

Examining a Purported Association Between Attachment to God and Scrupulosity

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Scrupulosity is a moral/religious subtype of obsessive–compulsive disorder (OCD) that remains understudied within the extant literature. Drawing from separate lines of research suggesting that attachment insecurities underlie OCD and that God functions psychologically much like other attachment figures, we examined a purported association between attachment to God and scrupulosity. A large sample of community adults ($N = 450$) completed self-report measures assessing for scrupulosity, obsessive–compulsive symptoms, attachment to God, and related covariates. Results were that attachment to God significantly correlated with scrupulosity. Moreover, attachment to God evidenced incremental specificity in the concurrent prediction of scrupulosity beyond variance shared with religiosity, negative affect, OCD-relevant dysfunctional beliefs, and attachment insecurities in close interpersonal relationships. Attachment to God did not evidence this level of specificity in the concurrent prediction of obsessive–compulsive symptoms. Among the attachment to God dimensions, attachment anxiety shared a particularly robust association with scrupulosity. Conceptual and therapeutic implications of these results are discussed.

Keywords: attachment, God, obsessive–compulsive disorder (OCD), scrupulosity

It has been suggested that attachment insecurities underlie obsessive–compulsive disorder (OCD) and that explicating the impact of these insecurities on OCD can improve upon prevailing treatments for this disorder (Doron & Kyrios, 2005; Doron et al., 2012; Doron, Moulding, Kyrios, Nedeljkovic, & Mikulincer, 2009). However, no known published study has yet examined associations between attachment insecurities and one subtype of OCD—scrupulosity. Scrupulosity is a moral/religious subtype of obsessive–compulsive disorder (OCD) that is marked by “persistent doubts about sin and irresistible urges to perform excessive religious behavior” (Abramowitz, Huppert, Cohen, Tolin, & Cahill, 2002, p. 825). The lifetime prevalence rate of OCD is approximately 1–2% in the general population (Kessler et al., 2005) and, in reviewing the available literature, Miller and Hedges (2008) concluded that a substantial number of patients with OCD (between approximately 5–33%) suffer from scrupulosity. Unfortunately, prevailing psychological interventions for OCD tend to be less effective in the treatment of scrupulosity relative to other subtypes of OCD and treating scrupulosity often requires a number of nuanced modifications to these interventions (Huppert & Siev, 2010). Despite these treatment challenges, scrupulosity remains understudied in the existing literature (Miller & Hedges, 2008).

According to Doron and colleagues (Doron & Kyrios, 2005; Doron et al., 2009, 2012), a central perceived threat for individuals

with OCD is feeling incompetent in valued self-domains (e.g., morality) as a result of misinterpreting the significance of naturally occurring intrusive thoughts. When experiencing intrusive thoughts that challenge competency in valued self-domains, Doron and colleagues asserted that individuals with secure attachments are able to reaffirm their competency in the challenged self-domains by relying on the activation of adaptive distress-regulation strategies. However, individuals with OCD often experience attachment insecurities, with Doron et al. (2009) finding that attachment anxiety (r s ranging from .18 to .31) and attachment avoidance (r s ranging from .05 to .19) in close interpersonal relationships both tended to significantly positively correlate with obsessive–compulsive symptoms in a large college student sample. Doron and colleagues proposed that individuals with attachment insecurities are unable to find internal representations of security, thereby increasing the likelihood for the development of dysfunctional beliefs related to the self, others, and world (e.g., overestimation of threat, inflated sense of responsibility, beliefs about the overimportance of thoughts, need for perfection). As a result of these dysfunctional beliefs, individuals with attachment insecurities are especially prone to misinterpreting intrusive thoughts and, ultimately, engage in reparative behaviors (e.g., compulsive behaviors) in an attempt to restore competency within challenged self-domains. Of note, compulsive behaviors associated with scrupulosity are conceptualized as attempts for scrupulous individuals to restore their perceived relationship with God (Miller & Hedges, 2008).

Extending the work of Doron and colleagues (Doron & Kyrios, 2005; Doron et al., 2009, 2012), we expected that a specific type of attachment insecurity underlies scrupulosity. More precisely, we propose that attachment insecurities in relation to God, rather than attachment insecurities in close interpersonal relationships, are especially important to scrupulosity. The examination of this

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purported association was informed by the work of Kirkpatrick (2005), who asserted that perceived relationships with God tend to meet the principal five criteria for defining attachment relationships. As such, Kirkpatrick opined that perceived relationships with God function psychologically much like other attachments. It should be noted that “God” is referred to as an attachment-like figure throughout the manuscript, although, as noted by Granqvist and Kirkpatrick (2008), another supernatural figure may fill the same attachment-like role.

Rowatt and Kirkpatrick (2002) found that the structure of attachment insecurities in relation to God parallels the two orthogonal dimensions of adult attachment insecurities evidenced in close interpersonal relationships using a nonclinical sample of United States community adults with a relatively diverse range of denominational affiliations (including Catholic, Protestant, and no religious affiliation). Within contemporary conceptualizations of attachment theory, adult attachment insecurities are conceptualized as consisting of two orthogonal dimensions that have been labeled *attachment anxiety* and *attachment avoidance* (Shaver & Mikulincer, 2002). Attachment anxiety refers to concerns that attachment figures will be unavailable during times of need, and attachment avoidance refers to distrust as to the goodwill of attachment figures.

Theorists suggest that attachment insecurities in close interpersonal relationships impact individuals’ attachment to God. For example, Kirkpatrick (2005) noted that individuals who do not experience secure interpersonal relationships during childhood, particularly with parental figures, are motivated to develop an attachment with God during adulthood. However, Kirkpatrick further noted that individuals with negative internal working models of others might be especially likely to develop a corresponding attachment to God. Under this scenario, individuals with attachment insecurities in close interpersonal relationships might also find God to be distant and/or inaccessible. Based on Doron et al.’s (2009) findings linking attachment insecurities in close interpersonal relationships to obsessive–compulsive symptoms, as well as these noted parallels between attachment insecurities in close interpersonal relationships and in relation to God, scrupulosity is likely associated with attachment insecurities in relation to God. For example, following from Kirkpatrick, scrupulous individuals who develop an anxious attachment style with caregivers during childhood might also be expected to have an anxious attachment style in relation to God during adulthood (reflecting a corresponding attachment).

To date, no known published study has yet examined an association between attachment to God and scrupulosity. Filling this gap in the literature, we provided the first known investigation of an attachment to God–scrupulosity association. Although it remains important to examine scrupulosity among carefully diagnosed patients, we used a large sample of community respondents. Our use of this sample is informed by the purported continuous nature of scrupulosity (Abramowitz et al., 2002) and data indicating that obsessive–compulsive symptoms are dimensional in nature (Olatunji, Williams, Haslam, Abramowitz, & Tolin, 2008). These lines of research indicate that differences in scrupulosity are quantitative rather than qualitative in nature, which highlights the methodological consideration that scrupulosity should be assessed using the full range of available scores. Moreover, unselected samples of respondents are frequently used to examine OCD,

including within studies investigating associations between attachment insecurities and obsessive–compulsive symptoms (Doron et al., 2009). Overall, the extant literature supports the study of unselected respondents as a reasonable method for better understanding OCD and related constructs. Nonetheless, as noted by Siev, Baer, and Minichiello (2011), self-report measures of scrupulosity might simply be a marker of religiosity in nonclinical samples. Religiosity was thus controlled for in the main analyses.

The extant literature allowed us to make certain a priori predictions as to the nature of the association between attachment to God and scrupulosity. For example, Rowatt and Kirkpatrick (2002) found that attachment anxiety and attachment avoidance in relation to God both significantly positively correlated with negative affect. Given that negative affect is a generalized vulnerability for emotional disorders, including OCD (e.g., Brown, Chorpita, & Barlow, 1998), for hypothesis 1, we predicted that attachment anxiety and attachment avoidance in relation to God would both significantly positively correlate with scrupulosity. However, it is possible that an observed association between attachment to God and scrupulosity is attributable to overlap with negative affect. As such, it is important to examine the specificity of the association between attachment to God and scrupulosity. In addition to negative affect, an association between attachment to God and scrupulosity could be attributable to other covariates. For example, Doron et al. (2009) found that the association between attachment insecurities in close interpersonal relationships and obsessive–compulsive symptoms was largely accounted for by OCD-relevant dysfunctional beliefs. Moreover, and as reviewed, attachment insecurities in close interpersonal relationships are considered important to both obsessive–compulsive symptoms and attachment to God. As such, if attachment to God is a useful variable for further informing our understanding of scrupulosity, this variable should demonstrate incremental specificity beyond religiosity, negative affect, OCD-relevant dysfunctional beliefs, and attachment insecurities in close relationships in the concurrent prediction of scrupulosity. In the present tests of incremental specificity, for hypothesis 2, we predicted that only attachment anxiety in relation to God would share a unique relation with scrupulosity.¹ This prediction was based on findings from Rowatt and Kirkpatrick that attachment anxiety, but not attachment avoidance, in relation to God demonstrated incremental specificity in relation to negative affect even after accounting for religiosity.

Finally, it is important to investigate whether the relevance of attachment to God spans across the domain of obsessive–compulsive symptoms or whether this variable is particularly relevant to only scrupulosity. Attempts to identify unique correlates of scrupulosity have yielded promising findings. For example, Siev et al. (2011) compared scrupulous and nonscrupulous OCD individuals with a diverse range of denominational affiliations (including Catholic, Hindu, Jewish, Muslim, Protestant, and no religious affiliation). Siev et al. found that scrupulous individuals and nonscrupulous OCD individuals had different religious characteristics, such as a significantly higher percentage of scrupulous individuals who were religiously affiliated.

¹ Our initial predictions erroneously omitted religiosity as a covariate from these analyses. We thank an anonymous reviewer for raising the important methodological consideration of including religiosity as a covariate in our analyses of incremental specificity.

pulous individuals reporting that their symptoms interfered with their relationship with God relative to nonscrupulous OCD individuals. Based on these findings, we predicted that attachment to God would share more of a robust association with scrupulosity than obsessive–compulsive symptoms. As such, for hypothesis 3, attachment to God was not predicted to show incremental specificity in relation to obsessive–compulsive symptoms.

Results consistent with these predictions would have potentially important implications. For example, finding robust associations between attachment to God and scrupulosity would highlight the potential importance in expanding conceptual models of scrupulosity to include these specific attachment insecurities. Further, Siev et al. (2011) found that a negative concept of God is associated with a greater severity of symptoms among scrupulous individuals. Although Siev et al. used a clinical sample, and we used a nonclinical sample in the present study, finding attachment to God to be uniquely associated with the severity of scrupulosity might highlight the potential usefulness of targeting attachment securities in relation to God within interventions for scrupulosity. Presently, attachment to God is not a target within standard treatment protocols for scrupulosity/OCD.

Method

Participants

The sample consisted of 450 adults recruited through the Internet. The mean age of the sample was 33.7 years ($SD = 11.7$; range from 18 to 75) and respondents predominantly self-identified as female (59.1%). In terms of racial/ethnic identification, 78.7% of the sample self-identified as Caucasian, 7.3% as Asian, 5.8% as African American, 3.8% as Latino, 3.6% as bi- or multiracial, and 0.9% as Native American. The majority of the sample reported receiving a 2-year college degree or higher (57.3%), being currently employed at least part-time (67.4%), and as currently non-married (62.9%). In terms of a current religious affiliation, 20.7% of the sample self-identified as Protestant, 16.5% as Catholic, 1.6% as Jewish, 1.6% as Buddhist, 1.6% as Hindu, 0.2% as Muslim, and 14.9% as “other” religious affiliation. Approximately 41.9% of the sample reported having no current religious affiliation. Given that one study using community adults recruited from the Internet found that nearly 20% of scrupulous individuals report having no religious affiliation (Siev et al., 2011), respondents reporting having no current religious affiliation were retained for the subsequent analyses.²

Measures

Penn Inventory of Scrupulosity (PIOS). The PIOS (Abramowitz et al., 2002) is a 19-item measure that assesses the severity of scrupulosity, 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 5-point scale (ranging from 0 to 4). However, following the recommendations of Olatunji, Abramowitz, Williams, Connolly, and Lohr (2007), a 15-item reduced-item version of the PIOS that improves upon the factorial validity of the measure was used in the present research. The revised PIOS total scale was used in the present research because we made no predictions as to the differential performance of the PIOS scales

(following Moore & Abramowitz, 2007). The revised PIOS total scale shares a near-perfect ($r = .99$) correlation with the original PIOS total scale (Olatunji et al., 2007). The revised PIOS ($M = 13.75$, $SD = 11.36$) demonstrated good internal consistency in the present study (Cronbach's $\alpha = .95$).

Attachment to God Scale (AGS). The AGS (Rowatt & Kirkpatrick, 2002) is a 9-item measure that assesses individual differences along the dimensions of attachment anxiety (e.g., *God's reactions to me seem to be inconsistent*) and attachment avoidance (e.g., *God seems impersonal to me*) in relation to God using a 7-point scale (ranging from 1 to 7). The AGS has three items assessing attachment anxiety and six items assessing attachment avoidance. The two scales of the AGS share small to moderate (r s ranging from .12 to .29) correlations with scales assessing adult attachment insecurities in close interpersonal relationships (Rowatt & Kirkpatrick, 2002). Given its brevity, the attachment anxiety scale ($M = 10.22$, $SD = 4.02$) of the AGS demonstrated adequate internal consistency in the present study ($\alpha = .73$). The attachment avoidance scale ($M = 23.65$, $SD = 10.00$) of the AGS demonstrated good internal consistency in the present study ($\alpha = .91$).

Experiences in Close Relationships-Revised (ECR-R). The ECR-R (Fraley, Waller, & Brennan, 2000) is a 36-item revised version of Brennan, Clark, and Shaver's (1998) Experiences in Close Relationships (ECR) questionnaire. The ECR-R assesses individual differences along the dimensions of attachment anxiety and attachment avoidance using a 7-point scale (ranging from 1 to 7). The ECR consists of 18 items assessing for each of these two adult attachment insecurity dimensions (attachment anxiety: e.g., *I worry a lot about my relationships*; attachment avoidance: e.g., *I find it difficult to allow myself to depend on romantic partners*). Correlations between the original ECR and the ECR-R have tended to be around .95 and thus researchers consider findings using either version of the measure to be quite similar in their meaning (Mikulincer & Shaver, 2007a). Following Doron et al. (2009), the ECR-R items were worded such that respondents were asked to think about their close relationships, without focusing on one specific partner. Both the anxiety ($M = 59.46$, $SD = 25.18$) and avoidance ($M = 51.83$, $SD = 22.21$) scales of the ECR-R demonstrated good internal consistency in the present study (α s = .96).

The Dimensional Obsessive-Compulsive Scale (DOCS). The DOCS (Abramowitz et al., 2010) is a 20-item measure that assesses the severity of obsessive–compulsive symptoms using a 5-point scale (ranging from 0 to 4). The four DOCS scales are contamination, responsibility for harm, unacceptable thoughts, and symmetry. Each DOCS scale assesses for the time spent, avoidance, distress, interference, and attempts of control surrounding the respective symptom dimension. The DOCS total scale was used in the present research, as no predictions were made as to the differential performance of the separate DOCS scales. The DOCS total scale shares moderate to strong (r s ranging from .54 to .71)

²The pattern of associations between attachment to God and both criterion variables (scrupulosity and obsessive-compulsive symptoms) was similar when separately examined among respondents with versus without a religious affiliation (zero-order r s and partial r s from regression analyses). Given the consistency in the pattern of associations across respondents, as well as for ease of interpretation, only results from the full sample are reported.

correlations with other measures assessing obsessive–compulsive symptoms (Abramowitz et al., 2010). The DOCS ($M = 12.34$, $SD = 10.78$) demonstrated good internal consistency in the present study ($\alpha = .94$).

Obsessive Beliefs Questionnaire-20 (OBQ-20). The OBQ-20 (Moulding et al., 2011) is a 20-item short-form of prior versions of OBQ (Obsessive Compulsive Cognitions Working Group, 2001) and uses a 7-point scale (ranging from 1 to 7). The OBQ-20 scales assess for the OCD-relevant dysfunctional beliefs of overestimation of threat (e.g., *Even when I am careful, I often think bad things will happen*), responsibility (e.g., *To me, failing to prevent disaster is as bad as causing it*), importance/control of thoughts (e.g., *Having a bad thought is morally no different than doing a bad deed*), and perfectionism/certainty (e.g., *In order to be a worthwhile person, I must be perfect at everything I do*). Each OBQ-20 scale shares a near-perfect (r s ranging from .94 to .98) correlation with its full-length OBQ counterpart (Moulding et al., 2011). Each of the OBQ-20 scales (threat: $M = 15.10$, $SD = 6.84$; responsibility: $M = 19.91$, $SD = 6.93$; importance/control of thoughts: $M = 11.92$, $SD = 6.55$; perfectionism/certainty: $M = 17.59$, $SD = 6.80$) demonstrated good internal consistency in the present study (α s ranged from .82 to .88).

Positive and Negative Affect Schedule (PANAS). The PANAS (Watson, Clark, & Tellegen, 1988) asks respondents to indicate to what extent single-word descriptors (e.g., *distressed, scared*) capture how they felt over the past week on a 5-point scale (ranging from 1 to 5). The negative affect scale of the PANAS—the PANAS scale of interest in the present research—consists of 10 items. PANAS-Negative Affect has shown moderate to strong (r s ranging from .51 to .74) correlations with other measures of negative affect (Watson et al., 1988). PANAS-Negative Affect ($M = 18.76$, $SD = 7.79$) demonstrated good internal consistency in the present study ($\alpha = .92$).

General Religiousness Scale. The General Religiousness Scale (Rowatt, LaBouff, Johnson, Froese, & Tsang, 2009) is a 4-item scale that assesses for 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 endorsed using an ordered-category scale and the scale demonstrated good internal consistency in the present study ($\alpha = .85$). Following Rowatt et al., we created a total scale by standardizing responses to each item and summing these standardized scores ($M = 0.00$, $SD = 3.45$).

Procedure

Participants were recruited using Amazon's Mechanical Turk (MTurk), an Internet-based platform that allows individuals to request the completion of jobs (e.g., survey completion) for monetary compensation. Respondents completing surveys through MTurk have been found to produce high quality data and are more demographically diverse than both standard Internet samples and American undergraduate samples (Buhrmester, Kwang, & Gosling, 2011). The present research was approved by the local institutional review board. Recruitment was limited to MTurk workers over 18 years of age and located in the United States. Participants were required to provide electronic consent and there

was no penalty for withdrawing from the study. Upon completion of the study, participants were debriefed and paid in full. Compensation was \$1, an amount consistent with the compensation given to MTurk workers completing prior studies of similar length (Buhrmester et al., 2011).

Results

Zero-Order Correlations

Zero-order correlations among the study variables are presented in Table 1. Supporting hypothesis 1, scrupulosity significantly positively correlated with attachment anxiety in relation to God. However, contrary to predictions, scrupulosity shared a significant negative correlation with attachment avoidance in relation to God.³ Scrupulosity significantly positively correlated with both dimensions of attachment insecurities in close interpersonal relationships.

Hierarchical Regressions

Results from hierarchical regressions examining the incremental specificity of attachment to God in relation to scrupulosity and obsessive–compulsive symptoms are presented in Table 2. Within the regression analyses, religiosity, negative affect, and the OCD-relevant dysfunctional beliefs were entered into Step 1, attachment insecurities in close interpersonal relationships were entered into Step 2, and attachment to God was entered into Step 3 of the models. This order of entry allowed for an examination of the unique variance accounted for by the attachment insecurities (close interpersonal relationships and in relation to God) in the concurrent prediction of scrupulosity and obsessive–compulsive symptoms. Supporting hypothesis 2, attachment anxiety, but not attachment avoidance, in relation to God shared a unique relation with scrupulosity. Moreover, and supporting hypothesis 3, attachment to God did not evidence incremental specificity in the concurrent prediction of obsessive–compulsive symptoms.

Discussion

Consistent with findings from Doron et al. (2009), attachment insecurities in close interpersonal relationships significantly positively correlated with scrupulosity. Extending the work of Doron et al., the purported association between attachment insecurities in relation to God and scrupulosity was supported. Attachment anxiety in relation to God positively correlated with scrupulosity and evidenced incremental specificity in relation to scrupulosity beyond the effects of a number of covariates, including religiosity, negative affect, OCD-relevant dysfunctional beliefs, and attachment insecurities in close interpersonal relationships. Attachment to God thus appears to hold incremental explanatory power above and beyond variables prominently featured within extant conceptual models of scrupulosity. Attachment to God did not evidence incremental specificity in relation to obsessive–compulsive symp-

³ Of note, Rowatt and Kirkpatrick (2002) found that attachment avoidance in relation to God negatively correlated with religiosity. After controlling for religiosity, scrupulosity no longer correlated with attachment avoidance in relation to God (partial $r = .06$, ns).

Table 1
Zero-Order Correlations

| Variable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-----|
| 1. ECR-R-Anxiety | — | | | | | | | | | | |
| 2. ECR-R-Avoidance | .44** | — | | | | | | | | | |
| 3. Attachment to God Scale-Anxiety | .23** | .14** | — | | | | | | | | |
| 4. Attachment to God Scale-Avoidance | .11* | .14** | .18** | — | | | | | | | |
| 5. Penn Inventory of Scrupulosity-Revised | .36** | .18** | .26** | -.27** | — | | | | | | |
| 6. Dimensional Obsessive Compulsive Scale | .35** | .27** | .21** | -.04 | .57** | — | | | | | |
| 7. OBQ-20-Threat | .48** | .24** | .24** | .01 | .40** | .52** | — | | | | |
| 8. OBQ-20-Responsibility | .29** | .12* | .14** | -.07 | .26** | .30** | .55** | — | | | |
| 9. OBQ-20-Importance/Control of Thoughts | .34** | .15** | .12** | -.25** | .58** | .47** | .58** | .41** | — | | |
| 10. OBQ-20-Perfectionism/Certainty | .46** | .24** | .15** | .08 | .37** | .46** | .64** | .40** | .52** | — | |
| 11. PANAS-Negative Affect | .44** | .27** | .19** | .08 | .46** | .53** | .49** | .24** | .35** | .41** | — |
| 12. Religiosity | -.04 | -.10* | -.03 | -.67** | .45** | .13** | .03 | .10* | .29** | .05 | .02 |

Note. *N* = 450. PANAS-NA = Positive and Negative Affect Schedule-Negative Affect; OBQ-20 = Obsessive-Compulsive Beliefs Questionnaire-20; ECR-R = Experiences in Close Relationships-Revised.

* *p* < .05, ** *p* < .01 (two tailed).

toms. Overall, these results suggest that attachment to God is important to scrupulosity.

As described, Kirkpatrick (2005) detailed at least two processes as to the formation of an attachment to God, noting that attachment to God is likely best conceptualized by considering both correspondence and compensation processes. For example, Kirkpatrick noted that although individuals with attachment insecurities in close interpersonal relationships might be motivated to turn to God as an attachment figure in adulthood (reflecting a compensation process), this experience might still prove disappointing. In particular, according to Kirkpatrick, individuals with negative internal working models of others might be especially likely to develop a corresponding attachment to God (reflecting a correspondence process). Under this scenario, these individuals might also find God to be distant and inaccessible and their attachment to God might thus fail to provide them with a secure base or sense of safety. Although neither the compensation hypothesis nor the correspondence hypothesis was directly examined in the present

research, the present results might be considered in the context of these two hypotheses. For example, given that attachment insecurities in close interpersonal relationships also relate to scrupulosity, compensation processes appear tenable for scrupulous individuals' attachment to God. However, attachment insecurities in close interpersonal relationships for scrupulous individuals might also lead to corresponding processes. Consistent with this possibility, the present results indicate that scrupulous individuals are especially likely to experience attachment anxiety in relation close interpersonal relationships and in relation to God.

As discussed, perceived relationships with God function psychologically much like other attachments (Kirkpatrick, 2005). Attachment insecurities in relation to God thus likely impact scrupulosity in a manner consistent with how Doron et al. (2009) propose that attachment insecurities in close interpersonal relationships impact obsessive-compulsive symptoms more broadly. As noted, Doron et al. contend that the inability for individuals with attachment anxiety to find internal representations of security

Table 2
Hierarchical Regression Results Examining Incremental Specificity of Attachment to God

| Variable | Penn Inventory of Scrupulosity-Revised | | | | Dimensional Obsessive Compulsive Scale | | | |
|-----------------|--|-------------------------|-------------------------|-------------------------|--|-------------------------|-------------------------|-------------------------|
| | Δ <i>R</i> ² | Step 1 partial <i>r</i> | Step 2 partial <i>r</i> | Step 3 partial <i>r</i> | Δ <i>R</i> ² | Step 1 partial <i>r</i> | Step 2 partial <i>r</i> | Step 3 partial <i>r</i> |
| Step 1 | .51** | | | | .41** | | | |
| Religiosity | | .42** | .43** | .35** | | .08 | .09 | .08 |
| PANAS-NA | | .35** | .31** | .31** | | .34** | .33** | .32** |
| OBQ-20-T | | .02 | .00 | -.02 | | .16** | .16** | .15** |
| OBQ-20-R | | -.02 | -.02 | -.02 | | -.01 | .00 | .00 |
| OBQ-20-I | | .33** | .33** | .33** | | .16** | .16** | .16** |
| OBQ-20-P | | .05 | .02 | .03 | | .11* | .10* | .10* |
| Step 2 | .01** | | | | .01* | | | |
| ECR-R-Anxiety | | | .13** | .11* | | | -.03 | -.04 |
| ECR-R-Avoidance | | | .05 | .05 | | | .13** | .12* |
| Step 3 | .02** | | | | .00 | | | |
| AGS-Anxiety | | | | .22** | | | | .09 |
| AGS-Avoidance | | | | -.02 | | | | .00 |

Note. *N* = 450. PANAS-NA = Positive and Negative Affect Schedule-Negative Affect; OBQ-20 = Obsessive-Compulsive Beliefs Questionnaire-20 (T = Threat; R = Responsibility; I = Importance/Control of Thoughts; P = Perfectionism/Certainty); ECR-R = Experiences in Close Relationships-Revised; AGS = Attachment to God Scale.

* *p* < .05, ** *p* < .01 (two tailed).

increases the likelihood for the development of OCD-relevant dysfunctional beliefs. Based on the present results, beliefs as to the importance and control of thoughts appear especially relevant to scrupulosity. Coupled with these beliefs, individuals with attachment anxiety in relation to God would be especially likely to misinterpret intrusive thoughts as being highly threatening and significant. Attachment anxiety is associated with a hyperactivation of the attachment system when faced with perceived threats, with this hyperactivation leading to insistent attempts to restore proximity to an attachment figure (Shaver & Mikulincer, 2002). Doron et al. suggested that the hyperactivation of the attachment system is associated with the engagement in compulsive behaviors commonly seen within OCD. The compulsive behaviors engaged in by scrupulous individuals could be conceptualized as a hyperactivation of the attachment system and insistent attempts to attain proximity to God. For example, Kirkpatrick outlined a number of behaviors that might facilitate psychological proximity to God, with prayer considered to be one of the most commonly engaged in proximity-seeking behaviors (Granqvist & Kirkpatrick, 2008). Of note, prayer is a common compulsive behavior engaged in by scrupulous individuals and this behavior is conceptualized as an attempt to restore their perceived relationship with God (Miller & Hedges, 2008). Based on these above considerations, and although it remains to be empirically tested, it is possible that attachment anxiety in relation to God is important for understanding why scrupulous individuals misinterpret intrusive thoughts as threatening and engage in compulsive behaviors.

To the degree to which future research supports attachment anxiety in relation to God as important to scrupulosity, this attachment insecurity might be considered an important target for intervention. Pursuant to this possibility, Mikulincer and Shaver (2007b) outlined a three-component model of the attachment system. The first component relates to monitoring and appraising perceived threats, which activates the attachment system. The second component involves evaluating the availability and responsiveness of an attachment figure. The third component pertains to using hyperactivating or deactivating coping strategies in response to an unavailable or unresponsive attachment figure. Existing treatments for scrupulosity appear to target some, but not all, of the components within Mikulincer and Shaver's model. For example, exposure-and-response prevention is considered a prevailing treatment for scrupulosity (Huppert & Siev, 2010). Broadly speaking, through exposure-and-response prevention, patients learn that their feared consequences are unlikely to occur and their perceptions of threat are consequently reduced. Exposure-and-response prevention could be conceptualized as targeting the first component of Mikulincer and Shaver's model (i.e., threat perception). However, as noted by Huppert and Siev, the feared consequences commonly experienced by scrupulous individuals (e.g., being a sinner, immoral, evil) do not easily lend themselves to disconfirming evidence through exposure-and-response prevention. Scrupulous individuals might thus continue to experience a perception of threat and, following from Mikulincer and Shaver's model, their attachment system would remain activated. Mikulincer and Shaver proposed that boosting attachment security improves psychological functioning. In support of their proposal, Mikulincer and Shaver outlined results from the extant literature indicating that increasing attachment security through priming engenders a decreased intensity in psychological symptoms. Based on the present results,

future research should seek to examine whether boosting attachment security (e.g., using subliminal primes with representations of attachment *security* to God) similarly impacts scrupulosity. If so, targeting attachment security to God (or a supernatural figure more broadly) might be a useful adjunct to psychological interventions for scrupulosity. Doron et al. (2012) suggested that attachment security can be increased via the clinician serving as a secure base for clients, as well as devising exposures to challenge clients' dysfunctional beliefs surrounding abandonment-related fears.

The above considerations should be taken with the following study limitations in mind. For example, the magnitude of observed associations might have been inflated as the result of the use of self-report measures as our sole method of assessment. Further, the correlational nature of these data do not allow for causal conclusions. Future research using experimental tasks will be important for elucidating whether attachment to God is a cause or consequence of scrupulosity. In addition, the definition of scrupulosity is sometimes expanded to include secular moral scrupulosity, which is marked by beliefs and efforts to follow socially constructed rules in a precise manner (Huppert & Siev, 2010). As such, the present results might be applicable to only scrupulous individuals who believe religious doctrine underlies their fear(s). In addition, although the use of an unselected sample is supported by the dimensional nature of obsessive-compulsive symptoms, it will be important for future research to examine associations between attachment to God and scrupulosity among respondents who consistently score higher on the study variables than did the present sample. The majority of respondents with a current religious affiliation self-identified as Protestant and subsamples of respondents based on religious affiliation were too small in size to separately examine. There is some evidence to suggest that the correlates of obsessive-compulsive symptoms differ across religious affiliations (Siev, Chambless, & Huppert, 2010). As such, extending these results to groups of respondents with a greater diversity of religious affiliation appears warranted. Such an extension would allow for an examination as to any potential moderating effects of denominational preference. Moreover, extending the present research to religious groups in which there is no anthropomorphic God (e.g., Buddhism; Granqvist, Mikulincer, & Shaver, 2010) will be important in further understanding the manifestation of scrupulosity among members of religious traditions that have not yet received much attention in the existing scrupulosity literature.

Limitations notwithstanding, the present results highlight a robust association between attachment to God and scrupulosity. Based on these results, broadening our conceptualization of the types of attachment insecurities underlying scrupulosity might be important for better understanding this understudied subtype of OCD. Specifically targeting associations between attachment to God and scrupulosity might ultimately lead to the development of intervention strategies that promote increased attachment security to God for scrupulous individuals.

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