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## The Relationship of Religiosity to Psychopathology: The predictive ability of religious orientation for stress and depression in college undergraduates

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### Abstract

*Evidence supports that different levels of religiosity are related to mental health outcomes. This study examines the relationship between religiosity and measures of psychological maladjustment. The current study compared participants' scores on several measures of religiosity with scores on Locus of Control, Depression, Anxiety, Stress, and Obsessive-Compulsive tendencies. Multiple regressions analyses were conducted suggesting that Indiscriminate Proreligiousness, a measure of overall religiosity, was found to be negatively correlated with stress. Highly religious people were found to have more of an intrinsic religious orientation than either extrinsic or quest orientation.*

### Introduction

Religion allows practitioners to relieve their stress and anxiety by putting their worries in the hands of a higher power. Substantial psychological evidence supports this view (e.g., Harris, Schoneman, & Carrera, 2002; Rosmarin, Krumlei & Andersson, 2009; Sturgeon & Hamley, 1979). Although the common belief is that religious faith should correlate negatively with measures of psychological maladjustment, evidence shows that not all people experience the mental health benefits associated with religious involvement. Two factors related to religiosity and psychological maladjustment are Locus of Control and Religious Orientation, which measures the motives for practicing religion (Watson, Morris, & Hood, 1990; Jackson & Coursey, 1988; Lavric & Flere, 2010). Although Locus of Control and Religious Orientation vary in intensity and type, those who perceive a sense of control over their own lives and practice out of sincerity tend to perceive less stress.

Other studies have examined the relationship between people's degree of religiosity and a degree of obsessiveness. Those people who regularly engage in prayer, fasting, and other religious activities are more likely to have obsessive-

compulsive tendencies than do those who are less devout (Abramowitz, Deacon, Woods, & Tolin, 2004; Siev, Steketee, Fama, & Wilhelm, 2011). One possible explanation for the observed decrease in anxiety but greater levels of obsessiveness is that this reflects successful coping. People who believe that God is in control (God Control) and genuinely practice the religion with personal sincerity toward their faith (Intrinsic orientation) will experience less psychological maladjustment, partially because they engage in more regular practice of prayer, fasting, and other religious activities, which may be reflected in more general patterns of obsessiveness and compulsiveness.

### Religiosity and Decreased Anxiety

Several studies have found that the observance and practice of certain religious beliefs are related to a decrease in overall anxiety (Sturgeon & Hamley, 1979; Harris et al., 2002; Rosmarin et al., 1988). Harris et al. (2002) surveyed college undergraduates about their level of religiosity and perceived anxiety. Their results showed that people who practice certain religious rituals such as prayer and who perceive their religious texts more literally tend to experience a lower level of anxiety. Rosmarin et al. (2009) found

consistent results in their examination of religiosity and anxiety. More specifically, they compared different denominations and faiths to determine if their levels of anxiety differed. Their results, which were consistent with Harris et al. (2002), supported the idea that a high level of religiosity is related to the experience of less anxiety. This finding was consistent among diverse religious faiths (e.g. Jewish, Catholic, and Protestant).

The amount of time that people spend in a religious ritual or activity (e.g. prayer and fasting) has been related to anxiety in several studies. Several studies have found a strong negative correlation between attendance at church and measures of anxiety and depression (Jansen et al., 2010; Harris et al., 2002). Two other aspects have been shown to be negatively correlated with anxiety including a person's commitment to the religion and the amount of time spent praying (Harris et al., 2002).

These findings appear to be consistent across cultures. Lavric and Flere (2010) examined cultural differences between different levels of anxiety and the specific religious practices of different religions, such as fasting and prayer sessions. Just as Rossmarin et al. (2009) found, across religions, highly devout people were observed to experience less anxiety. Their results support the assumption that so long as people are devout in their religious practice, then their anxiety may be lower than those who are low to moderately devout (Jansen, Motley, & Hovey, 2010).

Aside from the aforementioned similarity, several differences have been found cross-culturally. When comparing European and African-Americans, it has been found that African-Americans engage in prayer more often and have greater trust

in God than European-Americans who have a more pessimistic view of God as a judge. These differences constitute religious coping styles (Chapman & Steger, 2010). It has also been found that as a consequence African-Americans experience less anxiety than their European-American counterparts.

These findings are not limited to religions involving Christian principles. In a sample of Muslim adolescents, the religiosity of natives of Kuwait is highly associated to their overall well-being (Abdel-Khalek, 2009). Even their self-ratings of physical and mental health were positively correlated with their religiosity. Anxiety was found to be negatively correlated with religiosity, just as the United States findings were. Finally, Harris et al. (1979) examined Native-Americans, African-Americans, and Hispanics and found similar results. Again, a higher level of religiosity is related to lower levels of anxiety. The general concepts that account for the differences in findings are believed to be due to the Locus of Control that each person has, whether Internal, External, or God, and their motivation, whether Intrinsic, Extrinsic, Quest, or Indiscriminate Proreligiosity.

### **Religiosity and Locus of Control**

Locus of Control is also related to religiosity and psychological maladjustment. Several studies have examined the effects of a person's Locus of Control on their religiosity. Some research has even lead to the development of a new locus. Primarily, most research has been conducted on the original two loci: external and internal. People with an internal locus of control believe that they have control over their own lives. Those with an external locus of control believe that luck and chance dictate their lives. After extensive research,

psychologists have begun to emphasize a third locus of control, namely God control (Jackson & Coursey, 1988; Hills, Francis, & Robbins, 2005; Ritzema & Young, 1983). This locus centers on the idea that God is in control of all aspects of life. Jackson and Coursey (1988) found that God control is positively correlated to internal control, suggesting similarities between God control and an internal locus of control. Their findings demonstrated that religious people with an internal locus of control scored high on measures of God control.

### **Religiosity and Religious Orientation**

One of the most fruitful areas in the study of religiosity and psychological maladjustment is Religious Orientation (Intrinsic, Extrinsic, Quest, and Indiscriminate Proreligiosity). This construct describes why people practice their faith. If people engage in religious practice solely for the social aspects involved (dinners, friends, activities, etc), then they have an extrinsic orientation. People with an intrinsic orientation believe and internalize religious teachings. Those with a quest orientation continually question the teachings in order to grow intellectually and understand it better. According to Lavric and Flere (2010) those with an intrinsic orientation are less likely to experience anxiety than those with an extrinsic orientation. Those with a quest orientation experience greater anxiety as well. One explanation for this is that part of the quest orientation involves recognizing unknown aspects of the religion. It is suggested that the fear of the unknown increases the anxiety among those individuals that hold this orientation. The quest orientation is the only one of the three that holds a constant relationship among different cultures.

Watson et al. (1990) found an intrinsic orientation as being highly related to God control. It was also observed that people with this orientation had a stronger and clearer understanding of their purpose in life. Those with an extrinsic orientation showed the opposite. They suggested that this is due to the extrinsic exchange of concentration from God and His influence to other less integral aspects of the religion (e.g. dinners and friendship). Indiscriminate Proreligiosity (IP) has been described as a healthy combination of both the extrinsic and intrinsic orientations. The data presented by Watson et al. (1990) do not entirely support this assumption, however. IP can best be described as a measure of religiosity as opposed to an orientation.

### **Locus of Control and Religious Orientation**

In order to incorporate Locus of Control and Religious Orientation together, Jackson and Coursey (1988) examined participants' scores on surveys designed to evaluate both aspects and compared them. Their findings supported the idea that people who have an internal locus of control, as well as a high God control, have an intrinsic orientation. The amount of time a person spends performing certain church activities can successfully predict scores on all three measures. Interestingly, being female also predicts a higher score for each. However, these differences were small and only found in God control and intrinsic orientation.

Sturgeon and Hamley (1979) investigated Locus of Control, intrinsic orientation, and level of religiosity. People with a high level of religiosity are more intrinsically oriented and have an internal Locus of Control. All three traits are negatively correlated with anxiety. In other words, highly religious individuals are more

likely to be intrinsically motivated and have an internal Locus of Control which is related to a decrease in anxiety (Leondari & Gialamas, 2009).

### **Evidence for Increased Obsessive-Compulsive Tendencies**

Although certain religious expressions and orientations can decrease anxiety, some evidence suggests that anxiety contributes to certain religious actions. Boncheck and Greenberg (2009) identified compulsive prayer as one of the mechanisms used to relieve stress and anxiety by religious people. Siev et al. (2001) suggest that compulsive prayer, fasting, and tithing allow people to cope with a fear of “contamination” of thought. That is, people were frightened for having a sinful or morally wrong thought. This fear then causes them to engage in compulsive acts to alleviate anxiety.

Once obsessive-compulsive tendencies have developed, religiosity may exacerbate these tendencies. For example, Abramowitz et al. (2004) found that a higher religiosity is correlated with increased obsessive-compulsive tendencies. One interpretation of this finding is that the more devout people are, the more likely it is that they will attempt to control their thoughts. This controlling is mostly out of fear (Siev et al., 2001). It is important to note that Abramowitz et al. (2004) did not use clinical samples. Participants were college undergraduates with no history of obsessive-compulsive disorder (OCD) that were enrolled in an introductory psychology class.

From these results, it could be assumed that people with higher religiosity level would have more anxiety due to their obsessive-compulsive tendencies, however, Abramowitz et al. (2004) statistically

controlled for levels of anxiety suggesting that it may not be that religious people are more anxious due to their obsessive-compulsive tendencies. This may simply mean that they are displaying more compulsions in order to lower anxiety. This assumption was supported by the finding that highly religious people reported having significantly less anxiety.

### **Rationale for the Present Study**

The current study attempts to provide more information on the relationship between an individual’s religiosity and psychological maladjustment. It was hypothesized that participants who are more proreligious will score lower on measures of psychological maladjustment than participants who are less proreligious. Also, participants who are highly proreligious will score higher on a measure of intrinsic religious orientation than they will on measure of extrinsic or quest orientation than participants who are less proreligious. Third, participants who are highly proreligious will score higher on a measure of obsessive-compulsive tendencies than participants who are less proreligious. Finally, participants that score higher on the quest religious orientation will experience more anxiety than participants who score lower in this orientation.

## **Method**

### **Participants**

A total of 132 students (females = 100) enrolled in an introductory psychology class and the psychology of adjustment class at a private, liberal arts college participated in the study for college course credit. Most participants were between the ages of 17 and 21 (n = 106). Other age groups represented were 22 through 30 (n = 11), 31 through 40

( $n = 9$ ), 41 through 50 ( $n = 5$ ), and 51 and older ( $n = 1$ ). Participants were predominately Caucasian ( $n = 117$ ) and included American Indian/Alaskan Native ( $n = 1$ ), African-American ( $n = 11$ ), Hispanic ( $n = 1$ ), Other ( $n = 1$ ) and Prefer Not to Respond ( $n = 1$ ).

## Materials

**Demographics.** The demographics section included questions about the participants' gender, age, ethnicity, and current college classification. In order to receive credit for their class, we asked for each participant's student ID number. An alternative assignment was made available for those that did not wish to participate in the study.

**The Dimensions of Religiosity Scale (DRS).** Participants completed the DRS (Joseph & Diduca, 2007) to determine their level of religiosity. The scale was composed of four different subsections, Preoccupation ( $\alpha = 0.94$ ), Conviction ( $\alpha = 0.94$ ), Emotional Involvement ( $\alpha = 0.93$ ), and Guidance ( $\alpha = 0.87$ ). Each subsection met internal consistency in the current study as well: Preoccupation ( $\alpha = 0.96$ ), Conviction ( $\alpha = 0.98$ ), Emotional Involvement ( $\alpha = 0.96$ ), and Guidance ( $\alpha = 0.90$ ). The measure included twenty questions (i.e., My thoughts often drift to God; p. 605).

**The Revised Religious Life Inventory (RLI-R).** Participants were asked to complete the RLI-R (Hills et al., 2004) in order to determine participants' religious orientation: internal ( $\alpha = 0.93$ ), external ( $\alpha = 0.76$ ), or quest ( $\alpha = 0.83$ ). Each measure met internal consistency in the current study: internal ( $\alpha = 0.94$ ), external ( $\alpha = 0.77$ ), and quest ( $\alpha = 0.84$ ). The total scale included twenty-four items (i.e., I try hard to carry

my religion over into all my other dealings in life; p. 1394).

**The Trust/Mistrust in God Scale (TMGS).** Participants completed the TMGS (Rossmarin et al., 2009). This scale examined a person's belief about God's care about the world, His sheer power, and His mercifulness (i.e., God attends to my needs; p. 64). The scale was composed of two subsections: Trust in God ( $\alpha = 0.96$ ) and Mistrust in God ( $\alpha = 0.77$ ). The current study found that each subsection met internal consistency: Trust in God ( $\alpha = 0.95$ ) and Mistrust in God ( $\alpha = 0.91$ ). The scale was composed of twenty-four items.

**The Indiscriminate Proreligiousness Scale (IPS).** The IPS ( $\alpha = 0.69$ ; Watson et al. 1990) examined participants' overall level of religiosity (i.e., Religious services always give me new insight into my religious beliefs; p. 117). Internal consistency was found in current study ( $\alpha = 0.86$ ). The scale included 12 items.

**The God as a Causal Agent Scale (GCA).** Participants completed the GCA ( $\alpha = 0.74$ ; Ritzema & Young, 1983) to determine their belief in God Control (i.e., Every new life is a direct miracle of God; p. 39 - 40). Internal consistency was supported in the current study ( $\alpha = 0.92$ ). The scale was made up of fourteen items.

**The Internal, Powerful Others, and Chance Scales (IPCS).** The IPCS (Levenson, 1981) was completed by participants in order to assess locus of control (LOC; i.e., To a great extent my life is controlled by accidental happenings; p. 427 - 428). The scale was divided into three subsections: Internal ( $\alpha = 0.64$ ), Powerful Others ( $\alpha = 0.77$ ), and Chance ( $\alpha = 0.78$ ; Lefcourt, 1991). The internal consistency of each subsection was assessed in the current

study: Internal ( $\alpha = 0.58$ ), Powerful Others ( $\alpha = 0.80$ ), and Chance ( $\alpha = 0.76$ ). The scale included 24 items total.

**The 21-Item Depression, Anxiety, Stress Scale (DASS-21).** Participants completed the DASS-21 (Antony, Bieling, Cox, Enns, & Swinson, 1998), in order to determine levels of psychological maladjustment (i.e., I found that I was very irritable; p. 177). There were three subsections of the scale: Depression ( $\alpha = 0.94$ ), Anxiety ( $\alpha = 0.87$ ), and Stress ( $\alpha = 0.91$ ). Internal consistency of each subsection was supported by the data in the current study: Depression ( $\alpha = 0.88$ ), Anxiety ( $\alpha = 0.73$ ), and Stress ( $\alpha = 0.82$ ). The scale included twenty-one questions.

**The Undergraduate Stress Questionnaire (USQ).** The participants completed the USQ (Crandall et al., 1992) which looked at the number of stressful life events that were experienced in the past year by each participant (i.e., Applying to graduate school). This scale included eighty-two items that were in yes or no format.

**The Obsessive-Compulsive Inventory – Revised (OCI-R).** Participants completed the OCI-R ( $\alpha = 0.90$ ; Foa et al., 2002) in order to determine the amount of obsessive-compulsive tendencies that each participant engaged in (i.e., I check things more often than necessary; p. 496). Internal consistency was found in the current study ( $\alpha = 0.89$ ). The scale included eighteen items.

## Procedure

After attaining informed consent, participants completed each measure as part of the online questionnaire via the QuestionPro survey tool. Participants were instructed in class how to log on to the

system. Once logged on, they were presented each questionnaire, successively, and in the same order. Each measure, with the exception of the USQ was scored on a six-point Likert scale that ranged from “Strongly Agree” to “Strongly Disagree.” Course credit was awarded upon completion of the questionnaire. Prior to running any analyses on SPSS, a preliminary selection analysis was conducted. Participants responding faster than five seconds to each item were removed from further analysis due to their inability to read and contemplate every item thoroughly. Finally, internal validity was assessed in each scale.

## Results

A zero-order correlation matrix was generated in order to examine initial relationships. The results showed that Intrinsic orientation was significantly correlated with scores on the DASS Stress scale ( $r = -.196$ ,  $p = .045$ ), the USQ ( $r = -.198$ ,  $p = .043$ ), Quest orientation ( $r = -.197$ ,  $p = .004$ ), Internal LOC ( $r = -.239$ ,  $p = .014$ ), and Chance LOC ( $r = -.294$ ,  $p = .002$ ). Extrinsic orientation was significantly correlated with scores on the DASS Anxiety scale ( $r = .192$ ,  $p = .049$ ), Quest orientation ( $r = .393$ ,  $p < .001$ ), Chance LOC ( $r = .317$ ,  $p = .001$ ), Powerful Others LOC ( $r = .304$ ,  $p = .002$ ), and the OCI-R ( $r = .224$ ,  $p = .022$ ).

Indiscriminate Proreligiousness was found to be significantly correlated with scores on the DASS Depression scale ( $r = -.201$ ,  $p = .04$ ), the DASS Stress scale ( $r = -.343$ ,  $p < .001$ ), the USQ ( $r = -.249$ ,  $p = .01$ ), Intrinsic orientation ( $r = .770$ ,  $p < .001$ ), Quest orientation ( $r = -.371$ ,  $p < .001$ ), and Chance LOC ( $r = -.296$ ,  $p = .002$ ). The USQ was significantly correlated with scores on the DRS subscales Emotional Involvement ( $r = -.196$ ,  $p = .045$ ) and Guidance ( $r = -.206$ ,  $p = .035$ ). Finally, Quest orientation was significantly

correlated with scores on the Chance LOC ( $r = .312, p = .001$ ) and the Powerful Others LOC ( $r = .239, p = .015$ ).

A multiple regression model predicting Stress (as scored on the DASS) was developed ( $R^2 = .272, F = 10.179, p < .001$ ). Significant predictors of stress were IPS ( $\beta = -.335, p = .009$ ), Powerful Others LOC ( $\beta = .312, p < .001$ ), GCA ( $\beta = .465, p = .004$ ), and TMGS ( $\beta = -.360, p = .045$ ). Another multiple regression model to predict IPS was also developed ( $R^2 = .688, F = 88.088, p < .001$ ). Significant predictors of IPS were Intrinsic orientation ( $\beta = .694, p < .001$ ), Quest orientation ( $\beta = -.308, p < .001$ ), and Extrinsic orientation ( $\beta = .155, p = .006$ ).

## Discussion

The current results suggest a relationship between religiosity and psychological maladjustment. The first hypothesis was supported with the finding that IPS and TMGS scores were negatively and significantly predictive of the amount of stress participants experienced, whereas Powerful Others LOC and GCA were positively and significantly predictive of the amount of stress participants experienced. This finding is consistent with those of Harris et al. (2002) and Rosmarin et al. (2009) in regards to levels of religiosity. This relationship suggests that the more religiously devout people are, the less perceived stress they will experience; however, this research is only correlational. It is also possible that stress results in a decrease in devotion.

Another interesting finding is the degree to which people attribute God as a causal factor of their stress. Due to the positive and significant ability of GCA to predict stress, a possible interpretation would be that people believe that God is the cause of their stress

and the events that serve as stressors. This implies that people tend to blame God for the negative life events that they are experiencing. This could also explain the previous finding that increased stress is correlated with lower religiosity levels.

The second hypothesis was supported by the finding that intrinsic religious orientation strongly and positively predicted IP, whereas extrinsic religious orientation predicted IP scores much less strongly. The quest religious orientation was negatively and moderately predictive of IP. These results suggest that only people who internalize their religion and its teachings benefit from the reduction of stress. This notion is supported by the negative correlation found between intrinsic religious orientation and stress. This assumption is not unbelievable when one considers quest religious orientation. This orientation involves questioning and recognizing unknown aspects of the religion which would be more anxiety provoking (Lavric & Flere, 2010).

Interestingly, the social emphasis of extrinsic religious orientation did not correlate with better psychological adjustment. This orientation was positively predictive of both anxiety and obsessive-compulsive tendencies. Perhaps, extrinsically oriented people show this increase in anxiety due to the fear of being discovered as not truly devout by the rest of their group, as suggested by Noelle-Neumann (1986). Another possible interpretation could be that people who are anxious join the religious group while not actually believing in the religion in order to benefit from the same aspects that intrinsically oriented people do. This lends support to the belief that the prayers and traditions that intrinsically oriented people



engage in are what allow them to experience less psychological maladjustment.

Another finding of interest is the negative correlations between scores on the USQ and the Emotional Involvement and Guidance dimensions of religiosity. This suggests that as people experience more stressful life events that are not directly related to religion, they become less emotionally involved in their religious beliefs. Also, they turn to their religion less for guidance. Alternatively, we cannot rule out the possibility of the reverse being true. That being said, this finding almost seems counter to the popular Christian belief that giving one's troubles to God will ultimately result in His intervention and a resolution to their circumstances. When examined with the primary finding that GCA scores are positively predictive of stress, this finding does not become as outstanding. When people God for their stress, it is reasonable that they would go to God less for His guidance.

The hypothesis that more proreligious people will use more obsessive-compulsive tendencies than less proreligious people was not supported. This could be due to the nature of the measure that was used. The OCI-R does not specifically measure religious obsessive-compulsive tendencies. This survey primarily measures regular, non-religious tendencies such as checking. Most religious people display their obsessive-compulsive tendencies in a religious manner (Siev et al., 2011). These religious tendencies were not directly measured in the OCI-R. Future research needs to consider adding or developing a measure that will measure tendencies of religious OCD.

Also, evidence was not found to support the hypothesis that people who are quest

oriented will experience more psychological maladjustment than people who score low in this orientation. This result could be due to people becoming complacent with questioning. Perhaps, the participants in this sample that were quest oriented viewed their questioning as being part of their relationship with God. Their questioning could be viewed as a way to grow closer to God and to develop a better understanding of the religion.

One further limitation is that the measures were not counter balanced on the QuestionPro survey tool. Each participant was given the same questions in the same order as each other participant. This could have caused order effects which may have influenced the data. Future research needs randomize the ordering of each question in order to further validate the findings of the current study.

### **Implications**

Future research should consider the specific denominations of religious people. Different denominations of Christianity value different principles which could influence psychological maladjustment. Also, a common complaint that was made by participants was that the survey assumed a level of religiosity in each participant. Possible responses to survey items that allow participants to express a disbelief in God need to be included in order to have a more accurate assessment of religion's effects on psychological maladjustment. It is possible that the responses of atheists affected the overall relationships that were found because of the survey's assumption of religiosity. This caused many of their responses to be considered low religiosity.

These findings are congruent with those of Lavric & Flere (2010) and suggest that

affiliation with a religion affects the psychological maladjustment that people experience. More specifically, IP was the best predictor of better psychological adjustment and mental health outcomes. Also, IP was best predicted by Intrinsic religious orientation, or simply being truly devout. With the relationship between increased stress and anxiety and extrinsic and quest religious orientation, respectively, the most psychologically advantageous orientations appear to be intrinsic and IP due to their relationship with better mental health outcomes.

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