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Uncertainty, god, and scrupulosity: Uncertainty salience and priming god concepts interact to cause greater fears of sin

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ABSTRACT

Background and objectives: Difficulties tolerating uncertainty are considered central to scrupulosity, a moral/religious presentation of obsessive-compulsive disorder (OCD). We examined whether uncertainty salience (i.e., exposure to a state of uncertainty) caused fears of sin and fears of God, as well as whether priming God concepts affected the impact of uncertainty salience on those fears.
Method: An internet sample of community adults ($N = 120$) who endorsed holding a belief in God or a higher power were randomly assigned to an experimental manipulation of (1) salience (uncertainty or insecurity) and (2) prime (God concepts or neutral).
Results: As predicted, participants who received the uncertainty salience and God concept priming reported the greatest fears of sin. There were no mean-level differences in the other conditions. The effect was not attributable to religiosity and the manipulations did not cause negative affect.
Limitations: We used a nonclinical sample recruited from the internet.
Conclusions: These results support cognitive-behavioral models suggesting that religious uncertainty is important to scrupulosity. Implications of these results for future research are discussed.

1. Introduction

Researchers view difficulties tolerating uncertainty (i.e., intolerance of uncertainty) as being at the core of obsessive-compulsive disorder (OCD) (Grayson, 2010). Scrupulosity is a moral/religious presentation of OCD that is defined as "fearing sin where there is none" (Abramowitz & Jacoby, 2014, p. 140). The extant literature highlights the potential importance of uncertainty for understanding scrupulous fears. For example, within Abramowitz and Jacoby's (2014) cognitive-behavioral model, scrupulosity is marked by the tendency to misinterpret intrusive thoughts in ways that are not subject to assurance (e.g., *Have I committed sin by mistake?*). Uncertainty as to whether intrusive thoughts are sinful purportedly, in part, evokes fears about having committed sin or receiving punishment from God. In a separate line of research, uncertainty is viewed as leading to doubt or instability in one's sense of self (van den Bos, 2009) and this self-doubt causes anxiety (Echebarria-Echabe, 2013). Abramowitz and Jacoby (2014) highlighted the importance of self-doubt to scrupulosity, as they described commonly observed religious doubts that engender fears about sin or God (e.g., *Am I pure enough?*; *Do I have sufficient faith in God?*; *Am I going to heaven when I die?*). Taken together, these lines of research indicate that religious uncertainty may cause scrupulous fears.

Some research suggests that religious priming (via God concept priming) provides a sense of order that reduces the emotional impact of uncertainty (Inzlicht & Tullet, 2010). As such, reflecting on God may mitigate the impact of uncertainty on scrupulous fears. Other research, though, has found that reflecting on God causes anxiety (Toburen & Meier, 2010), potentially because of evaluative concerns. For example, individuals who perceive that they are being watched by God may have concerns that their behavior will damage their standing in the eyes of God (McKay, Efferson, Whitehouse, & Fehr, 2011). This possibility is consistent with Shariff and Norenzayan's (2007) assertion that reflecting on God leads to perceptions that God is watching and wants individuals to behave, which has led researchers to conclude that moral impression management occurs as a result of reflecting on God (Preston & Ritter, 2013). Because scrupulosity is marked by concerns about morality and one's standing in relation to God (Abramowitz & Jacoby, 2014), reflecting on God would likely increase scrupulous fears.

Interestingly, the available literature indicates a state of uncertainty may interact with reflecting on God to engender scrupulous

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fears. For example, reflecting on God could increase the saliency of religion (Inzlicht & Tullet, 2010), which, in the context of a state of uncertainty, might lead to religious uncertainty/doubt and scrupulous fears. This possibility is consistent with Abramowitz and Jacoby's (2014) cognitive-behavioral model of scrupulosity. Another explanation for an interaction between a state of uncertainty and reflecting on God comes from Gervais and Norenzayan (2012), who found that, among believers, priming God concepts caused public self-awareness. Public self-awareness is related to anxiety, with George and Stopa (2008) stating that "it may be the interaction between public self-awareness and negative images or impressions of self that creates the problem" (p. 68). Following from George and Stopa (2008), scrupulous fears may arise from a state of uncertainty, which is related to negative self-impressions, and the public self-awareness that results from reflecting on God.

In sum, uncertainty is considered central to scrupulosity and yet its impact on scrupulous fears remains unexamined. In this study, we predicted that uncertainty salience (i.e., exposure to a state of uncertainty; van den Bos, 2009) and God concept priming would interact to cause scrupulous fears. We targeted fears of sin and fears of God, which are two central scrupulous fears (Abramowitz, Huppert, Cohen, Tolin, & Cahill, 2002). In an attempt to examine the specific importance of uncertainty salience to scrupulous fears, we used an insecurity salience control in which participants considered self-insecurity. Insecurity salience was used as a control because insecurity may best reflect the concept of uncertainty, within some models of this construct, among English-speaking respondents (McGregor, Prentice, & Nash, 2009). Using insecurity salience as a control was expected to provide a relatively stringent test as to the specific importance of uncertainty to scrupulous fears.

Although it remains important to examine the targeted fears among patients with OCD, we used a group of community respondents. Our use of a nonclinical sample is informed by the purported continuous nature of scrupulosity (Abramowitz et al., 2002) and data indicating that obsessive-compulsive symptoms are dimensional (Olatunji, Williams, Haslam, Abramowitz, & Tolin, 2008). Nonclinical samples are frequently used in studies seeking to better understand scrupulosity and obsessive-compulsive symptoms (Abramowitz et al., 2014). An important methodological consideration is to account for the effects of religiosity when examining scrupulosity among nonclinical samples (Siev, Baer, & Minichiello, 2011). Religiosity was thus assessed as a covariate. Finally, uncertainty salience and reflecting on God are believed to increase specific forms of emotional distress (i.e., anxiety) rather than negative affect (Echebarria-Echabe, 2013; Toburen & Meier, 2010). We thus investigated whether uncertainty salience and God concept priming also impacted negative affect.

2. Method

2.1. Participants

Gervais and Norenzayan (2012) found inconsistent evidence for the impact of reflecting on God on public self-awareness among *non-believers*. Following from their findings, as part of our participant recruitment, we asked prospective participants if they believed in God or a higher power at the beginning of the study. The 58 prospective participants who denied belief in God or a higher power were excluded from participation. The total sample consisted of 120 adults. The mean age of the sample was 36.9 years (SD = 13.2; range from 18 to 72) and respondents predominantly self-identified as female (62.5%). In terms of racial/ethnic identification, 76.7% of the sample self-identified as White, 9.2% as African American, 5.8% as Asian, 4.2% Latino, 2.5% as Native American, and 1.6% as bi-or multi-racial.

The majority of the sample reported receiving a two-year college degree or higher (63.4%), being currently employed at least part-time (76.7%), and as currently non-married (59.2%). In terms of a current religious affiliation, 44.2% of the sample self-identified as Protestant, 18.3% as Catholic, 3.3% as Jewish, 2.5% as Buddhist, 1.7% as Muslim, and 10.8% as "other" religious affiliation. Approximately 23.3% of the sample reported having no current religious affiliation. Given that nearly 20% of individuals with scrupulosity report having no religious affiliation (Siev et al., 2011), participants reporting having no current religious affiliation were retained for subsequent analyses. As noted, analyses were run to ensure any observed effect was not attributable to religiosity.

2.2. Measures

2.2.1. Modified Penn Inventory of Scrupulosity (PIOS)

The PIOS (Abramowitz et al., 2002) is a 19-item measure that assesses scrupulous fears, including fears of sin (e.g., *I feel guilty about immoral thoughts I have had*) and fears of God (e.g., *I worry that God is upset with me*), on a 0 to 4 scale. A 15-item reduced-item version of the PIOS that improves upon the factorial validity of the measure was used in this study (Olatunji, Abramowitz, Williams, Connolly, & Lohr, 2007). The revised PIOS (i.e., PIOS-R) total scale shares a near-perfect (r = .99) correlation with the original PIOS total scale (Olatunji et al., 2007). Given the current study aims, we modified the original instructions to ensure state-like time instructions ("in this moment") were used. We also modified the response options, such that item ratings were "very slightly or not at all," "a little," "moderately," "quite a bit," and "extremely." Some of the PIOS items were reworded to reflect a state-like construct (e.g., "Immoral thoughts come into my head and I can't get rid of them" was reworded as "Immoral thoughts are in my head and I can't get rid of them"). The modified PIOS-R total (Cronbach's α = .94), fears of sin scale (α = .90), and fears of God scale (α = .90) showed good internal consistency in this study.

2.2.2. General Religiousness Scale (GRS; Rowatt, LaBouff, Johnson, Froese, & Tsang, 2009)

The GRS is a 4-item scale of religiosity. The four items are: (a) *How religious do you consider yourself to be?*; (b) *How often do you attend religious services?*; (c) *How often do you read the Bible, Koran, Torah or other sacred book?*; and (d) *About how often do you pray or meditate outside of religious services?*. Each item is rated using an ordered-category scale and the GRS items are best represented by a single-factor. The GRS showed good internal consistency in this study (α = .85). Following Rowatt et al. (2009), we created a total scale by standardizing responses to each GRS item and summing the standardized scores.

2.2.3. Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988)

The PANAS asks respondents to indicate to what extent single-word descriptors (e.g., *distressed*, *scared*) capture how they felt on a 1 to 5 scale. State-like time instructions ("in this moment") were used in this study. The negative affect (NA) scale of the PANAS – the PANAS scale of interest in the present study – consists of 10 items. PANAS-NA has shown moderate to strong (*r*s ranging from .51 to .74) correlations with other measures of negative affect (Watson et al., 1988). PANAS-NA showed good internal consistency in this study (α = .89).

2.3. Procedure

Participants were recruited using Amazon's Mechanical Turk (MTurk), an internet-based platform that allows individuals to