/eating variables, and other indices have no statistical relationship to body/eating variables. The review closes with suggestions for advancing the field with refinements in design, methodology, sampling, and related areas.

This paper examines research literature on the relationship between women's religion or religiosity and their body image and disordered eating. Because religion and its related terms can engender some semantic confusion, let us note that for several reasons this article will focus on "religion" and "religiosity" and use "spiritual" or "spirituality" less often. First, our review discovered that the bulk of the literature examined what most scholars would label as *religious* constructs in relation to women's body image and eating. That is, most of the research we reviewed focused on some aspect of the multidimensional constellation

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of beliefs, behaviors, and other dimensions that fall within the conceptual network of religion, in contrast to the definitional emphasis of “spirituality” and its reference to a broader sense of connectedness and transcendence that can occur outside of any organized tradition. Our review found that many studies analyzed women’s relationship with God, women’s use of theological language and imagery in their understanding of their eating disorders, or women’s engagement in practices such as receiving Holy Communion or the Eucharist. Other studies relied on standard measures of religiosity such as religious orientation (Intrinsic, Extrinsic, Quest), prayer behavior and reading of religious material, or sanctification of one’s body. Our focus on religion was not a predetermined choice. While it is true that most people—scholars and non-scholars alike—perceive considerable overlap between “religion” and “spirituality,” and most people judge themselves to be both religious and spiritual (e.g., Zinnbauer & Pargament, 2005), our review prioritizes language of “religion” because the *research itself* emphasizes religious constructs.

Empirical evidence had made clear that, for many people, involvement in religion or engagement in religious practices is a psychological asset. For example, religiosity is associated with many forms of well-being, from lower anxiety and depression to the presence of positive qualities such as hopefulness and gratitude to many physical and medical benefits (e.g., Chamberlain & Hall, 2000; Koenig, McCullough, & Larson, 2001). However, the social science literature seems to have neglected the relationship between religiosity and body image and eating behavior. A recent encyclopedic review of research on religion and health (Koenig et al., 2001) offered no index citations for eating disorders, food, anorexia, or bulimia. This oversight is evident in other religion-health reviews (e.g., Chamberlain & Hall, 2000; Larson, Swyers, & McCullough, 1998) and the premiere work on religion and coping (Pargament, 1997).

This neglect is surprising because although “eating disorder” is viewed as a modern phenomenon (Striegel-Moore, Silberstein, & Rodin, 1986), its religious and spiritual components can be traced at least to the 6th century B.C. Several scholars (e.g., Bemporad, 1996) have noted that Eastern religions practiced extreme fasting to release the soul from the material world. In addition, Vardhamama, the founder of Jainism, died of voluntary fasting, which led to respect for followers who also denied their bodies of food to the point of death. In Hindu myths, the

goddess Uma starved herself for 36,000 years to attract the attention of the god Siva. Buddha practiced extreme self-starvation to the point where he could touch his spine through his abdomen (though he later realized that this practice was unwise). In later centuries, self-starvation emerged in European Gnostic sects that believed bodily needs were evil and the material world separated one's soul from God. These beliefs led to an increase of asceticism, predominantly in holy men, which later became more common among the laity.

Prominent medieval cases of women starving themselves in protest of their arranged marriages led to increases in voluntary starvation (Bemporad, 1997). Subsequently, "holy fasting" increased between 1200 and 1600 and many women fasted, often to death, for religious reasons such as self-redemption, purification of the soul, or to participate in the suffering of Christ (Bynum, 1985, 1987). During the Protestant Reformation the prestige associated with self-starvation declined. Before the 19th century, self-starvation was typically a religious statement, often an attempt to purify or free the soul. Several works offer historical treatments of women around that era (e.g., Carroll, 1998; Fowler, 1871; Gooldin, 2003). By the end of the 19th century, self-starvation was viewed as a medical disease requiring treatment and anorexia nervosa was distinguished from other conditions (Bemporad, 1997). From a historical perspective, anorexia seems to be a "secular addition to a new kind of perfectionism" (Brumberg, 1988). Thus, "eating disorder" is a relatively modern classification with different connotations than earlier "holy fasting" (Brumberg, 1988; Miles, 1995; Vandereycken & Van Deth, 1994). Nevertheless, there is a long history of an association between religiosity and disordered eating in young women, and contemporary eating disorders can be framed in religious and spiritual language and imagery (Lelwica, 1999).

Our paper offers a critical examination of evidence on the relationship between women's religiosity and their body image and eating behavior. We focus on women exclusively because pathological forms of eating and body image are much more common in women than men (e.g., Feingold & Mazzella, 1998). In addition, eating and body image problems that are below clinical threshold are pervasive among women (Tylka, 2004). As one recent author warned, "counselors need to be aware that a large percentage of female undergraduates are non-diagnosable yet experience eating-disorder symptoms" (Cohen & Petrie, 2005, p. 29). Before reviewing the literature on women's eating/body

image and religion, we describe several basic ways in which these constructs may be related. These simple scenarios may help readers clarify and organize the many findings to be described in the review below.

Linkages between Religion and Eating Disorder

Women's religiosity may be related in one of three ways to their eating behavior and body image. In the null scenario, there may be no systematic relationship, suggesting that these constructs have no relationship. This scenario seems unlikely, though, in light of the historical insights offered above and the broader findings of healthy links between religion and well-being outcomes. In a positive scenario, religiosity may be linked with better body image and healthier eating. For example, one could imagine that many forms of religiosity—praying frequently, or feeling a personal relationship with an accepting and loving God, enjoying social support from a faith community, or internalizing the doctrinal assertions of religions that the body is made in God's image—all may contribute to women feeling better about their bodies and suffering from less disordered eating. In a third and negative scenario, religiosity may be linked with poorer body image and disordered eating. As Pargament (1997, p. 358) noted, for some people "religion goes wrong." In some historical cases, women use religious beliefs to justify distorted eating practices, especially if they feel less worthy and inferior in God's eyes if they have not cared for their body as a "temple" of divine significance. And many religions have proscriptions about undesired behaviors, many surrounding food and self-control, which could lead to guilt, asceticism, and self-denial.

Of course, the link between religion and well-being is more complicated than these simple scenarios suggest. As Pargament (1997) stated, religion's association with well-being depends on what we mean by *religion*, by *well-being*, and what particular *population* is under study. With respect for these concerns, our review provides some detail on the particular measures of religiosity and body image/eating behavior used in the studies. We also provide some details on the samples of women studied. This information should help the reader evaluate the studies' soundness and validity as well as generalizability of results.

Material Included in the Review

To obtain literature for this review, we conducted PsycINFO database searches on the appropriate terms to identify books and journal articles.

We often used the reference sections of recent works to identify earlier works. For quality control, we did not include conference presentations or dissertations (though our reviews found many recent dissertations on the topic, which bodes well for continued inquiry into these issues). Through reviewing available publications it became evident rather quickly that there are too few published articles with quantitative empirical data to warrant a meta-analysis. Therefore, our review is in the form of a critical narrative. In addition, because we wished to examine specific religious and spiritual constructs in relation to women's body image and eating behavior, we did not review publications that offered only between-denomination comparisons. Some examples of these studies address Hindi, Muslim, and Christian youth in England (Ahmad, Waller, & Verduyn, 1994) and Catholic, Jewish, and Protestant women in the U.S. (Sykes, Gross, & Subishin, 1986; Sykes, Leuser, Melia, & Gross, 1988). We also chose to not discuss the integration of religion in clinical treatment and pastoral counseling, although this literature is an ample and growing one, though we provide some suggestions here on that literature.

There seem to be increasing numbers of clinicians and therapists who recognize the role of religious and spiritual factors in disordered eating and body image; many of these clinicians have described how they integrate into therapy religious, Biblical, and spiritual themes (e.g., Engebretson, Schindler, & Hollander, 1991; Jersild, 2001; Richards, Hardman, Frost, Berrett, Clark-Sly, & Anderson, 1997). Dancyger et al. (2002) described a treatment program for ultra Orthodox and "modern" Orthodox Jewish female adolescents and suggested that rabbinic involvement may be a vital element for therapeutic success. Many accounts of religion-based treatment for eating problems focus on Overeaters Anonymous (OA) and its spiritual emphases (e.g., Martin, 2002; Weiner, 1998). Some research has surveyed OA members to measure personal and religious qualities that predict weight-loss success. Westphal and Smith (1996) found that OA participants who rated themselves as more successful also rated spirituality as highly important. Other works have focused on church-affiliated programs for African American women. Kumanyika and Charleston (1992) created a Lose Weight and Win program as a church-based intervention for overweight African American women, and Davis, Clance, and Gailis (1999) emphasized the centrality, when treating overweight African American women, of Black culture and community within a broader White mainstream culture. Finally, a major new book published by the American Psychological Association

confirms the integration of religion and spirituality into treatment, as clinical psychologists Richards, Hardman, and Berrett (2006) describe theistic perspectives on women's eating disorders and offer theistic and spiritual assessments and interventions.

It is clear, then, that many clinicians study the interaction of body and soul, but we now review many *case studies* of women with eating and body image pathology.

CASE STUDIES OF RELIGION AND EATING PATHOLOGY

Case studies of women with eating pathologies provide provocative windows into the interaction of religion and disordered eating. These cases also illuminate actual mechanisms between religion and eating disorders. In some case studies, the women were appreciably religious prior to and during their disorder. In other cases, women claimed to have nominal (if any) religious affiliation prior to their disorder but used religion to describe or recover from their illness. Though differentiated by religious background prior to their disorder, both groups of women subjectively expressed themselves and their disordered eating in religious terms.

In many cases, women who operated in a religious belief system before and during their disorder used religion to rationalize their disorder. Morgan, Marsden, and Lacey (2000) describe how two women transformed positive, religiously-motivated acts, such as giving to those in need, and employed them to explain their pathological behavior. In one case, a middle-aged anorexic woman practiced self-starvation and ingestion of rotting food while feeding the homeless with her fresh food. These punitive devotions led to a late-onset diagnosis of anorexia nervosa. Another case described a young woman who starved herself in self-punishment of an incestuous relationship with her brother; she later joined a convent as a result of her guilt. Both women, suffering from either neglect of internal conflict or a strong sense of guilt, embraced religion in an extreme and unhealthy manner.

Several brief accounts of young Roman Catholic women who severely changed their Eucharistic practices are described by Graham, Spencer, and Andersen (1991). Their first case was a 16-year-old girl attending parochial school who was diagnosed with anorexia. She abstained from receiving Communion due to her disorder, and felt guilty about rejecting this sacrament that is central to her faith. In the girl's words,

"I didn't know how many calories the wine and wafer contained, so I would hide them" (Graham et al., p. 241). In a very similar case, a 20-year-old woman hid rather than ate the Communion host. When her disorder changed into bulimia two years later, she ingested the host—but then would induce vomiting. This act caused such guilt that she ceased participating in the sacrament of Communion altogether. Though few in number, these case studies illustrate some of the painful tensions felt by Roman Catholic, eating-disordered women about Communion.

Banks (1992) presented two case studies of women from Fundamentalist families and described how the women expressed their anorexia through religious understanding (see also Banks 1996, 1997). Both women, Jane A. and Margaret C., depicted a dualism of body and spirit in religious terms. Jane wrote detailed journal entries explaining how the soul is heavy when the body is overweight: "My soul is heavy laden. My body hurts with excess weight. I want to relieve myself of it. But it won't be moved. I must try hard once more" (Banks, 1992, p. 874). Margaret C. also conveyed this dualism in her comment, "Well, the part of you that goes [to heaven] is really yourself because the body is nothing." She felt this view was normal and widely shared: "Anybody who believes in the Bible would believe in that as a matter of fact" (Banks, p. 876). Jane and Margaret utilized this dualistic differentiation of the spirit and the body, which is "nothing," in Margaret's term, to justify self-starvation. Further study of this antagonism between one's body and spirit should test whether this ideology is more common in women of particular religious backgrounds.

The second group of case studies concerns women who have no history of strong religious affiliation or practice. These women seem to arbitrarily adopt religious terms to describe or help themselves recover from their disorder. Morgan et al. (2000) described a "not really religious" non-practicing Christian woman whose religiosity derived from her anorexic pathology. During hospitalization for her disorder (but not before), she began using theological arguments to describe weight gain as "evil" and defend her low weight as bringing her "near God." This case seems unique among the published case studies we have found, as this woman created—while hospitalized for an eating disorder—a system of religious belief that justified and perpetuated her eating disorder.

Another case study described a woman with a nominal Christian background whose religion induced a different kind of framing for her eating pathology (Hsu, Crisp, & Callender, 1992). After suffering

from eating disorders for over 15 years, the woman had undergone multiple treatment programs, including individual and family therapy and antidepressants, and nothing worked. At a point of emotional exasperation and physical desperation (she weighed 65 lbs.), she began to pray diligently for recovery. She also prayed that she and her husband would begin attending church. During this time, she started twice-weekly sessions with a new psychiatrist. In this woman's recovery, she credited her new psychiatrist with helping alleviate her suffering but she believed that God was ultimately responsible for directing her to the effective psychiatrist. Thus, when every other type of treatment failed for her, this woman constructed a new religious belief system that, in her own eyes, was integral in her recovery.

The large majority of cases described above illustrate an unhealthy link between religious belief and eating. The cases raise the question of whether women manipulate and distort their religious convictions to fit their pathology and/or have their pathology derive from their beliefs. One could imagine that religious asceticism may trigger the abstemious eating linked to anorexia, or (and) that bulimic purging is a response to religious-borne guilt from gluttony. (Perhaps relevant here is a compelling book, *Free to be Thin* [cited in Banks, 1992], which associates Godliness with thinness and goes so far as to classify low-fat foods as "Kingdom food" or high-fat foods as "World food.") Asceticism has been linked to eating problems due its connection with sexual purity (Banks, 1992).

The case studies, even from diverse historical eras, speak to a dynamic between young women's views of sexual purity and their emerging sexuality. A 17th-century young woman named Maria Janis was alleged to fast or eat only communion wafers for years; the analysis of her case emphasized family interference with normal psychosexual development (Carroll, 1998). In another case, the journal of Jane A. expressed guilt and anxiety about her sexuality and appealed to God for control over her body and sexuality (Banks, 1992). In two of Morgan et al.'s (2000) cases, women felt that being unprepared or anxious-ridden during puberty was resolved in part through control of eating and weight loss. Thus, some anorexic women embrace and use rigid and distorted "rules" of religion to cope with the stress arising from their own physical maturation and nascent sexuality. This occurred in a young Egyptian student, Miss N. (Ford, 1992). After living in another country and having a brief relationship including physical contact with an Egyptian man, Miss N. developed bulimia upon returning home to

Cairo at the age of 21. Miss N. felt that she violated God's ideals for proper pre-marital behavior, and her eating pathology emerged shortly after the relationship ended.

Taken together, these provocative cases show clear links between sexual maturation, distorted religious beliefs, and pathological eating. Scholars need to study these issues systematically in larger samples to determine whether these unhealthy associations between religion and eating are restricted to women with diagnosable pathologies or are more common, especially in populations of women just below diagnosable threshold. Future work should also examine more closely how women interpret and apply their religious beliefs to cope with—or exacerbate—their pathology. Among beliefs that could worsen their conditions are a rigid dualism, religiously-based asceticism, and images of a punitive, critical, or abandoning God. Banks (1992) called for the study of food asceticism in religions other than Judeo-Christian ones. (Ford's [1992] case of Miss N. is one such example.) Ford (1992) recommended further study of links between traditional values, religious beliefs, and abnormal eating in larger samples of Middle Eastern women. Banks (1992) also advocated investigation of missionary activities by Fundamentalists Christians in other cultures to explore dynamics between culture, religion, and eating.

It seems clear that the extant case studies raise important questions regarding religiosity and eating disorders. Comparative studies with larger samples in other cultures and religions are needed. In addition to generating hypotheses and research questions, case studies are crucial for endowing the topic with a phenomenological authenticity. However, the limits of case studies are well known, especially when they focus on highly pathological individuals. For broader and deeper understanding of religiosity, body image, and eating behavior, we need standardized quantitative approaches in larger samples of women, ideally some with diagnosed disorders and some without. We now turn to this kind of empirical research.

QUANTITATIVE RESEARCH ON WOMEN'S RELIGIOSITY AND BODY IMAGE/EATING PROBLEMS

There is relatively little empirical research on these constructs in "normal" and demographically diverse populations of women. Some studies have focused on specific and exclusive religious populations.

For example, body image was analyzed in a sample of Amish young and old adults (Platte, Zelten, & Stunkard, 2000) and a recent paper described eating problems in Orthodox Jewish adolescent girls (Dancyger et al., 2002). Several studies have examined larger samples of women in eating-disorder treatment programs. Results of this research are intriguing but often inconclusive. We review and critique several such studies. To help the reader understand more clearly the studies' designs and methods, we list the specific measures of religiosity and body image/eating behavior. In some instances we provide details on descriptive statistics, the statistical tests used, and whether analyses were statistically significant (this last point we make in prose rather than clutter the text with p values); we include information such as correlation and regression coefficients to allow the reader to gauge the strength of the effects.

Religion and Body Image/Eating Behavior in Women in Treatment or at Risk for Eating Disorders

Joughin, Crisp, Halek, and Humphrey (1992) surveyed 851 British women who were members of a U.K. national self-help organization for people with eating disorders. This sample is considerably larger than samples in similar studies. The women completed the Eating Disorders Inventory (EDI), with the "Drive for Thinness" and "Bulimia" subscales to assess symptoms of anorexia and bulimia. This measure is one of the most widely used in the study of eating disorders. The women also provided information on religious background and completed a new measure, the Religious Belief Questionnaire (RBQ), which the authors designed for this study. Though the article's appendix contains a limited portion of the RBQ, the authors failed to include any reliability or validation data for it. Of the women who responded (40% response rate), the modal group was Anglican (30%), with others having diverse affiliations and a quarter claiming no affiliation. This Joughin et al. (1992) study is a good starting point for this quantitative section due to its large sample, statistical analyses, and exploration of between-group differences.

Joughin et al. (1992) correlated women's scores on the EDI subscales of Drive for Thinness and Bulimia and religiosity variables such as strength of religion as a child, importance of mother's religious beliefs, and moral guidelines from religion. In many between-group analyses on different indices of women's religiosity, no differences emerged on

EDI scores in comparisons between: women with religion vs. without, women's parents having any religion vs. not, women's parents having the same religion as each other vs. not, and women's parents having strong religious beliefs vs. not. Women's scores on Drive for Thinness and Bulimia were correlated with many religiosity variables (e.g., importance of religion, parents' religious beliefs, moral guidelines from religion). Of the 20 correlations from these analyses, 5 reached significance, and those were weak (r s from $-.11$ to $-.26$). The importance of religion to women was inversely significant related to bulimia scores ($-.16$). The authors interpreted this to mean that a woman's religious belief and commitment is strained when her bulimic behavior entails repeatedly committing the "sin" of gluttony (in binge eating).

In another analysis, Joughin et al. (1992) found that of the 576 women who responded to a survey question on whether they or anyone in their family had changed religion during their life, 9% cited some type of conversion. Comparing the 51 converts to the 525 non-converts, there were no differences between their scores on bulimia or drive for thinness. Interestingly, the converts were more likely to claim that their eating disorder strengthened their religious belief rather than weakened it. Unfortunately, the wording of the question on conversion does not distinguish if the female subjects themselves had a conversion, or if someone else in their family did. Therefore, these results are quite limited about the link between conversion and eating disorders.

Although Joughin et al. (1992) offered data on a large sample and collected data on multiple religiosity measures, most findings in their study were non-significant and the significant ones were rather low in magnitude. Beyond these limitations, the study's most significant problem was in its sampling: The selection criterion was membership in a self-help organization described by the authors as "offering information and advice to the families of (eating-disorder) sufferers" (p. 398). Consequently, there is no way of knowing if the participants had a current eating disorder (or if they ever had one) or whether their involvement in the organization (and hence study) was solely because someone else in their family had an eating disorder. Such vague sampling criteria preclude any valid conclusions from this study.

Other scholars have offered data from large samples of women in treatment programs. Smith, Hardman, Richards, and Fischer (2003) conducted a pretest/posttest study in in-patient care for eating disorders. Of the women admitted to treatment from 1996–2000, 88 were diagnosed with anorexia, 68 with bulimia, and 75 with "eating disorder

not otherwise specified.” Ages ranged from 12–56, with most women between 15 and 24. Most women were White (90%), single (74.9%), and diagnosed with an unspecified psychiatric comorbid diagnosis (91%). About 65% were Latter-Day Saints (the center was in Utah) with remaining affiliations distributed evenly between other religious groups or unaffiliated women. The authors stated that treatment had an ecumenical spiritual emphasis that encouraged patients to explore their individual beliefs and draw upon their own faith to facilitate recovery.

Patients in Smith et al. (2003) completed a battery of assessments in their first week after admission and later upon discharge, after stays of varying lengths. One predictor measure was the intrinsic orientation scale, one of the most widely used measures of religiosity; this scale taps one’s integration of religious belief into one’s daily life and use of religion as a “master motive” and an end unto itself (rather than using religion as a means to an ulterior end). Items that tap intrinsic orientation include “It is important to me to spend time in private thought and prayer,” “My whole approach to life is based on my religion,” and “I have often had a strong sense of God’s presence.” Outcome measures included the Eating Attitudes Test (EAT), Body Shape Questionnaire (BSQ), and Religious Well-Being (RWB) subscale, another one of the most widely used surveys in the field; RWB assesses the nature of one’s relationship with God with items such as “I have a personally meaningful relationship with God,” “I believe that God loves me and cares about me,” and “I feel most fulfilled when I’m in close communion with God.” The researchers reported computing “gain scores” on measures to assess improvement during treatment in women’s eating attitudes and body image. Gain scores in RWB were significantly related to gains in BSQ ($r = .21$) and EAT scales ($r = .28$), meaning that as women (during treatment) grew closer to God they also felt better about their bodies and eating. Subsequent regressions revealed that women’s intrinsic orientation at time of admission was a significant predictor of their therapists’ ratings of women’s improvement during treatment, although in zero-order correlations intrinsic orientation was unrelated to body image and eating scores on the EAT and BSQ ($r_s = -.01$ and $-.07$). Though the authors’ text and tabular presentation of regression analyses do not foster straightforward interpretation of their findings, it seems that women’s changes in intrinsic orientation during treatment were not used as predictors in regressions; it also seems that women’s

gains in RWB did not predict gains in their eating and body image (EAT and BSQ) scores nor in the therapists' ratings of the women's overall improvement.

Taken together, across this treatment program there were some but inconsistent and weak links between religiosity and women's body image and eating behavior. Because the treatment program was ecumenical, it is unclear what religious or spiritual components were related to changes during treatment in body image or eating. The authors themselves noted that women without religion may have been just as likely to benefit from the ecumenical treatment.

Other researchers have examined whether religion buffers women against risk factors for eating disorders. For example, Forthun, Pidcock, and Fischer (2003) measured Intrinsic and Extrinsic Orientation in 876 women, 18–29 years of age, enrolled in a program in substance abuse studies at a southwestern U.S. university. Extrinsic orientation taps one's use of religion as a means to some other end, such as social gains, tapped with items such as "I go to church because it helps me to make friends." Another end toward which religion could be used is to feel better about one self, tapped by items such as "I pray mainly to gain relief and protection" and "What religion offers me most is comfort in times of trouble and sorrow." Most women were White (88%) and affiliated with some religion (97%). It is important to note that this sample was not limited to women who had suffered from eating disorders or who had been exposed to family dysfunction. To assess family risk, women completed the McMaster Family Assessment Device (FAD) and the Family Addiction and Recovery Scale (FARS) on perceived parental history of disordered eating. Women's eating behaviors were assessed on the EDI subscales of Drive for Thinness and Bulimia. In regression analyses, women's extrinsic orientation was a significant predictor of bulimia and drive for thinness scores. Thus, the more women used religion as an instrumental means to form friendships or feel better about themselves, the *higher* their bulimia and their desire for thinness. Conversely, intrinsic religiousness was related to women's eating problems in a positive manner. Even in families with high risk for disordered eating, women higher in intrinsic religiousness were buffered against family dysfunction. However, higher levels of extrinsic religiousness increased the effect of family dysfunction on women's disordered eating as measured by the Bulimia and Drive for Thinness subscales. In summary, intrinsic religiousness—using religion as an end

into itself and integrating one's religious beliefs into one's life—protected women against family-pathogenic effects whereas extrinsic religiousness increased this vulnerability to disordered eating.

Forthun et al. (2003) suggested that the buffering effect of intrinsic religiousness is due to social support offered by a religious community or to coping responses internalized from religion (e.g., love, forgiveness). However, social support could arise regardless of religious orientation. In fact, being religious in order to obtain social support is consistent with an *extrinsic*, not *intrinsic*, orientation (which was related, in their data, to increased risk). An intrinsic orientation for women in a dysfunctional family system may be protective by enhancing one's ability to forgive self and others, and experience God's love rather than punishment or abandonment, around eating and body image pressures. More data are needed to clarify these issues.

Another recent study examined religiosity in women at-risk for eating disorders (Jacobs-Pilipski, Winzelberg, Wilfley, Bryson, & Taylor, 2005). The sample was 255 women (60% White, average age 20.7 years) at a private university in the Western U.S. The sample had a body mass index within the normal range and the women were religiously diverse, with large minorities affiliated with Protestant and Roman Catholic churches, 19% with non-Western religions, and 11% with Jewish affiliations. The women were identified as having elevated concerns about their body shape and weight. All women completed the Eating Disorder Inventory and a new religiosity/spirituality survey, designed for this study but with items based on other commonly used surveys. This original survey had strong internal reliability and correlated appropriately with the religion subsection of a coping measure. Based on women's responses to this 13-item survey, the sample was split into two groups, women with strong and women with weak religiosity/spirituality; 47% of the sample was in the "strong" group.

Although the result was discussed very little in Jacobs-Pilipski et al. (2005), a major finding (for the purposes of this review) was that women's religiosity had no significant relationship with eating disorder psychopathology. The authors conducted additional tests to compare the groups' usage of different strategies (many secular, some religious) to cope with their body/weight worries. As would be expected, the "strong" religiosity women were significantly higher in self-reported use of prayer and reading religious material. In our view, more informative than these (perhaps obvious) behavioral differences was the low frequency with which the "strong" religiosity group used religious coping. The tactic of reading religious material had an average score

of 2.0 and using prayer an average of 2.3, scores that correspond to the response choice of “rarely.” For another analysis, women rated the effectiveness of their coping strategies. Compared to the “weak” group, the “strong” religiosity women felt that prayer was significantly more effective to cope with body/weight worries. Based on the response scale, the “strong” group average suggested that prayer was “somewhat” to “moderately” effective. So these findings suggest that highly religious women feel that praying helps them cope with body/weight concerns, yet their religiosity scores were not related to eating disorder scores and the actual frequency of their praying and religious reading was rather low. These results could indicate that the *value* of a religious coping behavior preferred by a religious woman may outstrip its (low) *frequency*. Unfortunately, Jacobs-Pilipski et al. did not present correlations between frequency and effectiveness of coping tactics, but this relationship should be studied to learn if some forms of religious coping with body concerns can be rare yet potent.

One study investigated how disordered eating affects how women practice their religion (Graham et al., 1991). At an eating disorders inpatient unit at a university, four female patients were described as abstaining from Holy Communion due to fear of gaining weight. Subsequent to these cases, the authors studied modified religious practices in 20 patients in the hospital's eating-disorder unit. All 20—16 diagnosed with anorexia nervosa and 4 with bulimia—were White and almost all were female with a religious affiliation (95%). Patients completed a survey referred to as the Religious Attitudes Questionnaire (RAQ), concerning religious practices and eating disorders. Unfortunately, the authors did not include a citation for the RAQ, did not list any of its questions, and did not provide evidence of its reliability or validity. Of the 15 patients in Graham et al. (1991) who claimed to regularly receive Communion, two-thirds reported that since the onset of their eating disorder they took Communion less often. Sixty-five percent of the sample reported a decrease in church activity attendance, particularly at activities with food present. Though the study suggested that women's religious practices may be altered due to disordered eating, the results are limited given the study's small and homogeneous sample and lack of information on the study's key measure of religiosity.

Religion and Body Image/Eating Behavior in Non-diagnosed “Normal” Women

We now turn to several studies that have appeared very recently and which sample non-diagnosed “normal” women. Studying religiosity and

body image and eating in such women is important because dissatisfaction with one's body is so ubiquitous among young women that it is viewed as "normative discontent" (Striegel-Moore et al., 1986).

Pargament and Mahoney (2005) have recently defined and measured a new dimension of religiosity they call sanctification, which refers to the process of endowing some aspect of life with divine and sacred significance and value. In one study, Mahoney et al. (2005) measured sanctification of the body in 289 college students from a Midwestern university. Students tended to be female (77%), White (91%), 19 years old, and Protestant or Roman Catholic. Students completed standardized measures on many behavioral and attitudinal health measures; for our purposes we focus on the measures of unhealthy dieting, binge eating, and satisfaction with one's body. Scores on these measures were related to scores on two dimensions of sanctification of the body, "manifestation of God in the body" and "sacred qualities of the body." The former scale taps students' self-perceptions on 12 items such as "my body is created in God's image" and "a spark of the divine resides in my body," and the latter scale taps self-perceptions on 10 items such as viewing one's body as "holy," "sacred," and "heavenly." Students also reported on their frequency of prayer and worship attendance, and self-ratings as religious and spiritual; these responses were aggregated into a global religiosity score.

Mahoney et al. (2005) found that students' body satisfaction correlated significantly with scores on manifestation of God ($r = .13$) and sacred qualities ($r = .25$); binge eating was unrelated to manifestation of God but inversely and significantly related to sacred qualities ($r = -.14$); and unhealthy dieting was significantly inversely related to both scales ($r_s = -.12, -.18$). In subsequent regression analyses, students' scores on sacred qualities of the body predicted modest but significant, unique variance in their satisfaction with their own bodies, even after accounting for students' global religiosity. (Manifestation of God in the body was not a significant predictor.) Regarding eating behavior, manifestation of God and sacred qualities did not predict binge eating or unhealthy dieting. Other findings showed that students' global religiosity (the aggregate measure of prayer, worship, religious and spiritual self-ratings) was not related to binge eating but was significantly correlated with body satisfaction and inversely related to unhealthy dieting ($r_s = .13$ and $-.13$, respectively). In regressions, global religiosity did not predict variance in binge eating or unhealthy dieting, though it did predict variance in body satisfaction. However, global religiosity did

not predict any unique variance in body satisfaction after controlling for sanctification scores.

This Mahoney et al. (2005) work on sanctification is valuable for capturing a new facet of religiosity and for identifying its significant associations with healthier body image. However, one dimension—"manifestation of God"—was not predictive of body image or eating outcomes, and although the dimension of "sacred qualities" had significant relationships they were of weak or modest magnitude. Nevertheless, this study calls for continued analysis of the correlates and consequences of sanctifying one's body and perceiving its divine and sacred qualities.

Body image and eating have been studied in relation to another facet of religiosity, Quest orientation (Boyatzis & McConnell, 2006). Quest orientation entails examination of one's beliefs and views and asking existential questions, taking comfort in doubts, and feeling open to change in one's beliefs. A recent review on mental health examined eight studies on quest and found that half were inconclusive; of the four studies with significant findings, one yielded a healthy link and three showed that Quest was related to more "existential anxiety, worry, and/or guilt" (Ventis, 1995, p. 41). For many women, concerns with body image and eating are tantamount to chronic crises with existential worry and self-doubt (Crisp, 1980). Boyatzis and McConnell (2006) studied three age groups of young women (most were White and Christian and associated with a private university in the Eastern U.S.) who completed the quest scale with its subscales on Doubting as Positive (e.g., "For me, doubting is an important part of what it means to be religious"), Existential Questions (e.g., "God wasn't very important to me until I began to ask questions about the meaning of my own life"), and Openness to Change (e.g., "There are many religious issues on which my views are still changing"). Women also completed the commonly used Body Esteem Scale and the Eating Disorder Inventory subscales for Drive for Thinness, Bulimia, and Body Dissatisfaction.

In this study (Boyatzis & McConnell, 2006), first-year and sophomore college women's total quest was related to significantly higher bulimia and body dissatisfaction ($r_s = .33$ and $.34$). On subscales, higher existential questioning and doubting as positive were significantly correlated with higher bulimia ($r_s = .29, .23$) and body dissatisfaction ($r_s = .31, .28$). Among juniors/senior college women, body image and eating scores were not significantly related to higher total quest and existential questions and doubt subscales. However, higher openness to change

was significantly related to lower body-esteem ($r = -.31$) and marginally higher bulimia and drive for thinness ($r_s = .28, .27$). Therefore, the more that junior/senior women were willing to change their religious beliefs, the more unhealthy their body image and eating. In the oldest age group, 25-year-old women surveyed three years after graduating, body esteem and eating disorder scales were unrelated to quest and its subscales with the exception of existential questions, on which higher scores were marginally related to lower body dissatisfaction ($r = -.25$).

Together, these data provide support, though with only modest correlations, for an overall unhealthy linkage between one index of religiosity—quest orientation—and several dimensions of body image and eating behavior during emerging adulthood. These findings are noteworthy because this is the first time that quest has been related to body image/eating variables. The findings are also important for showing that the link between quest and body measures vary by age group. These findings call for additional work in designs that examine age-related changes in the religion-body dynamic, rather than treating age in research designs and sampling as some singular and static period.

Other work has provided qualitative data on the link between women's body image and religiosity. Boyatzis, Trevino, Manning, & Quinlan (2006) report data from college and young adult women who described in written essays how their religious and spiritual beliefs and behaviors were related to their feelings about their bodies, appearance, exercise, and eating. Such data help illuminate whether and how religion actually influences women's views of their bodies. As one woman said, "my religion deals with my heart, not the size of my hips or butt." Another wrote, "One thing that keeps me from obsession about my weight is God's unconditional love." Essays were coded from 57 first-year/sophomore women, 43 juniors/seniors, and 51 alumnae (M age 25 years); the sample was primarily White and Christian. To capture the degree to which religion and body image/eating were related, essays were coded on a 7-pt scale ($-3 = \textit{extremely unhealthy relationship}$, $0 = \textit{no relationship}$, $+3 = \textit{extremely healthy relationship}$); independent coders had strong reliability.

In this study (Boyatzis et al., 2006), first-year/sophomore essay scores ranged from -3 to 3 , though on average had a slightly positive relationship between religion and body image/eating ($M = .87$, $SD = 1.27$). Junior/senior essay scores ranged from 0 to 3 with a slightly positive average ($M = .78$, $SD = .93$). College graduates' essay scores ranged from -1 to 3 with a slightly positive average ($M = .64$, $SD = 1.14$).

Two conclusions emerged from these data: When women did feel some link between their religiosity and body image or eating, it was slightly positive. However, the modal score at each age, with slightly more than half in each group, was a 0, so a substantial portion of women did not conceive of any linkage between religion and their bodies or eating. To provide some qualitative depth, now we offer some verbatim comments (see Boyatzis et al., 2006) to illustrate the different relationships—positive, neutral, and negative—between women's religion and bodies.

In many essays (slightly more than half), women emphasized that no relationship exists, such as a 25-year-old who stated, "I have no relationship with God. My body is my own and I choose what to do/what not to do with it." Another alumna wrote, "Never did Catholicism make me think about my body, diet, or exercise (except for Lent, of course)." However, as the mean ratings show, an explicitly positive dynamic was described in many essays, such as by this first-year/sophomore woman who wrote simply: "I know God will love me despite my body." Another young student wrote that "God wants me to respect myself, and he doesn't have a cutout of what I have to be," and another said she has found the "teachings of Judaism to encourage an individual to be satisfied with who they are." A different first year/sophomore described how her struggle with bulimia was influenced by her religion: "The Lord helps me get through my problems of feeling out of control which leads to my purging...I do all things through Him who gives me strength. Phil. 4:13." While many women offered such positive integrations of religious belief in their body image or eating behavior, some described a negative dynamic. A first year/sophomore wrote, "my relationship with God is a very unstable one. Lately, I have been trying to establish whether he even exists. Part of this instability manifests itself in my eating habits. I tend to overeat when I am nervous which I constantly am (about the existence of God). I am confident that if I could be assured God existed, I would eat better."

Some women's comments help us appreciate the complexity women can feel in these religion-body dynamics. One junior/senior wrote, "Luke 12 says we should not worry about what we eat or wear because the Lord will provide for us.... From another angle, the Bible says our bodies are temples of God and we should stay holy and pure.... On the other hand, we cannot let what we eat or exercise run our lives...God doesn't discriminate against fat people, and just because we can't all be on the cover of *Vogue* doesn't mean we can't be invited to the Kingdom of God."

The Boyatzis et al. (2006) paper is one of the few publications that highlight the value of qualitative data. Given the complex and highly personal issues involved in the religion-body dynamic, women's own words may be crucial for elucidating *how and why* religion may be related to women's body image and eating behavior. Qualitative data also capture how complicated these issues are. One of the more intriguing findings from the analysis of women's essays in Boyatzis et al. (2006) was that almost one-third of the essays stated an explicit *contradiction*. Typically, women would open their essays with an unequivocal claim that religion had nothing to do with their bodies, only to express later that religion surely *did* matter. For example, one undergraduate wrote that her "spiritual and religious beliefs have not influenced my view of myself or my behavior"—only to later offer this blatantly religious self-assurance: "I know God will love me no matter what I look like." These inconsistencies may be common because the issues involved are complex for any age, especially during college and early adulthood when women (and men) are working to balance autonomy and relationality, self-reliance and interdependence.

Despite the contributions of these empirical studies, the striking limitation of all is their correlational design, leaving the question unanswered as to whether religiosity and spirituality have any *causal* impact on women's views of their bodies or their eating behavior. The case studies reviewed earlier may suggest causal effects, but it is unclear in many cases whether religiosity is a cause or consequence of disordered eating. In large sample research there is a distinct dearth of evidence that gives any indications of causal impact. However, a very recent publication offers a design that may help rectify this predicament.

Boyatzis, Kline, and Backof (2007) examined whether college women's body image would improve as a result of reading "body affirmations" that described their bodies in religious or spiritual terms. In this experiment, Boyatzis and colleagues collected pretest data on women's religiosity (e.g., prayer frequency, worship attendance, importance of religion) and body image, as measured by the Body Esteem Scale subscales on weight and appearance. The women were enrolled at a private, Eastern university, and were typically Christian, White, and 18 years old. Based on pretest data, women were matched to one of three different conditions; the groups were equivalent on religiosity and body image. A week later, women returned for a posttest session and read a set of body affirmations or control statements. In the "religious"

group women read 15 affirmations that explicitly mentioned God and affirmed the goodness and value of their bodies (e.g., “Because I am a child of God, I am perfect and whole and my body is perfect and whole”; “The Spirit of God is expressed in my body, and therefore, it is my duty to treat it with reverence and respect”). In the “spiritual group” women read 15 parallel statements but which had no mention of God (e.g., “With love and joy, I am able to accept and embrace the body that I have”; “Because I love my body, I consider it to be perfect and whole”). A control group read 15 statements with no mention of either religion or body image issues. Women then viewed a packet of photographs of fashion models to activate women’s concerns about their body image and then completed a body image posttest, with filler items added and survey questions ordered differently to reduce effects of remembering the items from the pretest. Women’s body image scores were compared pretest to posttest.

Analyses in Boyatzis et al. (2007) demonstrated that compared to control group women (who declined on the appearance subscale), women in the religious condition improved significantly and women in the spiritual condition improved marginally in how they felt about their appearance; no group effects emerged on women feelings about their weight. This study may provide the first experimental evidence that religion and spirituality—as operationalized in the experiment—has a positive impact on women’s body image. These findings are all the more striking, the authors claimed, because the pretest data indicated that the women in the sample were rather *low* in religiosity (e.g., 61% said that religion was “not at all” or “somewhat” important to them). Despite this sample, the findings suggest that women’s feelings about their looks are enhanced from reading affirmations rich in religious imagery and language which espouses a vision of one’s body as divinely loved and accepted. This interpretation is consistent with the finding that seeing sacred qualities in one’s body may enhance body image (Mahoney et al., 2005). The religious affirmations may well have provided women with immediate and sanctifying lenses through which to view their own body. Future research could determine if theistic body-affirmations improve women’s body schemas in not only normal but diagnosed populations (see Richards et al., 1997, 2006). Perhaps most importantly, this study’s design is an example of experimental research that could be emulated in other studies and provide a helpful balance to the field’s correlational and descriptive emphasis.

CONCLUSIONS

In our view, there are clear conclusions from the studies reviewed above. First, *religion and spirituality interact with women's eating behavior and feelings about their bodies in diverse and complicated ways*. This point seems most confirmed by the varieties of experience in the case studies, the qualitative essay data examined earlier (Boyatzis et al., 2006), and the diversity of results in the quantitative studies.

The second conclusion, drawn from the quantitative studies on diagnosed and non-diagnosed women, is that *women's religion and body image/eating behavior are rarely linked in unhealthy ways but often linked in positive and healthy ways*. The negative scenario (i.e., unhealthy body image and eating) emerged in relation to only two religiosity constructs: Quest orientation (Boyatzis & McConnell, 2006) and Extrinsic orientation (Forthun et al., 2003). The positive scenario (i.e., healthier body image and eating) emerged in relation to women's self-rated importance of religion (Joughin et al., 1992), global religiosity (Mahoney et al., 2005), Intrinsic orientation (Forthun et al., 2003; Smith et al., 2003), Religious Well-being (or close and warm relationship with God) (Smith et al., 2003), and viewing one's body as having sacred qualities (Mahoney et al., 2005). Positive associations also were suggested regarding women's use of religious coping (Jacobs-Pilipski et al., 2005) and religion's role in their body image (Boyatzis et al., 2006). In addition, the review has identified numerous religiosity measures that had no systematic relationship with body image or eating at all. So the literature is mixed to some degree but does point toward a more positive scenario than any other.

It is important to offer this conclusion with several qualifications. As we stated throughout the review, when a positive link was reported, the relationship was not strong or consistent. Of course, even small statistical results may be large in a personal or clinical context. There are surely countless factors, from intrapsychic to cultural (Holland, Sicotte, & Treasure, 1988; Keel & Klump, 2003), that are associated with or influence the multidimensional constructs of women's body image and eating behavior (Garner & Barry, 2001). This review has demonstrated that religion seems to be one of these correlates or influences, even to only a modest degree, and the one available study with an experimental design demonstrated that religious body affirmations caused an improvement in women's feelings about their appearance. There is some clarity emerging, then, and it would behoove scholars

of religion and well-being, and of women's body image in particular, to note the studies and conclusions reported here.

The third conclusion pertains to two *important limitations in the designs of studies*. First, correlational designs dominate the literature (as they do more widely in research on body image and religiosity/spirituality). Consequently, confidence about causality must be reserved until more studies with experimental designs are published. Second, many studies lack any between-group comparisons and analyses. Among studies reviewed in the quantitative section, several (e.g., Graham et al., 1991; Joughin et al., 1992; Smith et al., 2003) used samples from diagnosed or self-help eating-disordered groups and included no comparison between a disordered-eating group and non-disordered group (e.g., women who are not in a self-help organization or an eating disorder treatment center). Further, some studies (e.g., Forthun et al., 2003; Smith et al.) may have been able to analyze different subgroups within their sample (e.g., women diagnosed with anorexia vs. those with bulimia).

The fourth conclusion is that, with one very minor exception, *all data in every study and measure come from women's self-reports*. (Among many self-report measures used by Smith et al., 2003, therapists provided ratings of women's improvement.) A more advanced understanding of religion and body/eating will require the use of multiple data sources (friends, lovers, family members, clergy, therapists, etc.) as well as more qualitative data to supplement the typical survey data obtained. Finally, going beyond self-report will require the use of more revealing measures, ranging from neurological assessments to subconscious primes and Implicit Attitude Tests and others yet to be developed.

A fifth conclusion is that *most data come from young White women who are Christian*. For example, virtually all of the studies on diagnosed and non-diagnosed samples include women somewhere between 18 and 30 years of age. It will not be convenient, but future studies that go beyond convenience sampling will help round out what is surely a broad spectrum of religion-body associations across the lifespan in different age, racial, ethnic, and religious groups. (And we hope it is not too late to mention the obvious: All of the psychological issues discussed in this review deserve to be studied in *men*.)

The sixth conclusion is that *most studies assess different forms of religiosity and body image and eating behavior*. This is good for the studies' validity, given the multidimensional nature of these constructs, but it is also crucial for a refined understanding of how religion and body interact.

As summarized above in the second conclusion, many constructs were associated in positive ways with body image/eating behavior, some in negative ways, and some in no apparent way. Thus, this review gives empirical support to the suggestion that scientists must note the specific constructs under study in any discussion of broad terms such as “religion” (Pargament, 1997).

Our seventh and final conclusion is that, in light of the relatively small number of studies examined in this review, *the field has tremendous room for growth*. Scholarly attention must be paid to these dynamics between women’s religiosity and body image and eating behavior. More studies are needed for replication of the findings reviewed here and to analyze many other dimensions of religiosity and spirituality. On many complex and fascinating dynamics, psychologists have learned much, but still have much to learn.

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SPECIAL SECTION

ADOLESCENT SPIRITUALITY

INTRODUCTION TO THE SPECIAL SECTION OF *RESEARCH IN THE SOCIAL SCIENTIFIC STUDY OF RELIGION*

There has been a dramatic surge of interest amongst scholars and the public in religious and spiritual development. One thrust of this interest is the potential that religion and spirituality have to protect children and youth from undesirable outcomes and to enhance their positive development. The papers in this special section reflect and contribute to this area of scholarly interest. This section arose from a stimulating and valuable conference, organized by Priscilla Hambrick-Dixon and hosted by Hunter College of the City University of New York, in the spring of 2007. The diverse papers explored topics such as school, media, family, and other social systems as contexts in which spirituality can thrive or be thwarted or misdirected. The conference featured a social-ecology approach to spirituality. This special section includes papers solicited from that conference, and which underwent peer review. The section reflects this social-ecology approach to spirituality in the first decades of life and its relation to children's well-being. Though their topics and theoretical frameworks vary, the papers all share a strong commitment to the understanding and enhancement of child and adolescent well-being and optimal development.

Gess LeBlanc offers a conceptual examination of two very distinct but related constructs in adolescent boys: meaningfulness, and violence. LeBlanc focuses on the social context of school and describes the need for pedagogical practices that foster spirituality in boys order to promote their positive development and reduce the likelihood of antisocial and violent behavior.

In another theoretical paper, Philip Alcabes gives a provocative critique of conventional wisdom about "children at risk" by attacking fundamental confusions in our society. Alcabes challenges the "formulaic moralism that serves nobody except the tabloids and the nightly news producers" and claims that children's health problems are primarily projections of society's unresolved moral problems. What is needed, Alcabes argues, is a spiritual pursuit which embraces essential human instincts and strengthens the ties that bind people together.

Alethea Desrosiers and Lisa Miller offer an empirical study on the protective effects of spirituality against adolescents' alcohol use and

anxiety. In their large and diverse sample of adolescents, several dimensions of spirituality were associated with significantly lower alcohol use. Adolescents' feelings and perceptions of their faith community were also related to anxiety, as adolescents who perceived more benefits from their congregations were lower in anxiety but adolescents who perceived more problems in their congregations were higher in anxiety. Desrosiers and Miller frame their work within a spiritual approach to alcohol and anxiety disorders in adolescence.

Chris J. Boyatzis

Priscilla Hambrick-Dixon

HEALTH PROBLEMS OF CHILDREN AND THE MORAL RESOLVE OF ADULTS

*Philip Alcabes**

ABSTRACT

Children at Risk is a theme of modern American life, a set of claims that children's behavior in the areas of drug use, diet, and sex are not merely potential health threats to some children but real pathologies to all. This essay argues that adults center our health concerns around children's behavioral problems because we are uncomfortable with our own appetites, and lack the moral resolve to decide if we must protect children from them or teach them to deal with the world as it is. It demonstrates that American children are generally healthy, and not much in peril from unmanageable risks. It argues that adults' insistence on childhood "innocence" deprives us of the capacity to take a nuanced and realistic look at children's activities, instead expressing our moral irresolution. And it suggests that the lack of agreement over how children should be involved in research on health problems is a particularly pressing area where moral resolve is needed.

KEY WORDS: child health, risk behavior, ethics, moral education.

The risk to our children is a point of concern for many Americans. For instance, over a million websites turn up in a simple Google search on the phrase "children at risk," and they belong not only to special-interest groups and health advocates, but also to federal agencies, nonprofit groups large and small, several state governments, quite a few universities, and some businesses. "Children at Risk" is the subject of hundreds of books currently in print, too, with medical, social, and religious themes. From the clamorous public discussion on the topic, it

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would seem that our kids are sick and dying, that America's children have suddenly become vulnerable in unprecedented ways. In fact, though, America's children are healthier than ever before. So how can we account for the widespread belief that children are at risk?

In this essay I argue that the health problems of children are, by and large, moral problems of adults. The rhetoric of Children at Risk arises from a failure in the moral realm, a flagging of what we might call moral resolve. And it is not risky behavior on the part of children that really underlies the claim that they are in danger, but rather moral irresolution on the part of adults—or, at least, adults' incapacity to fix our regard on real-world circumstances that are morally challenging and then translate our sense of what is right into clear guidelines for judgment. Perhaps the world is too complex.

MORAL RESOLVE AND THE MEANING OF HEALTH

The matter of moral resolve in the realm of health will be difficult to assess, because today's health dialogue seems to move ever further away from moral and spiritual analysis. More and more, at least in the U.S., we define medical problems as machine failures: mechanical faults in the clockwork of the organism, presumed to be fixable once the breakdown is properly described and its etiology traced. It is the reason a pediatrician now refers her patient to the pediatric cardiologist as soon as she hears an unusual heart sound (and why an adult's general practitioner refers him to a specialist when she sees it is time for his next routine colonoscopy). This makes sense, because it is surely better to have technical procedures undertaken by the more advanced technician. In part, the apparent mechanization of health is a result of advances in technology which allow medical researchers to "see" our inner workings more clearly, down to the DNA in our cells.

But surely there's another part. If we are perfectly honest, we admit that we, as a society, have chosen to hire people to see to our health and further chosen to alter the meaning of the term "care" to fit the mechanical maintenance and repair performed by the system we refer to as *health care*. Health care, by which we usually mean medical treatment, has departed from the locus of home and family—moved away, that is, from the places where caring is traditionally enacted. Therefore, the fixing of mechanical faults takes place in settings where the scrupulous attention of well-meaning strangers replaces the emotionally laden give-and-take of intimate dyads (mother-child, sibling-sibling, friend-friend,

and so forth), i.e., the elements by which we usually understand care. This seems particularly relevant to the matter of children's health, then, because our sense is that children need and deserve our care.

Evidently, this shift in the meaning and practice of health has an up side. A general improvement in Americans' health is notable in the increase in lifespan over the past few generations (Arias, 2006). But if health is understood to be merely a predictable resultant of observable and describable physical forces, then the spiritual aspects of health are fundamentally hard to talk about. The spiritual and moral aspects are not empirically accessible—not measurable, not evident by sight or sound or through a blood test.

SPIRITUAL ASPECTS OF HEALTH

When we do talk about spiritual aspects of health, it is often by investing the problem of health and illness with a specific religious component. For instance, several studies found an association between well-being and the observance of specific religious rites, including church attendance, prayer, Ramadan fasting, and strict observance of Halakha, (Banthia, Moskowitz, Acree, & Folkman, 2007; Flannelly, Koenig, Ellison, Galek, & Krause, 2006; Fitzpatrick, Standish, Berger, Kim, Calabrese, & Polis-sar, 2007; Huppert, Siev, & Kushner, 2007; Roberts, Ahmed, & Hall, 2007; Roff et al., 2006; Sheikh & Wallia, 2007; Weaver & Koenig, 2006). In some cases religious observance seemed beneficial; in others it seemed to create problems. But the extent of interest in the possible direct effects of religiosity on health in general and children's health in particular (see the review by Cotton, Zebracki, Rosenthal, Tsevat, and Drotar (2006)) bespeaks an orientation toward the question of spirituality and health that is rooted in religious institutions (Oman & Thoresen, 2002). It shows that religion remains pertinent to the spiritual aspects of health for many people, but it does not move us closer to understanding what the spiritual basis of health is, especially for those people whose spirituality is not served, or not perfectly served, by the rites or tenets of organized religions. Also, too often the line of inquiry into ritual and health leaves unexamined the assumption that health is equivalent merely to relief from illness, i.e., the thing that the medical system provides

A different approach, and one that I will take here, is to understand spirituality as essentially equivalent to morality—both referring to a realm of human endeavor that involves knitting inward sensations

(duty, virtue) to outward experiences (real-world consequences) without recourse to testable claims of getting at Truth (the sort made by science). This is a little different from previous studies' approach to spirituality: it does not take ritual observance to be a fully satisfying answer to the inquiry as to the presence of spirituality in health, nor does it discount elements of the spiritual that might not be manifested through religion. My approach connects spirituality to health through a shared essence or set of mutually embraced norms.

If we examine the claims about Children at Risk while keeping moral/spiritual aspects of health in mind, we then can ask about the moral underlay of the claims. We will find that the morality in question is really that of adults.

ARE CHILDREN AT RISK?

How valid is the claim that our children's *physical* health is in danger? Not very: the U.S. in the early twenty-first century is a healthy place for children and adolescents. Of all the children born in the U.S. today, roughly half will live to be eighty and many of them (ten to twenty percent, even with no gains in longevity between now and then) will live to see the twenty-*second* century (Arias, 2006). Infant mortality, the dominant cause of childhood death, is at an all-time low: of every thousand American babies born today, all but seven will still be alive in a year (U.S. National Center for Health Statistics 2006); only eight will die before age five. For comparison, in Southeast Asia almost ten times as many (77 of every thousand) newborns die before they reach age five. In much of western Africa, children's health is several times worse still, with up to 200 of every thousand newborns dying before age five. (World Health Organization [WHO], 2006a).

The current low numbers of childhood deaths are part of an American success story of the twentieth century, the control of childhood disease. Today, our children never die of malaria or measles, two diseases which together kill well over a million kids a year elsewhere in the world (WHO, 2005, 2006b; U.S. Centers for Disease Control and Prevention [CDC], 2006). Both polio and rubella ("German measles"), viral diseases that were responsible for much disability among American kids as recently as the 1950s, no longer spread here at all (there remains an annual handful of imported cases, immigrant children infected abroad) (CDC, 2007a). Worldwide, a half-million children

are newly infected with HIV each year, but American children rarely contract it: in the U.S., only about 400 children each year are infected (CDC, 2005), amounting to less than 0.1 percent of the global total. And when American children do die, it is not from undernutrition—an underlying cause of over half of the world's childhood deaths (WHO, 2004). Woeful disparities do remain in the chance that a child born in America today will have a healthy life, and the gap between the health and longevity of America's affluent and those of our poor remains a vexing public-health problem. But, by comparison to child-health standards worldwide, the differences between poor and non-poor children in the U.S. are discrepancies between fairly low and very low probabilities of suffering and death.

Yet, we talk about our children as facing many threats. In their own health classes in school, our kids are taught to avoid health problems having to do with drugs and sex. In the newspapers, we read that health threats to children include obesity, type 2 diabetes, selective serotonin reuptake inhibitors, physical abuse (including sexual abuse), sexual molestation, and Internet predation. There is continuous airplay for a drama about drugs, diet, and sex.

RISK RHETORIC

We must ask two questions, then. Since children are not really in much danger, according to the data, why do we say that they are? And, what sort of health do we mean is in peril, when we say our kids are "at risk"? Perhaps these questions arise from a kind of "culture of fear" promoted by media that stand to profit from creating perceived perils, then selling us information about what threatens us and recommendations on how to avoid it. But if so, it is a culture that we do not reject, one whose language we speak. The language of risk has been examined extensively (Douglas, 1966, 1992; Beck, 1992; Giddens, 1991a, 1991b; Lupton, 1999); it seems to be a hallmark of contemporary culture rather than an epiphenomenon produced by media in the process of vying for market share. Thus, these questions point to a larger discourse than the one that seems to be implied by the Children at Risk claim. They point toward a deeper awareness of risk, and suggest that what troubles us is the moral milieu in which our children are growing up—our moral world, the one we adults have created. The allegations about dangers to our children's physical well-being disguise a deeper, spiritual unease.

SPIRITUAL UNEASE AND MORAL REGARD

The ethical discourse about modern life, and therefore about modern health, is predicated on a set of principles that are essentially spiritual. The three great rivers of thought about moral probity all operate on a spiritual plane. The Platonist school, which holds that there exists some *noumenal* Truth about nature and we humans have a duty to act in accordance with it, is plainly attentive to the spirit. The anti-platonist school, which finds truth to be no more than a socially constructed claim, still recognizes moral norms as being forged by rational people seeking to make the world better, which necessarily encompasses deep-seated urges toward justice or what we now call human rights. The nonplatonist school, which claims to not care whether there is or is not such a thing as Truth or truth, remains interested in how people derive rules for living (I take this tripartite view from Richard Rorty's (1982) contemplation of contemporary approaches to truth). All three are concerned with rules, standards, or judgments about human behavior, however much they adduce different justifications for the ethics they seek. And all three gauge, at some point in the process, the extent of enthusiasm for or revulsion toward human acts (to put this in philosophers' lingo, ethical behavior is guided by moral norms that are widely shared, and based in an intersubjective perception of the lived life which can transcend the falsifiable or categorically suspect truth claims of language (Habermas, 1990)). All systems of moral knowledge rely essentially on what we might call *moral regard*: a capacity to examine the world purely with feelings that are authentically and uniquely human—looking at the lives of others through a prism of dignity, justice, virtue, and the alleviation of suffering, but without ideology or guile. Moral regard is linked to the spiritual because it comes from that which is essentially human about us. Yet, it has psychological underpinnings, which some believe to be evolutionarily determined: the concept of moral regard here has much in common with Jonathan Haidt's Social Intuitionist theory (Haidt, 2007), drawing on conceptions of the primacy of intuitive, emotional responses to perceived conditions. If the biopsychological findings are a clue, then moral regard might indeed be an essential aspect of human life.

The spiritual nature of moral regard is manifest and easy to read, at least when it has not been layered with judgments. We all are repelled by torture and child rape, to give two graphic instances of the rising up of moral regard. To *not* feel revulsion at torture or the rape of a child is

to have a screw loose, to be living in a distorted reality. You can dislike chocolate ice cream or baseball and still be, normatively, recognizably human, even if some people are puzzled at your preferences. But if you are not repelled by torture or child rape your claim to be part of the spirit that moves and shapes life as a human is suspect, at best.

Now, this allegedly universal revulsion might not seem to be spiritual, necessarily. Maybe what look like moral responses are neural ones, evolutionarily selected because they spur actions that are beneficial to survival of the gene pool (see, for instance, Nowak and Sigmund (2005)). Then, perhaps, the way we articulate those responses might seem to be not so much a fundamental expression of morality as an attempt at sense making—an act of explanation for something that is inchoate and instinctual, not deeply moral at all. We must keep in mind, then, that moral regard might be an expression of what is really an evolutionary adaptation in a social species. Even if it is no more than instinct, though, moral regard seems to be widely shared and, as much as we invent scripts to make sense of it, essentially ineffable. If it is a biological trait, then, moral regard is unlike other human traits that are shared with other species (vision, hearing, etc.) in that even if we can attach names to its elements (care, fairness, etc.), we can neither discern or name exactly what it is. In this sense there seems to be something essential, and spiritual, about moral regard.

But equating moral regard with human-ness, as I have done, raises the question of the boundaries of human-ness, and suggests that we ask how far morality reaches. While some have argued compellingly that moral rules should not stop at the species boundary (Singer, 1975), I will ask only the narrower question here: how has adult humans' moral perspective related to other humans, including (and especially) children?

MORAL REGARD RELATES TO JUDGMENTS ON BEHAVIOR

How does moral regard relate to the popular claim that our children are perpetually in peril? To answer this, we have to be aware that it is common in America today for us to speak of health as a matter of *choosing*. To talk of an “epidemic of obesity” (WHO, 2007) is to say that there is a social crisis of bad dietary choices. To talk of cigarette smoking as our “number one killer,” as the U.S. Centers for Disease Control and Prevention does (Medical News Today 2004), is to say that bad behavior is the greatest threat to American health.

This language of behavior-as-cause has always been part of the American approach to public health; Americans have long believed in self-improvement; American discourse on approved and reproved behaviors is inextricable from discussions of epidemic disease (see Alcabes (2006), for instance). When, in addressing health threats like AIDS, obesity, or drug use, we define the threat as an “epidemic” it serves to reify our judgments about the behaviors alleged to cause the problem, and at the same time registers the behaviors as dangerous by connecting them with health crises. Concerns about the health effects of alcohol and drugs in particular have been a constant part of the history of American epidemics and of speech about epidemics, and sexual coupling has been a concern of health advocates throughout the last century (Luker, 2006). But it is only in the past couple of generations that assessments of behavior have moved to the center of the field on which officials struggle with disease, as I hope to show. And thus only recently that personal choice has taken on the ring of danger when we talk about our health. This migration of behavioral-as-cause language from the margins to the center of American discourse on health reflects deep moral unease.

Our moral unease especially goes toward children. While not all health interventions for children aim to change behavior (indeed, some are meant to be applied universally in ways that make behavior irrelevant, e.g., water fluoridation, immunization), many begin with the presumption that behavior is at the root of ill health. Take the “We Can!” and “Media-Smart Youth: Eat, Think and Be Active” anti-obesity programs of the U.S. National Institute on Child Health and Human Development (2006), the “facts” about drugs for students available from the National Institute on Drug Abuse (2004), the CDC’s website featuring programs on “Youth Risk Behavior,” “Key Strategies to Prevent Obesity,” and “Food-Safe Schools” (CDC, 2007b). These official programs imply, and some others make explicit (NY City Department of Health and Mental Hygiene, 2007), that drug use, diet, and sex are not merely threats to the well-being of some children but pathologies of America’s kids in general. Behaviorally oriented programs like these might seem to be operating in a narrowly defined “target” population, but they can create powerful social messages, saying that behavior is a threat.

EXAMPLES OF BEHAVIORAL REPROOF IN RISK RHETORIC:
 “EPIDEMIC” OBESITY

Prominently, there is supposedly an epidemic of obesity among children. The data available do show an increase over the past few years in the proportion of children who are overweight (not obese): about 17 percent of adolescent children now are overweight, compared to about 11 percent circa 1990 and only 5 percent in the late 1970s (U.S. National Center for Health Statistics, 2005). But what to make of this finding in terms of health is complicated by the lack of evidence of present harm—and obscured by the rhetorical use to which the data are sometimes put. When a group calling itself the International Obesity Task Force analyzed the same data, for instance, it found 35 percent of school-age children to be overweight (Lobstein & Jackson-Leach, 2007), twice the prevalence noted by the federal agency. In fact, the standard used to distinguish “normal” from “overweight” is essentially arbitrary, being based on survey data on children’s weights and heights from the 1960s and 1970s and standardized to the 1977 population (Ogden et al., 2007; Barlow & Dietz, 1998). What does this mean today? What’s the public-health problem?

The main consequence of having more fat kids is more overweight adults, because heavier teenagers are more likely to become heavy grownups. While there is evidence that extreme overweight deprives adults of longevity they might have otherwise enjoyed, excess mortality seems to apply only to those with body mass index (BMI) levels above 30, the cut-off usually used to define “obesity” (Flegal, Graubard, Williamson, & Gale, 2005), and is worst among those who have extremely high BMI values. And the excess mortality appears to be accounted for largely by incomplete management of diabetes and/or hypertension (Slyukova, Mannino, Martin, Morehead, & Doherty, 2006; Livingston & Ko, 2005), two of the main adverse accompaniments of high BMI. That is, *an overweight child in America is still likely to live a long and healthy life*: she might not be obese as an adult at all; if she is, she might be one of many heavy people who remain free of dire health effects; and if she does have health problems, good medical care is likely to prevent early mortality. So, the discussion about the “epidemic of childhood of obesity,” as much as it might be directed toward reducing medical-care costs or prolonging lives, is at least in part a voicing of adults’ discomfiture over fatness—and, at that, a concern that is at least partly about

appearance, however much it is cast in terms of dangers to America's health. (Readers interested in a fuller and nuanced discussion of the creation of America's obesity epidemic are referred to the book by Campos (2004).)

FURTHER EXAMPLES: DIABETES, SUBSTANCE USE, SMOKING

There is also much talk of an epidemic of type 2 diabetes among children, but no population-level data thus far show an increase in childhood type 2 diabetes (outside of some special population groups like the Pima and some other tribes). Less than one quarter of one percent of the population of Americans under the age of 20 have diabetes, and the great majority of that is type 1, the kind that results from insufficient insulin, not from being too fat (Fagot-Campagna, 2000; Liese et al. 2006; American Diabetes Association, 2006). Some authorities report an increase in a "pre-diabetes syndrome" or "metabolic syndrome" among children, linking increased problems of insulin management in children to other potential precursors of chronic illness. For instance, a recent article in the *Journal of the American Medical Association* found that blood pressure was slightly higher in 2000 than in 1988 among children and adolescents, and statistical approaches to the data suggested that the rise in average blood pressure was associated with the increased prevalence of overweight (Muntner, 2004). When investigators conducting a small study of Australian children reported that those who were overweight at age 8 were more likely to have multiple cardiac risk factors at age 15 (Garnett, 2007), the news attracted press attention (Norton, 2007). But labels like "metabolic syndrome" and "cardiac risk factors" apply to biochemical measurements that are not the same thing as a self-evident illness. Changes in metabolic functioning in children are of medical concern, but metabolic changes are not the same thing as self-evident disease. To conflate alarming blood-test results with real disease is to create new possibilities for criticizing behavior but it is not to adduce evidence that our children are in danger.

Use of illicit drugs by adolescents, especially of the so-called club drugs and crystal meth, is considered a crisis (U.S. National Institute on Drug Abuse, 2004, 2006; U.S. National Office of Drug Control Policy, 2006). Yet, drug use has declined among American children: in the most recent Monitoring the Future survey (2006), only 8 percent of responding 12th graders reported using any illicit drug other than marijuana in the past month, the lowest figure since the survey began in 1975. Is

it a health concern that eight out of every one hundred high-school seniors admit to having used some illicit substance at some point in the past month? With teen drug use at its lowest point in generations it would seem that those health problems that are associated with drug use are at their least prevalent now. But more worrisomely, can adolescent drug use be understood in isolation from the decades-old War on Drugs whose battlefield is *adult* drug use? The long campaign against illicit drugs, with its echoes of moralistic judgments about behavior on the one hand and racial stereotypes on the other, is more than just incidental to claims about dangers to children. And evidence for widespread harm to children arising from the use of drugs is very thin.

By contrast, to be concerned about kids' smoking seems entirely reasonable from a standpoint of physical health. Yet, smoking prevalence is at an all-time low in the U.S. among both adults and children. Most smokers are adults. And while some start as children, the 2006 Monitoring the Future data on teen smoking show that fewer than 30 percent of that year's high-school seniors even *tried* a cigarette in the preceding month, the lowest figure ever. After 40 years of stop-smoking campaigning by the public-health establishment, the prevalence of smoking might be as low as it can get. It makes sense to continue to suppress children's cigarette smoking by keeping the cost high (for a review of studies demonstrating the generally inverse relationship between teen smoking and cigarette cost see Ding (2005)). Clearly, though, smoking is not a problem of children.

RISK STATEMENTS AS PROJECTIONS OF ANXIETIES

The "problems" represented by improper diet and drug use among children are not chimerical: they are real phenomena in our society, and in some cases they do bring harm to some children. But reconfiguring as diseases what are really just matters of children's social functioning turns perception and interpretation into fact. Concerns over diet and drug use are about possibilities, not pathologies. They are predictions of future harm, not present hurt.

Perhaps it is easiest to understand the plethora of warnings about drugs and diet as projections of what worries us. In this view, the hype over kids' health behavior is a recasting of what mortifies us about our own behavior and what worries us about our own, adult, health. Giddens has suggested that we are discomfited by modernity, and if that is right it would mean that we are relieved at our capacity to escape

the rigors of nature (drought, famine, plague) through technology and yet worried that it is all too easy (Giddens, 1991b). Maybe the worry is that we have let our appetites get the better of us. Or it might be a suspicion that modern life overindulges us—that when we humans stopped working the land, stopped having to share the family cottage with livestock and moved into houses and, finally, suburban homes or downtown apartments, we violated some tenet of natural order. Are we glad that modernity allows us to have adult lives that are not occupied with watching our children, but fretful because we have allowed our children to set out on what looks like a path to ruin? When we stopped keeping children in our own villages or neighborhoods, when we stopped working in those same neighborhoods ourselves and instead we went off to work for big companies, when we then allowed the kids to go off to more distant schools and to watch who-knows-what on television or play inscrutable video games—when we engaged in modern life, in short—did we also come to fear that modern life with its ease and its seductions has overindulged our appetites?

If so, then perhaps we want the statements of risk because they tell us where to draw the line. Risk claims might function as talismans, that is, or have the proscriptive function of taboos in a world that seems mysterious, complex, or otherwise threatening (Douglas, 1966). Unlike the taboos of ancient cultures, modern risk claims are undergirded by scientific studies identifying real-world causes of measurable problems, rather than by untested belief or accidental associations among events that were really unrelated (your neighbor killed a white cow; the rains stopped). But science is not so simple: sociologists have documented the impact of beliefs and prejudices on the production of knowledge about risk (for instance, Stanley Cohen's seminal work on moral panic (1972) and, more recently, Eric Klinenberg (2002) on an epidemic of heat-related mortality). Clearly, we must recognize risk claims as statements of what is most valued by the broad command systems that direct scientific activity, finance research, and promote and enact programs to address the conclusions drawn from research. Even if we see risk claims as more weighty statements about what is likely to happen in the real world than taboos, we would be unwise to be unskeptical—or to forget to interpret risk statements in the light of the societal steering forces that shape them.

But it is hard to keep the socially shaped background of risk claims in view when the foreground is occupied by warnings about dangers to our own children. Whether this is because we do not like to rebel

against the large command systems that run our lives for us, are afraid to object when governments act in ways that we find objectionable, or just feel that we can't do very much about it all, we crave rules that we can apply to our lives and especially to our parenting of our kids. All that hyperbole about epidemic childhood obesity and epidemic crystal meth can be understood as a response to what we've asked for: a set of principles that will at least let us tell ourselves that we are warding off the hazards of modern life, and thus might, at least sometimes, allow us to make life less scary. The furor over the health problems of our children is, in a way, about parenting. It is about what we think we should have kids do but are not having them do. It is about appetites and our fears about them. And we recode those fears about appetites as "risk."

ANXIETY, RISK CLAIMS, AND SEXUAL BEHAVIOR

And perhaps it is the appetite for sex that awakens anxiety most. Although the matter of what to tell kids about sex remains a deeply vexed issue for grown-ups (Luker, 2006), the children themselves might be less confused than we are. The teen birth rate in the U.S., although troublingly higher than in other developed countries, declined dramatically in the past generation (Guttmacher, 2006). Few Americans begin having intercourse before age 15; when girls do begin intercourse, three-quarters do so with a steady partner (Abma, Martinez, Mosher, & Dawson, 2002), although the percentage is lower for boys. U.S. teens use condoms far more commonly than do adults (in a national survey over 60 percent of teens reported condom use at most recent intercourse (CDC, 2004)). We adults are at best undecided about sex education—testament, perhaps, to that confusion about sexual appetites and what to do about them. But our kids are pretty careful about the dangers of sex.

Yet, despite the evidence, we think that children should be protected from seeing or hearing of sexual liaisons—a moral sensibility that we enforce through rules and standards that regulate radio and TV. We put warning labels on music whose lyrics are too salacious (bizarrely, I think, given the edge-place that art in general, and music in particular, occupies in society). At the same time, to judge by what's on television and easily available on the web, we endorse the display of frankly sexual material, so long as it is commoditized. Sex as a commodity is merely

a selling tool, a commercial reification of allure. All those marketers who implicitly claim that their product will make you sexier are, after all, only trying to make a living. Sex on TV doesn't seem to bother us when it is an advertisement for something else, only when it reveals sexual appetite *per se*.

The television news media, powerful cultural shapers, remind us of the dangers of our appetites even while they pander to them to attract us to watch. We are supposed to be appalled at the young schoolteacher who has sex with a teenage boy—"seduces" him, to use the popular term, although how much seduction is actually required seems open to question, as does the intensity or extent of damage that such a liaison causes.

Let me be clear that I recognize that children can be forced into unwanted sex by adults, and consider such coercion to be morally offensive and ethically despicable. But not all sex between children and adults is coercive or unwanted—particularly when childhood is defined legalistically as being below a certain age and adulthood as being above it. To see all sexual congress between a so-called adult and a so-called child as necessarily harmful is to abdicate the moral judgment we need to apply so as to recognize and decry forced adult-child sex (or forced adult-adult sex, for that matter) when it occurs, and to replace the needed moral regard with a formulaic moralism that serves nobody except the tabloids and the nightly news producers.

THE CONSTRUCTION OF SEXUAL RISK

Indeed, the tabloids and the nightly news shows do make use of our irresolution. We are supposed to be ashamed that sex-for-pay operations take place on streets quite close to the ones where we walk and, worse, where our children play. In the televisuals, a few body parts of the participants will be pixilated so as to remind us that children are not supposed to see all this. We are supposed to be horrified that high-school kids have sexual hook-ups with other kids whom they barely know and don't particularly care for, just for the fun of it—in the news story, sex is being "robbed of its intimacy" by such liaisons, turned into mere entertainment. Children are deemed to be "innocent," which seems to mean that they should not be exposed to harmful sex, or "empty" sex, or "sex slavery" although, on another channel or just at a different time, the Pussycat Dolls and America's Top Model are

understood to be harmless fun. We pretend that *our* children do not harbor sexual impulses.

Why is the sexual pandering of media so vexing? We might want to promote children's attempts to make sense of the supposed secrets of adult life so that, eventually, they will become capable of negotiating the adult world (see Postman (1994, especially chapters 2 and 3) for an exploration of text, code, and the division between adult and child). Sex seems to qualify as a potent adult secret, encoded in our writing and speech even when not explicitly referenced. But, since we see sex as an area that can be harmful to children, we need, on the other hand, to monitor children's access to sexual scripts and images. So, there is a conflict here.

KNOWLEDGE ABOUT SEX AT THE ADULT-CHILD DIVIDE

The conflict over children's access to sexual knowledge (in all senses of "knowledge") might seem inevitable, but it is not. The apparent conflict emerges from two assumptions: that sex is dangerous for people who are young, and that we can identify the age cut-off, below which someone is too young to be safely entrusted with sexual awareness. Can these assumptions be trusted? To do so embraces a clear distinction between adults, for whom sex is a normal and negotiable part of human endeavor (an emotionally fraught one, perhaps, but a normative one), on the one hand, and children, for whom sex is intrinsically dangerous or transgressive, on the other. To embrace such a distinction, and then to decry the lascivious TV shows or risqué Halloween costumes for pre-teen girls, is to hold the TV producers or costume makers culpable for revealing the secrets too soon, handing over the key to the code of adult discourse to people—children—who are not *allowed* to use that code, not supposed to engage in the discourse. To someone who embraces the distinction between old-enough and too-young, accepting the sexy TV shows and revealing costumes is failing to defend a boundary that must not be crossed.

But, at least as far as sex goes, the assumptions about old-enough and too-young are shaky. Children are sexual, and while they might not understand the emotional valences of adult love relationships they do recognize urges. To focus on the adult-child split over sexual codes, to be outraged by America's Top Model only because it should not be viewed by children, is to miss the important point of moral regard.

The problem is not that we might fail to police the borderline between old-enough-for-sex and too-young-for-sex; the problem is that we lose interest in the distinction between sex as a moral problem involving people (young and old) with complex feelings and allegiances, and sex as an uncomplicated action providing pleasure—scratching an itch, we might say. The failure of moral regard occurs when we see sexual allure as solely an appeal to itch scratching, as being intrinsically devoid of moral content. To claim that children should be protected from sex and sexual desire misses the point that they are already aware of sex—although they are not necessarily aware of all the potentialities that sex holds. To recognize this unawareness is to shift the question from “what do we allow kids to see?” to “what ought we to teach our kids about the variety of sexual experiences and responses?”

CHILDHOOD INNOCENCE AS CODE AND CLOAK

In a way, childhood innocence sounds like a spiritual designation, when really it is just the opposite: declaring children to be “innocent” neglects the difference between sex as a physical act and sex as a rich and potent area of human experience that happens, sometimes, to be just a physical act (itch scratching). Childhood innocence is a cloak behind which we, adults, disguise our own discomfort about the variety of means by which people appease sexual appetites and the plethora of meanings attaching thereto. Childhood innocence offers a rationale for management of our own discomfiture: filters to block what we delicately call *adult websites* and Internet registries for what we indelicately call *sexual predators* (including, under the federal Adam Walsh Child Protection and Safety Act of 2006, children as young as 14 who will be labeled as sex offenders for the remainder of their lives—a strange comment, by the way, on our desire to protect children). Conveniently, childhood innocence makes no real moral demand: With children as innocent souls we do not have to ask ourselves what it is that makes some adults so unhappy sexually that they would seek relief in physical contact with a child. We do not have to ask ourselves why sexual offenses should be punished in perpetuity. Nor do we have to ask ourselves the more vexing questions: what are the various meanings of sexual liaisons, what values do we attach to them, and, above all, what do we wish to teach our children about the capacity of sex not only to confuse, imperil, suppress, or enslave, but also to liberate, to transcend?.

To make this matter of what children can see and what we should tell them even more complicated, we seem collectively unperturbed about encouraging children to witness some of our own society's least pardonable ethical failures: rapacious business dealings, pointless war, horrific violence, armed police chasing the shirtless and the confused, wholesale abandonment of the indigent. If we cannot nurture a deeper dialogue on the varieties of sexual meaning, if it must be black and white, old-enough versus too-young, then we create no room to see any moral conflict more complicated than "should we let them watch this show?" The degree to which kids' acts of aggression, violence, and advantage taking are learned from adults then becomes part of the scenery, not at all an element in life's moral drama.

VISION, MORAL REGARD, AND MORAL RESOLVE

What our children see is not really the issue, in other words. We do see so much today, and it is easy to feel discomfort when human appetites are on display. Technology allows us to see more of the world now, more quickly—much more than in even the recent past, and apparently more each day. But *moral* regard is clouded. Partly, fortunately, this is because most of what we see is intrinsically less stirring than torture. Still, we often sense that something is wrong and yet feel unsure what to think and unsure what to do. What should we *do* when we see the photos of soldiers, barely out of childhood, returned from war missing legs, arms, hair, or faces? What should we feel about children in Somalia or Bangladesh who have no clean water, children who perhaps will not make it out of childhood at all? What should we do about the prisons to which children in our own country are sent? It is easy enough to complain that our children are getting too fat or having un-intimate sex, but it is not easy to know what to feel about most of what we see. I don't think we lack moral principles; I think we don't know what to do about the principles we do have. We lack resolve.

Some might say that this irresolution is not moral, merely circumstantial. So much of what we see is far away, literally out of our (physical) reach: We were horrified by the tsunami of 2004, for example, and wanted to help the survivors, but they were half a world away. There is often someone else, someone more capable of helping, or just closer by, and the awareness of distance and inconvenience dissuades us from acting no matter how afire our moral instincts are. But we must ask

if that's all—if we have not also allowed the manifest complexity of modern life to cloud our vision so that we allow ourselves the luxury of not seeing what ought to be plain, not knowing clearly what we should do.

One aspect of what seems to be happening here is that we cannot resolve the niggling divide between the moral statuses of adults and children. In the modern era, childhood is a preserve of grace: children have a moral specialness to which adults are not entitled (Postman, 1994). We do not hold them responsible for certain crimes, or at least we adjudicate their crimes separately and do not punish them the way we punish adults (sometimes we do not punish them at all). We require special procedures to safeguard children's rights when they are the subjects of research. We do not let them work at certain jobs. We restrict or forbid advertising of cigarettes and alcohol that might be aimed at children. We require that they be schooled.

But we cannot resolve whether we want children to occupy a moral shell, or to be introduced to the real world with its moral ambiguities—the world which they will soon inhabit and shape, as adults. We cannot decide if we want to protect our allegedly innocent children from being harmed or taken advantage of, or educate them into the reality of adult life with its harms and its advantage taking. We *believe* that children need special protection, particularly in the realms of drugs, alcohol, cigarettes, and sexual desire, because we have not resolved what we adults think about our own craving and desire, or the world in which they will play out.

RESOLVING THE ADULT-CHILD DIVIDE

Possibly, the fuzziness of the adulthood-childhood distinction cannot be resolved, no matter what we decide. Maybe it is in the nature of such distinctions that they solve some problems but create others—generate an obligation to enforce the nominal lower status of children by constraining their access to the codes of adult life, but challenge us to find ways to express our senses of caring and hope for the future by nurturing them physically and emotionally. But when our view of appetites is simplistic, we ignore the moral relevance of satisfying them and therefore fail to talk about what it is that our moral selves demand of us and what we should model for our children. The too-young and old-enough dichotomy will not disappear soon, but we could do better than imagining “childhood innocence” when we confront it.

MORAL RESOLVE AND MEDICAL RESEARCH FOR CHILDREN'S HEALTH

While claims that our children's lives are really in grave danger are untenable, and while we adults dip in and out of moral certitude about health threats, in one area of health our lack of resolve is consistently manifest: the moral question of whether children should participate in medical research. This seems relevant, because research both gives voice to our uncertainties about health and attempts to alleviate them by adducing new findings.

Some sort of medical research on children seems necessary because children's suffering is especially moving. Even where we question the necessity of all of the expensive medical research now carried out on problems of adults, we can recognize that research on children's medical problems is pressing. But we have yet to determine whether children can, should, or must participate in such research.

Bioethicists often focus on the so-called risks of research, and are stimulated to create new rules when, as sometimes happens, a young person is harmed or killed in the course of research. But the rules and codes of bioethicists are of little or no value in solving the vexing *spiritual* puzzle created when medical technology, having expanded physicians' capacity to fix our children's health problems, collides with our instinct to protect children from harm. What should we do when a painful or possibly harmful treatment might cure the suffering of children? Do we allow today's children to be experimental subjects so that tomorrow's children will live better lives? Neat formulas about children's supposed innocence are of no help in resolving these questions.

SPIRITUALITY AND MEDICAL RESEARCH

Hans Jonas, perhaps the most spiritual of the secular philosophers of modern life, found that we have a true moral duty to maintain the essence of life in the face of technology's capacity to refashion nature (Jonas, 1996). Research, as an endeavor aimed at improving the *conditions* of life but not preserving its essence, he called "meliorism" (Jonas, 1974). And while he found meliorism to be irreproachable, he still saw it as holding secondary moral status, as being less essential. In fact, Jonas suggested that people who think their research is important to humankind have a duty to participate in that research themselves.

Jonas's distinction between simply making things better and truly upholding Goodness (which he presumed to be inherent in nature) seems

to get at the heart of a moral problem: How do we make things better, especially for our children, without compromising our stewardship of that which is good in Nature? Because that moral problem explicitly directs our attention to both research as an engine for meliorism and the care of humanity's future, it has much to do with what we decide about the obligation to carry out research on children's health problems, and the acceptability of their participation. Children bridge the here and now to the future. Yet, our ethical discourse has not taken it up, and bioethics steers clear of it.

Do we feel strongly enough about the need for research that we are willing to require that all children be available as study subjects—just as we once required that our children be available for the draft, to defend the country? Is the improvement of physical health that might be achieved through research worth compromising ethical values for? If so, which ones? How important should research be to future lives, and, therefore, how important is it to our children? Are the moral demands of medical research different if we see an improvement in physical health as having the potential to expand spiritual well-being?

We remain uncertain, unresolved, in these areas. We are not sure what we feel about the irrational demands that human appetites for experience-altering substances, food, and sex place on us; not sure of whether, how, and where to communicate to our children our sense of the moral valences of satisfying appetites; and not sure how to set limits. And we are not sure what place we want research that holds the potential for future benefit to have in present-day life.

CONCLUSION

Resolving Moral Unease

If my thesis is tenable, then what appear to be health problems of children are in reality projections of unresolved problems of human spirit in our society. In that case, what we need is self-evident, although difficult. We need to redirect the conversation about health, in several ways.

First, we ought to ask ourselves what aspects of spiritual health have been left behind when care left the home and moved into the medical center. And what moral decisions we must make so that medical centers can continue to acquire knowledge of illness and deliver ever-more-technically advanced treatments.

Second, we ought to move the health discussion away from personal imprudence and toward both harder-to-discuss social structures on the one hand and our own sense of what we want for tomorrow on the other. To some extent, we see this movement in discussions about healthy neighborhoods, and maybe a similar journey is underway in the various “green” movements aimed at staving off global warming. But, also, we will have to consider those disparities I mentioned at the outset, the divergence of a poor child’s chances for good health from those of a wealthy child. We will have to consider the supporting social elements, like housing and health insurance. And we will need a more inclusive and broader-reaching ethical discourse. We must fashion moral resolve for ourselves, and use it to create the future we want. For that, we will have to cast off the dark glasses lowered by simplistic truisms about Children at Risk. We will have to look to the core values that sustain and bind us, like individual liberty and equality of access. And for that, we need to teach ourselves to act out of our own moral centers and to teach children to find their own, so that they can engage in the discourse. I see this as a spiritual pursuit—not necessarily a religious one, but one that gets essentially at human instincts and the ties that bind us humans to one another.

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SUBSTANCE USE VERSUS ANXIETY IN ADOLESCENTS: ARE SOME DISORDERS MORE SPIRITUAL THAN OTHERS?

*Alethea Desrosiers and Lisa Miller**

ABSTRACT

The purpose of this study was to explore the potential protective effects of spirituality against alcohol use and anxiety in a large sample of adolescents using a multidimensional measure of spirituality. Participants included 615 adolescents representing a broad range of ethnic, religious and socioeconomic groups. The Brief-Multidimensional Measure of Spirituality/Religiosity and the Beck Anxiety Inventory were used to measure spirituality and anxiety, respectively, while frequency of alcohol use was ascertained with a single item. Results of univariate regression analyses revealed that alcohol use was inversely associated with Daily Spiritual Experiences, Forgiveness and Positive Religious Coping. Level of anxiety was inversely associated with Congregation Benefits and positively associated with Congregation Problems. Findings raise the possibility of formulating a spiritual understanding of these two disorders in adolescents.

Recent epidemiologic studies reveal that alcohol use and anxiety continue to be prevalent problems beginning in the adolescent years. Results of the 2005 Monitoring the Future Survey (National Institute on Drug Abuse, 2005) showed that nationwide, 34% of 10th graders and 45% of 12th graders admitted to drinking an alcoholic beverage in the 30 days prior to the study. Similarly, the Youth Risk Behavior Surveillance study (National Center for Chronic Disease Prevention and Health, 2005) reported that 43.3% of high school students acknowledged consuming at least one alcoholic drink in the 30 days before the survey, with 25.5% drinking five or more drinks consecutively. Although males have traditionally exhibited higher levels of alcohol use, current studies report roughly equivalent levels in adolescent girls and boys, with the exception of heavy/binge drinking (National Institute on Drug Abuse, 2005; National Center for Chronic Disease Prevention and Health, 2005; Substance Abuse and Mental Health Services Administration, 2005).

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Regarding anxiety disorders, estimates of prevalence rates range from around 6.9% to 13.0%, with girls consistently exhibiting significantly higher levels of anxiety than boys (Roberts, Roberts, & Xing, 2007; Romano, Tremblay, Vitaro, Zoccolillo, & Pagani, 2001; Lewinsohn, Gotlib, Lewinsohn, Seeley, & Allen, 1998; *Mental Health*, 1999).

Reported levels of anxiety and alcohol use in adolescents underscore the importance of continuing to examine protective factors in this age group to further inform our understanding of these disorders and to guide prevention and treatment efforts. This study explores the specific associations between these two highly prevalent disorders and a protective factor shown in previous research to be robust in adolescents': spirituality (Miller, 2006 for an overview). This investigation is especially germane to adolescents as prior studies have indicated that the protective qualities of spirituality may be more robust in adolescents than adults, suggesting a potential role of spirituality in onset of these disorders (Miller, Davies, & Greenwald, 2000).

As spirituality and religiosity often overlap conceptually, clarification of these terms is pertinent. In the current study, religiosity is defined as a commitment to a system of beliefs in a higher power and related practices of worship, while spirituality is defined as an awareness of a transcendent dimension, including the presence of a connection to a higher power. A sense of spirituality may exist in the absence of religious faith or involvement in a religious community, and religiosity may include experiences of a spiritual nature.

Spirituality and Alcohol Use

Spirituality, including spiritual activities, coping, beliefs, and a sense of connection to a higher power, has been negatively correlated with alcohol use in diverse adolescent and young adult samples (Ritt-Olson et al., 2004; Leigh, Bowen, & Marlatt, 2005). Religiosity as measured by belief in G-d and use of religious beliefs and prayer to cope with daily problems has also been negatively correlated with overall alcohol use (Wills, Yaeger, & Sandy, 2003). Within the rubric of spirituality and religiosity, several specific dimensions have been shown to protect against alcohol use as well.

Regarding specific dimensions of religiosity, importance of religion has consistently shown inverse associations with alcohol use. In nationally representative samples, youth who were more religiously devoted were less likely to drink alcohol and to drink to get drunk (Smith, 2005; Smith & Faris, 2002). Similarly, adolescents who considered religion to

be highly important were significantly less likely to report alcohol use (Miller, Weissman, Gur, & Adams, 2001; Wills, Yaeger, & Sandy, 2003) or to engage in binge drinking (Pirke & Richter, 2006). Frequency of church attendance and degree of religious participation has also been inversely related to alcohol intake (Miller et al., 2001; Hodge, Cardenas, & Montoya, 2001).

More personal dimensions of spirituality and religiosity have also demonstrated protective qualities with respect to alcohol use. Personal devotion, defined as a personal relationship with the divine, predicted lower levels of alcohol use in a nationally representative sample of adolescents (Miller, Davies, & Greenwald, 2000), a finding which has also emerged in the adult literature on religiosity and alcohol use (Kendler, Gardner, & Prescott, 1997). Closely related to personal devotion, personal religiosity, which encompasses religious importance, religious beliefs, spirituality and forgiveness, contributed uniquely to frequency of alcohol use, with higher levels of personal religiosity predicting lower levels of drinking (Walker, Ainette, Wills, & Mendoza, 2007).

Considering that previous findings show an array of spiritual factors to be associated with less alcohol use, the present study sought to further understand the relationship between spirituality and alcohol use by utilizing a multi-dimensional measure of spirituality in a large sample of adolescents representing a diversity of religious affiliations and ethnicities. Of particular interest is the dimension of *relational* spirituality, recently shown to be particularly protective against depression in adolescent females (Desrosiers & Miller, 2007). Relational spirituality encompasses a personal connection with G-d, a “felt sense” that is experienced in daily life and guides interpersonal relationships.

Spirituality and Anxiety

The relatively few studies focusing on associations between spirituality/religiosity and anxiety in adolescents have yielded differing results. Schapman and Inderbitzen-Nolan (2002) reported that more religious involvement (i.e. church attendance, prayer, reading the Bible) was not associated with anxious symptomatology. Also, spirituality as a global construct (i.e., belief in sacredness of life, altruism, inner experience, behavioral expression) was not predictive of anxiety in a sample of young undergraduates (Young, Cashwell, & Shcherbakova, 2000). However, other findings suggest that a stronger sense of religiosity, as defined by religious commitment, prayer life, and relating to others

in a religious community, is associated with lower levels of anxiety (Harris, Choneman, & Carrera, 2002). Gender differences in associations between spirituality and anxiety have also emerged, with differences corresponding to specific spiritual dimensions. In a study of late adolescents and young adults, intrinsic religious orientation, meaning “lived” religion and internalization of religious beliefs, was inversely related to anxiety in females alone, while frequency of prayer was negatively correlated with anxiety in both males and females (Maltby, Lewis, & Day, 1999).

Given that results of past investigations exploring associations between anxiety and spirituality in adolescents are inconclusive, the current study investigates the relationship between spirituality and anxiety from a multi-dimensional perspective in attempt to more clearly identify potential spiritual correlates of anxiety. Because gender differences have not emerged reliably in other studies on spirituality and alcohol use and/or anxiety, and since adolescent girls display a greater prevalence of anxious symptomatology (Romano, Tremblay, & Vitaro, 2001; Schapman & Inderbitzen-Nolan, 2002; Lewinsohn et al., 1998) and higher degrees of spirituality/religiosity (Gallup & Bezilla, 1992; Roehlkepartain, King, Wagener, & Benson, 2006; Smith, 2005), gender differences in associations between particular dimensions of spirituality and anxiety and alcohol use will also be explored.

Overall Research Questions

The present study examines in a sample of religiously, ethnically, and economically diverse adolescents: 1) the relationship between substance use and dimensions of spirituality and religious practice, and 2) the relationship between anxiety and dimensions of spirituality and religious practice.

METHOD

Participants

Participants were 615 adolescents representing a broad range of ethnicities (Caucasian, African-American, Asian-American, Latino, and multiracial, and other) and religious denominations (Catholic, Protestant, Jewish, Atheist, Agnostic, Buddhist, and other) (see Table 1). The age of participants ranged from 11–23 years ($M = 15.73$ years, $SD = 2.22$).

Table 1. *Demographic Characteristics of the Sample*

Characteristic	%	N
Gender		
Female	58.7	361
Male	41.0	252
Age		
11 yrs	1.8	11
12 yrs	10.6	65
13 yrs	10.2	63
14 yrs	11.6	71
15 yrs	14.6	90
16 yrs	16.6	102
17 yrs	11.4	70
18 yrs	13.5	83
19–23 yrs	9.8	60
Ethnicity		
White	42.6	262
African-American	14.6	90
Asian-American	17.7	109
Latino	14.6	90
Mixed	5.4	33
Other	3.4	21
Religious Affiliation		
Catholic	18.4	113
Protestant	27.8	171
Jewish	12.2	75
Muslim	5.7	35
Atheist	2.4	15
Agnostic	8.5	52
Buddhist	10.2	63
Other	11.7	72
Household Income (annual)		
Less than \$30,000	16.7	103
\$30,000–49,000	16.1	99
\$50,000–75,000	15.9	98
\$75,000 and above	18.9	116

Note. *N* = 615 for the total sample.

The inclusion of the 60 participants aged 19–23 is justified by research suggesting that the issues and transitions characteristic of adolescents are continuing into the early 20s and to bridge research on adolescent religion/spirituality with literature on ‘emerging adulthood’ (Arnett, 2000; Arnett & Tanner, 2006). The sample included 190 adolescents

(31%) who completed the questionnaire online and 425 adolescents (69%) who completed a paper and pencil version. Although online and 'in-person' participants differed in religious affiliation, ethnicity and household income, with on-line participants representing a higher socio-economic bracket, these differences were an expected result of the method of data collection, which focused on purposeful recruitment of a diverse range of ethnicities, religious affiliations, and socio-economic backgrounds. Despite these demographic differences, no differences in reporting were found based on method of data collection.

Procedure

Participants were recruited from various church groups, youth organizations, schools, and camps primarily in the New York City Metropolitan area, New Jersey, Illinois, and San Francisco. The sample was purposefully targeted in attempt to reflect diversity in religious affiliation, ethnicity, age and socioeconomic status, and therefore oversampled minority ethnic and religious groups. Youth leaders, principals, camp counselors, or other relevant administrative personnel were contacted via a letter explaining the purpose and intent of the study. Before completing the questionnaire, all participants provided informed consent and signed a participant's rights form, and participants were treated in accordance with APA ethics and IRB approval (American Psychological Association, 2002). Adolescents who volunteered for the study received compensation in the form of a \$10 book store gift card. Online participants were ascertained through the personal and professional networks of research assistants supervised by the Principal Investigator, as well as through advertisements posted on search engines and popular teen religion websites. Internet subjects were not remunerated.

Measures

Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS). This 40-item measure of spirituality and religiosity was developed by the Fetzer Institute and the NIA (1999) as a short, multidimensional assessment of spirituality and religiosity (Idler et al., 2003). The measure taps into several components of the construct and is intended to apply to both adherents of traditional religious practice as well as those of institutionally-free forms of spirituality. While some questions tend to center around a Judeo-Christian religious perspective (Idler et al., 2003; Traphagan, 2005), many items are independent of the principles of

any particular religion, thus increasing the suitability of the measure for a religiously diverse population (Underwood, 2006). Moderate to high alpha reliability coefficients have been reported for subscales used in both adolescent and adult samples (Idler et al., 2003; Pearce, Little, & Perez, 2003), with comparable values found in the present study (see individual subscales). Content validity of the BMMRS was addressed by considering many domains of religious experience, including behavioral, cognitive, social and psychological dimensions. Between-domain correlations were moderate, indicating that while related, the dimensions differ sufficiently to represent distinct aspects of religious experience (Idler et al., 2003). For the purposes of the current study, subscales composed of items tapping into relational dimensions of spirituality were chosen. The following subscales were used: Daily Spiritual Experiences, Forgiveness, Positive Religious Coping, Negative Religious Coping, Congregation Benefits and Congregation Problems.

The Daily Spiritual Experiences subscale is composed of 6 items that are ranked on a 6-point Likert scale ranging from 'never or almost never' to 'many times a day'. Items are designed to measure personal emotional involvement and interaction with the transcendent in daily life (e.g. I feel G-d's presence; I desire to be closer to or in unison with G-d). Reports of internal consistency for this subscale are strong ($\alpha = .91$; Idler et al. 2003; $\alpha = .88$ for the present study).

The subscale of Forgiveness contains 3 items intended to assess the extent to which spiritual and religious beliefs impact forgiveness (e.g. Because of my religious or spiritual beliefs I have forgiven those who hurt me). Items are rated on a 4-point Likert scale ranging from 'never' to 'always or almost always'. Idler et al. (2003) showed moderate reliability for the forgiveness subscale ($\alpha = .66$). Reliability statistics for this study are fairly high ($\alpha = .75$).

The Positive Religious Coping subscale measures the degree to which individuals use religion or spirituality to deal with adverse circumstances and to seek consolation and a sense of meaning (e.g. I think about how my life is part of a larger spiritual force). There are three items rated on a 4-point Likert scale with response choices ranging from 'not at all' to 'a great deal'. This scale has demonstrated high reliability in previous research ($\alpha = .81$; Idler et al., 2003; $\alpha = .78$ in the present study).

The Negative Religious Coping Subscale reflects struggle in religious coping (e.g. I feel that G-d is punishing me for my sins or lack of spirituality). The subscale includes three 4-point Likert scale items ranging from 'not at all' to 'a great deal'. Reliability for the Negative Religious

Coping subscale is lower than the other subscales ($\alpha = .54$; Idler et al., 2003; $\alpha = .40$ for the present study). Because of Negative Religious Coping's low reliability, it was not included in analyses.

The aim of the Congregation Benefits subscale is to measure social support as provided by a congregation or religious group (e.g. If you had a problem or were faced with a difficult situation, how much comfort would the people in your congregation be willing to give you?). The subscale is comprised of two items rated on a 4-point Likert scale, with responses ranging from 'none' to 'a great deal'. Previous research points to high reliability for this subscale ($\alpha = .86$; Idler et al., 2003; $\alpha = .82$ for the present study).

The Congregation Problems subscale is composed of two items that evaluate the amount of conflict and negative interactions within congregations or other religious groups (e.g. How often are the people in your congregation critical of you and the things you do?). Items are ranked on a 4-point Likert scale with response choices ranging from 'never' to 'very often'. Moderate reliability has been reported for this subscale ($\alpha = .64$; Idler et al., 2003; $\alpha = .70$ for the present study).

Beck Anxiety Inventory (BAI). The BAI (Beck et al., 1988) is a 21-item self report measure designed to assess autonomic and cognitive symptoms of anxiety. Symptoms of anxiety known to be correlated with depression were intentionally excluded from the BAI in attempt to obtain a more accurate measure of anxiety. Respondents rate the severity of their symptoms on a 4-point likert scale ranging from "Not at all" to "Severely" (0–3). High internal consistency has been reported in both adult samples (Beck et al., 1988) and adolescent populations, with coefficient alpha ranging from .91 to .94 (Steer, Kumar, Raneiri, & Beck, 1995; Jolly, Aruffo, Wherry, & Livingston, 1993). The BAI demonstrates moderate discriminant and convergent validity (Steer et al., 1995; Jolly et al., 1993; Osman et al., 2002).

Alcohol Use. Frequency of alcohol use was assessed by a single item requesting participants to indicate how often they have used alcohol in the past 12 months. Response choices were on a 7-point scale ranging from "none" to "40 or more times".

Table 2. *Mean Spirituality and Psychopathology Scores for Males and Females*

Spirituality Scale	Total Sample		Males		Females	
	M	SD	M	SD	M	SD
<i>Fetzer Subscales</i>						
Daily Spiritual Experiences***	3.69	1.29	3.45	1.26	3.86	1.29
Forgiveness	2.87	0.82	2.80	0.82	2.92	0.82
Positive Religious Coping***	2.41	0.86	2.29	0.87	2.49	0.84
Congregation Benefits	3.00	0.98	2.98	0.94	3.01	1.00
Congregation Problems	3.01	0.82	3.03	0.79	2.99	0.85
<i>Psychopathology Scales</i>						
Alcohol Use	2.39	1.82	2.49	1.89	2.31	1.76
Anxiety***	11.71	11.71	10.04	9.84	12.85	12.21

Note. * $p < .05$. ** $p < .01$. *** $p < .005$.

RESULTS

Descriptive Statistics

Means and standard deviations for spirituality variables, anxiety and alcohol use in the total sample and in each gender are presented in Table 2. Girls showed higher means scores than boys on all dimensions of religiosity, with statistically significant differences on the Daily Spiritual Experiences subscale, $t(580) = 3.79, p < .005$ and the Positive Religious Coping subscale, $t(574) = 2.76, p < .01$. Mean scores for anxiety were also significantly higher in girls, $t(515) = 2.77, p < .005$. While mean alcohol use was higher in boys than in girls, differences were not statistically significant.

To investigate potential gender effects in the prediction of anxiety and alcohol use, the interaction of gender and each spirituality variable was tested for both dependent variables separately. In model 1, gender, age, ethnicity, SES and spiritual dimension were entered as predictors, and in model 2, the interaction of gender and spirituality was added. For anxiety, none of the interaction terms were significant. For alcohol use, change in R^2 was significant when the interaction of gender and Congregation Benefits was entered in the model ($R^2 = .105, p < .01$). These results indicate that, with the exception of Congregation Benefits, the relationship between each spiritual dimension and both anxiety and alcohol use, respectively, does not differ by gender in the current sample. Therefore, univariate regression analyses were conducted for the total sample rather than for boys and girls separately.

Table 3. *Correlation Matrix*

Variables	1	2	3	4	5	6	7	8	9	10	11	12
Age	—											
Gender	.005	—										
Ethnicity	-.020	.010	—									
Religious Affiliation	.134**	.033	.056	—								
Household Income	.059	-.331**	.090	.022	—							
Daily Spiritual Experiences	-.029	-.015	-.218**	-.116*	-.153**	—						
Forgiveness	-.103*	-.026	-.229**	-.117*	.660**	-.066	—					
Positive Religious Coping	-.144**	.098*	-.210**	-.206**	.743**	.588**	-.108**	—				
Congregation Benefits	.001	-.103*	-.008	.069	.362**	.266**	.301**	-.015	—			
Congregation Problems	-.059	.206**	-.033	-.172**	.111*	.049	.179**	.140**	-.020	—		
Anxiety	-.043	-.121**	.117**	.036	-.129*	-.044	-.042	-.013	.182**	-.116*	—	
Alcohol Use	.287**	.047	-.143**	.047	.060	-.236**	-.263**	-.246**	-.091*	-.051	.025	—

Note. * $p < .05$. ** $p < .01$.

Correlations

Table 3 exhibits results of Pearson r correlations for each spirituality variable and alcohol use and anxiety. Daily Spiritual Experiences ($r = -.24$, $p < .01$), Forgiveness ($r = -.26$, $p < .01$), Positive Religious Coping ($r = -.25$, $p < .01$) and Congregation Benefits ($r = -.09$, $p < .05$) were all negatively correlated with alcohol use. Congregation Benefits ($r = -.12$, $p < .05$) was also negatively correlated with anxiety, while Congregation Problems ($r = .18$, $p < .01$) was positively associated with it.

Results of univariate regression analyses for the overall sample are displayed in Table 4. Each dimension of spirituality was used to independently predict alcohol use and anxiety, respectively. Higher scores on Daily Spiritual Experiences ($\beta = -.23$, $p < .005$), Forgiveness ($\beta = -.26$, $p < .005$) and Positive Religious Coping ($\beta = -.24$) were all significantly associated with less alcohol use. These robust associations suggest that relational spirituality may uniquely protect against alcohol use in adolescents. In the prediction of anxiety, higher scores on Congregation Benefits ($\beta = -.11$, $p < .05$) were significantly associated with lower levels of anxiety, while higher reports of Congregation Problems ($\beta = .16$, $p < .005$) were related to higher levels of anxious symptomatology. No significant associations were found between Daily Spiritual Experiences, Forgiveness or Positive Religious Coping and anxiety. In contrast to alcohol use, religious social support (Congregation Benefits and Congregation Problems) rather than relational spirituality appears to mitigate the experience of anxiety.

Table 4. *Summary of Linear Regression Analyses for Variable Predicting Adolescent Alcohol Use and Anxiety*

Predictor Variable	Alcohol Use			Anxiety		
	B	SE B	β	B	SE B	β
<i>Fetzer Subscales</i>						
Daily Spiritual Experiences	-0.53	0.12	-0.23***	-1.03	0.76	-0.07
Forgiveness	-0.58	0.11	-0.26***	-0.79	0.74	-0.06
Positive Religious Coping	-0.54	0.12	-0.24***	-0.63	0.74	-0.05
Congregation Benefits	-0.19	0.10	-0.09	-1.35	0.63	-1.00*
Congregation Problems	-0.05	0.11	-0.04	2.13	0.67	0.16***

Note. All scale scores were converted to Z scores. SES, age, gender and ethnicity were controlled for in each regression equation.

Note. * $p < .05$. ** $p < .01$. *** $p < .005$.

DISCUSSION

Overall, the findings reveal a differential pattern of association between dimensions of spirituality and substance use versus anxiety in a diverse sample of adolescents. Substance use was associated with the experience of relational spirituality—an active two-way personal relationship with the Creator. By contrast, anxiety was associated with the quality of relationships within a religious community.

More specifically with respect to substance use, the dimensions of relational spirituality, including Daily Spiritual Experiences, Forgiveness and Positive Religious Coping, all showed strong, inverse associations with alcohol use in adolescents. These findings are consistent with previous research on adolescents showing an inverse association between substance use and more general dimensions of personal spirituality (Leigh, Bowen, & Marlatt, 2005; Miller, Davies, & Greenwald, 2000; Ritt-Olson et al., 2004; Walker et al., 2007).

Taken with previous research, the findings might be used to generate hypotheses on the etiology or phenomenology of substance use in adolescents. Rather than institutional aspects of religion, such as church attendance and congregational support, results suggest that a more personal, internalized, dyadic relationship with G-d is more salient in preventing alcohol use in adolescents. As relational spirituality encompasses a more proximal, experiential sense of a higher power in daily life, one possible explanation for higher alcohol use in those adolescents exhibiting lower levels of relational spirituality is that alcohol replaces the search for spiritual fulfillment, functioning to satisfy a spiritual void experienced intrapersonally and/or interpersonally.

That alcohol use may be a substitute for spiritual nourishment resonates as consistent with treatment outcome research on adults in Alcoholics Anonymous (AA), in that recovery has been associated with increases in personal spirituality (Matthew, Georgi, Wilson, & Matthew, 1996; Corrington, 1989). Consistently, research has shown recovery for adult alcoholics to be associated with higher endorsements of spirituality, including spiritual growth, spiritual practice and spiritual connectedness, all of which are associated with better post-treatment outcomes (Piedmont, 2004; Sterling et al., 2006) and longer periods of recovery (Carroll, 1993; Carter, 1998).

In light of the present findings as well as the literature on AA, it seems that a sense of relational spirituality, rather than participation in a congregation or religious social group, is vital in protecting against

onset of alcohol use and abuse. At its core, AA upholds that surrender to a higher power, turning to G-d to cope, forgiving self and others, and seeking to improve conscious contact with G-d are essential for healing and recovery (Alcoholics Anonymous, 2007). Considering that these aspects of recovery in AA are reflected in the relational dimensions of Daily Spiritual Experiences, Forgiveness, and Positive Religious Coping, the absence of a relational spirituality may also increase vulnerability for developing alcohol use disorders in youth. Extending this idea further, if a lack of relational spirituality creates a heightened risk for using alcohol, it is possible that alcohol abuse may best be understood etiologically as a *spiritual* disorder.

Anxiety

In contrast to alcohol use, neither relational spirituality nor any dimension of personal spirituality was associated with anxious symptomatology. Rather, quality of religious community was significantly related to anxiety, with higher scores on Congregation Benefits predicting lower levels of anxiety and higher scores on Congregation Problems predicting higher levels of anxiety. These results are consistent with the existing literature indicating that quality of involvement in a religious or spiritual community plays a significant role in protecting against anxiety in adolescents (Harris, Choneman, & Carrera, 2002). Studies of adults have also shown inverse relations between a range of dimensions of social religiosity (degree of church attendance and extent of interaction with a religious community) and anxiety, lending further support to the current finding (Kendler et al., 2003).

The findings on anxiety might best be understood within the context of theory posited by Oetting and colleagues (1998), namely, that what appear to be the protective qualities of personal spirituality in adolescents might be attributed to the nature of the concomitant religious community. That this study was designed to parse personal spirituality from religious community allows for the analyses to directly show that religious community is the dimension associated with anxiety in adolescents. As adolescence is a period in which participation and inclusion in a peer group is particularly important for mental health (Mackrell & Lavender, 2004; Reisman, 1985; Steinhilber & Metzke, 2001; Ueno, 2005; Ystgaard, Tambs, & Dalgard, 1999), it is possible that for adolescents being embedded in a congregation buffers against experiences of anxiety that may arise more in isolation or in the absence of a supportive group connected by a shared value system.

Limitations

As in all cross-sectional designs, findings from the data do not carry causal interpretations about directionality. For instance, adolescents using or abusing alcohol may search for a sense of spirituality to help them reduce their alcohol use, rather than spirituality preventing the initiation of use. As a separate interpretative limitation, findings on anxiety might have been enhanced through inclusion of a separate measure of social avoidance or evaluation of quality of relationships outside of a specifically religious setting. Finally, a cautionary note on generalization of the findings: while the sample is highly diverse, it is not nationally representative nor designed to establish epidemiological claims about a specific population of adolescents.

Conclusion

This study examines the differential relationship of dimensions of spirituality with substance use versus anxiety in adolescents. Substance use was associated with relational spirituality—a sense of personal ongoing connection with the Creator. In contrast, anxiety was associated with the quality of interpersonal relationships within a religious community. The results of this study, when viewed against previous research, suggest that substance use might best be understood as primarily a spiritual disorder, while anxiety may be fundamentally a social disorder.

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A DEVELOPMENTAL-ECOLOGICAL PERSPECTIVE ON THE ROLE OF SPIRITUALITY IN THE DEVELOPMENT OF MEANINGFULNESS IN ADOLESCENT BOYS

Gess LeBlanc

ABSTRACT

As a result of recent incidents of school violence, a number of approaches have been undertaken in an effort to address the risk factors typically associated with violent behavior among adolescent boys. Among the risk factors generally identified is the need for boys to view their lives as meaningful. The purpose of this research is to examine how spirituality serves as a protective factor against aggressive and violent behavior among boys by investigating how it helps them to view their lives as being meaningful. Focusing on schools as a particularly important context for adolescent development, this work demonstrates that the use of pedagogical practices that support and foster spirituality promotes positive development and may aid in the reduction of specific risk factors associated with violent and antisocial behavior among adolescent boys.

According to a recent survey of high school students by the Center for Disease Control and Prevention (2004), 33% of students reported that they were in a physical fight on school property in the past year, 26% said that they had their property stolen or deliberately damaged on school property, 6% said that on at least one day in the previous month they felt too unsafe to go to school, and 17% reported carrying a weapon (e.g., gun, knife, or club) on one or more of the 30 days preceding the survey. Furthermore, in 2004, more than 750,000 young people ages 10 to 24 were treated in emergency departments for injuries sustained due to violence (Center for Disease Control and Prevention, 2006).

A study by Nansel, Overpeck, Pilla, Ruan, Simmons-Morton, & Scheidt (2001) stated that approximately 30% of American students between 6th and 10th grade were involved in bullying (as perpetrator, victim, or both). Additionally, among 10 to 24 year olds, homicide is the leading cause of death for African Americans, the second leading cause of death for Hispanics, and the third leading cause of death for American Indians, Alaska Natives, and Asian/Pacific Islanders (Center for Disease Control and Prevention, 2006). Furthermore, of the 5,570 homicides reported in 2003 among 10 to 24 year olds, 86% were males and 14% were females (Center for Disease Control and Prevention

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2005) with male students more likely to be involved in a physical fight than female students (41% vs. 25%; Center for Disease Control and Prevention, 2004). Such findings have resulted in numerous efforts to determine what it is about the period of adolescence that makes such behavior probable, and what we can do as a society to support our adolescent boys to decrease the likelihood of their becoming either the perpetrators or victims of such crime.

As a result of recent incidents of school violence, a number of approaches have been undertaken in an effort to address the risk factors typically associated with violent behavior among adolescents in general and among boys in particular. This work explores the critical role of spirituality in both the prevention of violent behavior and the promotion of positive behavior by examining how it serves to foster a sense of personal meaning.

Risk Factors Contributing to Violence among Adolescent Males

In his groundbreaking book *Lost Boys*, James Garbarino describes extensive interviews with adolescent males who have committed murder in an attempt to uncover the circumstances that led to their violent act. Through his retelling of their personal narratives, certain themes unfortunately consistently emerge. He uncovers in the lives of many young boys characteristics associated with depression, a pattern of antisocial and self-destructive behavior, instances of suicidal ideation, and low self-esteem (Garbarino, 1999). While such characteristics cannot be viewed as the direct cause of violent behavior, they have been found to increase the probability of violence (Resnick, Ireland, & Borowsky, 2004).

Garbarino's findings mirror those of many who have investigated the causes of violence among adolescent boys (Canada, 2000; Lipsey & Derzon, 1998). While his work focused on the most violent of behaviors, the characteristics identified through this line of research have also been associated with less severe problematic behavior. For example, research by Dervic, Grunebaum, Burke, & Oquendo (2006) has linked depression in adolescents to outcomes including violent behavior and increased rates of suicide. Furthermore, developmental research examining antisocial and self destructive behavior in children finds that the earlier the onset of such behavior, the more likely it is to continue into adulthood (Eccles & Appleton Gootman, 2002). Research regarding adolescent suicidal ideation and work examining the impact of low self-esteem, have found that suicidal ideation is linked to despair and

depression and low self-esteem is associated with emotional discomfort, depression, suicide, eating disorders, and delinquency (Cotton, Larkin, Hoopes, Cromer, & Rosenthal, 2005).

As a result, while the work of Garbarino (1999) reveals the tragic consequences of a combination of risk factors, research findings also reveal the problematic consequences associated with any single risk factor. As the work of Resnick et al. (2004) indicates, however, in order to more broadly examine the risk factors associated with youth violence, the factors must be explored through an ecological perspective that examines specific contexts of influence including individual, family, peers/school, and community contexts (Beale-Spencer et al., 1997; Resnick, Ireland, & Borowsky, 2004).

Individual risk factors include a history of violent victimization or involvement, a history of early aggressive behavior, involvement with drugs, alcohol, or tobacco, high emotional distress, and antisocial beliefs and attitudes (CDC, 2006). Among the most common family risk factors identified are low parental involvement, low emotional attachment to parents or caregivers, poor family functioning, and poor monitoring and supervision of children (CDC, 2006). Peer/school risk factors include an association with delinquent peers, involvement in gangs, social rejection by peers, a lack of involvement in conventional activities, poor academic performance, and low commitment to school and school failure (CDC, 2006). Community risk factors include low levels of community participation and socially disorganized neighborhoods (Lipsey & Derzon 1998; Resnick et al., 2004).

Adolescent engagement in health risk behaviors including risky sexual behaviors, violent behaviors, and substance abuse, are the highest causes of adolescent morbidity and mortality nationwide (Cotton, Larkin, Hoopes, Cromer, & Rosenthal, 2005; Irwin, Burg, & Cart, 2002). Engagement in antisocial and violent behavior increases significantly in early adolescence (between the ages of 10 and 15) (Eccles & Appleton Gootman, 2002) and peer conformity and susceptibility to negative peer influences is highest during this period (Nansel et al., 2001). Furthermore, numerous studies indicate that by as early as the first grade, aggressive behavior in childhood is predictive of later aggressive and antisocial behavior (Anderson et al., 2003; Tolan et al., 1995; Tolan & Lober, 1993). Furthermore, Tolan, et al. (1995) note that a lack of effective intervention makes such a developmental trajectory more likely to occur.

In examining the risk factors associated with violent behavior among adolescent males, what becomes clear is that the period of adolescence represents a developmental transition that presents both opportunities for cognitive, physical, and social-emotional growth but also vulnerabilities related to the presence or absence of certain internal characteristics and certain features of the individual's environment.

Examining Adolescence

Although the period of adolescence has historically been viewed as a time of storm and stress, newer perspectives on the period of adolescence view it as a distinct and critical developmental period for youth to acquire the dispositions, skills, values, and social supports that will foster a healthy transition into adulthood (Larson, 2000). Furthermore, while adolescent development may be marked by intra-individual changes (such as pubertal change and cognitive advancement) understanding the impact of multiple contexts (and the impact of interactions among multiple contexts) on such development is critical (Eccles & Appleton Gootman, 2002).

A developmental ecological perspective provides a useful framework for examining the period of adolescence (Belsky, 1993). Based on the work of Bronfenbrenner (1979), the model emphasizes the importance of recognizing that development is affected by the context within which it occurs. In this way, a developmental ecological perspective requires an investigation of the impact that risk and protective factors have on development by simultaneously addressing both adolescent and environmental factors (Cicchetti & Lynch, 1993). Using such a perspective, an examination of the adolescent period begins with an examination of intra-individual change.

Most research on adolescent development finds that the primary developmental milestone associated with the adolescent period is the forging of a coherent sense of identity (Eccles, Barber, Stone, & Hunt, 2003; Roeser & Eccles, 2000; Anderson & Mohr, 2003). In his theory of psychosocial development, Erikson discussed specific "virtues" that were associated with the resolution of each of eight crises. He specified that fidelity, defined as an unwavering commitment to ideas that transcend the self (and which includes a quest for personal meaning), was the virtue associated with ones resolution of the identity crisis (Erikson, 1964; 1968). Research by Furrow, Ebstyn King, & White (2004) notes that fidelity embodies a commitment to an ideological

framework which is evidenced by having purpose in life, a sense of belonging, and a commitment to others and society as a whole. However, as a developmental ecological perspective suggests, such a sense of purpose, belonging, and commitment are predicated on the presence of a supportive broader environment.

Research by Eccles & Appleton Gootman (2002) indicates, supportive and nurturing experiences in the family, peer/school, and community contexts are critical to facilitate positive development (marked by the adolescents' present well-being and reduction in their risk-taking) and increase the likelihood of their successful future transitions. Additionally, they note that contexts that promote positive adolescent development include those that promote prosocial relationships and support psychological wellness across individual, family, community, and school contexts. Furthermore, with respect to the school context, research by Anderson & Mohr (2003) notes that children who see their schools as a community enjoy school more, are more academically motivated, are absent less often, engage in less disruptive behavior, and have higher achievement.

There is evidence of a significant increase in the adolescent years in spirituality, although not in commitment to an organized religious institution (Lerner, Brentano, Dowling, & Anderson, 2002). This suggests that individual identity development, reflecting a search for personal meaning, moral and civic engagement or commitment to society occurs simultaneously with spiritual development in adolescence. Furthermore, in their work investigating religious variables and adolescent adjustment, Ozer & Benet-Martinez (2006) argue that spiritual and religious goals and practices are not only a distinctive element of a person's beliefs and behaviors; for many, religious beliefs and practices and a burgeoning spirituality may be a central theme of their identity.

In the following sections, spirituality and religiosity will be explored in terms of how they aid in the reduction of problem behaviors and the promotion of positive behaviors. Additionally, informed by a developmental ecological perspective, the schools context will be explored and research regarding how schools and classrooms can be transformed in a way that supports the spiritual development of adolescent males and helps them to develop a sense of personal meaning will be addressed.

How Spirituality and Religiosity Aid in the Reduction of Problem Behaviors

Findings of the National Study of Youth and Religion (2004) indicate that 95% of adolescents report believing in God, 80% say that religion is important in their lives, and over 50% attend religious service at least once a month. In their study investigating spiritual development in childhood and adolescence, Benson, Roehlkepartain, and Rude (2003) state that spiritual development is the “developmental engine that propels the search for connectedness, meaning, purpose, and contribution” (p. 205). While numerous definitions of the terms spirituality and religiosity exist, Zinnbauer, Pargament, Cole, Rye, Butter, & Belavich (1997) note that “spirituality is generally identified with personal transcendence . . . and meaningfulness while religiosity is generally identified with religious institutions . . . and rituals” (p. 551). Furthermore, research by MacDonald (2000) found that spirituality involves experiences of connectedness, traditional institutional structures, pleasurable states of being, and grappling with existential questions.

Several studies have found religiosity and spirituality to be resilience factors in adolescents (Blitstien, Murray, Lytle, Birnbaum, & Perry, 2005; Masten & Reed, 2002). In a study investigating the impact of adolescent spirituality on depressive symptoms and health risk behaviors, Cotton et al. (2005), found that adolescents who believe in God, rate religion as personally important, and who regularly attend religious services report less depression and less engagement in risky sexual behavior and substance abuse than their less religious peers.

A review of the research regarding the risk factors associated with violence among adolescent males reveals three distinct risk factors that reflect both intra-individual and social influences. As a result, research findings regarding the role of spirituality and religiosity in the reduction of problem behavior are presented specifically with respect to their impact on adolescent rates of depression, antisocial and self-destructive behavior, suicidal ideation, and low self-esteem.

Depression. According to recent findings from the National Institute of Health (2007), an estimated 5% of adolescents are clinically depressed at any given time and many more report feeling sad, hopeless, or down on a daily basis and for extended periods of time. Additionally, research by Brent & Birmaher (2002) indicates that depression in adolescents has been associated with a decreased quality of life and increased rate of suicide. Miranti & Burke (1998) suggest that a spiritual or religious connection and awareness could provide an impetus toward wellness,

compassion, love, meaning, and hope. Furthermore, a study by Pearce, Little, & Perez (2003) found that spirituality (as defined by positive interpersonal experience) was more strongly negatively correlated with depressive symptoms than was religiosity (as defined by attendance at religious services).

Antisocial and Self-Destructive Behavior. Belief and commitment to a social or moral order is hypothesized to decrease the probability of violent behavior (Catalano et al., 2002). Numerous studies have found that adolescents who score high on measures of spirituality or religiosity are less likely than their peers to engage in violent or other antisocial behavior (Fraser & Richman, 2001; Hawkins, et al., 1999; Herrenkohl, Chung, & Catalano, 2004). For example, youths who attend religious services at age 15 had a 25 percent probability of later violence; youths who did not attend religious services at age 15 had a 41 percent probability of violence at age 18 (Herrenkohl, et al., 2003). Furthermore, Saunders found that adolescents who scored high in spirituality, as measured by the Spiritual Orientation Inventory (Elkins, Hedstrom, Hughes, Leaf, & Saunders, 1988), were more likely to cope with crisis situations by being hopeful and proactive and not engaging in self-destructive behavior.

Suicidal Ideation and Low Self-Esteem. Research by Meyer & Lausell (1996) indicates that spirituality is a belief system that may serve as a protective factor by affording youths a sense of identity, helping them to develop personal goals, and facilitating coping. Furthermore, research by Fegley, Seaton, and Gaskins (2002) revealed that for African American adolescents, religious participation was associated with a positive self concept.

How Spirituality Can Help to Promote Positive Behavior

Several studies indicate that spirituality and religiosity are associated with the promotion of positive behavior among adolescent youth (King & Furrow, 2004; Wagener, Furrow, King, Leffert, & Benson, 2003; Youniss, McLellan, & Yates, 1999; Donahue and Benson, 1995). For example, a study by Furrow, King, & White, (2004) which investigated the impact of religion on identity development, personal meaning, and prosocial concerns found that youth who reported a more clear sense of religious identity also reported having a clearer sense of personal meaning and more prosocial concerns. Research by Donahue and Benson (1995) investigating the relationship between adolescent religiosity and prosocial values and behaviors reveals a positive association between adolescent

religiosity and the presence of prosocial values and behavior in that more religious adolescents were more likely to value helping others and engaging in voluntary service than adolescents characterized as less religious with such experiences of service being instrumental in helping adolescents to develop a sense of personal meaning. Religiosity has also been found to positively influence self concept, coping, and feelings of hope (Miller & Thoresen, 2003; Smith, 2003; Youniss, McLellan, Su, & Yates, 1999). Furthermore, in their study investigating the role of spirituality and religiosity in adolescent psychosocial adjustment, Good & Willoughby (2006) find that religious adolescents are considered less likely to display delinquent behaviors, use drugs and alcohol, are more likely to practice sexual abstinence or to delay the onset of sexual activity, are more likely to experience academic success, and are more likely to report a committed identity status. Finally, research by Kessler (1999) suggests that adolescent sexual activity, drug use, gang violence, and even suicide may be both a search for connection and meaning and an escape from the pain of not having a genuine source of spiritual fulfillment.

Based on these findings, it is evident that many of the problematic behaviors typically associated with the adolescent period reflect a developmental need for meaning and purpose, a desire for greater connection to others, and ultimately, a deeper connection to the self. In this way, the period of adolescence reflects a fundamental human need for spiritual awakening.

Spirituality as the Foundation for Developing Personal Meaning

Several studies have revealed associations between religiosity/spirituality and both the promotion of positive behavior and the reduction of negative behavior (King, 2003; Smith, 2003; King & Furrow, 2004). However, research by King & Furrow (2004) suggests that a more nuanced assessment of developmental process is necessary to better articulate the nature of the interaction between religion and adolescent development.

As has been previously noted, spirituality and religiosity have been shown to have a positive impact on personal meaning (Youniss, McLellan, Su, & Yates, 1999). For example, Francis (2000) found that spirituality and religiosity were positively associated with an individual's viewing his or her life as having meaning and purpose. Research by

Garbarino (1999) found that adolescent boys who commit violent acts experience a “crisis of meaninglessness” and a sense of spiritual emptiness that can lead to despair. Furthermore, he states that “Spirituality and love can fill in the holes left in the story of a boy’s life and help him develop both a strong positive sense of self and healthy limits.... When it is grounded in spirituality and love, religion infuses life with purpose” (p. 155).

Given such a crisis, it is important to identify the possible ways in which spirituality and religiosity may serve to combat this crisis of meaninglessness. Furthermore, given that spirituality and religiosity serve as protective factors against the display of future antisocial and violent behavior it is critical that a theoretical framework for examining the ways in which religiosity and spirituality serve to help children and adolescents to view their lives as meaningful be developed.

A discussion of any theoretical framework must begin with an operational definition of what it means for one’s life to have meaning (which will subsequently be referred to as meaningfulness). Using Debats (1998) conceptualization of personal meaning, the term meaningfulness reflects the extent to which an individual is able to view his or her life with a sense of purpose and the extent to which they view their personal goals as hierarchically related (with clear connections between short and long term goals).

Research by Catalano, Berglund, Ryan, Lonczak, & Hawkins (2004) indicates that many positive and negative outcomes among adolescent youth are affected by the same risk and protective factors. Additionally, they state that there is much evidence that such factors are found across multiple contexts. Furthermore, in earlier work, Tolan, Guerra, & Kendall (1995) noted that the presence of similar risk factors across contexts points to the need for intervention across multiple contexts. An examination of the risk factors associated with problem behavior among youth, therefore, reveals that the risk factors are linked to specific contexts (individual, family, peer, school, and community) and, more importantly, that the contexts influence each other in both positive and negative ways. As a result, any theoretical model that attempts to account for the manner in which spirituality and religiosity support positive development must account for how they influence and are influenced by multiple contexts (King & Furrow, 2004).

Schools as a Context for the Development of Meaningfulness

One particularly unique context is the schools context because in many ways it serves as the point of intersection of other contexts. Research by Eccles and Appleton Gootman (2002) describes school as a community characterized by caring and supportive interpersonal relationships, shared norms, goals and values, and in which students and teachers have the opportunity to participate in school activities and decision making. Additionally, research by Resnick, Ireland, and Borowsky (2004) found that, when students sensed a high level of connectedness at school, they were involved in fewer violent acts. As Eccles and Appleton Gootman further note, such school connectedness results from relationships between people, working to create meaning in the context of an interdependent community in schools.

Schools represent a microcosm of the social world of the adolescent. Schools provide opportunities for interaction with adults and peers and serve as local communities requiring cognitive, emotional, and social competencies if they are to be navigated efficiently. In this way, an examination of the schools context offers an opportunity to investigate a context central to the development of meaningfulness in youth. In this respect, school-based programs that focus on the fostering of spirituality and/or religiosity are often supplementary (such as after school programs) are often aimed at reducing specific behaviors (such as abstinence programs) or designed to promote a specific range of behaviors (such as the Big Brother/Big Sister Programs) (Eccles & Appleton Gootman, 2002). While these programs may exist within schools, they are not integrated within the curriculum and are not viewed as directly enhancing teaching and learning in any measurable way (Catalano, et al., 2004). As a result, while several studies have addressed the role of spirituality within certain contexts, a review of the literature reveals few studies that specifically address how issues of spirituality and religiosity can be integrated within the regular school curriculum in a manner that is designed to directly enhance the development of meaningfulness in particular and the teaching and learning process in general (Herrenkohl, Chung, & Catalano, 2004; Haynes, 1998; Kessler, 1999).

Addressing Spirituality in Schools

Any discussion regarding methods of addressing spirituality in schools must include a discussion of the associated legal challenges. While research by Marshall (2006) states that the history of public K-12

education in American schools is rooted in religion, her work also notes that conflicts continue to emerge over the inclusion of religion and spirituality in school curriculum, over daily practices such as school prayer, and over extracurricular activities that both overtly and subtly reflect spiritual or religious issues. As a result, schools have often been forced to transform spiritually- and religiously-based aspects of their curriculum into lessons that are ultimately non-sectarian and non-religious (Nord & Haynes, 1998; Nord, 1995). For example, research by Haynes (1999) notes that in an effort to address issues of spirituality in public schools, some educators have equated spirituality with emotional and intellectual development and in doing so removed the transcendent nature of spirituality and, as a result, rendered the term meaningless.

Findings such as these are critical on two fronts. First, if spiritual development is to be viewed as a fundamental aspect of human development, then core issues (such as transcendence) cannot be removed from attempts to address spirituality. Secondly, from a developmental ecological perspective, when schools intentionally dilute the concept of spirituality they fail to address a fundamental human need and thereby ultimately hinder the development of personal meaning among adolescents. Therefore, rather than working to either overtly promote spirituality and/or religiosity or working to minimize the probability of legal challenges by redefining terms, schools should work to transform themselves in ways that will support the spiritual development of their students in general and adolescent males in particular.

Intervention Approaches

As a result of the highly publicized school shootings during the 1990's, intervention strategies aimed at decreasing problematic behavior in youth focused primarily on problematic behavior occurring in schools (Cornell, Retrieved, 2007). Such school-focused intervention strategies continue to reflect a variety of approaches.

Some policies have been in response to specific infractions (such as zero tolerance policies regarding bringing weapons into schools, the possession of drugs while on school grounds, or sexual harassment in schools) (National School Safety Center, 1999) while others have focused broadly on enforcement (such as the implementation of metal detectors in schools or the adoption of uniformed officers in schools). Furthermore, others have ranged from the training of school personnel to recognize the psychological and affective characteristics that may

make violent behavior more likely (Dwyer, Osher, & Warger, 1998), the adoption of “safe school” plans that involve the coordinated efforts of teachers, school administrators, parents, and community leaders (National School Safety Center, 1999), to the teaching of tolerance through methods such as Aronson’s (1978) jigsaw classroom method.

While varied in their approaches, the key similarity across these types of responses is their focus on the prevention of problematic behavior. As studies of prevention programs indicate, however, prevention strategies have often changed as programs were found to fail to decrease certain problematic behaviors among youth (such as drug use and sexual activity) (Cotton, et al., 2005). As a result, as noted by Catalano et al., (2004), strategies have shifted from those focusing on a single problem to those focusing on factors contributing to the occurrence of both positive and problem behavior among youth. Such findings reflect a broad trend toward the implementation of programs aimed at positive youth development (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004; Furrow, King, & White, 2004). As has been noted earlier however, particular with respect to adolescent males, the development of personal meaning is critical to such positive development.

Research by Beale Spencer, Dupree, & Hartman (1997) which investigated the similarities and differences between how children were taught at home and how they were taught in school found that the greater the similarity and integration between the two contexts, the greater the child’s performance in school. Similarly, cross-context connections (such as those between family and community contexts) have been shown to be critical in the development of positive youth by helping to foster a sense of personal meaning (King & Furrow, 2004). Therefore, it is the contention of this work that the development of meaningfulness in adolescent males is predicated on the awareness of teachers of the role that spirituality plays in the development of their students and their ability to use this knowledge to develop supportive classroom environments. In this way supporting the spiritual development of adolescents is not viewed as the goal of a specific school-based program, but instead integrated into the curriculum in a manner that represents effective teaching that supports the development of personal meaning.

Research by Hanson, Larkin, & Dworkin (2003) found that adolescents were more likely to say that faith-based and service-related youth development activities provided more opportunities for self-exploration, and identity reflection than academic classes did. Youth in faith-based and service activities also reported greater acceptance of prosocial

norms and stronger connections to their community. What can be drawn from these findings is that faith-based and service-related activities supported the development of personal meaning in ways that academic classes did not.

Establishing Meaningfulness in Schools

Roeser, Eccles, & Sameroff (2000) report that numerous studies have demonstrated how various dimensions of the ecology of secondary school can affect adolescent development. Studies have also documented that conditions in many schools do not afford adolescents developmentally appropriate opportunities for social and emotional growth (Carnegie Council, 1995; McLaughlin & Irby, 1994). Furthermore, the Carnegie Council (1995) found that both successes and problems are potential outcomes of the adolescent period and beyond depending on the kind of care and opportunities that institutions (such as schools) provide for young people at home (Carnegie Council, 1995). For example, in a study investigating schools as a context for academic and social-emotional development in early adolescents, Roeser, Eccles, & Sameroff (2000) found that male adolescents reported more problem behavior (including emotional distress and negative peer affiliations) in school than did their female counterparts and that such problem behavior was tied to low valuing of school. Conversely, their findings also reveal that adolescents who perceived the curriculum in the core subjects as meaningful and relevant showed increased motivation to learn and better mental health over time.

As has been noted earlier, this work is informed by a theoretical framework that suggests that adolescents have a basic psychological need to view their lives as being meaningful, that satisfaction of this need affects their sense of identity and their behavior, and that certain characteristics of the school context influence how well this need is met. This research also indicates that in many cases, schools adopt organizational practices that neglect and may actually undermine students' opportunities to develop a sense of personal meaning.

What, therefore, is called into question is how schools can transform their instructional methods in a manner that is reflective of and supports the spiritual development of adolescent males. One instructional method that appears promising is the use of culturally responsive teaching practices (Gay, 2000).

Establishing Meaningfulness Through Culturally Responsive Teaching

Numerous studies indicate that the process of teaching and learning should be viewed from an ecological and humanistic perspective (Beale-Spencer et al., 1997; Gay, 2000; Ladson-Billings, 1994). Research from this perspective views the classroom as a microcosm of a broader social world both influencing and influenced by the larger cultural, social, political, and historical context (Gay, 2000). Furthermore, within these contexts lie students and teachers whose complex individual histories influence the teaching and learning processes occurring within them. When viewed from this perspective, classroom teaching is effective when it is reflective of the socio-cultural experiences of the students within the classroom. Research by Tharp & Gallimore (1988), for example, found that classroom teaching must be “culturally compatible” if it is to be effective.

Some researchers suggest that one way in which teachers can be responsive to the cultural experiences of students is by actively soliciting their voices (Hollins, 1996; Howard, 2002). In light of this, several studies have focused on students’ perspectives regarding effective teaching (Hollins & Spencer, 1990; Howard, 2002; Lee & Slaughter-Defoe, 1999). For example, a study by Hollins & Spencer (1990) regarding student’s views on their experiences in school, found that positive relationships between teachers and students increased academic achievement. They also found that teachers’ responsiveness to students’ personal lives generated positive feelings that led to greater student effort in school. Furthermore, they found that students preferred teachers who enabled them to use experiences from their personal lives in completing assignments and this led to their increased engagement in class discussions. Research by Howard (2002) regarding African American students’ descriptions of effective teaching also found that teachers who established a sense of family and community within their classrooms and those who displayed a genuine level of caring for their students were viewed as being effective.

A review of the literature regarding student perceptions of teacher effectiveness reveals that students consistently judge a teacher’s effectiveness based on how much they perceive the teacher to know about them and how much the teacher creates a classroom environment that responds to them as individuals. In this way, effective teachers are viewed as being able to develop a rapport with students that make them feel connected to their teachers. Particularly with respect to African American and Latino students, studies suggest that the process of

“knowing” students and developing rapport involves an understanding of students as individuals whose cultural heritage and cultural practices directly impact upon their classroom performance. In this way, effective teachers are viewed as being able to help their students to view their lives as meaningful by legitimizing the importance of their lives and experiences through their incorporation into class lessons.

In her work investigating the pedagogical practices of successful teachers of African American students, Ladson-Billings (1994) found that student success was directly linked to their teacher’s demonstration of what she termed “culturally responsive teaching.” Such teaching was characterized as a pedagogical practice “that empowers students intellectually, socially, emotionally, and politically by using cultural referents to impart knowledge, skills, and attitudes” (p. 18).

Through her research identifying the teaching practices of successful teachers of African American and Latino students, Gay (2000) identified several characteristics that she found to be indicative of culturally responsive teaching. Among them were that it acknowledges and incorporates the cultural heritages of different groups and it makes meaningful connections between home and school experiences.

Similarly, through his research investigating African American and Latino student’s perspectives regarding what makes teachers effective, Howard (2002) found that students consistently described teachers who taught in ways that reflected their experiences outside of the classroom as being effective. Through her studies of the teaching practices of effective elementary school teachers, Ladson-Billings (1994) found that effective teachers practiced culturally responsive pedagogy where interpersonal relations were fostered and exhibited.

As a result, research regarding the pedagogical practices associated with effective teaching indicates that inter-context connections (such as those between home and school) are critical and that one important avenue for making such connections is through the use of pedagogical practices that are reflective of the cultural lives (the rituals, practices, and settings that shape their development) of students. Furthermore, given that effective teaching is marked by its validation of the lives of students, it is also an avenue for developing meaningfulness. Additionally, Tisdell (2003) in her book *Exploring Spirituality and Culture*, makes a direct link between spirituality and culture as she describes the connection to culturally responsive teaching as “the powerful ways individuals create meaning through their cultural, symbolic, and spiritual experience” (p. 42). Therefore, culturally responsive teaching involves attention to

spirituality as fundamental aspect of culture and a way that students make meaning.

Spirituality is integral component of cultural identity (King, 2003). Given that effective teaching is found to be predicated on its integration of cultural referents, it can be viewed as also predicated on its integration of specific components of culture—including spirituality. Research by Kessler (1999) regarding spirituality in public schools offers suggestions regarding the implementation of instructional methods that support the spiritual development of students. She notes that effective practices are those that incorporate instructional methods that reflect the inherent components of spirituality, including: the search for meaning and purpose, transcendence, introspection, rituals, and connectedness.

The search for meaning and purpose. A common critique of public education is that it is more focused on the acquisition and assessment of discreet knowledge and skills rather than on student learning in a holistic sense. Such a focus, while legitimate at times, tends to privilege the products of learning (the correct or incorrect response) over the process of learning. Studies indicate that effective teachers who support the development of personal meaning in their students provide classroom opportunities where existential questions (such as the meaning and purpose of life) can be explored without the need for correct or definitive answers to be provided (Halford, 1999; Kessler, 1999; Palmer, 1999).

Transcendence. Through the implementation of such pedagogical practices as Aronson's (1978) jigsaw method, students can come to better understand their personal spiritual development by engaging with peers who share similar experiences and needs. For example, through the Passages program (Kessler, 1999), subject area lessons are designed to address existential questions that are typical of adolescents (such as how the material relates to their future and how it relates to student experiences in their community and the broader world).

Introspection. Religiosity and spirituality can also serve as an avenue for self-exploration with respect to student behavior in schools. Aalsma and Lapsley (1999), for example, encourage the implementation of religious counseling in which young people can critically explore their beliefs and how those beliefs influence their behavior. Additionally, research by Trusty and Watts (1999) suggests that if adolescents seem invested in certain religious, spiritual, or family values, counselors could assist them in considering whether their behavior is consistent with their stated value system.

Rituals. In their work investigation the role of sanctification in family relationships, Mahoney, Pargament, Murray-Swank, & Murray-Swank (2003) note that religious traditions (such as Jewish Bar Mitzvah, Catholic Confirmation, and Conservative Protestant baptism rituals) provide formal rituals that signify important developmental transitions in the family life cycle. Such traditions can sustain a young person with a sense of identity, purpose, and belonging (Furrow, J., Ebstynne King, P., & White, K. (2004). Effective teaching that is culturally responsive and supportive of the development of personal meaning incorporates ceremonies or forms of public recognition marking transitions that signal the shift from adolescence to adulthood (such as the recognition of a student's legal right to drive or vote) and provides opportunities to discuss how specific religious and cultural rituals inform student's sense of personal meaning.

Connectedness. To foster a sense of connectedness, many teachers incorporate group activities (such as weekly class meetings or sharing groups) that are predicated on mutual respect and tolerance of diverse views. Teachers may also demonstrate an understanding of their students' cultural backgrounds by becoming more knowledgeable of the particular religious practices of their students in an effort to understand how such practices inform their sense of hope, purpose, and personal meaning.

In this way, specific pedagogical practices that support the spiritual development of students not only provide opportunities for students to establish rapport with teachers or opportunities for critical self-reflection, but offer opportunities for students to engage in lessons that promote a sense of personal meaning and thereby aid in their identity development. Ultimately, what is being suggested is that pedagogical practices be developmentally appropriate. However, rather than employing a developmental perspective that relies predominantly on a focus on cognitive development (Goodlad, 2004; Hirsch, 1999), this work suggests that a responsiveness to spiritual developmental needs is a critical component of any curriculum designed for adolescent males that is viewed as developmentally appropriate. In this way, culturally responsive teaching (with its inherent focus on issues of spirituality) is developmentally appropriate teaching and provides for a "person-environment" fit (Eccles & Appleton Gootman, 2002) in which classrooms support the developmental needs of students.

Conclusion

Several studies have investigated antisocial and violent behavior among adolescent youth (Garbarino, 1999; Nansel et al., 2001; Resnick et al., 2004). While such behavior is of concern regardless of the setting in which it occurs, violence that occurs in schools is generally viewed as more problematic and more pervasive (even though studies indicate a downward trend in school shootings (National School Safety Center, 2003)). Such feelings are indicative of the perspective that schools represent functional communities that serve as a microcosm of the social world of adolescents. In this way, intervention programs based in schools seek to foster the behaviors and values necessary for youth to function beyond the school and within the broader society as a whole.

Intervention programs aimed at developing positive youth seek to address an array of objectives including the fostering of spirituality. Spirituality and religiosity have been associated with both the reduction of problem behavior and the promotion of positive behavior in youth (Brent & Birmaher, 2002; Meyer & Lausell, 1996; Miranti & Burke, 1998). This work demonstrates that the fostering of spirituality should not be viewed as an isolated goal to be achieved in an effort to foster the development of positive behavior. Rather, spirituality should be viewed as fundamental to the development of adolescent males because it transcends multiple contexts and serves as an avenue for developing meaningfulness.

Furthermore, with respect to the schools context, this work demonstrates that the lack of such an integration of issues associated with spirituality serves to undermine the teaching and learning process by not allowing for the full incorporation of students' lived experiences into the classroom. In this way, the importance of supporting the spiritual development of adolescent males is measured not solely by its presence but also by its absence. Ultimately, this work demonstrates that the use of pedagogical practices that support the spiritual development of adolescent males promotes positive development and may aid in the reduction of specific risk factors associated with violent and antisocial behavior.

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In addition to the preceding authors, many scholars and scientists have made significant contributions to the publication of this volume. They have anonymously screened the initial versions of these and other submitted manuscripts for methodological rigor and scientific significance. They also have provided the authors with invaluable suggestions for improving their papers prior to the authors making their final revisions. Both myself and the authors appreciate their expert services. Not only have they improved the quality of the research reported here, they also have contributed to the quality of the field of the social scientific study of religion.

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