

Exploring the Associations Among Shyness, Religiousness, and
Satisfaction with Life for Religious Adults

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ABSTRACT

Although a sizeable body of research has examined the implications of shyness, questions remain about how shy people differ in terms of their experiences within specific settings. One type of setting that often involves significant social interaction and that has several potential benefits is a religious community (Pargament, 1997). The purpose of the present study was to investigate the nature of the relationships among shyness and various aspects of religiousness including god image, religious motivation, religious preferences, service attendance, and sense of fit in religious communities. Data were collected from a community sample using a survey through the online crowdsourcing marketplace, Amazon's Mechanical Turk (MTurk). The results from this research supported previous findings of a negative relationship between shyness and support expected from a deity. Results also replicated a previously found negative relationship between shyness and satisfaction with life, while also suggesting that accepting god image mediates this relationship. Moreover, results indicated significant negative relationships between shyness and perceived fit in religious communities as well as between shyness and religious service attendance. Results further indicated that intrinsic religious motivation moderates the relationship between shyness and religious service attendance. Counter to hypotheses, results did not indicate that strength of religiousness moderates the negative association between shyness and satisfaction with life and did not support the negative relationship between shyness and religious synchrony preference. These findings highlight the potential impact that aspects of religiousness may have on the lives of religious people, particularly shy religious people. Implications for researchers, therapeutic practitioners, and religious leaders are discussed.

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CHAPTER ONE

INTRODUCTION

Humans can generally be described as social beings who benefit both emotionally and physically from social relationships (Cohen, 2004; Cacioppo et al., 2002). It seems that people spend a great deal of time interacting with others in order to build these important social relationships, and that individuals become involved in a variety of different communities as a result. One type of setting that often involves a great deal of social interaction and that provides several potential benefits is a religious community (Pargament, 1997). Unfortunately, individual factors such as shyness may present obstacles to both the formation of social relationships in religious contexts as well as religious service attendance and participation.

It seems that the need to belong and to be in relationships with others can, in part, help to explain individuals' motivations for religious belief (Allport, 1950; Hood, Hill, & Spilka, 2009). Pargament (1997) emphasized that religious communities are inherently social and that interactions within such a community are central to religious experiences. Those interested in this area of research have found that some people often seek to satisfy their need for connection through affiliation with a deity (e.g., Gebauer & Maio, 2012) in addition to affiliation with other religious community members (e.g., Graham & Haidt, 2010). The present investigation explored this further by examining how shyness, or the fear of social disapproval and humiliation despite the desire to interact with others (Jones, Cheek, & Briggs, 1986), is associated with different aspects of peoples' religiousness. In particular, this study explored the relationships between shyness and god image, religious motivation, religious preferences, and sense of fit in a religious community. The present

study also examined the ways in which aspects of religiousness may help to explain negative associations between shyness and satisfaction with life as well as shyness and religious service attendance.

Typically, highly shy individuals are negatively perceived and are less likely to make positive impressions than are less shy individuals (Leary & Buckley, 2001). Highly shy individuals also tend to believe that they do not have the social skills necessary to make positive impressions when interacting with others, which tends to negatively impact how they approach social relationships (Jackson et al., 2002; Leary & Buckley, 2001). In addition to being misperceived, other unfortunate associations with shyness include decreased quality in relationships (Nelson et al., 2008) and decreased levels of received social support (Jackson et al., 2002).

It therefore seems probable that highly shy individuals may experience their religious communities, which arguably involve a great deal of social interaction, differently than individuals who are not as shy. Research in the area of psychology and religion has typically focused on the frequency of potentially helpful coping behaviors such as prayer and religious service attendance. As will be discussed below, shy people may be particularly prone to outwardly engaging in potentially helpful behaviors without reaping the benefits. That is, examining their internal experiences in the context of religiousness (e.g., how they perceive their deity) may provide valuable information beyond examining their outward behaviors (e.g., how often they pray). Moving forward, the present study attempted to take into account both the observable behaviors as well as non-observable internal experiences of shy individuals.

In a previous study, Mathis and Cook (2013) provided an initial examination of the associations between shyness and religiousness. Similar to much of the previous research in the area of religiousness, participants in their study largely identified as Christian and the measures used in their study predominantly reflected a Judeo-Christian perspective on religiousness. Given measures currently available, the present study also reflects this focus. It is also worth noting that the definitions of religiousness vary widely among researchers, and that the present study will follow Pargament's (1997) definition of religiousness. He conceptualized religiousness as encompassing the total of behaviors, experiences, and goals related to religion. His definition of religiousness includes the narrower concept of spirituality, which refers specifically to the relationship that individuals have with a higher power. More specifically, he defined religion as a "search for significance in ways related to the sacred" (p. 32).

Congruent with previous literature on the topic of shyness (e.g., Jackson & Ebnet, 2006), Mathis and Cook (2013) found that, in general, shyness was negatively associated with anticipated social support from people both within and outside of a religious setting. Additionally, a negative association between shyness and accepting god images was found, and self-esteem was supported as a partial mediator in this relationship. Inconsistent with previous literature, however, they did not find the expected negative associations between shyness and religious service attendance or shyness and engagement in support-seeking behaviors in a religious setting. It appeared that although individuals' shyness was not associated with their religious service attendance or engagement in seeking social support from religious members, shyness was still manifested in the decreased expectation that others will be supportive or dependable.

Extending this line of research with the present investigation provides valuable knowledge regarding how individuals' personality (i.e., shyness) might be associated with their religious behaviors and experiences, which may help religious group leaders and members better serve individuals within their communities. Moreover, religious individuals' perceptions of the divine and how they may or may not utilize relationships within their religious communities are important components for understanding how religiousness contributes to overall life satisfaction and coping.

Affiliation with a Deity

As stated previously, one way that individuals sometimes fulfill their need for connection is through affiliation with a higher power (Gebauer & Maio, 2012), and the relationship that individuals sometimes have with a deity has meaningful implications for well-being (Bradshaw, Ellison, & Marcum, 2010; Greenway, Milne, & Clarke, 2003). Francis, Gibson, and Robbins (2001) suggested that individuals form god images, or conceptualizations of a deity, that are consistent with attitudes they have about themselves. For example, research has found that self-esteem and self-worth are positively associated with accepting and loving god images and negatively correlated with rejecting and punishing god images (Benson & Spilka, 1973; Francis et al., 2001). Additional research has similarly found that traits such as low self-esteem and depression are positively associated with perceptions of a god as punishing or rejecting (Greenway et al., 2003).

Bradshaw et al. (2010) proposed that the attachment style and perceptions that individuals have of a deity helps them to regulate their emotions. Specifically, in a sample of Presbyterian congregation members, they found that individuals' style of

attachment to their deity (i.e., secure and anxious attachments) and images of the deity directly affected well-being and predicted well-being beyond general religious practices (e.g., frequency of religious service attendance). Thus, it would appear that god image may be useful for considering the impact of religious beliefs on mental health outcomes.

Affiliation with Religious Community Members

Although some form of the divine is important to religiousness, Graham and Haidt (2010) argued that research in the area of religion would greatly benefit from increasing the examination of religiousness from a social perspective. That is, rather than studying religion as a set of beliefs with the divine or sacred as the primary focus, Graham and Haidt proposed that researchers in the area of psychology and religion view “God as a maypole” where the “dance” of surrounding moral communities is of primary focus (p. 142). A vast amount of research has attempted to examine religiousness by exploring the associations between engaging in a relationship with a deity and positive and negative outcomes (e.g., see Larson & Larson, 2003). Although there is limited research that approaches studying religiousness from an exclusively social perspective, research in group cohesion and religious coping helps to shed light on the specific impact that community can have on individuals within a religious setting.

First, Wiltermuth and Heath (2009) studied the associations between synchrony and group cohesion. They noted that some groups, like religious communities, engage in activities like singing or dancing where group members act in synchrony. In a series of experiments, Wiltermuth and Heath found that groups of participants who walked, sang, or moved their arms in synchrony with each other showed greater trust and social attachment than groups performing the same behaviors while not in synchrony. From

these results, it seems that individuals may experience benefits from participating in rituals like group worship or prayer where they act in synchrony with others. This may be particularly important for individuals, such as shy people, who desire relationships with others but who have difficulty initiating spontaneous social interaction. Ritualistic activities in a religious community may also be more appealing to shy individuals given that they report feeling less awkward and nervous in non-spontaneous situations where they are told what to do or say as compared to more spontaneous situations (Alm & Frodi, 2008).

Extending beyond the more ritual aspects of religion, research on religious coping strategies offers a second perspective on the functions of social interactions within a religious community. Pargament, Koenig, and Perez (2000) found that religious coping methods such as providing spiritual comfort and actively seeking social support from others were negatively associated with depression and positively associated with mental and physical health. Furthermore, they found that individuals who were dissatisfied with their clergy or congregation members reported poorer mental health and more negative mood than those who were satisfied within their religious community. Overall, it appears that religious communities can be social in multiple ways (e.g., through group rituals and more informal interactions) and that people may experience benefits from participation in such communities.

As stated previously, Mathis and Cook (2013) found that although individuals' shyness was not associated with observable behaviors such as their religious service attendance or engagement in seeking social support from religious members, shyness was associated with the non-observable decreased expectation that others will be supportive

or dependable. Mathis and Cook offered two possible explanations for these findings that the proposed study will explore further.

First, it is possible that the importance of religiousness and of seeking religious support from others outweighs any possible discomfort experienced because of shyness. In other words, shy individuals who are religious may highly value their religiousness and/or may view religious settings as an important place to gain social support, distinctively more important than other types of social settings. Therefore, shy people may attend religious group meetings and seek support from individuals in religious contexts as much as non-shy people despite their discomfort. Pargament, Tyler, and Steele (1979) suggested that individuals who experience a sense of discomfort or who feel that they are on the periphery of their religious community may still attend religious group meeting as frequently as those who experience a sense of belonging. They introduced the concept of fit and conceptualized it as being comfortable and at home in a religious community, and they found negative associations between a decreased sense of fit and aspects of psychosocial well-being. The idea of a decreased sense of fit seems to be one possible way of conceptualizing how shy individuals may feel when attending and engaging in religious services. Although attending religious services, shy individuals may have difficulty or avoid sharing and identifying with others in their religious communities.

Religiousness may also serve as a buffer against the anxiety experienced by shy individuals that generally prevents them from seeking support. This would seem congruent with Wiltermuth and Heath's (2009) findings on the power of synchrony. That is, synchrony in religious ritual, which differs from other types of social interaction, may

help shy individuals feel more attached to other religious members even if it does not change the global beliefs that they have about themselves and their abilities to perform socially. Given that there are multiple ways of participating in a religious setting, it seems possible that shy individuals may be drawn to certain types of religious communities or worship styles.

Current Study

Mathis and Cook's (2013) study provided an initial examination of the association between shyness and religiousness. Their results suggest that shyness has a more varied and complex association with religiousness than might originally be anticipated. A major limitation in their study was the use of a relatively homogenous, college student population (i.e., mostly young, Caucasian, and Christian participants). Previous research examining religious coping and mental health has also suggested that students enrolled in large universities may have readily available peer groups who they may turn to rather than to their relationship with a god (Fabricatore, Handal, Rubio, & Gilner, 2004). It is plausible that the participants in Mathis and Cook's study would be more likely to acquire a peer group with whom to attend religious services than individuals who do not attend a university or college. Having access to such a peer group could potentially decrease the discomfort experienced as a result of shyness and thus nullify a predicted negative association between shyness and religious service attendance. The proposed study sought to utilize a more heterogeneous, community sample of Christian participants that was diverse in terms of age, ethnicity, education, geographic location, etc. Research has suggested that individuals' experiences of God may differ between college student samples and other samples that are more diverse in age, education level, and experience

(Hoffman et al., 2008). It was hoped that such a sample would address the above concerns regarding college students' readily available peer groups, but would also include diversity in experience with religion or the divine.

The following is a list of the research questions and hypotheses that were examined in the present study:

1. What are the relationships between shyness and individuals' relationships with a deity?
 - a. It was hypothesized that shyness would be negatively associated with how much support individuals expect from a god. In Mathis and Cook's (2013) study, highly shy participants reported a decreased expectation that others will provide support as compared to less shy participants. However, no difference in frequency of support seeking behavior was found despite this expectation. The present study hoped to extend the research examining shy individuals' expectations from religious community members by examining their expectations from a deity.
2. How are components of religiousness like strength of religiousness and god image involved in the association between shyness and satisfaction with life (i.e., a component of subjective well-being)?
 - a. It was hypothesized that shyness would be negatively associated with satisfaction with life. It was further hypothesized that an accepting god image would at least partially mediate this association, such that a negative association between shyness and accepting god images would partially account for the negative association between shyness and life

satisfaction. Shyness research has consistently found relationships between shyness and decreased subjective well-being (e.g., Eisenberg, Fabes, & Murphy, 1995), and Mathis and Cook (2013) found a negative association between shyness and accepting images of a deity. The present study further extended these research findings given the research discussed previously that has found associations between god image and satisfaction with life (e.g., Bradshaw et al., 2010).

- b. It was also hypothesized that religiousness would moderate the relationship between shyness and satisfaction with life such that increased religiousness would be associated with a less negative association between shyness and satisfaction. This idea is congruent with findings that religiousness moderates the relationship between social isolation and aspects of subjective well-being among older adults (Momtaz, Hamid, Ibrahim, Yahaya, & Chai, 2011). Although social isolation is typically negatively associated with well-being among older adults, Momtaz et al. found that religiousness significantly reduced the negative effect of social isolation on well-being within this population. Moreover, Johnson and Mullins (1989) found in a similar study with older adults that participation in social aspects of religion was negatively associated with loneliness more consistently than involvement in family and friendship relationships. Although Johnson and Mullins' research was conducted with older adults and based on a developmental theory of aging, it seems plausible that these findings could extend to shy individuals. People scoring high in

shyness often choose to withdraw from social interaction in an effort to avoid making negative impressions (Natale, Entin, & Jaffe, 1979), and a decrease in social isolation and anxiety among these individuals could be moderated by religiousness.

3. To what extent do highly shy individuals perceive a sense of fit in their religious communities compared to less shy individuals?
 - a. It was hypothesized that shyness would be negatively associated with a sense of fit within religious communities. The idea of a decreased sense of fit seems to be one possible way of conceptualizing how shy individuals may feel when attending and engaging in religious services. Although attending religious services, highly shy individuals may have difficulty or avoid sharing and identifying with others in their religious communities as compared to less shy individuals.
4. Are religious motivations associated with levels of religious service attendance among shy individuals?
 - a. Allport and Ross (1967) proposed that individuals possess different levels of religious motivations. They described those high in extrinsic religious motivation as individuals who utilize their religion for certain gains and those high in intrinsic religious motivation as individuals who seek religion as their most central motive in life (see Francis, 2007, for a review). It was hypothesized that the relationship between shyness and religious service attendance would vary for different levels of religious motivation. More specifically, a three-way interaction effect was

predicted among extrinsic religious motivation, intrinsic religious motivation, and shyness among participants such that the relationship between shyness and service attendance would be moderated by religious motivation. Specifically, for participants with low levels of both extrinsic and intrinsic religious motivation (i.e., among those who may not be religiously motivated for potential gains and whose central motive in life is not found in their religion), it was expected that shyness and religious service attendance would be negatively associated. For those with low levels of extrinsic religious motivation and high levels of intrinsic religious motivation (i.e., among those who may be religiously motivated for potential gains but whose central motive in life is not found in their religion), for those with high levels of extrinsic religious motivation and low levels of intrinsic religious motivation (i.e., among those who may not be religiously motivated for potential gains but whose central motive in life is found in their religion), and for those high in both extrinsic and intrinsic religious motivations (i.e., among those who may be religiously motivated for potential gains and whose central motive in life is found in their religion) a weaker association was expected between shyness and religious service attendance such that service attendance will be less impacted by levels of shyness. These religious motivations may help to shed light on the possibility that highly shy individuals continue to attend to religious services despite their anxiety because of the potential social gains from such a community and/or because of the importance that they

place on their religiousness.

5. Is shyness associated with religious experience preference?
 - a. It was hypothesized that shyness would be positively associated with preference for religious activities that are more group oriented and ritualistic in nature. Based on Wiltermuth and Heath's (2009) findings on the power of synchrony, it seemed plausible that shy individuals may utilize religious activities high in synchrony as a method for feeling connected with others. For example, shy individuals may favor activities such as group singing or worship, the ceremony of Christian communion, or structured group meditation.

CHAPTER II

METHOD

Participants

Data were collected from 557 adults from across the U.S. through Amazon's Mechanical Turk (MTurk), which is an online crowdsourcing marketplace. In an effort to use selected measures appropriately and to better generalize to the targeted population, only participants who self-identified with a Christian religious affiliation were recruited in the study. Responses from 14 participants who had more than 15% missing data on all measures were removed from the final data set; thus, the final sample used for analyses consisted of 543 participants (358 women; 183 men; 2 transgender). One participant with missing data for only the single item-item measure of fit was excluded from analyses using this item. For those participants with missing data below this percentage (i.e., 9 participants), a mean substitution technique was used on all items, except for demographic questions. That is, mean values for the completed responses on a given variable were used to replace any missing data for these participants (George & Mallery, 2010).

The age of participants in the sample ranged from 18 to 77 years, with a mean age of 36.6 years ($SD = 13.3$). Self-reported racial ethnic constitution of this samples was 75.5% Caucasian/White, 8.7% African American/Black, 6.4% Latino(a)/Hispanic, 4.4% Asian/Pacific Islander, 2.9% Multi-racial, 1.3% Native American/American Indian, and 0.4% Middle Eastern/Asian Indian (0.2% were unreported and 0.2% indicated "other"). In this sample, 92.3% of participants reported a heterosexual/straight sexual orientation,

5.2% reported a bisexual orientation, and 2.2% reported a gay/lesbian orientation (0.4% indicated “other”).

General Christian religious affiliations of participants were relatively evenly distributed with 37.8% reporting a Christian/Catholic orientation, 35.0% a Christian/Protestant orientation, and 27.3% a Christian/Other orientation (see Table 1 for descriptive information regarding participants’ religious denominations). Furthermore, the majority of the participants indicated that they were at least “somewhat” religious (77.0%) as well as at least “somewhat” spiritual (89.3%) (see Table 2).

Measures

Demographic questionnaire. In order to describe the sample, participants were asked to provide demographic information including age, gender, ethnicity, sexual orientation, social class, highest level of education completed, religious affiliation, strength of religious/spiritual identification (e.g., “How religious do you consider yourself?”), and religious involvement (see Appendix C). Specifically in order to measure frequency of religious service attendance, the item, “How often do you attend religious services?” was included and measured on a 9-point response scale including 1 (*Never*), 2 (*Less than once a year*), 3 (*About once or twice a year*), 4 (*Several times a year*), 5 (*About once a month*), 6 (*2-3 times a month*), 7 (*Nearly every week*), 8 (*Every week*), and 9 (*Several times a week*). Using the same response scale, the item, “Besides religious services, how often do you take part in other religious activities (e.g., religious study group, prayer group, mediation) with people?” was included. In order to measure satisfaction with religious service attendance, the item, “How satisfied are you with your current attendance at religious services?” was also included and measured on a 5-point

response scale ranging from 1 (*I would like to attend a lot less frequently*), through 3 (*I am attending just the right amount*), to 5 (*I would like to attend a lot more frequently*).

Religiousness. The Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccaccini, 1997a) is a 10-item scale that measures strength of religious belief (see Appendix D). Examples of items include, “My religious faith is extremely important to me.” and “My faith is an important part of who I am as a person.” Participants were asked to respond to each item using a 4-point Likert scale ranging from 1 (*Strongly disagree*) to 4 (*Strongly agree*). Responses to items were summed with higher scores indicating higher levels of religiousness.

In general, scores for this measure have been shown to have strong psychometric properties. Plante and Boccaccini (1997b) examined the reliability and validity of this scale’s scores in samples of undergraduate students, adult civic group members, and high school students. Evidence for internal consistency of scores among undergraduate students and adults was demonstrated by Cronbach’s alpha coefficients of .94 and .97 respectively. Strong evidence for convergent validity was also demonstrated by expected positive correlations with other measures of religiousness (for a review, see Plante & Boccaccini, 1997b). Other research using the Santa Clara Strength of Religious Faith Questionnaire has examined the factor structure of the scales scores and have found evidence suggesting a unifactorial structure (Freiheit, Sonstegard, Schmitt, & Vye, 2006).

Support expected from a God. The Religious Support Scale (RSS; Fiala, Bjorck, & Gorsuch, 2002) is a 21-item measure designed to assess religious support from three sources: god, congregation members, and church leaders (see Appendix E). The God Support subscale was included in the analyses of the proposed study. Examples of items

include, “I have worth in the eyes of God.” and “If something went wrong, God would give me assistance.” Participants will be asked to respond to each item using a 5-point Likert scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*). Both total and subscale scores can be calculated for this scale. Responses to items on this subscale were summed, with higher scores indicating higher levels of support.

Overall, scores for this measure of religious support have evidenced strong psychometric properties. Specifically, Fiala et al. (2002) examined the reliability and validity of RSS scale scores in a sample of adult church members. Reliability was demonstrated for the God Support subscale scores by Cronbach alpha coefficients of .75. Fiala et al. also found evidence for validity of RSS scores based on significant correlations between total religious support scores and measures of religious service attendance, life satisfaction, and depression, as predicted. Fiala et al. used a confirmatory factor analysis to demonstrate that the god, congregation members, and church leaders subscales are distinct constructs

God image. The god image Scales (GIS; Lawrence, 1997) is a shortened, 72-item version of the god image Inventory (GII; Lawrence, 1997); both were designed to assess how much individuals’ possess each of six possible images of god (see Appendix F). As recommended by Lawrence (1997) because of correlations previously found between several of the six scale scores, the shorter 36-item, 3-scale format was used. This version includes the Presence (i.e., “Is God there for me?”), Challenge (i.e., “Does God want me to grow?”), and, of primary relevance to our hypotheses, Acceptance (i.e., “Would God want to love me?”) subscales. A 4-point Likert scale ranging from 1 (*Strongly Disagree*) to 4 (*Strongly Agree*) is used to respond to statements.

Lawrence (1997) demonstrated reliability and validity evidence for GIS scores in a large sample of adults. Alpha coefficients for the Presence, Challenge, and Acceptance subscale scores ranged from .81 to .95., and the three subscale scores correlated highly ($r > .95$) with the corresponding subscales in the original GII measure. Lawrence (1997) found evidence for the validity of the GII scores by positive correlations between the Presence, Challenge, and Acceptance scale scores and measures of intrinsic religious orientation and religious service attendance, as expected.

Religious motivation. The New Indices of Religious Orientation (full form) (NIRO; Francis, 2007) is a 27-item scale designed to measure intrinsic, extrinsic, and quest religious orientations (see Appendix G). Both the intrinsic and extrinsic religious orientation subscales were used in the proposed study. Intrinsic orientation items include statements such as, “My religious beliefs really shape my whole approach to life.” Extrinsic orientation items include statements such as, “One reason for me going to church is that it helps to establish me in the community.” Participants were asked to respond to each item using a 5-point Likert scale ranging from 1 (*Strongly agree*) to 5 (*Strongly disagree*). The item scores were summed to form scale scores with higher scores for each orientation indicating higher levels of intrinsic or extrinsic religious motivation.

Francis (2007) examined the reliability, validity, and factor structure of NIRO scores in a large sample of college students. Evidence for reliability of intrinsic and extrinsic orientation scale scores was demonstrated by Cronbach’s alpha coefficients of .91 and .84 respectively. Validity was demonstrated by significant correlations, as expected, between NIRO scores and other measures of religiousness (e.g., self-assigned

religiosity, religious service attendance, and prayer frequency). Francis also used an exploratory factor analysis of NIRO item scores and found that intrinsic, extrinsic, and quest orientations are distinct constructs.

Fit in religious communities. A single item derived from Pargament et al.'s (1979) work examining fit and function within a religious community was one method used to assess fit in the present study. Specifically, the following prompt and item was included: "We all differ according to our general interests, attitudes, beliefs, and values. Your religious group (e.g., church or synagogue), in turn, has its own unique identity as demonstrated through its religious, educational, organizational, and social activities. Religious group members may differ somewhat according to how well they, as individuals, fit in their religious group. How well do you feel that you fit in your religious group?" Participants were asked to respond this item using a sliding scale ranging from 1 (*Fit extremely well*) to 100 (*Do not fit at all*). No psychometric data are available for this measure.

The Social Provisions Scale (SPS; Cutrona & Russell, 1987) is a 24-item self-report measure of social support (see appendix H). The scale contains six subscales that each represent a provision of social relationships included in Weiss's (1974) model. These subscales include guidance, reliable alliance, reassurance or worth, attachment, social integration, and opportunity for nurturance. The social integration subscale, which reflects a measure of individuals' sense of belonging, was used as a second measure of fit in religious communities. Examples of items on this subscale include: "There are people who enjoy the same social activities I do." and "I feel part of a group of people who share my attitudes and beliefs." A 4-point scale ranging from 1 (*Strongly disagree*) to 4

(*Strongly agree*) is used to respond to each item. For the present study, responses to items were summed for scale scores ranging from 24 to 96 (midpoint = 60) with higher scores indicating higher levels of social integration. To prompt participants to consider their religious communities when answering items on this measure, the instructions of the original measure will be modified. Rather than instructing participants to “think about current relationships with friends, family, co-works, community members, and so on,” they will be instructed to “think about members of your religious community.”

Cutrona and Russell (1987) examined the reliability, validity, and factor structure of SPS scores using samples of public school teachers, university students, and nurses. Evidence for reliability was demonstrated for subscale scores by coefficient alphas ranging from .65 to .76. Convergent validity was demonstrated by significant correlations, as expected, between SPS scores and other measures of social support (e.g., satisfaction with support and attitudes toward support). In addition to an acceptable overall internal consistency of scale scores, Cutrona and Russell also found the proposed six factor model fit well with SPS scores using a confirmatory factor analysis. Because of high correlations between factors, Cutrona and Russell conducted a confirmatory factor analysis that included the six provisions as first-order factors along with a single second-order factor. Because this model was found to provide a good fit to the data, they concluded that the SPS assesses both specific components of social support in addition to overall support.

Religious Spontaneity. Specifically in order to measure religious spontaneity preference, the item, “What do you look for when deciding where to attend religious services?” was included. Participants responded using a 5-point response scale including

1 (*Services consisting of primarily structured participation*), 2 (*Services consisting of a lot of structured participation*), 3 (*Services consisting of a moderate amount of both structured and spontaneous participation*), 4 (*Services consisting of a lot of spontaneous participation*), and 5 (*Services consisting of primarily spontaneous participation*). Prior to responding to the item, participants were given the following prompt, “Individuals differ in the qualities they look for in their religious communities and often have different worship style and religious service preferences. For example, some people prefer more unified, structured religious experiences that involve little to no spontaneous participation (e.g., traditional sermons, communion, or group meditation) whereas others prefer more improvised, interactive worship styles (e.g., spontaneous call and response, glossolalia/speaking in tongues, or informal group study).” No psychometric data are available for this measure. However, since no measure of religious spontaneity preference that fits the needs of this study has been developed, the present study included this item.

Shyness. The Revised Cheek and Buss Shyness Scale (RCBS; Cheek, 1983) is a 13-item scale designed to measure shyness (see Appendix I). Examples of items include, “I feel tense when I’m with people I don’t know well.” and “When in a group of people, I have trouble thinking of the right things to talk about.” Participants were asked to respond to each item using a 5-point response scale ranging from 1 (*Very uncharacteristic*) to 5 (*Very characteristic*). Responses to items were summed with higher scores indicating higher levels of shyness.

Scores for this measure of shyness have evidenced strong psychometric properties. Specifically, Hopko, Stowell, Jones, Armento, and Cheek (2005) examined

the reliability and validity of RCBS scores in a sample of college students. Strong evidence for reliability was demonstrated by a Cronbach's alpha coefficient of .86 and 2-week test-retest correlation of .88. Strong evidence for convergent validity was demonstrated by expected positive correlations with other shyness measures and social anxiety measures (for a review, see Hopko et al.). Hopko et al. also noted that future research is needed to explore the scale items' factor structure. Specifically, they found that although a confirmatory factor analysis supported the unifactorial nature of this scale (which will be used in the proposed study), an exploratory factor analysis indicated a possible three-factor model that appears to be congruent with some theories on shyness.

Subjective well-being. The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) is a 5-item scale designed to measure individuals' overall judgments of satisfaction with life and was used as a measure of well-being (see Appendix J). Examples of items include, "In most ways my life is close to my ideal." and "I am satisfied with my life." Participants were asked to respond to items using a 7-point Likert scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*). Responses to items were summed with higher scores indicating higher levels of satisfaction.

Diener et al. (1985) found that scores for this measure have been shown to have sufficient psychometric properties in samples of undergraduate students. Reliability was demonstrated in their sample by a Cronbach's alpha coefficient of .82 and 2-month test-retest correlation of .82. Validity was also demonstrated by expected positive correlations with other subjective well-being measures (for a review, see Diener et al., 1985).

Procedure

A cross-sectional correlational survey design was used to explore the association between shyness and religiousness. Data was collected in a single session, and all data collection procedures were in accordance with the American Psychological Association's Ethical Principles and Codes of Conduct (APA, 2010). For the present study, participants were recruited through MTurk, and data collected through this medium has been shown to be diverse and of good quality (Mason & Suri, 2012). Access to the study's questionnaire was restricted to respondents who were U.S. residents over the age of 18. Potential participants were provided with an information page before accessing and completing the survey (see Appendix B). In an effort to sample from the targeted population of religious adults, the message explicitly stated that the researchers were interested in responses from adults identifying as Christian and that participants would need to answer a screening question regarding their current religious affiliation before proceeding with the full survey. The study took approximately 15 to 30 minutes to complete, and participants were paid \$0.15 for their participation.

After agreeing to participate and completing the screening question, participants completed measures for all primary variables. To avoid sequence and order effects, these measures were counterbalanced. Participants then completed the demographic questionnaire. Once participants complete the survey, they were given more specific information about the study (see Appendix K).

Table 1

Reported Religious Denominations

Denomination	<i>n</i>	%
Adventist	3	.6
Apostolic	2	.4
Assemblies of God	13	2.4
Baptist	63	11.6
Catholic	142	26.2
Churches of Christ	14	2.6
Christian Scientist	6	1.1
Congregational/United	2	.4
Episcopalian/Anglican	7	1.3
Evangelical Free Church	9	1.7
Jehovah's Witnesses	7	1.3
Jewish	1	.2
Latter-day Saints/Mormon	12	2.2
Lutheran	19	3.5
Methodist	38	7.0
Nazarene	4	.7
Non-denominational Christian	77	14.2
Pentecostal/Charismatic	11	2.0
Presbyterian	13	2.4
Quaker, Friends	3	.6

Table 1 (continued)

Denomination	<i>n</i>	%
Spiritualist	8	1.5
Unity	3	.6
None of these	26	4.8
Unreported	58	10.7
Total	543	100

Table 2

Reported Demographic Religiousness and Spirituality Levels

Reported Religiousness Level	<i>n</i>	%
Extremely	67	12.3
Very	177	32.6
Somewhat	174	32.0
A little	95	17.5
Not at all	30	5.5
Total	543	100.0
Reported Spirituality Level	<i>n</i>	%
Extremely	131	24.1
Very	229	42.2
Somewhat	125	23.0
A little	49	9.0
Not at all	9	1.7
Total	543	100

CHAPTER III

RESULTS

Preliminary Analyses

Descriptive Information. Means, standard deviations, and Cronbach's alpha coefficients are presented for all primary variables in Table 3. Prior to any statistical analyses, the primary variables were screened to ensure that they met assumptions appropriate for each statistical procedure. More specifically, skewness and kurtosis were examined for the sample to ensure that they were within acceptable limits to be used in hypothesis-testing analyses (i.e., between +/- 2; George & Mallery, 2010). Outliers that were more than 1.5 times the interquartile range away from the median were identified and examined to determine if these were possible errors (George & Mallery, 2010). As no outliers were "extreme" or determined to be clear errors, no data points were removed from analysis (Cohen, Cohen, West, & Aiken, 2003). Lastly, unless otherwise stated, a *p* value of at least .05 will be used to indicate statistical significance.

The descriptive statistics for the participants in the current study can also be utilized to describe the overall characteristics for the sample. Regarding shyness, it appears that participants generally felt neutral when judging the extent to which shyness was characteristic or uncharacteristic of their feelings and behaviors. Moreover, they generally reported being "slightly satisfied" with life. The average scores on the service attendance items suggest that participants in the present study generally reported attending religious services a little more than once a month and that they would have liked to attend services at least somewhat more frequently. It also appears that the majority of participants indicated attending religious services with at least one other

person (78.6%) and praying multiple times a week. Moreover, participants in this sample generally reported a sense of belonging or fit within their religious communities. The average scores on the GIS scales suggest that participants in the current study generally perceived their god as accepting and felt supported by the deity. Finally, participants generally agreed that intrinsic religious motivations were characteristic of their feelings and behaviors, and slightly agreed that extrinsic religious motivations were characteristic of them.

Primary Analyses

Research question one. A bivariate correlation was calculated to examine the hypothesis that shyness is negatively associated with expected support (see Table 4). This hypothesis was supported, suggesting that expectations that a deity will be supportive decrease as shyness levels increase.

Research question two. A hierarchical multiple regression analysis was conducted to examine the possible mediating effect of accepting god image on the relationship between shyness and satisfaction with life (see Table 5). A regression analysis using shyness scores, satisfaction with life scores, and god image scores was conducted in three steps as recommended by Frazier, Tix, and Barron (2004). In the first step, a significant relationship must be established between the predictor variable (shyness scores) and the mediator variable (accepting god image scores). In the second step, a significant relationship must be established between the predictor variable (shyness scores) and the outcome variable (satisfaction with life scores). Finally, in the third step, a significant relationship must be established between the mediator variable (accepting god image scores) and the outcome variable (satisfaction with life scores)

when accounting for the relationship between the predictor (shyness scores) and the outcome variable (satisfaction with life scores).

Results indicated support for the negative relationship between shyness and god image scores (first step) and the negative relationship between shyness scores and satisfaction with life scores (second step). Additionally, results indicated that the significant relationship between god image scores and satisfaction with life scores remained significant when including shyness scores in the regression equation (third step). An online calculator of the Sobel test (Preacher & Leonardelli, 2001) was used to determine if the association between shyness scores and satisfaction with life scores significantly decreased when including god image scores as a predictor. Results of the Sobel test indicated that the decrease was significant ($z = -4.92, p < .001$). Thus, the research hypothesis that god image at least partially mediates the relationship between shyness and satisfaction with life was confirmed.

Hierarchical multiple regression was also used to examine whether the association between shyness and satisfaction with life as moderated by religiousness (see Table 6). This analysis was also conducted as recommended by Frazier et al. (2004). First, variables were centered and product terms were created to represent each interaction between predictor and moderator. The centered predictor variable (i.e., shyness scores) and centered moderator variable (i.e., religiousness scores) were entered into the first step of the regression, and the product term was entered in the second step.

The unstandardized regression coefficients for shyness and religiousness in the first step of the regression were significant, indicating support for a negative relationship between shyness and satisfaction with life as well as a positive association between

religiousness and satisfaction with life. However, the F statistic representing the increase in the proportion of variance accounted for by the interaction term in the second step of the regression as well as the unstandardized regression coefficient for the interaction term were not significant, suggesting that the product term did not significantly increase the variance of the criterion variable (i.e., satisfaction with life scores) when added to the regression, $\Delta R^2 = .00$, $F(1, 539) = 20.45$, $p = .79$. That is, counter to what was hypothesized, it does not appear that religiousness acts a moderator in the association between shyness and satisfaction with life.

Research question three. Bivariate correlations were calculated to examine the hypothesis that shyness is negatively associated with perceived fit, including both the single fit item and the SPS social integration subscale (see Table 4). Significant negative correlations were found for both analyses, which confirms the hypothesis and suggests that increases in shyness are associated with decreases in perceived sense of fit in religious communities.

Research question four. A hierarchical multiple regression was then used to analyze the three-way interaction between shyness, religious service attendance, and religious motivation (see Table 7). First, variables were centered and product terms were created to represent each interaction between predictor and moderators. The centered predictor variable (i.e., shyness scores) and centered moderator variables (i.e., extrinsic and intrinsic scores) were entered into the first step of the regression, the two-way product terms were entered in the second step (i.e., shyness X extrinsic, shyness X intrinsic, and extrinsic X intrinsic scores), and the three-way product term was entered in the third step (i.e., extrinsic X intrinsic X shyness scores).

The F statistic representing the increase in the proportion of variance accounted for by the final interaction term in the third step of the regression (i.e., extrinsic X intrinsic X shyness scores) was not significant, suggesting that it did not significantly increase the variance of the criterion variable (i.e., religious service attendance) when added to the regression, $\Delta R^2 = .00$, $F(1, 535) = 52.28$, $p = .56$. That is, counter to what was hypothesized, a three-way interaction effect was not indicated in the present sample for the relationship among shyness, two types of religious motivation, and service attendance. However, the F statistic representing the increase in the proportion of variance accounted for by the shyness and intrinsic religious motivation interaction term in the second step of the regression as well as the unstandardized regression coefficient for this interaction term were significant. This indicates a moderating effect. Therefore, an exploratory analysis was conducted to further examine this two-way interaction.

As recommended by Frazier et al. (2004), an exploratory hierarchical multiple regression was used to examine the association between shyness and religious service attendance as moderated by intrinsic religiousness (see Table 8). Results indicate that the interaction term between shyness and intrinsic religious motivation scores explained a significant amount of variance in the criterion variable (i.e., service attendance), $\Delta R^2 = .01$, $F(1, 539) = 8.45$, $p = .004$. Figure 1 and examination of simple slope statistics illustrate this moderation effect, which indicates shyness is not a significant predictor of religious service attendance for participants endorsing average to somewhat low levels of intrinsic religiousness, but shyness is a significant predictor of attendance for participants endorsing both high levels and lower levels of intrinsic religiousness. More specifically, it seems that at higher than average levels of intrinsic religiousness, increases in shyness

are associated with decreases in service attendance, 3 SD above mean: $B = -.08$, $SE = .03$, $p < .01$; 2 SD above mean: $B = -.05$, $SE = .02$, $p < .01$; 1 SD above mean: $B = -.03$, $SE = .01$, $p < .01$. At average and somewhat low levels of intrinsic religiousness, shyness was not associated with services attendance, mean: $B = -.01$, $SE = .01$, $p > .05$; 1 SD below mean: $B = .02$, $SE = .01$, $p > .05$. At lower levels of intrinsic religiousness, increases in shyness were associated with increases in services attendance, 2 SD below mean: $B = .04$, $SE = .02$, $p < .05$; 3 SD below mean: $B = .06$, $SE = .03$, $p < .05$. When examining average scores of service attendance among those high in intrinsic religious motivation (i.e., those scoring at least 1 standard deviation above the mean for intrinsic religiousness), attendance was between 2-3 times a month and nearly every week.

Research question five. An independent-samples t-test was run to examine whether there were differences in religious spontaneity preference between those reporting a Christian/Catholic religious affiliation and those reporting a Christian/Protestant affiliation to check for a possible confounding association. There was no significant affiliation differences between Catholic and Protestant participants on the religious spontaneity preference items, $M = 0.13$, 95% CI [-0.47, 0.20], $t(393) = -0.78$, $p = .44$. A bivariate correlation was then calculated to examine the hypothesis that shyness is negatively associated with religious spontaneity preference (see Table 4). This hypothesis was not supported. Specifically, the results did not indicate a significant correlation between these two variables, suggesting the shyness may be unrelated to preference for more or less structured religious services.

Ancillary Analyses

To further analyze the relationships between shyness, religious community fit, religious service attendance, and participation in other religious activities, exploratory analyses were conducted. For the following analyses, a more stringent statistical significant level of $p < .01$ was used to indicate statistical significance for bivariate correlations in an effort to address the increased likelihood for Type 1 error.

In order to examine if other religious activity participation is associated with shyness in a similar way to the negative relationship between shyness and religious service attendance, bivariate correlations were calculated to examine the associations between shyness and participation frequency in religious activities besides religious services and prayer frequency. Additionally, in order to further understand how shyness may impact not only frequency of attendance, but also judgments on whether individuals would like to attend services more or less frequently, a bivariate correlation was calculated to examine the association between shyness and satisfaction with current religious service attendance (see Table 9). Similar to the expected negative association between shyness and religious service attendance, the results indicated significant correlations between shyness and participation frequency in other religious activities besides religious services as well as between shyness and prayer frequency. The results did not indicate a significant correlation between shyness and satisfaction with current religious service attendance. These results suggest that although increases in shyness are associated with decreases in religious activity participation and prayer frequency, shyness seems to be unrelated to individuals' reported preferences to increase or decrease their current service attendance.

Finally, in an effort to identify possible mechanisms underlying the negative relationship between shyness and service attendance, sense of fit was examined to clarify the nature of this relationship. Therefore, a hierarchical multiple regression analysis was conducted to examine the possible mediating effect of perceived sense of fit on the relationship between shyness and religious service attendance (see Table 10). A regression analysis using shyness scores, religious community fit scores, and religious service attendance scores was conducted in three steps as recommended by Frazier et al. (2004) and as described in previous analyses.

Results indicated support for the negative relationship between shyness and religious community fit scores (first step) and the negative relationship between shyness scores and religious service attendance scores (second step). Additionally, results indicated that the significant relationship between religious community fit scores and service attendance scores remained significant when including shyness scores in the regression equation (third step). Results of the Sobel test indicated that the decrease was significant ($z = -5.01, p < .001$). Thus, the exploratory hypothesis that religious community fit at least partially mediates the relationship between shyness and service attendance was supported.

Table 3

Descriptive Information for Primary Variables

Scale	<i>M</i>	<i>SD</i>	<i>α</i>
Strength of Religiousness	31.59	6.94	.95
God Support	29.03	5.72	.93
Acceptance God Image	38.46	7.20	.91
Intrinsic Religiousness	37.62	10.07	.87
Extrinsic Religiousness	30.51	7.95	.72
Social Integration	12.43	2.31	.79
Religious Community Fit	63.43	28.76	–
Religious Spontaneity	3.00	1.70	–
Shyness	38.17	10.49	.91
Life Satisfaction	22.34	7.42	.90

Note: N = 543

Table 4

Correlations Between Primary Variables

Variables	Shyness	Life Satisfaction	Religious Service Attendance
Strength of Religiousness	-.17**	.23**	.52**
God Support	-.21**	.23**	.35**
Acceptance God Image	-.31**	.33**	.22**
Intrinsic Religiousness	-.14**	.24**	.61**
Extrinsic Religiousness	.14**	.06	-.20**
Social integration	-.27**	.26**	.27**
Religious Community Fit	-.23**	.24**	.56**
Religious Spontaneity	.005	-.05	-.45**
Shyness	-	-.25**	-.11**
Life Satisfaction	-	-	.17**

Note: $N = 543$

* $p < .05$, ** $p < .01$

Table 5

Testing God Image as a Mediator of the Association Between Shyness and Satisfaction with Life

Step and Variable	B	SE B	β
Step 1			
Mediator: Acceptance god image			
Predictor: Shyness	-.21	.03	-.31**
Step 2			
Outcome: Satisfaction with life			
Predictor: Shyness	-.18	.03	-.25**
Step 3			
Outcome: Satisfaction with life			
Mediator: Acceptance god image	.28	.04	.27**
Predictor: Shyness	-.12	.03	-.17**

Note: $N = 543$

* $p < .05$, ** $p < .01$

Table 6

Testing Religiousness as a Moderator of the Association Between Shyness and Satisfaction with Life

Step and Variable	<i>B</i>	<i>SE B</i>	95% CI	β	R^2
Step 1					
Shyness	-.16	.03	-0.21, -0.10	-.22**	
Religiousness	.21	.04	0.12, 0.30	.20**	.10**
Step 2					
Shyness X Religiousness	.001	.004	-0.01, 0.01	.10	.10

Note: $N = 543$

* $p < .05$, ** $p < .01$

Table 7

Testing Religious Motivations as Moderators of the Association Between Shyness and Religious Service Attendance

Step and Variable	<i>B</i>	<i>SE B</i>	95% CI	β	<i>R</i> ²
Step 1					
Shyness	-.003	.01	-0.02, 0.10	-.01	
Extrinsic Religiousness	-.04	.01	-0.6, -0.01	-.11**	
Intrinsic Religiousness	.15	.01	0.13, 0.17	.60**	.39
Step 2					
Shyness X Extrinsic	-.002	.001	-0.004, 0.0003	-.06	
Shyness X Intrinsic	-.002	.001	-0.004, -0.001	-.10**	
Extrinsic X Intrinsic	-.002	.001	-0.01, -0.0002	-.08	.41
Step 3					
Shyness X Extrinsic X Intrinsic	-.00006	.0001	-0.0003, 0.0001	-.02	.41

Note: *N* = 543

* *p* < .05, ** *p* < .01

Table 8

Testing Intrinsic Religious Motivation as a Moderator of the Association Between Shyness and Religious Services Attendance

Step and Variable	<i>B</i>	<i>SE B</i>	95% CI	β	R^2
Step 1					
Shyness	-.01	.01	-0.02, 0.01	-.03	
Intrinsic Religiousness	.15	.01	0.14, 0.17	.61**	.38**
Step 2					
Shyness X Intrinsic	-.002	.001	-0.004, -0.001	-.10**	.39**

Note: $N = 543$ * $p < .05$, ** $p < .01$

Table 9

Ancillary Correlation Analyses

Variables	Shyness
Other Religious Activity Attendance	-.17*
Religious Service Attendance Satisfaction	.01
Prayer Frequency	-.20*

Note: $N = 543$

* $p < .01$

Table 10

Testing Religious Community Fit as a Mediator of the Association Between Shyness and Religious Service Attendance

Step and Variable	B	SE B	β
Step 1			
Mediator: Religious Community Fit			
Predictor: Shyness	-.63	.12	-.23**
Step 2			
Outcome: Service Attendance			
Predictor: Shyness	-.03	.01	-.11**
Step 3			
Outcome: Service Attendance			
Mediator: Religious Community Fit	.05	.003	.56**
Predictor: Shyness	.004	.01	.02

Note: $N = 543$ * $p < .05$, ** $p < .01$

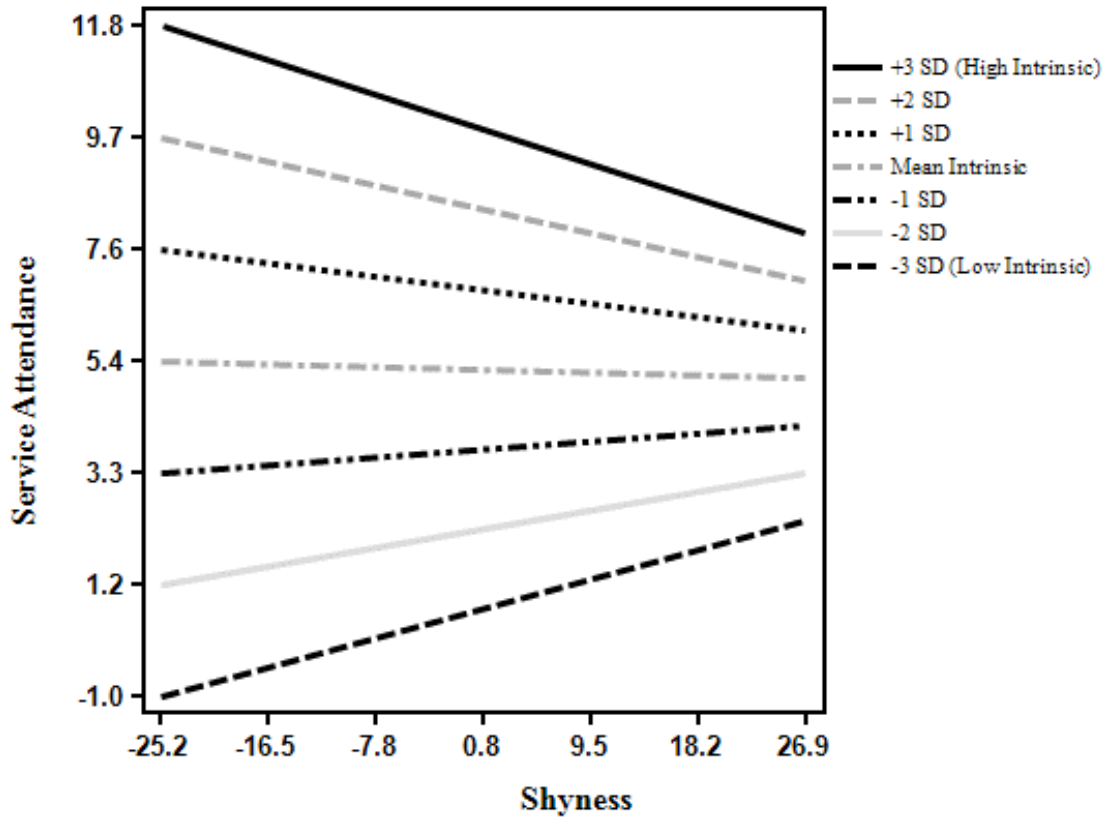


Figure 1. The Interaction of Shyness and Intrinsic Religiousness Predicting Religious Service Attendance

CHAPTER IV

DISCUSSION

The present study examined the various associations that shyness may have with different aspects of individuals' religiousness, including religious service attendance and spontaneity preference, accepting god image, support expected from a deity, perceived fit in religious communities, and both intrinsic and extrinsic religious motivation.

Participants in the present study self-identified as Christian, and the measures used in this study predominantly reflected a Judeo-Christian perspective on religiousness as well as a Western perspective on shyness. Therefore, the following discussion should be understood as existing within this context.

The results from this research support previous findings of a significant negative relationship between shyness and support expected from a deity. Results also affirm the negative relationship between shyness and satisfaction with life, while also suggesting the previously unrecognized relationship for how accepting god image may mediate this relationship. Moreover, results indicated a significant negative relationship between shyness and perceived fit in religious communities and a negative relationship between shyness and religious service attendance. Results further indicated that intrinsic religious motivation moderates the relationship between shyness and religious service attendance. However, counter to hypotheses, results did not indicate that religiousness acts a moderator in the negative association between shyness and satisfaction with life and did not support the negative relationship between shyness and religious synchrony preference. Finally, exploratory analyses found that religious community fit mediates the relationship between shyness and religious service attendance.

Individuals' Relationships with a Deity

The first research question in this study focused on the relationship between shyness and individuals' relationships with their god. As hypothesized, shyness was negatively associated with how much support individuals expected from a deity. This finding is congruent with previous research and suggests that high levels of shyness are associated with low levels of support expected from their god. Shy individuals tend to deflect attention away from themselves in an effort to avoid social disapproval (Jackson & Ebnet, 2006), often despite a desire for social interaction and relationships (Zimbardo, 1977). Although social interaction and support can be beneficial in a variety of contexts, previous research suggests that self-consciousness and an increased preoccupation with social rejection play a role in hindering shy people from feeling supported by others (Jackson, Fritch, Nagasaka, & Pope, 2002). Results from the present study seem to suggest that this pattern of not feeling supported by others extends to relationships with a deity. This finding largely supports the idea that relationships that individuals have with their god may mirror the relationships they have with others, which will be explored further below.

Religiousness and Satisfaction with Life

The second research question in this study focused on exploring how shyness may be associated with satisfaction with life (i.e., a component of subjective well-being), and how aspects of religiousness might be associated with the relationship between these variables. As predicted and congruent with previous research (e.g., Eisenberg, Fabes, & Murphy, 1995), a significant negative relationship between shyness and satisfaction with life was found. Moreover, the present study further suggests that god image may help to

mediate or explain the negative relationship between shyness and satisfaction with life. Unexpectedly, the prediction that general strength of religiousness would moderate the relationship between shyness and decreased satisfaction was not supported.

The finding regarding shyness and god image suggests that shyness is related to the perceptions that individuals have of their deity, and it further supports the idea that individuals' relationships with their deity impacts the judgments they make about the quality of their lives. That is, it seems that understanding god image is effective for discovering how or in what ways religiousness may function in individuals' lives. The present study supports the negative association between shyness and accepting god images, and it would be interesting to more fully examine a model for how shyness might be involved in the formation of this type of imagery of the divine given how god image mediates the negative relationship between shyness and satisfaction with life.

It seems possible that the relationships that people form with their god mirrors the relationships they form with others rather than acting as a redeeming relationship. Research has found that early interpersonal relationships and the ability to maintain relationships with important others may be associated with how individuals orient themselves to their god (Piedmont, Ciarrochi, & Williams, 2002). It would be interesting to examine more deeply how people's patterns of interacting with the divine are developed. For example, shyness may be related to more global attachment or relationship styles, which in turn impact religious and spiritual development. Kirkpatrick (1992), an attachment theorist, has suggested various hypotheses regarding how god image and attachments to the divine develop, including correspondence and compensatory hypotheses. The correspondence hypothesis suggests that individuals form

attachments with the divine that are congruent with the attachments they have formed with other attachment figures. In this way, those with secure attachments with others will similarly experience their god as stable and caring, whereas those with more insecure attachments will tend to also experience their god as unreliable and uncaring.

Conversely, the compensatory hypothesis suggests that when attachment figures fail to provide a sense of security, those who are insecurely attached will perceive the divine as a way to obtain a sense of secure attachment. Given that shy individuals experience difficulty in their relationships, it is possible that their relationship histories may be predictive of their perception of, and engagement with, a higher power and thus be useful for further investigating the relationship between shyness and life satisfaction.

It was also proposed in the present study that strength of religiousness would moderate or act as a buffer for these effects such that higher levels of religiousness would significantly reduce the negative effect of shyness on subjective well-being. Despite the large amount of research espousing the benefits and positive nature of religiousness, it seems that religiousness may not globally reduce the impact that shyness can have in people's lives in the way that it was suggested in the present study. It is also possible that, in comparison to god image, such a general assessment of subjective religiousness like that used in the present study failed to capture how religiousness operates in individuals' lives in a way that would be useful for predicting outcomes. Research in the area of religion and attachment may help to shed light on these results.

Researchers have compared the divine to an attachment figure and have examined how attachment and god image are related to mental health outcomes (e.g., Bradshaw et al., 2010; Kirkpatrick & Shaver, 1990). It seems that those who report closer

relationships to the divine that are reflective of secure attachments experience a number of benefits such as less depression and loneliness as well as greater psychosocial competence as compared to those reporting anxious or inconsistent attachments to their god (Kirkpatrick & Shaver, 1992; Kirkpatrick, Shillito, & Kellas, 1993). Bradshaw et al. specifically examined two models linking styles of attachment, perceptions of the divine, and psychological distress – a direct effects model and a moderating (i.e., buffering) effects model. As described in the introduction of the present investigation, they found that people’s relationship with their god impacted well-being and more strongly predicted well-being than general religious practices. They found little evidence that attachment indirectly buffered the effects of stressful events on distress. Research regarding the associations between general aspects of religiousness and health has generally been inconsistent, and researchers like Pargament (1997) have proposed that these inconsistencies are due to the inclusion of too broad or vague constructs. He suggests that examining specific aspects of religiousness like god image or religious coping will result in more consistent and predictable relationships because different aspects of religiousness can vary in workability and helpfulness. The difference between god image and strength of religiousness as constructs as well as the results of the present study seem to support these findings. It appears that specific aspects of religiousness like god image can serve to provide a more focused example of how religiousness may operate in people’s lives.

Further research is necessary in this area for a full conceptualization of how affiliation with a god may be associated with mental health outcomes. However, it seems warranted to suggest that practitioners and researchers include god image and/or assess

variables that inform how religiousness operates in individuals lives when exploring mental health outcomes given the predictive nature that these variables may have for subjective well-being. Just as important relationships, like intimate partner relationships and caregiver-child relationships, can have meaningful implications on the health of individuals, a positive or negative relationship with the divine can associated with support or distress experienced in people's lives. It would also be valuable to include shyness and other individual variables in a larger model to better understand how variables like god image are developed. For example, although the present study provides a general picture of how individuals' larger relationship patterns may correspond with the internal model that they have of the divine, it would be interesting to examine if god image changes or operates differently when explicitly under distress.

Shyness, Perceived Sense of Fit, and Religious Service Attendance

The third research question in the present study examined the hypothesis that shy individuals would experience a decreased sense of fit within their religious communities as compared to less shy individuals. Significant negative correlations between shyness and measures of perceived fit confirmed this hypothesis, suggesting that highly shy individuals may experience difficulty engaging within their religious communities. The present study similarly found a general negative associated between shyness and religious service attendance, and it seems plausible that lack of fit may help to explain this association.

Mathis and Cook (2013) did not find support for the expected relationship between shyness and decreased religious service attendance, and they explained this by suggesting that individuals may find comfort in the relative consistency of worship

service patterns or religious traditions in which congregations typically engage. They conversely noted another possibility that their college student sample may have limited the generalizability of their results. They suggested that students enrolled in large universities may have readily available peer groups who they may turn to rather than to their relationship with God (Fabricatore, Handal, Rubio, & Gilner, 2004) and that it was plausible that the participants in their study would be more likely to acquire a peer group with whom to attend religious services than individuals who do not attend a university or college. The significant negative association between shyness and religious service attendance found in the present study despite the majority of participants indicating that they attended religious services with at least one other person (78.5%) suggests shy individuals' religious service attendance may be more complex than originally anticipated. Interestingly, religious motivations in addition to perceived sense of fit as explored in the present study may help to further distinguish these relationships.

More specifically, the fourth research question in the present study examined the relationship between shyness and service attendance using religious motivations. Specifically, although the three-way interaction between shyness, religious motivations, and attendance was not supported, the present study did find that intrinsic religious motivation specifically moderated the relationship between shyness and religious service attendance. The results suggest that regardless of level of shyness, it appears that intrinsic religiousness is a strong predictor of service attendance. However, the present study found that the association between shyness and service attendance varied at different levels of intrinsic religious motivation. That is, for those high in intrinsic religiousness, shyness was negatively associated with service attendance, whereas

shyness was not a significant predictor of service attendance for those around average levels of intrinsic religiousness. Surprisingly, for those much lower than average in intrinsic religiousness, shyness was positively associated with service attendance. It seems that for particularly those whose religiousness reflects a central tenet in their lives and who may desire participating within a religious community, shyness unfortunately served as a barrier for engaging in religious services.

Interestingly, shyness in the present study was not related to satisfaction with religious service attendance, which was further examined in ancillary analyses. Satisfaction with service attendance was conceptualized as participant's sense that they are attending religious service the "right amount," whereas dissatisfaction was conceptualized as a sense of wanting to attend more or less frequently. The finding of the present study suggests that people's reports of wanting to increase or decrease the frequency of their service attendance may be unrelated to their level of shyness. Furthermore, it was found that perceived sense of fit in religious communities helps to explain (i.e., mediates) the negative association between shyness and service attendance. It seems that highly shy individuals, attend religious services less frequently than their counterparts because of a sense that they do not or cannot fit in such a social community. Level of satisfaction may then reflect an expectation that shy people cannot change or influence their service attendance. It is similarly plausible that participants in this study, particularly those low in intrinsic religious motivation, were simply unconcerned with their service attendance. It would be interesting for future research to examine shy people's desires for participating in relationship communities and how hopeful they are about being able to feel a sense of belonging or fit within such communities.

Although shyness and religious service attendance was negatively associated among individuals high in intrinsic religious motivation, it is important to note that attendance was still relatively high among these individuals (i.e., between 2-3 times a month and nearly every week). It would appear that although individuals' shyness was not associated with a drastic difference in their service attendance, shyness was still manifested in the decreased sense of fit reported by shy people within their religious communities. Again, this seems congruent with previous findings that shy people seek support from individuals in religious contexts as much as non-shy people despite the decreased anticipation that they will actually receive support (Mathis & Cook, 2013). It would be interesting for future research to examine the intersections between shyness, perceived sense of fit, as well as anticipated and actual support received within religious settings. It would perhaps be much easier for practitioners or religious community leaders to identify shy people who desire support in religious communities if their attendance or behaviors were vastly different from non-shy people. However, although present in religious communities, shy individuals may remain hidden on the "fringes of social interaction" in the same ways that they deflect attention away from themselves in other settings (Jackson & Ebnet, 2006, p. 3).

It would seem that this discussion may also have meaningful implications for the previously discussed findings regarding individuals' relationships with their deity. It may also be valuable to extend this line of research to include examining the outcome of individuals' interactions with a deity beyond the image that they have of that deity. Although highly shy religious individuals in the present study may perceive their god as less accepting than those lower in shyness, they may still interact with their god just as

they continue to attend religious services despite a decreased sense of fit. This may be particularly true for highly religiously motivated individuals who, as found above, may experience shyness as a barrier. Similar to how high shy individuals experience poorer quality relationships with others compared to low shy individuals in other relationships (Nelson et al., 2008), high shy individuals' relationships with a god may be similarly adversely affected. Despite no evidence for religiousness as a moderator between shyness and satisfaction with life, it is again perhaps valuable for future research to include more specific measures of religiousness that indicate how aspects of individuals' religiousness operates in their lives. Constructs such as prayer, for example, may shed light on the possibility that people use religion to cope. People often use prayer to cope with concerns or distress (Pargament, 1997a), and this type of religious coping can have both positive and negative associations with health (Bradshaw, Elison, & Flannelly, 2008). Again, examining these relationships further can help practitioners who work with clients who report using their religiousness to cope as well as religious leaders better work with and understand their religious clients or religious community members.

Shyness and Religious Spontaneity Preference

The fifth and final research question the present study examined the relationship between shyness and religious spontaneity preference. No support was found for the expectation that shyness would be positively associated with preference for religious activities that are more ritualistic and premeditated in nature. It would be interesting to examine more of the social preferences that individuals have in their religious communities rather than solely focusing on the structure of services. Given that fit seems to be impacted by shyness or vice versa, specifically examining other aspects of religious

service involvement that shy individuals would prefer to have within their religious communities may be more revealing of their level of participation or engagement in religious communities. It is certainly possible that factors such as geographic location or theological fit are more significant for individuals when choosing where to attend religious services regardless of their levels of shyness.

As another possibility, personality factors such as introversion and extroversion that are suggestive of social preferences may be associated with how religious individuals interact within their religious communities. Zimbardo (1977) distinguished between “shy extroverts” who primarily suffer internally despite desiring social interaction and “shy introverts” who are those that are more timid and reluctant in social situations than extroverts regardless of level of shyness. Previous research has affirmed this suggestion and found a subset of shy individuals who do not consider themselves introverted (Mathis & Cook, 2014). Further research is needed, however, to explore the experiences of these individuals. Although desiring social interaction, “shy extroverts” in particular may experience conflict between their strong need to affiliate and their internal agitation when doing so (Briggs, 1988; Cheek & Buss, 1982). As indicated previously, this suggestion may be more strongly warranted among individuals who also report a strong sense of religious motivation. A logical first step for understanding how shyness does and does not impact religious service attendance may include exploring how shy individuals social preferences impact the ways in which they approach others in their religious communities or even initiate membership into such a community. Given that fear of social disapproval is central to shyness (Jones, Cheek, & Briggs, 1986), such work could examine the

salience and impact of shyness at different social points in religious community interactions.

Limitations

Although the findings from the present study contribute valuable information to the understanding of how individuals' shyness is associated with various aspects of their religiousness, it will be helpful to address several limitations of the present study in future research. First, as previously noted, all participants in this study endorsed a Christian religious orientation. Although there was variability among endorsed Christian denominations within the present study's sample, it would be valuable to examine both shyness and religiousness in the context of other religious traditions and cultures. That is, forms of the divine as conceptualized from different traditions may impact variables such as life satisfaction, expected support, and service attendance (if applicable). For example, examining god images within polytheistic religions may help to further determine if attachment style provides a global working model of how people experience all of their relationships and if this further predicts subjective well-being. If attachment informs god image, similarity among god images and how gods are experienced would be expected for those endorsing a polytheistic religious orientation.

Similarly, cultural and social factors of shyness have drawn the attention of some researchers who speculate how shyness might differ between cultures (e.g., Crozier, 1990; Van der Molen, 1990). Zimbardo (1977) specifically compared the prevalence of shyness cross-culturally, and he found that shyness was prevalent among all sampled cultures, although at different levels. He and other researchers have speculated how practices and values (e.g., obedience, emotional control, self-expression, etc.) may

account for the variability in shyness between cultures. Although a large undertaking, it would be valuable to extend the examination of constructs included in the present study to include individuals with less Western conceptualizations of shyness in order to gain a full conceptualization of how shyness and religious variables may interact cross-culturally. Moreover, differences in the degree to which religions or societies emphasize collectivity or individualism may impact how shy people orient or perceive themselves within religious communities. For example, it could be expected that shy people may be more comfortable in more communal oriented religious communities where being the focus of attention is not expected. Conversely, it is possible that shy people may experience increased pressure to belong or connect in collectivist-oriented traditions because of the community values.

Research in this area of religiousness may also benefit from expanding and adapting to include the impact of technology on daily life. Park and Paloutzian (2013) suggested that technology may have an impact on people's religious and spiritual lives. They speak to the possibility that individuals' interactions within the virtual realm may impact connection. Although he did not examine individuals' actual interactions with others via internet sites, Wuthnow (2007) suggests that internet use may be a way used as a way of connecting with others and may be changing the ways that individuals seek spiritual information and engage with that information. For example, he found that younger Americans were more likely to talk with their friends than to religious professionals about spiritual matters. This seems particularly relevant to the present study given the associations among shyness, relationships, and connection. Research has also found positive associations between shyness and internet use (Ebeling-Witte, Frank,

& Lester, 2007), and it seems plausible that shy people may seek social connection through online religious communities. Further, it would be interesting to examine the impact of watching religious services online or interacting within an online religious community, which was not measured in the present study. Extending research in this area would be valuable for examining the implications of technology on shyness and religiousness.

Generally, the self-report nature of the measures used in the present study present additional limitations. Research has found that shyness is associated with positive impression management and a tendency to endorse what appears to be a socially acceptable attitude (Shepperd & Arkin, 1990). Therefore, highly shy individuals may be inclined to respond in socially desirable ways and underreport undesirable motivations, beliefs, or behaviors. Shy and highly religious participants' responses on religious measures (e.g., measures of god image, service attendance, sense of fit) in particular may reflect this bias. Although finding negative associations among shyness and various aspects of religiousness, it is possible that the results of the present study reflect a suppressed range or intensity in these relationships.

Finally, as mentioned previously, the cross-sectional research design of the present study makes it impossible to conclude with certainty the causal order among the key variables examined. It seems appropriate to speculate that shyness is influencing aspects of individuals' religious development and life satisfaction. However, a longitudinal framework would help to address this limitation and examine the alternative possibility that difficulty deriving satisfaction from life and forming positive perceptions of a deity contributes to the development of shyness.

Conclusion and Implications

Despite these limitations, it has been noted throughout this discussion how these findings have meaningful implications for future research, practitioners, and people within religious communities. In conjunction with previous research in this area (i.e., Mathis & Cook, 2013), the findings from this study shed light on the varied and complex relationship between shyness and religiousness. Generally, the present study supports the idea that shyness may impact people's relationships with a deity as well as relationships and participation with religious community members. Examining these variables in a general adult sample helped not only to support and generalize previous findings in this area (e.g., from Mathis & Cook, 2013), but also to suggest new relationships among these variables.

Little research has been conducted in the area of shyness and religiousness despite the social nature connecting these two constructs, and it has been noted throughout the present study how both shyness and religiousness can have associations with meaningful aspects of people's lives. Studying shyness provides more than just an important insight into the internal conflict that some individuals experience when interacting with others. Rather, it may dynamically come into play in many aspects of individuals' lives, including their religious lives. Much the same can be said for religiousness and how it can show itself in various areas of life. Importantly, these results highlight the consistent association between shyness and internal feelings of not belonging or fitting in relationships with others. It seems that this association is not alleviated even in the potential community of a religious congregation or in relationship with a deity.

Understanding the complex nature of the relationship between shyness and religiousness is potentially extremely beneficial for both mental health practitioners as well as religious leaders. Importantly, the present study demonstrates how the outward behaviors of shy people may not appear different than non-shy people or be an accurate reflection of their internal concern. Clinicians who more fully assess the religious lives of their shy clients may be better equipped in conceptualization and treatment planning for those clients. It can be easy to automatically assume that frequency of religious participation or prayer is a strength or potentially helpful coping method for religious clients in the same way that participation with a more general system of support might indicate. However, the present results highlight the importance of more specifically exploring how religiousness is functioning in the lives of shy, religious clients. Although attending religious services, shy clients may still be left wondering if they belong in their community and if others, including their god, will be supportive of their needs. Similarly, religious leaders can create an environment that may better meet shy individuals' needs. For example, by intentionally communicating how individuals can receive support, how shy people can engage with others in smaller groups, or how the religious community environment is safe for those who are socially anxious may go a long way toward increasing satisfaction and retention in religious communities.

One of the overall costs of shyness regardless of social setting may be the difficulty to identify it in others, which arguably makes it challenging to reach out to and support those who are struggling to socially connect. It is hoped that the present study not only informs mental health clinicians and religious communities, but that it also serves to inform shy people in helpful and meaningful ways. It may be helpful for shy

people to gain knowledge and awareness that lacking a sense of belonging or feeling rejected can be commonly associated with shyness rather than being due to a personal failure or weakness. It is hoped that through this awareness, shy people be more open to the possibility that they can engage in their religiousness in positively meaningful ways with both their god and religious peers despite feeling shy or socially anxious.

REFERENCES

- Allport, G. W. (1950). *The individual and his religion*. New York: Macmillan.
- Allport, G. W., & Ross, J. M. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology*, 5, 432-443. doi:10.1037/h0021212
- Alm, C., & Frodi, A. (2008). Tales from the Shy: Interviews with Self- and Peer-Rated, Shy and Non-Shy Individuals Concerning their Thoughts, Emotions, and Behaviors in Social Situations. *Qualitative Research in Psychology*, 5, 127–153.
doi:10.1080/14780880701700496
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- American Psychological Association (2010). 2010 Amendments to the 2002 ‘Ethical principles of psychologists and code of conduct’. *American Psychologist*, 65, 493.
doi: 10.1037/a0020168
- Argyle, M., Furnham, A., & Graham, J. A. (1981). *Social situations*. New York, NY: Cambridge University Press
- Arkin, R. M. (1981). Self-presentation styles. In J. T. Tedeschi (Ed.), *Impression management theory and social psychological research*. (pp. 311-333). New York: Academic pRes.
- Arroyo, A., & Harwood, J. (2011). Communication competence mediates the link between shyness and relational quality. *Personality and Individual Differences*, 50, 264–267. doi:10.1016/j.paid.2010.09.041

- Asendorpf, J. B. (2000). Shyness and adaptation to the social world of university. In W. Crozier (Ed.), *Shyness: Development, consolidation and change* (pp. 103-120). New York, NY: Routledge.
- Asendorpf, J. B., & Wilpers, S. (1998). Personality Effects on Social Relationships, *74*, 1531–1544. doi:10.1037/0022-3514.74.6.1531
- Baker, L., & McNulty, J. K. (2010). Shyness and marriage: does shyness shape even established relationships? *Personality & Social Psychology Bulletin*, *36*, 665–76. doi:10.1177/0146167210367489
- Bardi, C. A., Brady, M. F. (2010). Why shy people use instant messaging: Loneliness and other motives. *Computers in Human Behavior*, *26*, 1722-1726.
- Benson, P. & Spilka, B. (1973). God image as a function of self-esteem and locus of control. *Journal for the Scientific Study of Religion*, *12*, 297-310. doi:10.2307/1384430
- Bradley, D. E. (1995). Religious involvement and social resources: Evidence from the data set “Americans’ changing lives.” *Journal for the Scientific Study of Religion*, *34*, 259-267. doi:10.2307/1386771
- Bradshaw, M., Ellison, C. G., & Flannelly, K. J. (2008). Prayer, God imagery, and symptoms of psychopathology. *Journal for the Scientific Study of Religion*, *47*, 644-659.
- Bradshaw, M., Ellison, C. G., & Marcum, J. P. (2010). Attachment to God, images of God, and psychological distress in a nationwide sample of Presbyterians. *The International Journal for the Psychology of Religion*, *20*, 130-147. doi:10.1080/10508611003608049

- Briggs, S. R. (1988). Shyness: Introversion or Neuroticism? *Journal of Research in Personality*, 22, 290-307.
- Brodtt, S. E., & Zimbardo, P. G. (1981). Modifying shyness-related social behavior through symptom misattribution. *Journal of Personality and Social Psychology*, 41, 437–49. doi:10.1037/0022-3514.41.3.437
- Bruch, M. A., Hamer, R. J., & Heimberg, R. G. (1995). Shyness and public self-consciousness: Additive or interactive Relation with social interaction? *Journal of Personality*, 63, 47-63.
- Cacioppo, J. T., Hawkley, L. C., Crawford, L. E., Ernst, J. M., Burleson, M. H., Kowalewski, R. B., ... Berntson, G. G. (2002). Loneliness and health: potential mechanisms. *Psychosomatic Medicine*, 64, 407–417.
- Carducci, B. J. (2000, January/February). Shyness: The New Solution? *Psychology Today*, 29-44, 78.
- Caspi, A., Elder, G. H., & Bern, D. (1988). Moving Away From the World : Life-Course Patterns of Shy Children. *Developmental Psychology*, 24, 824–831. doi:10.1037/0012-1649.24.6.824
- Cheek, J. M. (1983). The Revised Cheek and Buss Shyness Scale (RCBS). Unpublished manuscript, Wellesley College, Wellesley, MA
- Cheek, J. M., & Buss, A. H. (1981). Shyness and sociability. *Journal of Personality and Social Psychology*, 41, 330-339.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159. doi: 10.1037//0033-2909.112.1.155
- Cohen, S. S. (2004). Social relationships and health. *American Psychologist*, 59, 676-684.

- Cohen, J., Cohen, P. West, S. G., & Aiken, L. S. (2003). *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences* (3rd ed.). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Cowden, C. R. (2001). Worry and its Relationship to Shyness. *North American Journal of Psychology*, 7, 59–69.
- Crozier, R. W. (1990). Social psychological perspectives on shyness, embarrassment, and shame. In W. R. Crozier (Ed.), *Shyness and embarrassment: Perspectives from social psychology* (pp. 286–314). New York, NY: Cambridge University. doi:10.1017/CBO9780511571183.011
- Crozier, R. W. (2004). Shyness and students' perceptions of seminars. *Psychology Learning & Teaching*, 4, 27-34. doi: 10.2304/plat.2004.4.1.27
- Cutrona, C. E. & Russell, D. W. (1987). The provisions of social relationships and adaptation to stress. In W. H. Jones and D. Perlman (Eds.), *Advances in personal relationships* (pp. 37-67). Greenwich, CT: JAI Press.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71-75. doi:10.1037/0003-066x.59.8.676
- Ebeling-Witte, S., Frank, M. L., & Lester, D. (2007). Shyness, internet use, and personality. *Cyberpsychology & Behavior*, 10, 713-716. doi:10.1089/cpb.2007.9964
- Edwards, S. L., Rapee, R. M., & Franklin, J. (2003). Postevent Rumination and Recall Bias for a Social Performance Event in High and Low Socially Anxious Individuals. *Cognitive Therapy and Research*, 27, 603–617. doi:10.1023/A:1026395526858

- Eisenberg, N., Fabes, R. a, & Murphy, B. C. (1995). Relations of shyness and low sociability to regulation and emotionality. *Journal of Personality and Social Psychology*, 68, 505–17. doi:10.1037/0022-3514.68.3.505
- Ellison, C. G., & George, L. K. (1994). Religious involvement, social ties, and social support in a southwestern community. *Journal for the Scientific Study of Religion*, 33, 46-61. doi:10.2307/1386636
- Ellison, C. G., Krause, N. M., Shepherd, B. C., & Chaves, M. A. (2009). Size, conflict, and opportunities for interaction: Congregational effects on members; anticipated support and negative interaction. *Journal for the Scientific Study of Religion*, 48, 1-15. doi: 10.1111/j.1468-5906.2009.01426.x
- Epley, N., Akalis, S., Waytz, A., & Cacioppo, J. T. (2008). Creating social connection through inferential reproduction. *Psychological Science*, 19, 114-120.
- Eysenck, H. J., & Eysenck, M. W. (1985). *Personality and individual differences*. New York: NY: Plenum.
- Fabricatore, A. N., Handal, P. J., Rubio, D. M., & Gilner, F. H. (2004). Stress, religion, and mental health: Religious coping in mediating and moderating roles. *The International Journal for the Psychology of Religion*, 14, 91-108.
doi:10.1207/s15327582ijpr1402_2
- Fiala, W. E., Bjorck, J. P., & Gorsuch, R. (2002). The Religious Support Scale: Construction, validation, and cross-validation. *American Journal of Community Psychology*, 30, 761-786. doi: 10.1023/A:1020264718397

- Findlay, L. C., Coplan, R. J., & Bowker, A. (2009). Keeping it all inside: Shyness, internalizing coping strategies and socio-emotional adjustment in middle childhood. *International Journal of Behavioral Development, 33*, 47–54.
doi:10.1177/0165025408098017
- Francis, L. (2007). Introducing the new indices of religious orientation (NIRO): Conceptualization and measurement. *Mental Health, Religion, & Culture, 10*, 585-602.
- Francis, L. J., Gibson, H. M., & Robbins, M. (2001). God images and self-worth among adolescents in Scotland. *Mental Health, Religion, & Culture, 4*, 103-108.
doi:10.1080/13674670126955
- Frazier, P. A., Tix, A. P., & Barron (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology, 51*, 115-134.
doi: 10.1037/0022-0167.51.1.115
- Freiheit, S. R., Sonstegard, K., Schmitt, A., & Vye, C. (2006). Religiosity and spirituality: A psychometric evaluation of the Santa Clara strength of religious faith questionnaire. *Pastoral Psychology, 55*, 27-33. doi: 10.1007/s11089-006-0029-y
- Gebauer, J. E., Maio, G. R. (2012). The need to belong can motivate belief in God. *Journal of personality, 80*, 465-501. doi: 10.1111/j.1467-6494.2011.00730
- George, D., & Mallery, P. (2010). Descriptive statistics. In *SPSS for Windows step by step: A simple guide and reference 17.0 update* (10th ed.). Boston: Pearson.

- Gorsuch, R. L., & McPherson, S. E. (1989). Intrinsic/extrinsic measurement: I/E-revised and single-item scales. *Journal for the Scientific Study of Religion*, 28, 348-354. doi:10.2307/1386745
- Graham, J. & Haidt, J. (2010). Beyond beliefs: Religions bind individuals into moral communities. *Personality and Social Psychology Review*, 14, 140-150. doi: 10.1177/1088868309353415
- Greenway, A. P., Milne, L. C., & Clarke, V. (2003). Personality variables, self-esteem, and depression and an individual's perception of God. *Mental Health, Religion, & Culture*, 6, 45-58. doi:10.1080/1867467021000029381
- Henderson, L. (n.d.). *The Shyness Institute*. Retrieved from www.shyness.com/shyness-institute.html.
- Hill, P. C. & Wood, R. W. (Eds.). (1999). Scales of religious orientation. In *Measures of religiosity* (pp. 119-156). Birmingham, AL: Religious Education Press.
- Hoffman, L. Hoffman, J. L., Dillard, K., Clark, J., Acoba, R., Williams, F. & Jones, T. T. (2008). Diversity and the God image: Examining ethnic differences in the experience of God for a college-age population. *Journal of Psychology and Theology*, 36, 26-41.
- Hood, R. W., Hill, P. C., & Spilka, B. (2009). *The psychology of religion* (4th ed.). New York: Guilford Press.
- Hopko, D. R., Stowell, J., Jones, W. H., Armento, M. A., & Cheek, J. M. (2005). Psychometric Properties of the Revised Cheek and Buss Shyness Scale. *Journal of Personality Assessment*, 84, 185-192. doi:10.1207/s15327752jpa8402_08

- Jackson, T., & Ebnet, S. (2006). Appraisal and coping in romantic relationship narratives: Effects of shyness, gender, and connoted affect of relationship events. *Individual Differences Research*, 4, 2-15.
- Jackson, T., Fritch, A., Nagasaka, T., & Pope, L. (2002). Towards explaining relations between shyness and loneliness. *Social Behavior & personality*, 30, 467-480.
doi:10.2224/sbp.2002.30.3.263
- Johnson, D. P., Mullins, L. C. (1989). Religiosity and loneliness among the elderly. *Journal of Applied Gerontology*, 8, 110-131. doi:10.1177/073346488900800109
- Jones, W. H., & Briggs, S. R. (1986). *The Social Reticence Scale: A measure of shyness*. Palo Alto, CA: Consulting Psychologists Press.
- Kirkpatrick, L. A., & Shaver, P. R. (1990). Attachment theory and religion: Childhood attachments, religious beliefs, and conversion. *Journal for the Scientific Study of Religion*, 29, 315-334.
- Kirkpatrick, L. A., Shillito, D. J., & Kellas, S. L. (1999). Loneliness, social support, and perceived relationships with God. *Journal of Social and Personal Relationships*, 16, 513-522.
- Krause, N., & Wulff, K. M. (2005). Church-based social ties, a sense of belonging in a congregation, and physical health status. *International Journal for the Psychology of Religion*, 15, 73-93. doi:10.1207/s15327582ijpr1501_6
- Larson, D. B., & Larson, S. S. (2003). Spirituality's potential relevance to physical and emotional health: A brief review of quantitative research. *Journal of Psychological and Theology*, 31, 37-51.

- Lawrence, R. T. (1997). Measuring the image of God: The God Image Inventory and the God Image Scales. *Journal of Psychology and Theology*, 25, 214-226.
- Leary, M. R., Atherton, S. C., Hill, S., & Hur, C. (1986). Attributional mediators of social inhibition and avoidance. *Journal of Personality*, 54, 704–716.
doi:10.1111/j.1467-6494.1986.tb00421.x
- Leary, M. R., & Buckley, K. E. (2001). Shyness and the pursuit of social acceptance. In *Shyness: Development, consolidation and change*. (pp. 139–153).
- Lord, C. G., & Zimbardo, P. G. (1985). Actor-observer differences in the perceived stability of shyness. *Social Cognition*, 3, 250-265. doi:10.1521/soco.1985.3.3.250
- Mason, W., & Suri, S. (2012). Conducting behavioral research on Amazon’s Mechanical Turk. *Behavior Research Methods*, 44, 1-23. doi:10.3758/s13428-011-0124-6
- Mathis, S. E., & Cook, S. W. (2013). Exploring the association between shyness and religiousness among religious college students. Unpublished manuscript, Texas Tech University, Lubbock, TX.
- Mathis, S. E., & Cook, S. W. (2014, August). *Shyness and religiousness: The role of introversion and religious motivation*. Poster presented at the 121st annual meeting of the American Psychological Association, Washington, DC.
- Mayer, J. & Salovey, P. (1977). What is emotional intelligence? In D. Sluter & P. Salovey (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp.3-31). New York, NY: Basic Books.

- Momtaz, Y. A., Hamid, T., Ibrahim, R., Yahaya, N., & Chai, S. (2011). Moderating effect of religiosity on the relationship between social isolation and psychological well-being. *Mental Health, Religion, & Culture, 14*, 141-156. doi: 10.1080/13674676.2010.497963
- Natale, M., Entin, E., & Jeffe, J. (1979). Vocal interruptions in dyadic communication as a function of speech and social anxiety. *Journal of Personality and Social Psychology, 42*, 518-528.
- Nelson, L. J., Padilla-Walker, L. M., Badger, S., Barry, C. M., Carroll, J. S., & Madsen, S. D. (2008). Associations between shyness and internalizing behaviors, externalizing behaviors, and relationships during emerging adulthood. *Journal of Youth and Adolescents, 37*, 605-615. doi: 10.1007/s10964-007-9203-5
- Paloutzian, R. F., & Park, C. L. (2013). *Handbook of the psychology of religion and spirituality (2nd ed.)*. New York, NY, US: Guilford Press.
- Pargament, K. I. (1997). *The Psychology of religion and coping: Theory, research, practice*. New York: Guilford Press.
- Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal of Clinical Psychology, 56*, 519-543. doi: 10.1002/(SICI)1097-4679(200004)56:4<519::AID-JCLP6>3.3.CO;2-T
- Pargament, K. I., Tyler, F. B., & Steele, R. E. (1979). Is fit it? The relationship between church/synagogue member fit and the psychosocial competence of the member. *Journal of Community Psychology, 7*, 243-252. doi:10.1002/15206629(197907)7:3<243::AID-JCOP2290070308>3.0.CO;2-G

- Park, C. L., & Paloutzian, R. F. (2013). Directions for the future of the psychology of religion and spirituality: Research advances in methodology and meaning systems. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality (2nd ed.)*. New York, NY, US: Guilford Press.
- Paulhus, D. L., & Morgan, K. L. (1997). Perceptions of intelligence in leaderless groups: They dynamic effects of shyness and acquaintance. *Journal of Personality and Social Psychology, 72*, 581-591. doi:10.1037/0022-3514.72.3.581
- Plante, T. G., & Boccaccini, M. (1997a). The Santa Clara strength of religious faith questionnaire. *Pastoral Psychology, 45*, 375-387. doi:10.1007/BF02230993
- Plante, T. G., & Boccaccini, M. (1997b). Reliability and validity of the Santa Clara strength of religious faith questionnaire. *Pastoral Psychology, 45*, 429-437. doi:10.1007/BF02310643
- Piedmont, R. L., Ciarrocchi, J. W., & Williams, J. E. G. (2002). A components analysis of ones' image of God. *Research in the Social Scientific Study of Religion, 13*, 109-123.
- Preacher, K. J., & Leonardelli, G. J. (2001). Calculation for the Sobel test: An interactive calculation tool for mediation tests [Computer software]. Retrieved September 4, 2012, from <http://quantpsy.org/sobel/sobel.htm>
- Rapee, R. M., Kim, J., Wang, J., Liu, X., Hofmann, S. G., Chen, J., ... Alden, L. E. (2011). Perceived impact of socially anxious behaviors on individuals' lives in Western and East Asian countries. *Behavior Therapy, 42*, 485-92. doi:10.1016/j.beth.2010.11.004

- Schlenker, B. R. (1982). Social anxiety and self-presentation: A conceptualization and model. *Psychological Bulletin*, 92, 641-669. doi: 0033-2909/82/9203-0641\$00.75
- Shepperd, J. A., & Arkin, R. M. (1990). Shyness as self-presentation. In W. R. Crozier (Ed.), *Shyness and embarrassment: Perspectives from social psychology* (pp. 286–314). New York, NY: Cambridge University.
doi:10.1017/CBO9780511571183.011
- Tackett, S. L., Nelson, L. J., & Busby, D. M. (2013). Shyness and Relationship Satisfaction: Evaluating the Associations Between Shyness, Self-Esteem, and Relationship Satisfaction in Couples. *The American Journal of Family Therapy*, 41, 34–45. doi:10.1080/01926187.2011.641864
- Thibaut, J. W., & Kelley, H. H. (1959). *The Social Psychology of Groups*. *American Sociological Review* (Vol. 25). New York, NY: Wiley.
- Van der Molen, H. T. (1990). A definition of shyness and its implications for clinical practice. In W. R. Crozier (Ed.), *Shyness and embarrassment: Perspectives from social psychology* (pp. 286–314). New York, NY: Cambridge University.
doi:10.1017/CBO9780511571183.011
- Weiss, R. (1974). The provisions of social relationships. In Z. Rubin (Ed.), *Doing unto others* (pp. 17-26). Englewood Cliffs, NJ: Prentice Hall.
- Wiltermuth, S. S., & Heath, C. (2009). Synchrony and cooperation. *Association for psychological science*, 20, 1-4. doi:10.1111/j.1467-9280.2008.02253.x
- Wuthnow, R. (2007). *After the baby boomers: How twenty- and thirty-somethings are shaping the future of the American religion*. Princeton, NJ: Princeton University Press.

Zhao, J., Kong, F., & Wang, Y. (2012). Shyness and Subjective Well-being: The Role of Emotional Intelligence and Social Support. *Social Indicators Research, 114*, 891–900. doi:10.1007/s11205-012-0178-6

Zimbardo, P. G. (1977). *Shyness: What it is, what to do about it*. Cambridge, M.A.: Perseus Books.

Zinnbauer, B. J., & Pargament, K. I. (2005). Religiousness and spirituality. In R.F. Paloutzian & C.L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 21-42). New York: Guilford Press.

APPENDIX A

EXTENDED LITERATURE REVIEW

It is probably not difficult to create an image of a stereotypically shy person – someone who is quiet, reluctant to speak up in a group, and avoids being the center of attention. Shyness has gained attention in both the field of psychology as well as in the general population, and research has indicated that about half of the population has experienced shyness (Carducci & Zimbardo, 1995). There are several places where practitioners, researchers, and the general public can find information about shyness. The Shyness Institute is a non-profit research corporation specifically dedicated to research in the area of anxiety, particularly shyness and social anxiety, and their website provides a large index of resources ranging from references for self-help books and research publications to handouts and questionnaires for therapists (<http://www.shyness.com/shyness-institute.html>). The Shyness Institute is also associated with The Shyness Clinic, which provides treatment for shyness and related concerns. The Shyness Research Institute, where Carducci conducts his research, is yet another example of a group of professionals who are dedicated to understanding shyness and helping shy people to address their social anxiety. It seems that shyness and related anxiety concerns have impacted a wide-range of individuals.

Overall, shyness involves a range of experiences that can be behavioral, emotional, and/or cognitive in nature. At least among adults, shyness has been defined as the fear of social disapproval and humiliation despite the desire to interact with others (Jones, Cheek, & Briggs, 1986). Shy individuals' difficulty making positive impressions seems to result from the negative perceptions that shy individuals have of themselves as

well as the self-presentation strategies that they adopt as a result (Shepperd & Arkin, 1990). The overall experience of chronic shyness is marked by feelings of self-consciousness, nervousness, and fear of negative evaluation (Jones, Cheek, & Briggs, 1986). Internally, shy individuals describe feeling out of place in social situations and socially inept (Bruch, Hamer, & Heimberg, 1995; Lord & Zimbardo, 1985).

Consequently, they engage in a variety of outwardly displayed behaviors such as avoiding eye contact and remaining on the periphery of social events, which often leaves them perceived by others as cold, boring, or uninterested in those around them. It seems that although shy people desire to make positive impressions, these outwardly displayed behaviors essentially fulfill shy people's worst social fears (Alm & Frodi, 2008; Lord & Zimbardo, 1985).

It is important to note that although shyness is typically measured as a continuous variable (e.g., by the Revised Cheek and Buss Shyness Scale; Cheek, 1983), the casual use of terms such as shy and non-shy reflect a more categorical conceptualization of the construct. Such use is frequently found in the research literature, and for ease of discussion, used throughout this manuscript. Importantly, beyond the dichotomizing the shyness variable for communication convenience, researchers have also dichotomized shyness in their research methodology by either using a median split (e.g., Alm & Frodi, 2008) or extreme cut-offs (e.g., Brodt & Zimbardo, 1981; Jackson & Ebnet, 2006; Nelson, Padilla-Walker, Badger, Barry, Carroll, & Madsen, 2008). The language used throughout this review when referring to specific research findings will reflect the particular researchers' treatment of shyness as either a continuous or categorical variable in their methodology.

Distinction From Other Constructs

Shyness is similar to other psychological constructs, such as types of personality traits and anxiety, and therefore must be distinguished from these. Social anxiety is a broad term for anxiety experienced when in social situations, and the impact of social anxiety can vary (Zimbardo, 1977). Shyness is typically used to describe social anxiety and worry that is bothersome but that does not impair functioning to a degree that would warrant a psychological diagnosis. At this level of severity, shy individuals are troubled by their social anxiety, but this anxiety is not marked and does not dictate their daily lives. Social anxiety for some, however, can be so severe that it interferes with everyday functioning and warrants a diagnosis of Social Anxiety Disorder (American Psychiatric Association, 2013). According to the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5; American Psychiatric Association, 2013), individuals with Social Anxiety Disorder recognize that their fear is excessive, and they may experience panic attacks as a result of their anxiety. Similarly, shyness and Social Anxiety Disorder can be differentiated from Generalized Anxiety Disorder. Individuals who meet the DSM-5 criteria for Generalized Anxiety Disorder experience persistent and difficult-to-control worry that interferes with daily living but that is not only confined to interacting in social situations.

Perhaps the most difficult distinction to make is between shyness and introversion because the two present similarly on a behavioral level. Unfortunately adding to the confusion, these constructs are sometimes used interchangeably in the research literature. Although both shyness and introversion can involve an avoidance of social situations, it seems that shy people's aversion is motivated by a desire to escape the anxiety of

potential scrutiny provoked from such situations; alternatively, introverted individuals seem to typically have a preference to be alone (Briggs, 1988). Eysenck and Eysenck (1985) as well as Briggs (1988) have theorized that using shyness and introversion interchangeably is problematic given that the constructs are not equivalent conceptually or practically. Conceptually, Eysenck and Eysenck organized traits on a hierarchy and argued that the term shyness rather than introversion should be used to provide clarity and more precise indication of personality. From their perspective, introversion is a higher order and more encompassing construct than shyness. Practically, Briggs found that popular measures of introversion and neuroticism do not assess shyness directly and therefore are not equivalent constructs.

Interestingly, shyness and introversion can both be used independently to describe different aspects of an individual. As one example, Zimbardo (1977) distinguished between “shy extroverts” and “shy introverts.” He speculated that “shy extroverts” are individuals who primarily suffer internally despite desiring and even being able to perform socially. On the other hand, Zimbardo’s concept of “shy introverts,” although describing people surmised to be less socially skilled than non-shy individuals, reflects people who are more timid and reluctant toward social situations than both shy and non-shy extroverts. Briggs (1988) further asserted that people might experience the impact of their shyness in a multitude of ways, and that the subset of shy individuals who also have a higher need for sociality (e.g., “shy extroverts”) may be more impacted by their shyness as compared to shy individuals who do not have such a high for sociality. Cheek and Buss (1981) provided earlier evidence for this idea by finding that participants who were shy and sociable were generally more tense and inhibited when interacting with a

stranger than were participants who were shy and unsociable. Although shy, sociable participants desired social interaction and were perhaps able to perform socially, both Briggs as well as Cheek and Buss argued that these individuals in particular seem to experience conflict between their strong need to affiliate and their internal agitation when doing so.

Internal Aspects Shyness

Even though being shy may not warrant a psychological diagnosis, research suggests that a large portion of shy individuals experience persistent difficulties with social functioning and report that this is something that they would like to overcome (Zimbardo, 1977). As stated previously, the difficulties that shy individuals experience are wide-ranging. Overall, there seems to be a pattern of low self-efficacy beliefs and low self-esteem among shy individuals that are associated with a lack of social skills and impairment in social relationships (Alm & Frodi, 2008; Leary, Atherton, Hill, & Hur, 1986).

From a qualitative study conducted by Alm and Frodi (2008), interviews with shy people and their non-shy peers revealed both positive and negative consequences of shyness. In this study, a sample of 68 individuals completed a measure of self-rated shyness. In order to measure others' perceptions of participants' levels of shyness, the 68 participants asked a friend to complete a measure of peer-rated shyness. The 68 participants also completed a 20- to 60-minute semi-structured interview regarding their experiences and perceptions of shyness. Alm and Frodi used a form of phenomenological analysis to explore participants' subjective perceptions of situations that might foster feelings of shyness, personal experiences of shyness, potential impacts

of shyness, and strategies that individuals might have used to combat their shyness.

Because they focused on individuals' subjective experiences, Alm and Frodi's findings provide both a rich look into how people experience the impact of their shyness as well as a helpful framework for discussing the complex nature and consequences of shyness.

Alm and Frodi (2008) also found that shy individuals experience an increased heart rate in social situations, tend to have low self-esteem, and are generally quiet and passive in social settings than non-shy individuals. In their study, shy individuals also reported engaging in very self-focused thoughts and reported feeling awkward and concerned about how others might perceive them. Conversely, non-shy individuals reported a tendency to focus on the social environment and social cues rather than on their internal experiences when in new settings. Shy people also reported feeling most awkward and nervous in situations where they might have to behave spontaneously as compared to situations where there are specific expectations for their behavior. Overall, increases in shyness seemed to be associated with a decreased sense of how to behave in social interactions, and these findings help to shed light on how shy individuals experience social environments.

Exploring the problematic cognitions of individuals who experience persistent shyness helps to shed light on Alm and Frodi's (2008) findings as well. Specifically, research has suggested that the problematic cognitions among individuals with social anxiety are similar to those among individuals with depression (Brodt & Zimbardo, 1981; Edwards, Rapee, & Franklin, 2003). Specifically, in a study of memory bias and rumination, participants were asked to present a speech after which they received an equal amount of positive and negative feedback regarding their performance. As

indicated by measures of recall and rumination, those who scored high in social anxiety engaged in a more negative memory bias and spent more time ruminating over perceived negative aspects of their speech than those who scored low in social anxiety (Edwards et al., 2003). Overall, rumination, or worry, seems to be a cognitive strategy often used by shy individuals as indicated by positive associations between shyness scores and worry scores; moreover, such worry is positively related to fear of negative evaluation and social avoidance (Cowden, 2001).

Research has also indicated that individuals high in shyness tend to attribute their arousal symptoms (e.g., increased heart rate) to internal and stable causes more frequently than individuals lower in shyness, which in turn leads to problematic behaviors – essentially creating self-fulfilling prophecies. To illustrate, a shy individual might experience an increased heart rate when entering into a social situations. He or she may then attribute this increased heart rate to shyness and incompetence in social situations. As a result, a reality is created in which the shy person participates less in interactions and avoids social situations because of low self-efficacy beliefs. This then leaves that person with decreased opportunities to gain social skills (Alm & Frodi, 2008; Brodt & Zimbardo, 1981). Interestingly, changing these attributions results in a change in behavior and perceptions. Specifically, changing shy individuals' attributions of arousal symptoms to an external source (e.g., noise bombardment) helped to reduce their shy behaviors and others' negative perceptions of them (Brodt & Zimbardo, 1981).

External Aspects of Shyness

Self-presentation Style. Exploring the internal impact of shyness is important; however this is not sufficient for fully understanding shy individuals' behaviors.

Understanding the ways that shy individuals present themselves in social interactions helps to form a more complete picture of the disruption between shy peoples' desire for relationships and their inability to build and fully engage in those relationships. Arkin (1981) proposed that individuals may enter into interactions using one of two general self-presentation styles and that one of these styles seems to be associated with social anxiety. Here, self-presentation refers to the ways in which individuals attempt to monitor and manage the impressions that others have of them. The first self-presentation style reflects instances in which individuals approach interactions with the goal of making concrete, desirable impressions. Conversely, he used the term "protective self-presentation style" to describe times when individuals are defensive in their approach to interactions by having the goal of avoiding negative impressions. Schlenker and Leary (1982) explained that people are often cognizant that others have reactions to their identities and that this sometimes is associated with self-presentational concerns and insecurity when individuals become worried about those reactions and their ability to manage them. Although people use both styles at different points in the lives and within different contexts, the protective self-presentation style seems to be particularly associated with social anxiety (Arkin, 1981), which makes it important for understanding shy people.

Shepperd and Arkin (1990) specifically explored self-presentation strategies that shy individuals often use, and they found confirming evidence that although most individuals are motivated to make positive impressions, shy individuals are predominately motivated to avoid making negative impressions. More specifically, shy individuals tend to engage in a protective self-presentational style where they distance

themselves from the possibility of interacting with others (Schlenker & Leary, 1982; Shepperd & Arkin). In this way, the understanding of shyness moves beyond the internal experiences of anxiety and problematic cognitions by also including the consideration of an outward problematic pattern of behaviors displayed in social interactions. For example, because of their fear of making negative impressions, shy people choose to engage less in conversations, take longer to respond to others, and appear unwilling to initiate or to continue conversations (Natale, Entin, & Jaffe, 1979). In addition, shy individuals disclose less and provide more superficial information in interactions than non-shy individuals (Leary & Buckley, 2000).

In sum, although shy individuals may have the internal motivation to contribute and become involved in social interactions, their subsequent external behaviors overshadow this motivation and make it difficult for others to see (Paulhus & Morgan, 1997). As a result, it is easy to understand why shy people are often misperceived negatively (Jones, Cheek, & Briggs, 1986; Paulhus & Morgan, 1997). For example, in a seven-week study that explored the perceptions of intelligence in leaderless groups, Paulhus and Morgan (1997) found that although shy individuals did not have lower IQs than non-shy individuals, they were perceived as less intelligent than non-shy individuals because of characteristics such as poor communication skills and a lack of confidence. Consistently across studies, it appears that shy individuals are misperceived as less creative, less socially skilled, less friendly, and less likeable, than non-shy individuals (Jones et al., 1986; Lord & Zimbardo, 1985; Paulhus & Morgan).

It is certainly plausible that shy individuals are uninterested or unwilling to participate in social interactions given their hesitance to engage in conversations. In case

there is any doubt about shy individuals' desire for relationships, it is important to briefly note research that has examined shy individuals' motivations. As one example, Bardi and Brady (2010) examined shy individuals motives for using instant messaging to communicate with others and found that participants higher in shyness generally reported using instant messaging to decrease loneliness as compared to participants lower in shyness. Their results suggest that shy individuals do desire social relationships and finding ways to decrease loneliness is an important motive for them. As another example, Crozier (2004) explored the extent to which shyness influenced students' reluctance to participate in seminars. In this type of academic context, shyness can often be misperceived as a lack of motivation. Confirming that this is indeed a misperception and not an accurate judgment of shy people, Crozier found among undergraduate students that shy students' lack of participation was due to self-reported inhibitions and anxiety rather than to unwillingness or to a complete lack of motivation to contribute in discussions.

Possible Benefits of Shyness

Although the topic of eliminating shyness largely dominated Alm and Frodi's (2008) interviews, non-shy individuals spontaneously speculated on the positive aspects of shyness in their interviews. In particular, Alm and Frodi noted that the nervousness that shy individuals experience may be utilized as a signal that something is important or should be focused on in more depth. When prompted, shy individuals reported that their shyness may have helped them to develop empathy toward others and keeps them from making impulsive decisions or actions. Some participants also seemed to indicate that shyness is an important part of their personality and that they would not know themselves

without their shyness. That being said, the negative consequences of shyness seemed to dominate Alm and Frodi's interviews as well as the literature as a whole, and shy people have reported employing a number of strategies to cope with their shyness because of the consequences they are experiences as a result of their fear and anxiety.

Relationship Costs of Shyness

Shyness research has consistently found relationships between shyness and decreased subjective well-being, suggesting that the cost of shyness in individuals' lives is great. According to Diener, Emmons, Larsen, and Griffin, (1985), psychological well-being consists of three distinct yet related components – the presence of positive affect, the absence of negative affect, as well as satisfaction with life. Research indicates that people who score higher in shyness tend to report less positive affect, more negative affect, as well as lower satisfaction with life as compared to people who score lower in shyness (e.g., Eisenberg, Fabes, & Murphy, 1995; Findlay, Coplan, & Bowker, 2009; Rapee et al., 2011). Several factors beyond the negative cognitions and decreased self-esteem experienced by individuals who score high in shyness previously discussed impact the relationship between shyness and well-being, and they are important for understanding the costs or impact of shyness on people's lives.

Given the protective self-presentation style employed by shy individuals and the associated misperceptions of such individuals discussed previously, it is probably not surprising that shyness is partially associated with decreased well-being due to concerns surrounding social relationships. Possessing the ability to build more relationships and interact with others more easily seemed to be one of the primary reasons that shy individuals reported a desire to address their anxiety (Alm & Frodi, 2008). This seems

logical given that, for shy individuals, concerns surrounding relationships may be one of the most difficult fears to face (Baker & McNulty, 2010). The difficulty experienced with building and maintaining relationships can greatly impact shy people's lives given the importance of social relationships as well as the emotional and physical benefits of engaging in relationships (Cacioppo et al., 2002; Cohen, 2004). Overall, shy individuals are slower at beginning relationships, have fewer relationships, and enter into meaningful romantic relationships (e.g., marriage) later than non-shy individuals (Asendorpf, 2000; Asendorpf & Wilpers, 1998; Caspi, Elder, & Bern, 1988). All of these findings provide evidence that shy individuals, who experience distress in social situations, have trouble initiating interactions and building relationships.

Decreased Relationship Quality. In general, highly shy individuals experience poorer quality relationships as compared to low shy individuals (Nelson et al., 2008). For instance, in a study comparing social adjustment between participants scoring in the upper and lower 15% of shyness, Nelson et al. (2008) asked participants to answer questions measuring temperament, mental health, self-perceptions, and quality of relationships. They found that shy individuals reported lower self-esteem and lower quality of relationships with their friends, romantic partners, and parents than non-shy individuals. Shy people also tended to engage in less intimate disclosures, affection, and reassurances of worth than non-shy people. Similarly, Jackson, Fritch, Nagasaka, and Pope (2002) conducted a path analysis to explore how expectations of rejection, social support, and interpersonal competence contribute to the association between shyness and loneliness. First, they found that highly shy individuals reported high expectations for social rejection and low self-perceptions of interpersonal competence. Next, Jackson et

al. found that low levels of perceived interpersonal competence were associated with low levels of social support. Finally, as expected, low levels of social support were associated with feelings of loneliness. Although social interaction and support can be beneficial in a variety of contexts, these findings suggest the self-consciousness and an increased preoccupation with social rejection impact shy individuals' relationships and play a role in hindering them from feeling supported by others.

Unhelpful coping skills in relationships. In addition to experiencing decreased quality in relationships and not feeling supported by others, highly shy individuals' relationship coping skills are also impacted by their decreased tendency to actively seek social support compared to individuals low in shyness (Eisenberg, Fabes, & Murphy, 1995; Jackson & Ebnet, 2006). Research examining how shy individuals cope when presented with negative life events has found that, as expected from their generally protective self-presentation styles, these individuals favor avoidance strategies in contrast to action-oriented coping strategies (Eisenberg, et al., 1995). Jackson and Ebnet (2006) specifically studied the coping strategies of shy people in the context of romantic relationships. Participants were asked to respond to three different hypothetical romantic relationship vignettes—the first presented an ambiguous situation, the second presented a negative situation, and the third presented a positive situation. Jackson and Ebnet found that individuals considered non-shy (i.e., those scoring more than a third of a standard deviation below the mean on a measure of shyness) were more likely to endorse active coping strategies in response to ambiguous and negative scenarios. On the other hand, shy individuals (i.e., those scoring more than a third of a standard deviation above the mean on a measure of shyness) were more likely to endorse avoidance coping strategies

in response to ambiguous and negative scenarios such as self-blame, substance abuse, and disengagement.

Decreased emotional intelligence. From the previously discussed findings, it appears that the impact of shyness does not stop once individuals overcome the hurdle of initiating social interaction. Rather, shyness appears to impact individuals' behaviors and cognitions in established relationships as well (Baker & McNulty, 2010; Jackson & Ebnet, 2006). Zhao, Kong, and Wang (2012) further examined the potential associations between shyness, social support, and decreased subjective well-being by examining emotional intelligence. Emotional intelligence was specifically defined as individuals' ability to perceive, make sense of, and manage their own and others' emotions (Mayer & Salovey, 1997). In a sample of college students from China, Zhao et al. found confirmatory evidence that shyness was negatively associated with subjective well-being. A path analysis indicated that social support and emotional intelligence mediates the relationship with shyness and subjective well-being. Specifically, shy individuals in their sample seemed to be lacking in a level of emotional intelligence that allowed them to regulate their emotions, which would explain their experiences of increased negative affect and decreased positive affect. Zhao et al. also found that social support mediated the relationship between emotional intelligence and subjective well-being in this model. Zhao et al. concluded that lower emotional intelligence not only hindered higher shy individuals in their sample from being able to decrease negative affect and increase positive affect in their own lives, but it also seemed to be associated with a decreased ability to recognize and use others' emotions. Zhao et al explained that this impact on

social support further contributes to lower life satisfaction and, as a result, lower subjective well-being.

Decreased communication competence. One mechanism at work to help explain the complex associations between shyness, worry, emotional intelligence, and decreased quality in relationships is communication competence (Arroyo & Harwood, 2011). In theory, communication competence is necessary for addressing relationship problems and requires individuals to have and use communication skills (Thibaut & Kelley, 1959). Arroyo and Harwood (2011) found that self and other perceptions of communication competence mediated the negative relationship between shyness and relationship quality. Specifically, the difficulty that shy individuals' experience maintaining meaningful relationships is, in part, related to lowered self- and other-perceived communication competence.

Baker and McNulty (2010) examined whether shyness is associated with individuals' ability to maintain established relationships and if experiences of shyness are decreased within the more familiar context of such a relationship. Using communication competence, Baker and McNulty theorized that low relationship self-efficacy beliefs might prevent highly shy individuals from being satisfied in their relationships and from having the ability to resolve problems that might arise in their relationships. Baker and McNulty examined individuals' relationships from both cross-sectional and longitudinal perspectives and found that relationship self-efficacy fully mediated the association between shyness and marital satisfaction. Moreover, Baker and McNulty found that marital problems mediated the relationship between relationship self-efficacy and marital satisfaction. That is, the low relationship self-efficacy experienced by highly shy

individuals seems to lead them to experiencing greater marital problems, which results in lower levels of marital satisfaction. Similar findings regarding shyness and relationship satisfaction have emerged. As one example, self-esteem has also been found to mediate the relationship between shyness and relationship satisfaction (Tackett, Nelson, & Busby, 2013). Taken together, it seems that even if shy individuals could attend social situations or initiate interactions, shyness still has significant implications for both the development and maintenance of important relationships.

Coping Specifically with Shyness

Given the previously discussed findings, it makes sense that shy people have employed a number of strategies in order to cope with their social anxiety. In fact, it seems that shy individuals put significant effort into attempts to overcome their shyness (Carducci, 2000). In order to better understand how shy individuals conceptualize their shyness and what they do to deal with it, Carducci (2000) conducted a content analysis of surveys submitted by individuals who responded after reading a *Psychology Today* article on shyness (Carducci & Zimbardo, 1995). The analysis revealed ten broad strategies and suggested that 91.2% of respondents had employed at least one of these strategies in order to overcome their shyness.

The most common strategies found in Carducci's (2000) sample also seemed to relate to the strategies discussed in Alm and Frodi's (2008) interviews. Carducci labeled the most commonly used strategy in his sample "forced extroversion," which involves participants forcing themselves to attend social functions and putting on a façade of confidence. Although used by the majority of both Carducci's and Alm and Frodi's samples (termed "create a façade" in the latter), participants in both studies commented

on the drawbacks of such a strategy. Specifically, shy participants expected others to approach them and initiate interactions. Participants noted that simply showing up at social functions and yielding control of interactions to others was not effective. Even when this strategy was effective for engaging in social interactions, participants noted that it was unsatisfying, because they were left feeling like they were constantly role-playing through different interactions.

Carducci (2000) labeled the next most commonly used strategy in his sample, “self-induced cognitive extraversion,” which corresponds to a combination of three strategies found by Alm and Frodi (2008): “trust your own capabilities,” “keep an inner dialogue,” and “turn focus of attention outwards.” Essentially, it seems that shy individuals give themselves internal pep talks of self-affirming statements to minimize or explain their anxiety in a logical manner and to change the way that they think about other people. In general, it seemed that cognitive strategies fell short for participants when it came to questions of how to behave when in the presence of others, particularly in more anxiety-provoking situations.

Participants in Carducci’s (2000) sample also attempted to educate themselves and gain information about shyness as well as to participate in various treatment programs (e.g., individual therapy, group therapy, workshops, etc.). He labeled these as “educational extraversion” and “sought professional help”, respectively. Carducci noted that both of these strategies seemed to help the individuals who reported using them but that not enough shy individuals seemed to employ them. The fifth most used strategy was labeled “liquid extraversion” and involved using non-prescription drugs and/or alcohol to reduce anxiety in social situations. Although this strategy was also reported as

being helpful in the moment, participants commented that they felt a sense of incongruence when they were interacting with friends while sober or that the strategy created later problems (e.g., alcoholism or a drug overdose). The remaining “residual strategies” discussed by Carducci’s participants included using humor or smiling often, feeling more secure through religion, engaging in physical activity to increase their self-esteem, or doing nothing to address their shyness; however, the effectiveness of these strategies was not discussed at great length.

Despite their general unhelpfulness, Carducci (2000) noted that “forced extraversion” and “self-induced cognitive extraversion” were frequently the first strategies that participants selected to cope with their shyness. “Sought professional help” and “educational extraversion” were the third and fourth strategies employed respectively. He noted that most shy individuals reported that they do not elect to pursue more than two strategies in their lifetime. It therefore seems that most shy individuals either continued to use self-defeating strategies or simply gave up on addressing their shyness.

Carducci (2000) noted that shy individuals’ tendency toward strategies that immediately place them in social situations points to their strong desire to be in relationships with others. He suggested that treatment programs should explore the motivations underlying shy people’s self-selected strategies and address the social skills necessary to engage in social situations successfully before urging shy people to go into those situations. It is important to note that most shy individuals in Alm and Frodi’s (2008) sample reported that they did not believe that they would ever completely overcome their shyness. That is, although they expected that their shyness might not

always be a constant struggle, they seemed to accept that shyness was an important part of their personality that helped to shape them. There seems to be a conflicting desire among shy individuals to both overcome the unhelpful aspects of their shyness while still holding onto the parts of their shyness that they believe are important to their personality.

Future Directions

In terms of future research directions, it would be useful to examine how specific situations might reduce or increase shy people's anxiety. Research was described previously in this review indicating that shy individuals can generally attend course lectures but are reluctant to participate given their anxiety and the evaluative nature of such an environment (Crozier, 2004). This indicates that shy people may perhaps have varying motivations in the context of different social events ranging from unwillingness to attend or participate, to willingness to attend, and to willingness to actively participate. It would therefore be useful to examine shy individuals' willingness to attend and/or participate in various types of social contexts. For example, because of the way that religious settings establish and maintain social interactions (e.g., Krause & Wulff, 2005), it seems logical that such communities may be perceived as distinctly different (e.g., safer or riskier) from other social settings as places for shy individuals to attend and to possibly interact. For example, religious setting may be perceived as safe places for social interaction. As might be expected from the common interests and values that are often shared with other religious community members (Ellison, Krause, Shepherd, & Chaves, 2009), research has found that members of congregations tend to have larger social networks and have more opportunities for supportive exchanges (Bradley, 1995; Ellison & George, 1994).

To further develop a comprehensive picture of shy peoples' motivations, it would be valuable to examine which social situations shy people rate as being most important to engage in despite their anxiety. Some shy individuals may place themselves in social situations such as class lectures and religious communities, despite knowing that such socially-oriented settings could be distressing. These shy people may do so because of their values or because of how important they perceive education or religious participation to be. Argyle, Furnham, and Graham (1981) asserted that shyness seems to particularly occur in situations that are complex and/or unfamiliar – that is, situations in which individuals do not have clear rules or expectations for how to behave. Therefore, it would also be interesting to explore how specific social situations vary in the sophistication of social skills necessary to participate.

Up until this point, the consequences of shyness as well as coping with shyness have been discussed in the context of relationships with other people. Questions remain regarding how the previously discussed findings may or may not generalize to relationships with non-physical entities such as spirits, a higher power or deity, imaginary others, or dead ancestors. Research has found that individuals who are disconnected socially are more likely to attribute humanlike traits to nonhuman agents (e.g., gods, gadgets, and pets); however, there is a gap in the literature for understanding the extent to which different agents might satisfy individuals' need for connection (Epley, Akalis, Waytz, & Cacioppo, 2008). In their study on god image and personality, Francis, Gibson, and Robbins (2001) suggested that individuals form god images that are consistent with attitudes they have about themselves. For example, research has found that self-esteem and self-worth are positively associated with accepting and loving god

images and negatively correlated with rejecting and punishing god images (Benson & Spilka, 1973; Francis et al.). Given that non-physical entities may possess different qualities and involve different types of interactions than physical others, it also certainly seems possible that shyness might have a much different impact in these relationships.

Conclusion

Overall, several gaps in the literature remain despite the amount of research already completed, which presents many potentially fruitful avenues for future research. Given the previously discussed findings, it would be beneficial to further study shyness so that shy individuals may be better able to understand their experiences and reduce negative misperceptions. If shy individuals are better equipped to manage their anxiety and build social and professional relationships despite their feelings of shyness, they will have better opportunities to improve their quality of life.

APPENDIX B

INFORMED CONSENT

Online Participant Information Form

Who is doing this project, and what is it about?

We are asking you to participate in a research study about how religious beliefs and practices are related to other variables. Stacy Shields, M.A., and Stephen W. Cook, Ph.D., of the Department of Psychological Sciences at Texas Tech University are conducting this study. Mrs. Shields can be reached at stacy.shields@ttu.edu and Dr. Cook can be reached at s.cook@ttu.edu. The purpose of the study is to help us better understand the associations among religiousness, personality factors, and psychological functioning.

What do I do if I participate?

You will be asked to answer some questions about yourself. Although it is helpful for us if you answer every question, you may skip any question(s) that you do not feel comfortable answering. It is completely up to you to decide to do these surveys. We don't want you to feel forced to do them, and you won't be penalized if you don't do them. Also, you can decide to quit anytime you want without receiving any penalty. It is estimated that this study will take between 15 and 30 minutes to complete.

What do I get out of this?

To thank you for your participation in this survey, you will receive compensation of 15¢ through your Mechanical Turk (MTurk) account for completing this survey.

Who will see my answers?

No one but Mrs. Shields, Dr. Stephen Cook, and the study's research assistants will see your answers. Your responses will be kept confidential. Your name will not be associated with the answers you give. Please be aware that any work performed on Amazon MTurk can potentially be linked to information about you on your Amazon public profile page, depending on the settings you have for your Amazon profile. We will not be accessing any personally identifying information about you that you may have put on your Amazon public profile page. We will store your MTurk worker ID separately from the other information you provide to us.

What if I have questions?

Mrs. Stacy E. Shields (stacy.shields@ttu.edu) and/or Dr. Stephen Cook (s.cook@ttu.edu) will answer any questions you have about the study. For questions about your rights as a participant or about injuries caused by this research, contact the Texas Tech University Institutional Review Board for the Protection of Human Subjects, Office of Research Services via phone (806-742-2064) or mail (Texas Tech University, Lubbock, Texas 79409).

APPENDIX C

DEMOGRAPHIC QUESTIONNAIRE

What is your current age, in years? _____

With which gender do you most identify?

- Male
- Female
- Transgender

With which race/ethnicity do you most identify?

- Asian/Pacific Islander
- African American/Black
- Caucasian/White
- Latino(a)/Hispanic
- Native American/American Indian
- Middle Eastern/East Indian
- Bi-racial
- Other, please describe: _____

With which sexual orientation do you most identify?

- Heterosexual/straight
- Gay/Lesbian
- Bisexual
- Other, please describe: _____

With which socio economic status do you most identify?

- Working class
- Lower middle class
- Middle class
- Upper middle class
- Upper class

What is your current religious affiliation?

- Buddhist
- Christian/Catholic
- Christian/Protestant
- Christian/Other
- Hindu
- Jewish
- Muslim
- Don't believe in God or not religious (Atheist)
- Don't care, undecided, or believe one cannot know (Agnostic)
- Other, please describe: _____

Indicate with which religious denomination you currently identify.

- Adventist
- Amish
- Apostolic
- Assemblies of God
- Baptist – African American bodies (National Baptist Convention of America)
- Baptist – American
- Baptist – Independent
- Baptist – Southern Baptist Convention
- Baptist – Other fundamentalist
- Baptist – Non of these
- Catholic
- Churches of Christ
- Christian Scientist
- Congregational/United
- Episcopalian/Anglican
- Evangelical Free Church
- Jehovah's Witnesses
- Jewish – Reform
- Jewish – Conservative
- Jewish – Reconstructionist
- Jewish – Orthodox
- Latter-day Saints/Mormon
- Lutheran – ELCA
- Lutheran – Missouri Synod
- Lutheran – None of these
- Mennonite
- Methodist – United Methodist
- Methodist – African Methodist Episcopal (AME, AME Zion)
- Methodist – Wesleyan
- Methodist – None of these
- Metropolitan Community Church
- Nazarene
- Non-denominational Christian
- Pentecostal/Charismatic
- Presbyterian – PCUSA
- Presbyterian – None of these
- Quaker, Friends
- Reformed (Reformed Church in America, Christian Reformed)
- Sanctified, Sanctification
- Spiritualist
- Unity
- None of these

How religious do you consider yourself?

- Extremely religious
- Very religious
- Somewhat religious
- A little religious
- Not at all religious

How spiritual do you consider yourself?

- Extremely spiritual
- Very spiritual
- Somewhat spiritual
- A little spiritual
- Not at all spiritual

How frequently do you attend a religious service?

- Never
- Less than once a year
- About once or twice a year
- About once a month
- 2-3 times a month
- Nearly every week
- Every week
- Several times a week

How satisfied are you with your current attendance at religious services?

- (1) I would like to attend a lot less frequently
- (2)
- (3) I am attending just the right amount
- (4)
- (5) I would like to attend a lot more frequently

Besides religious services, how often do you take part in other religious activities (e.g., religious study group, prayer group, mediation) with people?

- Never
- Less than once a year
- About once or twice a year
- About once a month
- 2-3 times a month
- Nearly every week
- Every week
- Several times a week

How satisfied are you with your current attendance at other religious activities with people?

- (1) I would like to attend a lot less frequently

- (2)
- (3) I am attending just the right amount
- (4)
- (5) I would like to attend a lot more frequently

How frequently do you pray?

- Not at all
- A few times a year
- A few times a month
- A few times a week
- About once a day
- Multiple times a day

APPENDIX D

SANTA CLARA STRENGTH OF RELIGIOUS FAITH QUESTIONNAIRE

(Plante & Boccaccini, 1997a)

Please answer the following questions about religious faith using the scale below.
Indicate the level of agreement (or disagreement) for each statement

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

1. My religious faith is extremely important to me.
2. I pray daily.
3. I look to my faith as a source of inspiration.
4. I look to my faith as providing meaning and purpose in my life.
5. I consider myself active in my faith or church.
6. My faith is an important part of who I am as a person.
7. My relationship with God is extremely important to me.
8. I enjoy being around others who share my faith.
9. I look to my faith as a source of comfort.
10. My faith impacts many of my decisions.

APPENDIX E

RELIGIOUS SUPPORT SCALE

(Fiala, Bjorck, & Gorsuch, 2002)

We would like to learn about people's perceptions of support, related to their *life of faith*. Please rate the following items for the degree to which you feel each one applied to you in general. For these items, "**congregation**" refers to regular attendees of your current religious group. "**Church leaders**" refers to anyone in a leadership position within your congregation. Please respond to items 1 to 21 using the following scale:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. I can turn to others in my congregation for advice when I have problems.
2. If something went wrong, my church leaders would give me assistance.
3. God gives me the sense that I belong.
4. Others in my congregation care about my life and situation.
5. I have worth in the eyes of my church leaders.
6. I feel appreciated by God.
7. I do not feel close to others in my congregation.
8. I can turn to church leadership for advice when I have problems.
9. If something went wrong, God would give me assistance.
10. Others in my congregation give me the sense that I belong.
11. My church leaders care about my life and situation.
12. I have worth in the eyes of God.
13. I feel appreciated by others in my congregation.
14. I do not feel close to my church leaders.
15. I can turn to God for advice when I have problems.

16. If something went wrong, others in my congregation would give me assistance.
17. My church leaders give me the sense that I belong.
18. God cares about my life and situation.
19. I have worth in the eyes of others in my congregation.
20. I feel appreciated by my church leaders.
21. I do not feel close to God.

APPENDIX F

GOD IMAGE SCALES

(Lawrence, 1997)

Please respond to each statement by selecting the response that comes closest to describing your feelings about God:

SA, for Strongly Agree, if the statement is a particularly good way of describing how you feel about God.

A, for Agree, if the statement just adequately describes your feelings about God.

D, for Disagree, if the statement does not adequately describe your feelings about God.

SD, for Strongly Disagree, if the statement is a particularly bad way of describing your feelings about God.

- | | | | | | |
|-----|--|----|---|---|----|
| 1. | I am sometimes anxious about whether God still loves me. | SA | A | D | SD |
| 2. | I am confident of God's love for me. | SA | A | D | SD |
| 3. | God does not answer when I call. | SA | A | D | SD |
| 4. | I know I am not perfect, but God loves me anyway. | SA | A | D | SD |
| 5. | I have sometimes felt that I have committed the unforgiveable sin. | SA | A | D | SD |
| 6. | God never challenges me. | SA | A | D | SD |
| 7. | Thinking too much could endanger my faith. | SA | A | D | SD |
| 8. | I can feel God deep inside me. | SA | A | D | SD |
| 9. | God's love for me has no strings attached. | SA | A | D | SD |
| 10. | God doesn't feel very personal to me. | SA | A | D | SD |
| 11. | Even when I do bad things, I know God still loves me. | SA | A | D | SD |
| 12. | I can talk to God on an intimate basis. | SA | A | D | SD |
| 13. | God nurtures me. | SA | A | D | SD |
| 14. | I get no feelings of closeness to God, even in prayer. | SA | A | D | SD |
| 15. | God loves me only when I perform correctly. | SA | A | D | SD |

- | | | |
|-----|---|-----------|
| 16. | God loves me regardless. | SA A D SD |
| 17. | God takes pleasure in my achievements. | SA A D SD |
| 18. | God keeps asking me to try harder. | SA A D SD |
| 19. | God is always there for me. | SA A D SD |
| 20. | Being close to God and being active in the world don't mix. | SA A D SD |
| 21. | I often worry about whether God can love me. | SA A D SD |
| 22. | God wants me to achieve all I can in life. | SA A D SD |
| 23. | God's love for me is unconditional. | SA A D SD |
| 24. | God asks me to keep growing as a person. | SA A D SD |
| 25. | God doesn't want me to ask too many questions. | SA A D SD |
| 26. | I am not good enough for God to love me. | SA A D SD |
| 27. | I sometimes feel cradled in God's arms. | SA A D SD |
| 28. | God has never asked me to do hard things. | SA A D SD |
| 29. | God feels distant to me. | SA A D SD |
| 30. | I think human achievements are a delight to God. | SA A D SD |
| 31. | I rarely feel that God is with me. | SA A D SD |
| 32. | I feel warm inside when I pray. | SA A D SD |
| 33. | God encourages me to go forward on the journey of life. | SA A D SD |
| 34. | God never reaches out to me. | SA A D SD |
| 35. | God doesn't mind if I don't grow very much. | SA A D SD |
| 36. | I sometimes think that not even God could love me. | SA A D SD |

APPENDIX G

NEW INDICES OF RELIGIOUS ORIENTATION

(NIRO; Francis, 2007)

Please read each item carefully and decide to what extent it is characteristic of your feelings and behavior. Choose a response using the scale provided for each item

1	2	3	4	5
Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

1. While I believe in my religion, there are more important things in my life
2. While I am a religious person, I do not let religion influence my daily life
3. Occasionally, I compromise my religious beliefs to protect my social and economic well-being
4. One reason for me going to church is that it helps to establish me in the community
5. A key reason for my interest in church is that it is a pleasant social activity
6. I go to church because it helps me to feel at home in my neighborhood
7. One reason for me praying is that it helps me to gain relief and protection
8. What prayer offers me most is comfort when sorrow or misfortune strike
9. I pray chiefly because it makes me feel better
10. My religious beliefs really shape my whole approach to life
11. I try hard to carry my religion over into all my other dealings in life
12. My religious beliefs really shape the way I treat other people
13. I allow almost nothing to prevent me from going to church on Sundays
14. I go to church because it helps me to feel close to God
15. The church is most important to me as a place to share fellowship with other

Christians

16. I pray at home because it helps me to be aware of God's presence
17. I often read books about prayer and the spiritual life
18. I pray chiefly because it deepens my relationship with God
19. I was driven to ask religious questions by a growing awareness of the tensions in my world
20. My life experiences have led me to rethink my religious beliefs
21. Religion only became very important for me when I began to ask questions about the meaning of my life
22. I value my religious doubts and uncertainties
23. For me, doubting is an important part of what it means to be religious
24. Questions are more important to my religious faith than are answers
25. As I grow and change, I expect my religion to grow and change as well
26. I am constantly questioning my religious beliefs
27. There are many religious issues on which my views are still changing

APPENDIX H

SOCIAL PROVISIONS SCALE

(Cutrona & Russell, 1987)

Instructions: In answering the following questions, think about your current relationships with members in your religious community. Please indicate to what extent each statement describes your current relationships with other people. Use the following scale to indicate your opinion.

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

1. There are people I can depend on to help me if I really need it.
2. I feel that I do not have close personal relationships with other people.
3. There is no one I can turn to for guidance in times of stress.
4. There are people who depend on me for help.
5. There are people who enjoy the same social activities I do.
6. Other people do not view me as competent.
7. I feel personally responsible for the well-being of another person.
8. I feel part of a group of people who share my attitudes and beliefs.
9. I do not think other people respect my skills and abilities.
10. If something went wrong, no one would come to my assistance.
11. I have close relationships that provide me with a sense of emotional security and well-being.
12. There is someone I could talk to about important decisions in my life.
13. I have relationships where my competence and skill are recognized.
14. There is no one who shares my interests and concerns.

15. There is no one who really relies on me for their well-being.
16. There is a trustworthy person I could turn to for advice if I were having problems.
17. I feel a strong emotional bond with at least one other person.
18. There is no one I can depend on for aid if I really need it.
19. There is no one I feel comfortable talking about problems with.
20. There are people who admire my talents and abilities.
21. I lack a feeling of intimacy with another person.
22. There is no one who likes to do the things I do.
23. There are people who I can count on in an emergency.
24. No one needs me to care for them.

APPENDIX I

REVISED CHEEK AND BUSS SHYNESS SCALE

(Cheek, 1983)

Please read each item carefully and decide to what extent it is characteristic of your feelings and behavior. Choose a number from the scale printed below.

1	2	3	4	5
Very Uncharacteristic	Uncharacteristic	Neutral	Characteristic	Very characteristic

1. I feel tense when I'm with people I don't know well.
2. I am socially somewhat awkward.
3. I do not find it difficult to ask other people for information.
4. I am often uncomfortable at parties and other social functions.
5. When in a group of people, I have trouble thinking of the right things to talk about.
6. It does not take me long to overcome my shyness in new situations.
7. It is hard for me to act natural when I am meeting new people.
8. I feel nervous when speaking to someone in authority.
9. I have no doubts about my social competence.
10. I have trouble looking someone right in the eye.
11. I feel inhibited in social situations.
12. I do not find it hard to talk to strangers.
13. I am more shy with members of the opposite sex.

APPENDIX J

SATISFACTION WITH LIFE SCALE

(Diener, Emmons, Larsen, & Griffin, 1985)

Below are five statements with which you may agree or disagree. Using the 1 – 7 scale below, indicate your agreement with each item by selecting the appropriate choice. Please be open and honest in your responding. The 7-point scale is:

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

1. In most ways my life is close to ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

APPENDIX K

DEBRIEFING STATEMENT

Thank you for your participation in this survey.

The purpose of this study is to begin to examine the relationships that exist between shyness and religiousness in a community sample of adults. For example, previous research has indicated that shyness, or feelings of self-consciousness and nervousness when interacting with others, can serve as a barrier to forming social relationships and seeking support from others. Given that being religious often involves interactions with others (e.g., with other religious group members or with a deity), it is plausible that religiousness may be associated with shyness in a variety of ways.

Because previous research has found that religious communities may be a helpful place for individuals to go to in order to build relationships, the researchers were specifically interested in exploring how being shy may be associated with individuals' religious experiences. It is hoped that the results from this research will increase our current understanding regarding how being shy or introverted may influence peoples' religious experiences and how religious group leaders may better serve shy or introverted people within their religious communities.

If you are feeling upset or distressed after answering questions in this study, we encourage you to seek assistance from a mental health professional in your area. If you have any questions about this study, please contact Mrs. Stacy E. Shields via email (stacy.shields@ttu.edu) or Dr. Stephen W. Cook (806-742-3711, ext. 225) in the Psychology Department at Texas Tech University.