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Dissociation and religiosity: The role of religious experience.

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**Abstract**

Dissociation can be conceptualized as a disruption in integrated processing of psychological information, due to alterations in consciousness. An emerging body of research has examined the relationship between dissociation and religiosity. Mixed findings suggest a weak positive association between these two constructs. The present aim was to investigate if dissociation predicted religious experience over and above a religiosity measure. A sample of 371 Irish respondents completed the Measure of Prayer Type, the M Scale Short Version, and the Dissociative Experiences Scale. Binary logistic regression showed that religious experience was predicted by dissociation, controlling for frequency of prayer.

**Keywords:** Dissociation, religiosity, prayer, religious experience

## Introduction

Dissociation can be conceptualized as a disruption in integrated processing of psychological information, due to alterations in consciousness (Dorahy & Lewis, 2001). "... dissociation provides a means by which incoming information can be deflected from the course of its usual associations" (Schumaker, 1995, p. 38). Dissociation can be adaptive or maladaptive (Loewenthal, 2007). Experiences such as daydreams lie at the adaptive end of the dissociation continuum, while dissociative identity disorder (DID) lies at the maladaptive end (Dorahy & Lewis, 1998). DID is among the dissociative disorders listed in DSM-5 (American Psychiatric Association, 2013), and is characterized by the presence of two or more personality states and recurrent episodes of amnesia. Individuals with DID may experience thoughts or voices intruding into their conscious functioning and sense of self. They may also experience feelings of detachment from the body or sensations that their body or actions are not their own (American Psychiatric Association, 2013).

Schumaker (1995) suggested that dissociation was the cognitive, affective, and perceptual basis for religion. He proposed that the capacity of the brain to dissociate itself into separate and independent streams of consciousness is the main biological ingredient for religion. Dorahy and Lewis (2001) suggested that dissociation fosters religious beliefs, and individuals with a rigid religious belief system are more likely to experience dissociation than individuals with a more liberal religious belief system. Empirical evidence for the relationship between dissociation and religiosity is inconsistent. For example, Dorahy, Schumaker, Krishnamurthy, and Kumar (1997) reported that religious ritual was positively associated with dissociation among Indian and Australian students. Religiosity was measured using the Maranell Religious Ritual Scale (RRS; Maranell, 1974) and dissociation was measured using the Questionnaire of Experiences of Dissociation (QED; Riley, 1988). Additionally, Dorahy and Lewis (2001) reported evidence of a positive association between

religiosity and dissociation among Catholic respondents in Northern Ireland. Religiosity was measured using the Francis Scale of Attitude Toward Christianity-short form (ATCS-SF; Francis, 1993) and the Maranell Religious Ritual Scale (RRS; Maranell, 1974), and dissociation was measured using the Dissociative Experiences Scale (DES; Carlson & Putnam, 1993). However, Binks and Ferguson (2013), among Northern Irish respondents living in England, found no association between either intrinsic or extrinsic religious orientation and non-pathological dissociation, a positive association between prayer and non-pathological dissociation, and a negative association between “living life according to religious beliefs” and non-pathological dissociation. Religious orientation (intrinsic orientation and extrinsic orientation) was measured using the Age Universal I-E Religious Orientation Scale (Gorsuch & Venable, 1983). Details of how prayer and “living life according to religious beliefs” were measured were not reported. Dissociation was measured using the Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986). In a review of the literature, Loewenthal (2007) concluded that there was a weak, positive association between dissociation and religiosity but this relationship may be culturally specific.

Schumaker (1995) suggested that dissociation facilitates religious experience through the creation of alternative versions of reality. Thalbourne (2007) reported a positive association between religiosity and dissociation among Australian psychology undergraduates but only when mystical experience was not controlled for. Religiosity was measured using an eight-item scale devised by Haraldsson (1981), mystical experience was measured by the Mystical Experience Scale (MES; Lange & Thalbourne, 2007), and dissociation was measured using the Questionnaire of Experiences of Dissociation (QED; Riley, 1988) and the Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986).

From the review above, it would appear that the relationship between religiosity and dissociation depends on how religiosity is measured and whether or not religious experience

is given consideration. It may be that religious experience is the dimension of religiosity that is associated with dissociation and this is why findings are inconsistent. The present aim was to investigate if dissociation predicted religious experience over and above a religiosity measure, specifically frequency of prayer. Prayer is arguably the most salient measure of religiosity since it taps into the more spiritual dimensions of religion (Breslin & Lewis, 2008) as opposed to the more organisational, institutional, and dogmatic aspects. It has been argued that prayer should be measured using a multi-item scale that takes account of different dimensions of prayer (Ladd & Spilka, 2002, 2013). Consequently in the present study religiosity was measured using a multi-item prayer measure.

### **Method**

The sample comprised an Irish opportunistic community based sample of 371 adults who completed a questionnaire booklet in their own time and returned it to the researcher. Although the respondents' occupations were not recorded it is estimated that about 50% were students. Age of respondents ranged from 16 to 62 (mean = 28.88; SD = 11.02). Even though approximately equal numbers of male and female respondents were targeted to complete the questionnaire booklet the respondents were predominantly female. The gender distribution was 77.8% female respondents and 22.2% male respondents.

### **Measures**

*Measure of Prayer Type (Poloma & Pendleton, 1991).* The scale comprised 15 items. The measure consists of four subscales measuring different prayer types: Colloquial (items 1-6), Petitionary (items 7-8), Ritual (items 9-10), and Meditative (items 11-15). Representative items include: "how often do you talk to God in your own words" (Colloquial); "how often do you ask for material things you need" (Petitionary); "how often do you read from a book

of prayers” (Ritual); and “how often do you spend time just quietly thinking about God” (Meditative). Items were scored on a seven-point scale ranging from “never” (0), through “every 3 months” (3), to “daily” (6). Possible response range is 0 – 90, with higher scores indicating more frequent engagement in different prayer types.

*M Scale Short Version* (Hood: personal communication, September 2004). The scale is a short version of the Mysticism Scale (Hood, 1975). It is comprised of five items. Representative items include, “how often during the past year have you felt an experience of God that no words could possibly express” and “how often during the past year have you felt your own self merging with God”. Items were scored on a seven-point scale ranging from “never” (0), through “monthly” (4), to “daily” (6). Possible response range is 0 – 30 with higher scores indicating a higher frequency of religious experience.

*The Dissociative Experiences Scale (DES: Carlson & Putnam, 1993)*. This is a 28-item measure of dissociation. Representative items include: “some people have the experience of finding themselves in a place and having no idea how they got there”, and “some people have the experience of feeling that their body does not seem to belong to them”. Responses are made by circling a percentage point (in subdivisions of 10) between 0 and 100%. A total score for the scale is determined by calculating the average score for all items. Consequently, scores can range from 0 – 100 with higher scores indicating higher levels of dissociation. The scale reliably measures the general factor of dissociation (Carlson & Putnam, 1993).

## **Results**

Internal consistencies (Cronbach, 1951) of all measures were generally satisfactory (>.7; Kline, 1986), with the exception of the Ritual prayer subscale (see Table 1). Table 1 shows

that respondents had a mean score of 18.14 on the DES. The low value of the mean for the M Scale in Table 1 reflects the fact that responses to the M Scale were highly positively skewed, with 51.5% of respondents not having had a religious experience. Consequently the M Scale was dichotomized into respondents who had a religious experience ( $N = 180$ ; coded 1) and those who did not ( $N=191$ ; coded 0).

\*\*\* INSERT TABLE 1 \*\*\*

Respondents engaged least in Petitionary prayer and engaged most in Coloquial prayer. The prayer subscales were highly intercorrelated, with correlations as high as .80. In regression analyses when predictor variables are highly intercorrelated estimates can become unstable (Clark-Carter, 2002; Miles & Shevlin, 2001; Stevens, 2002; Tabachnick & Fidell, 1989). To avoid multicollinearity, and consequently unstable predicted values in regression analyses it is recommended to use a single measure incorporating the highly correlated measures (Clark-Carter, 2002; Stevens, 2002). Consequently the four prayer subscales were combined into a prayer total scale. The mean score for the prayer total measure was 36.03 indicating that respondents scored an average of approximately 2.4 on each item, suggesting that respondents only pray about once every three to six months.

There was no significant correlation between the prayer total measure and dissociation ( $r = -.03, p = .58$ ). To investigate if dissociation predicted religious experience over and above prayer a binary logistic regression was conducted with dissociation and prayer as the predictor variables and religious experience as the outcome variable. The model was significant ( $\chi^2 = 152, df = 2, p < .01$ ) and both predictors significantly predicted religious experience, as shown in Table 2.

\*\*\* INSERT TABLE 2 \*\*\*

From Table 2 it can be seen that the odds of having a religious experience increases with an increase in dissociation score irrespective of frequency of prayer. Similarly, the odds



of having a religious experience increases with an increase in frequency of prayer irrespective of dissociation score.

### **Discussion**

The present aim was to investigate if dissociation predicted religious experience over and above a religiosity measure, specifically frequency of prayer.

The internal consistencies (Cronbach, 1951) of the measures were generally satisfactory. Respondents had dissociative experiences about 18% of the time, they prayed on average about every three to six months, and just under half of the respondents have had a religious experience.

Unsurprisingly, frequency of prayer predicted religious experience. However, results suggested that religious experience is the dimension of religiosity that is associated with dissociation since religious experience was predicted by dissociation, controlling for frequency of prayer, but there was no significant correlation between frequency of prayer and dissociation. Since frequency of prayer predicted religious experience, controlling for dissociation, it appears that dissociation is not necessary for a religious experience to occur, contrary to Schumaker's (1995) suggestion that dissociation was necessary. It might be expected that a religious experience, by definition, incorporates an element of dissociation. The finding that frequency of prayer predicted religious experience, controlling for dissociation, suggests that there may be a nonrecursive relationship between religiosity and dissociation to the extent that religious experience can cause dissociation and dissociation can result in religious experience

The finding that dissociation positively predicted religious experience concurs with Dorahy et al. (1997), and Dorahy and Lewis (2001) who reported that dissociation was positively associated with religious ritual. The finding that there was no significant

association between frequency of prayer and dissociation fails to corroborate Binks and Ferguson's (2013) finding that there was a positive association between prayer and non-pathological dissociation. The finding that that religious experience was predicted by dissociation, controlling for frequency of prayer, concurs with Thalbourne (2007) who reported a positive association between mystical experience and dissociation. It would appear that religious experience is the dimension of religiosity that is associated with dissociation and this may account for the inconsistent findings of previous research. To further clarify the issue future research examining the relationship between dissociation and religiosity should include a measure of religious experience as part of the religiosity measures. Furthermore, since mental health professionals are increasingly likely to encounter dissociative disorders (Brandt & Borrás, 2009), they could include a measure of religious experience as part of the diagnostic instruments. This would help ascertain whether the dissociative condition was pathological or spiritual in nature and thus influence the course of treatment.

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**Table 1. Alpha, means and standard deviations for all measures.**

Measures	Alpha	Mean	SD
M Scale	.94	4.50	7.50
Dissociation Scale	.95	18.14	14.20
Colloquial	.90	17.94	11.08
Petitionary	.85	3.47	3.69
Ritual	.53	4.86	3.57
Meditative	.86	9.88	8.48
Total Prayer	.94	36.03	23.51

**Table 2. Bs and Odds Ratios from binary logistic regression analysis predicting religious experience.**

<b>Predictor</b>	<b>B (SE)</b>	<b>Odds Ratio (95% CI)</b>
Prayer	.07* (.007)	1.07 (1.06, 1.09)
Dissociation	.02* (.009)	1.02 (1.00, 1.04)

\* $p < .01$