

# Does Guilt Motivate Prayer?

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*We recruited 110 college students for an experimental investigation of the role of guilt in motivating religious behavior. We induced guilt in half of the participants before asking all subjects to indicate their current interest in prayer. Overall, participants in the guilt condition were more interested in praying, but this effect was not observed among those high in grandiose narcissism. Our findings make a contribution not only to the study of the role that emotions have in motivating religious behavior, but also to the study of narcissists' susceptibility to guilt.*

**Keywords:** *emotion, guilt, narcissism, prayer.*

## INTRODUCTION

The role of emotion in humanity's religious life has fascinated psychologists since the discipline's origins in the late 1800s (Clark 1929; Freud 1907; James 1902). Psychologists' interest in emotions waned during the mid 20th century, but has escalated in the past two decades and produced a wealth of new research on how specific emotions affect cognition and behavior (Davidson, Scherer, and Goldsmith 2003; Lewis, Haviland-Jones, and Barrett 2008). This renewed interest has given rise to a number of studies identifying the causal role of emotions in religious thought and practice (Fuller 2007; Keltner and Haidt 2003; Ritter and Preston 2011).

Guilt is an emotion that has been of particular interest to psychologists of religion. Guilt belongs to a family of emotions that Haidt (2003) terms the "moral emotions" because they motivate individuals to realign themselves with the interests or welfare of the groups to which they belong. The human social world is a tenuous cooperation of individual participants. Natural selection seems to have favored brains with innate, biologically-grounded regulations that motivate conformity to the social group (Tooby and Cosmides 2008). Guilt is an emotion anchored in these regulatory mechanisms. Guilt can thus be understood as an emotional state that is sufficiently uncomfortable as to motivate individuals to seek relief by restoring harmonious relationships with others. It is not surprising that guilt has been a principal motivating force throughout the histories of both Judaism and Christianity. Beginning with depictions of moral disobedience in biblical narratives related to the Garden of Eden and Moses, Western religion has made the experience of guilt central to its message of salvation. This connection between guilt and religion continues to be evident in Jewish rituals connected with Yom Kippur and in Christian practices

*Note:* Copies of the experimental materials and dataset collected from this study are available upon request from the first author.

*Acknowledgments:* The authors wish to thank the Department of Psychology for its support in conducting this research and Jean Clore for her helpful suggestions and assistance in editing this article.

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such as the sacrament of confession or evangelical altar calls (Freud 1937; Hood 1992). Empirical investigations have also linked guilt to many aspects of religious and spiritual life. For example, studies have found that differing propensities to feel guilt are related to membership in religious denominations (e.g., Albertsen, O'Connor, and Berry 2006), intrinsic and extrinsic religiosity (e.g., Chau et al. 1990), and religious coping styles (e.g., Kaiser 1991).

The nature of the relationship between guilt and religious motivation becomes particularly interesting when considered in the context of the rise in narcissism in modern society. Kohut (1966) and social theorist Lasch (1979) were among the first to draw attention to the growing presence of narcissism in Western societies. Although researchers continue to debate our understanding and assessment of narcissism,<sup>1</sup> most modern conceptualizations include the following features: an inflated sense of self; a sense of entitlement; a relative lack of interest in interpersonal relationships and intimacy; and the use of interpersonal strategies that promote self-enhancement (Campbell and Green 2008; Morf, Torchetti, and Schürch 2011; Pincus and Roche 2011). While extreme levels of narcissism are associated with considerable dysfunction and can lead to diagnosis of a personality disorder (American Psychiatric Association 2013), there is general agreement among social psychologists that trait narcissism can be reliably measured via self-report questionnaires like the widely used Narcissistic Personality Inventory (Raskin and Terry 1988) and that it varies by degree in the general population. Empirical investigations using this measure indicate that narcissism has become more prevalent in the United States over the past few decades (Twenge and Foster 2008; Twenge et al. 2008).

The increasing prevalence of narcissism in contemporary society has important implications for both the salience and nature of personal spirituality (Capps 1993; Exline et al. 2004; Grubbs, Exline, and Campbell 2013; Pruyser 1978; Sandage and Moe 2011; Watson et al. 1990). Of particular interest to the psychological study of religion is the recurring observation that individuals higher in narcissism are less prone to guilt (Capps 1993; Lasch 1979; Montebanocci et al. 2004; Roche et al. 2013). Recent research also indicates that individuals with a strong sense of psychological entitlement, a key feature of narcissism (Brown, Budzek, and Tamborski 2009; Campbell et al. 2004), are more likely to struggle with the divine, expressing more anger at God both generally and in response to specific events (Grubbs, Exline, and Campbell 2013; Wood et al. 2010). If narcissism does in fact dampen individuals' susceptibility to guilt and render individuals less inclined to have positive relationships with the divine, it follows that an increasing number of people in contemporary Western societies are less motivated to engage in the kinds of practices that traditionally comprise Jewish or Christian religiosity. A better understanding of the role that guilt plays in the spiritual lives of those higher and lower in narcissism could thus potentially illuminate at least some of the psychological dynamics behind observed changes in contemporary spirituality.

One promising approach to assessing the behavioral frequency and salience of personal spirituality is motivation to pray (Spilka and Ladd 2013). Prayer is the most ubiquitous religious behavior (Brown 1994; Heiler 1932). Prayer is not only associated with communal worship services, but people also pray in highly individualized and idiosyncratic ways. Recent survey data indicate that a full 86 percent of Americans pray, with more than 50 percent of Americans praying at least once a day (National Opinion Research Center 2012). Like all behaviors, prayer is motivated by a variety of psychological factors. Foremost among the motivational factors prompting prayer are our emotions. Emotions ranging from such unpleasant affective states as anger or disgust to pleasant affective states such as joy and wonder are capable of motivating

<sup>1</sup>We focus our literature review and experimental investigation on trait narcissism (also known as "normal narcissism"), a personality dimension that varies in degree among normally functioning individuals. It should be noted that we did not study narcissistic personality disorder, a clinical diagnosis indicating pervasive problems in psychological functioning that occurs in the general population relatively rarely (American Psychiatric Association 2013).

individual prayer. Guilt, as we previously noted, is a “moral” emotional state characterized by unpleasant affect that motivates individuals to recalibrate their goals in ways that potentially restore strained interpersonal relationships and achieve greater conformity to the social group. Because of its historic connection with Western religion, guilt suggests itself as an emotion especially relevant for an empirical investigation of motivational influences on modern spirituality.

Even though conventional and religious wisdom may suggest a strong relationship between guilt and prayer, the topic has been the subject of surprisingly little empirical investigation. This study seeks to address this deficit and is the first to directly test the hypothesis that feelings of guilt increase the motivation to pray. Guilt arises in the context of communal relationships and motivates efforts to restore these relationships (Haidt 2003). The central role that guilt has in the Judeo-Christian tradition strongly suggests that people who feel guilty are more likely to turn toward God in prayer as part of their efforts to restore harmonious relationships with God and the social order. However, it is possible that some people’s immediate response to guilt, like Adam’s and Eve’s in the fabled Garden of Eden, is to avoid God because they fear they are not living in accordance with God’s wishes. It is also possible that guilt and prayer are linked in religious thought and practice because people tend to feel guiltier after praying rather than the other way around. Therefore, it is not clear whether guilt will motivate any, all, or only some people to engage in the religious behavior of prayer. It is important to test this basic hypothesis concerning the relationship between guilt and prayer, as well as examine whether guilt motivates prayer similarly among people who differ in either type or degree of narcissism.

Zondag and van Uden (2011) have conducted the only empirical study to date exploring the relationship between prayer and narcissism. Their focus was on the relationship between narcissism and prayer styles (i.e., individual differences in the tendency to pray in different ways) among a sample of Dutch college students. Zondag and van Uden distinguished between grandiose (sometimes referred to as *overt*) and vulnerable (sometimes referred to as *covert*) forms of narcissism. A growing body of research indicates that although narcissism involves significant self-absorption, a sense of entitlement, and unrealistically high expectations of the self, there are both grandiose and vulnerable forms of narcissistic personality. Individuals higher in the grandiose form also exhibit extraversion, outward self-aggrandizement and assurance, exhibitionism, and are interpersonally exploitative. Those with the lesser-known vulnerable form instead exhibit introversion, outward modesty, emotional vulnerability, anxious attachment styles, and hostile interaction styles (Dickinson and Pincus 2003; Pincus and Roche 2011; Rose 2002; Wink 1991).

Zondag and van Uden (2011) found that grandiose narcissism (measured using items adapted from the Narcissism Personality Inventory) was positively related to the tendency to engage in forms of prayer that involve expressing oneself to God or attempting to gain a sense of inner peace or insight (self-focused). They also found, however, that vulnerable narcissism (measured using the Hypersensitive Narcissism Scale) (Hendin and Cheek 1997) is positively related to the tendency to engage in forms of prayer that involve making or maintaining connection with God or directly making requests of God (God-focused). Importantly, Zondag and van Uden’s findings demonstrate that individuals higher in grandiose narcissism, the variety that has been the subject of most of modern cultural analysis (Capps 1993; Lasch 1979) and that appears to be rising in Western society (Twenge et al. 2008), are more likely to engage in some types of prayer than individuals lower in the trait. This suggests that the self-centeredness, self-inflation, and independence associated with such narcissism do not necessarily translate into avoiding God altogether. Zondag and van Uden found no relationship between grandiose narcissism and frequency of prayer, even in the case of petitionary prayer, which involves directly seeking God’s help. Their studies therefore suggest that those higher and lower in this particular personality trait are equally likely to pray in that manner during their daily lives.

While Zondag and van Uden’s (2011) study has provided new insight into the self-reported prayer habits of those higher and lower in narcissism, it does not shed light on the factors that might prompt people to turn to God in prayer at any given moment in time. More specifically,

their study does not address the overall question of whether a specific emotion such as guilt might influence the motivation to pray differently for people higher in either form of narcissism. In this study, we induce feelings of guilt in participants and measure its effect on self-reported interest in prayer with special attention to those with higher levels of both grandiose and vulnerable narcissism. Because prior theory (Capps 1993; Lasch 1979) and research (Montebarocci et al. 2004; Roche et al. 2013) predict that those higher in grandiose narcissism are less prone to guilt, we included a manipulation check to ascertain whether our experimental induction succeeded in producing feelings of guilt in those higher in either type of narcissism.

We predicted that guilt would not be an effective prayer motivator for participants higher in grandiose narcissism. People higher in this type of narcissism characteristically show little interest in maintaining interpersonal relationships outside of their value for self-enhancement (Tangney and Dearing 2002). Moreover, the link between entitlement and anger toward God (Grubbs, Exline, and Campbell 2013; Wood et al. 2010) suggests that grandiose narcissists may not be inclined to turn to God when experiencing guilt or *other emotions*, and that this aspect of grandiose narcissism would be closely associated with a lack of prayer motivation.

It is less clear, however, how people higher in vulnerable narcissism might be expected to respond to guilt. On the one hand, the fact that those higher in vulnerable narcissism report more anxiety about interpersonal relationships might suggest that feelings of guilt will motivate interest in prayer. On the other hand, vulnerable narcissism is also linked to a sense of entitlement and hostile interpersonal styles (Miller et al. 2011; Moeller, Crocker, and Bushman 2009), which suggests that guilt may not lead them to prayer.

## METHOD

### Participants

One hundred and ten introductory psychology students completed the experiment, but because our main dependent measures assess interest in praying, participants who reported that they never prayed ( $n = 16$ ) were dropped from all analyses, yielding a final sample of 94 participants. The remaining sample was predominantly female (73 percent,  $n = 69$ ) and Caucasian (77 percent,  $n = 82$ ), with most identifying with either Catholicism (45 percent,  $n = 42$ ) or Protestantism (40 percent,  $n = 38$ ). Much smaller proportions identified as African American (5 percent,  $n = 5$ ), Asian/Pacific Islander (2 percent,  $n = 2$ ), Hispanic (4 percent,  $n = 4$ ), Arab (1 percent,  $n = 1$ ), Muslim (2 percent,  $n = 2$ ), Jewish (7 percent,  $n = 6$ ), or “other religions” (18 percent,  $n = 16$ ). The mean age was 18.6 years ( $SD = .81$ ).

### Procedure and Materials

Participants completed a computer-administered study about life experiences. After endorsing an informed consent page, participants completed the Narcissistic Personality Inventory (NPI) (Raskin and Terry 1988). The NPI is the most widely used measure of trait narcissism. There is, however, considerable debate and investigation regarding the factor structure of this measure (see Miller and Campbell 2011; Tamborski and Brown 2011). We opted to use the 40-item NPI because it assesses trait narcissism as a multifaceted construct and because recent research has found that the full version of the NPI provides incremental validity beyond shorter versions (see Miller, Price, and Campbell 2012). Using the full version, moreover, allows for investigation of key subscales associated with different facets of narcissism (e.g., Emmons 1984, 1987). The NPI is composed of 40 forced-choice dichotomous items. Participants chose the item from each pair that they felt best described them. An example item is “I am much like everybody else” or “I am an extraordinary person.” NPI scores were obtained by summing the number of narcissistic

responses an individual endorsed and our sample yielded similar central tendency ( $M = 16.8$ ), variability ( $SD = 6.4$ ), and interitem reliability ( $\alpha = .82$ ) as other recent samples (e.g., Miller, Price, and Campbell 2012).

Next, the participants completed the Hypersensitive Narcissism Scale (HSNS) (Hendin and Cheek 1997). The HSNS measures the vulnerable aspects of narcissism and is composed of 10 items. Participants indicated on a 1 (*very uncharacteristic*) to 5 (*very characteristic*) scale how characteristic they thought the statements were of them, for example: “My feelings are easily hurt by ridicule or the slighting remarks of others.” HSNS scores were obtained by summing participants’ ratings on all items. Our sample yielded similar central tendency ( $M = 28.7$ ), variability ( $SD = 5.0$ ), and interitem reliability ( $\alpha = .64$ ) to Hendin and Cheek’s (1997) original samples and more recent samples (e.g., Ackerman et al. 2011).

Participants were then randomly assigned to one of two conditions in which they were prompted to “vividly recall the thoughts, feelings, and emotions” that accompanied a past interaction between themselves and another person. In the control condition, participants wrote an essay about a recent interaction with a store clerk. In the guilt condition, participants wrote an essay about the last time they felt a significant amount of guilt as the result of their behavior, described as times when “we worry that other people would be angered by our actions” or when “some action harmed an ongoing personal relationship” (Tangney 1992).

It was important to gauge participants’ general interest in prayer when the emotions elicited by the essays were at their peak. Therefore, immediately after writing their essays, participants rated how much they would like to participate in 13 different activities “right now” on a 1 (*not at all*) to 5 (*a great deal*) rating scale. The item praying ( $M = 2.32$ ,  $SD = 1.15$ ) was always presented second in the list and served as our main dependent measure while the other items (e.g., watching television, exercising, listening to music, drinking alcohol) served as filler items. We presented our main dependent measure in the context of other activities to avoid alerting participants to the main purpose of the study, and thus reduce demand characteristics as much as possible.

To explore the degree to which guilt motivates different types of prayer, participants completed a version of the Multidimensional Prayer Inventory (Laird et al. 2004)<sup>2</sup> adapted to assess current rather than typical interest in various types of prayer. Participants first indicated how often they pray on a 1 (*never*) to 5 (*all of the time*) scale.<sup>3</sup> Next, participants were instructed to imagine that they were going to pray “right now” and then rated their likelihood of engaging in five different types of prayers (on three items for each) based on the five subscales in the original Laird et al. (2004) scale: *adoration* (e.g., “Worship God”;  $\alpha = .92$ ;  $M = 4.70$ ,  $SD = 1.60$ ), *thanksgiving* (e.g., “Offer thanks for specific things”;  $\alpha = .80$ ;  $M = 5.25$ ,  $SD = 1.30$ ), *reception* (e.g., “Try to be receptive to wisdom and guidance”;  $\alpha = .79$ ;  $M = 4.91$ ,  $SD = 1.24$ ), *supplication* (e.g., “Ask for assistance with my daily problems”;  $\alpha = .74$ ;  $M = 5.11$ ,  $SD = 1.19$ ), and *confession* (e.g., “Confess things that I had done wrong”;  $\alpha = .88$ ;  $M = 4.23$ ,  $SD = 1.58$ ). Responses were indicated on a 1 (*not at all likely*) to 7 (*extremely likely*) scale.

Following the prayer items, participants completed a manipulation check designed to assess whether the experimental protocol had successfully induced feelings of guilt. On a 1 (*not at all*) to 5 (*very much*) scale, participants noted the extent to which they felt guilt, as well as seven other filler emotions.

Finally, participants completed demographic questions regarding religious affiliation, gender, age, and ethnicity. Participants were then debriefed and thanked for their participation.

<sup>2</sup>We chose to adapt the Laird and colleagues (2004) inventory because the items were more amenable to ratings of current interest and less focused on the context of prayer (e.g., at church, before dinner, etc.) than the Banziger (2007) measure that Zondag and van Uden (2011) employed.

<sup>3</sup>At this point, for the 16 participants who indicated that they never prayed, the program skipped the remaining prayer items and shunted them to the demographic items.

## RESULTS

Following standard procedures (Cohen et al. 2003), we tested for main effects of condition (i.e., control or guilt). We used standardized narcissism scores and tested for main effects of narcissism. Regression analyses were used to determine whether scores on the NPI (grandiose narcissism) moderated the impact of guilt on the dependent variables. Similar regression analyses were conducted using the HSNS (vulnerable narcissism) scores. Finally, the product (narcissism  $\times$  condition) was entered to test for interaction effects separately for the NPI and HSNS analyses.<sup>4</sup>

To create figures, interactions between condition and narcissism were plotted using the predicted means for each condition at levels of narcissism one standard deviation above and below the mean of the narcissism scale. When interactions were present, we examined the simple effects of condition by recoding the standardized narcissism score to shift the mean to either one standard deviation above or below the mean. Likewise, we also examined the simple correlations between narcissism and the dependent measures in each condition separately by dummy-coding the condition of interest as "0" and its counterpart as "1." All analyses were conducted and all graphs were constructed in this manner, unless specified otherwise. Analyses examining religious affiliation yielded no statistically significant effects, so this variable was dropped from further analyses.

### Manipulation Check

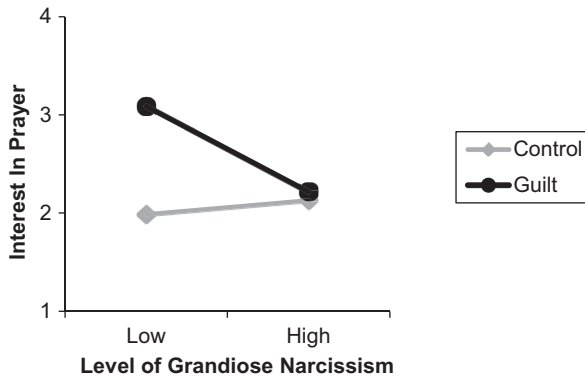
First, analyses were conducted to investigate whether the essay prompt successfully engendered guilt among participants. The analyses revealed the predicted main effect of condition ( $\beta = .76, t = 10.7, p < .001$ ) with levels of guilt indeed significantly higher in the guilt condition ( $M = 3.48, SD = 1.30$ ) than the control condition ( $M = 1.25, SD = .53$ ). No main effect was present for NPI score ( $\beta = -.09, t = -1.2, p = .24$ ) and no NPI  $\times$  condition interaction effect was observed ( $\beta = -.06, t = -.86, p = .39$ ). Likewise, neither a main effect for HSNS score ( $\beta = .04, t = .58, p = .56$ ) nor a HSNS  $\times$  condition interaction effect ( $\beta = .06, t = .88, p = .41$ ) was observed. This pattern suggests that the guilt essay produced feelings of guilt more than the control essay and that this was experienced similarly by those across the continuum of both forms of trait narcissism.

### General Interest in Prayer

Analyses on the general interest in prayer item using NPI scores revealed a main effect of condition. Participants in the guilt condition indicated significantly more interest in prayer ( $M = 2.56, SD = 1.03$ ) than participants in the control condition ( $M = 2.05, SD = 1.22$ ;  $\beta = .26, t = 2.59, p = .01$ ), but there was no main effect for NPI score ( $\beta = -.16, t = -1.57, p = .12$ ). The condition main effect was, however, qualified by an interaction between condition and level of NPI ( $\beta = -.22, t = -2.18, p = .03$ ). Tests of the simple effects of condition indicated that individuals lower in grandiose narcissism were more interested in prayer following a guilt manipulation ( $\beta = .48, t = 3.94, p = .001$ ), while those higher in grandiose narcissism showed no change in interest ( $\beta = .04, t = .26, p = .80$ ). Consistent with this pattern, there was no

<sup>4</sup>Similar analyses were performed using subscales derived by Emmons (1984, 1987) to explore the degree to which any observed effects were particularly associated with any of his four factor analytically derived dimensions of grandiose narcissism: exploitativeness/entitlement (EE), leadership/authority (LA), superiority/arrogance (SA), and self-absorption/self-admiration (SS). Overall, the four subscales showed similar patterns of main effects and interactions as analyses performed using the total NPI score with one exception: a negative correlation was observed between the general interest in prayer item and the SA subscale ( $\beta = -.32, t = -3.15, p = .002$ ).

Figure 1  
Current interest in prayer as a function of type of essay and level of grandiose narcissism



Note: Levels of grandiose narcissism (low and high) reflect predicted scores one standard deviation above/below the mean.

relationship between NPI score and prayer in the control condition ( $\beta = .06, t = .40, p = .69$ ), but the correlation was negative in the guilt condition ( $\beta = -.38, t = 2.93, p = .004$ ). See Figure 1 for predicted means. This pattern suggests that the guilt essay increased interest in prayer for those lower in grandiose narcissism, but *not* for those higher in the trait.<sup>5</sup>

We also investigated whether this pattern was associated with participants' self-reported feelings of guilt and performed parallel regression analyses in which we substituted participants' ratings of guilt for the experimental condition. The analyses revealed no main effect of guilt ( $\beta = .14, t = 1.37, p = .17$ ), no main effect for NPI score ( $\beta = .11, t = .55, p = .59$ ), and a weak interaction ( $\beta = -.31, t = -1.52, p = .13$ ). Visual inspection of the predicted means indicated a similar pattern to the effects observed with condition; self-reported guilt was positively correlated with the motivation to pray among individuals lower in grandiose narcissism ( $\beta = .30, t = 2.00, p = .049$ ), while it was not correlated with motivation to pray among those higher in grandiose narcissism ( $\beta = -.03, t = -.20, p = .84$ ).

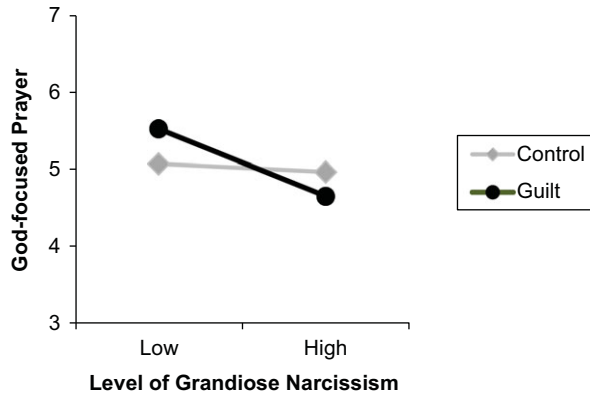
Analyses of the general interest in prayer item using HSNS scores indicated no main effect for HSNS score ( $\beta = .03, t = .29, p = .77$ ), and no HSNS  $\times$  condition interaction ( $\beta = -.02, t = -.23, p = .82$ ), indicating that those high and low in vulnerable narcissism were equally affected by experimental condition, namely, that both reported more interest in prayer after the guilt essay than the control essay.

## Prayer Types

Three of the five prayer type indices (adoration, thanksgiving, and reception) were highly correlated ( $r$ 's between .71 and .77), yielded the same pattern of NPI and HSNS main effects and interactions, and exhibited highly similar patterns of predicted means. Given the convergence

<sup>5</sup>Parallel analyses examining the 12 other activities listed on our questionnaire revealed a main effect of NPI scores on two items (e.g., narcissism positively correlated with interest in "drinking alcohol,"  $\beta = .21, p = .05$ , and "exercising,"  $\beta = .30, p = .004$ ). The same analyses revealed a main effect of condition on one other item (e.g., participants were more interested in "listening to music" in the guilt condition,  $\beta = .22, p = .04$ ). Only one item, however, "exercising," yielded a statistically significant interaction ( $\beta = -.41, t = -2.06, p = .04$ ; all other interaction  $ps > .22$ ). Tests of the simple effects of condition revealed a similar pattern and indicated that individuals lower in grandiose narcissism were more interested in exercising following a guilt manipulation ( $\beta = .32, t = 2.21, p = .03$ ), while those higher in grandiose narcissism showed no change in interest ( $\beta = -.11, t = -.77, p = .44$ ).

Figure 2  
Current interest in God-focused prayer as a function of type of essay and level of grandiose narcissism



Note: Levels of grandiose narcissism (low and high) reflect predicted scores one standard deviation above/below the mean.

between these measures, we computed the mean of the 12 items to create a composite index ( $\alpha = .92$ ) that might be loosely described as “God-focused” prayer.

Analyses on this composite *God-focused prayer* index using NPI scores yielded neither a main effect for condition ( $\beta = .05, t = .47, p = .64$ ) nor a main effect for NPI score ( $\beta = -.04, t = -.62, p = .54$ ), but did reveal a statistically significant interaction between condition and NPI score ( $\beta = -.29, t = -2.82, p = .01$ ). Tests of the simple effects of condition indicated that individuals lower in grandiose narcissism were more interested in God-focused prayer following a guilt manipulation ( $\beta = .34, t = 2.37, p = .02$ ), whereas those higher in grandiose narcissism showed a marginally significant trend toward a decrease in interest relative to the control condition ( $\beta = -.25, t = -1.66, p = .10$ ). There was a weak, positive, but statistically insignificant relationship between grandiose narcissism and prayer in the control condition ( $\beta = .25, t = .25, p = .12$ ), but the correlation was negative in the guilt condition ( $\beta = -.33, t = -2.50, p = .01$ ). See Figure 2 for predicted means.

We also analyzed the *God-focused prayer* index substituting participants’ self-report of guilt for the experimental condition, and it yielded a similar pattern. These analyses revealed no main effect of guilt ( $\beta = .18, t = 1.34, p = .18$ ), no main effect for NPI score ( $\beta = .20, t = .97, p = .33$ ), and a marginal interaction ( $\beta = -.33, t = -1.64, p = .10$ ). Visual inspection of the predicted means indicated a similar pattern to the effects observed with condition; self-reported guilt was positively correlated with the motivation to pray among individuals lower in grandiose narcissism ( $\beta = .32, t = 2.06, p = .04$ ), while it was not correlated with motivation to pray among those higher in grandiose narcissism ( $\beta = -.05, t = -.31, p = .75$ ).<sup>6</sup>

Analyses of the composite *God-focused prayer* index using HSNS scores indicated no main effect for HSNS score ( $\beta = .04, t = .41, p = .68$ ), and no HSNS  $\times$  condition interaction ( $\beta = .07, t = .62, p = .54$ ).

<sup>6</sup>A mediation approach (Preacher and Hayes 2004) was, however, not appropriate to investigate the role of self-reported guilt because neither of the overall correlations between self-reported guilt and our prayer measures (general prayer item  $r = .12$ ; God-focused prayer index  $r = .12$ ) was statistically significant. Although mediation analyses can be informative under the proper circumstances, recent work has highlighted the need to be cautious in interpreting them, especially in the case that the mediator is hypothesized to work for only a subset of the population (Bullock, Green, and Ha 2010).



Analyses of the *supplication* index using NPI scores yielded no main effect for condition ( $\beta = -.06, t = -.56, p = .58$ ), no main effect for NPI score ( $\beta = .05, t = .43, p = .67$ ), and no NPI  $\times$  condition interaction ( $\beta = -.10, t = -.98, p = .33$ ).

Analyses of the *supplication* index using HSNS scores yielded no main effect of HSNS scores ( $\beta = .10, t = .92, p = .36$ ), but a marginal HSNS  $\times$  condition interaction ( $\beta = -.18, t = -1.77, p = .08$ ). Tests of the simple effects of condition indicated that individuals lower in vulnerable narcissism were equally interested in supplication prayer in both conditions ( $\beta = .12, t = .85, p = .40$ ), whereas those higher in vulnerable narcissism showed a trend toward less interest following the guilt induction relative to the control condition ( $\beta = -.23, t = -1.61, p = .11$ ). There was a marginally positive relationship between HSNS scores and supplication-oriented prayer in the control condition ( $\beta = .27, t = 1.92, p = .06$ ), but no correlation in the guilt condition ( $\beta = -.09, t = -.59, p = .55$ ).

Analyses of the *confession* index yielded no effects whatsoever: no main effects for condition ( $\beta = -.06, t = -.56, p = .58$ ), NPI ( $\beta = .05, t = .43, p = .67$ ), nor HSNS ( $\beta = .14, t = 1.31, p = .19$ ), and no interactions between NPI and condition ( $\beta = .10, t = -.98, p = .33$ ), nor HSNS and condition ( $\beta = .10, t = .92, p = .36$ ).

## DISCUSSION

Our study's first objective was to address the lack of experimental evidence for claims concerning the role of guilt in motivating prayer, so we conducted an experiment in which we induced guilt and measured subsequent levels of interest in prayer. Our main findings indicate that inducing guilt does indeed motivate interest in prayer for most people. This is, to the best of our knowledge, the first experimental evidence supporting claims that emotional experiences of guilt have a causal effect on the motivation to pray. Our findings are thus consistent with conventional wisdom derived from the Judeo-Christian tradition advising people to turn to God when they violate moral injunctions.

Secondly, we hypothesized that inducing guilt would not motivate prayer in individuals higher in narcissism, specifically the grandiose variety assessed by the NPI. Consistent with this prediction, we found that only participants who are lower in grandiose narcissism displayed increased motivation to pray after writing about a time they did something that made them feel guilty. In the control condition, we observed a mildly positive (but statistically insignificant) relationship between NPI scores and interest in prayer. Yet in the guilt-inducing condition we found a negative relationship between narcissism and interest in prayer. Importantly, this pattern was only observed with analyses using the NPI (grandiose narcissism), and not the hypersensitive narcissism (vulnerable narcissism) scale. To the best of our knowledge, this is the first experimental study providing direct evidence addressing the long-held assumption that guilt does not motivate narcissists (Capps 1993; Lasch 1979). Our findings clearly support this assumption, but also indicate that this pattern is associated with the more traditionally recognized, self-aggrandizing, and extraverted form of narcissism rather than the emotionally vulnerable and introverted form.

We found little evidence that a sense of entitlement is uniquely associated with the role that narcissism has in participants' motivation to pray. The patterns we observed on the exploitativeness/entitlement subscale paralleled those of other NPI subscales. Moreover, even though a strong sense of entitlement is a key commonality between grandiose and vulnerable narcissism (Miller et al. 2011), our HSNS analyses also yielded little evidence suggesting that motivation to pray differed between those lower and higher in vulnerable narcissism as a function of our guilt manipulation. In fact, on the general interest in prayer measure, we found that they were equally likely to respond to guilt with increased interest in prayer. Our study would seem to suggest that even though psychological entitlement is a robust predictor of attitudes toward God (Grubbs,

Exline, and Campbell 2013), it appears that grandiose narcissism as a more general construct may be a better (or at least an equally valuable) predictor of responses to guilt.

Our findings are also consistent with previous observations that those higher in grandiose narcissism are prone to narcissistic injury (Freud 1914; Gerzi 2005; Kohut 1972) and are less motivated by communal concerns (Campbell and Foster 2007; Campbell and Green 2008). Our experimental manipulation increased feelings of personal guilt, but it also likely challenged any grandiose beliefs regarding moral or personal superiority. It is often noted that narcissists respond strongly to such threats with a wide range of behaviors designed to restore their highly positive self-view, including aggression, blame, withdrawal, and bolstering (Baumeister, Bushman, and Campbell 2000; Ferriday, Vartanian, and Mandel 2011; Twenge and Campbell 2003). Given that those higher in grandiose narcissism value agentic strivings over communal concerns, it is no surprise that these reactions are often an attempt to restore a sense of superiority at the expense of interpersonal relationships. In contrast, those lower in grandiose narcissism value interpersonal relationships more and thus may be motivated by guilt to restore broken relationships not only with others, but also with God through prayer. Guilt may also cause those lower in grandiose narcissism to be more acutely aware of weaknesses and thereby motivate behaviors designed to procure external help through God-focused prayers.

On the other hand, grandiose narcissists' lack of motivation to pray when feeling guilty could also reflect the more adaptive features of narcissism. Freud's and Kohut's descriptions of normal or healthy narcissism, as well as more modern research demonstrating links between the NPI and adaptive outcomes like subjective well-being and strong leadership qualities, remind us that those with "healthier" features of narcissism may possess adaptive strengths (e.g., surety of self; less concern about others) that make them more resistant to many common forms of societal manipulation, such as being "guilted." It may also be that those higher in grandiose narcissism possess a more pragmatic, independent view of spirituality and are less likely to turn to God in times of trouble because they are more likely to believe the old maxim that "God helps those who help themselves" or that God does not directly intervene in human affairs. These possibilities suggest that additional research is needed about the degree to which trait narcissism is related to different conceptions of God (Froese and Bader 2007).

It is also important to consider individual differences in how the emotion guilt is perceived and valued. It is possible that those higher in grandiose narcissism evaluate and view the emotion of guilt quite differently than those low in the trait. Although most might agree that guilt is an unpleasant emotion, people may differ in whether they consider it a valuable emotion, and what a proper response to it is. Because of their agentic orientation, grandiose narcissists may view guilt as more of a nuisance and seek ways to reduce the emotion (e.g., distraction, exercise), while those low in grandiose narcissism who are more communally oriented are more likely to view guilt as a valuable emotion that guides them to find ways to restore their relationships with God and others. This is an issue that is ripe for additional research and could illuminate our understanding of both the emotion guilt and narcissism.

We believe that our study also sheds new light on the relationship between guilt and narcissism. Our analyses of the manipulation check revealed that those higher and lower in both types of narcissism reported feeling the same levels of guilt after writing the guilt essay. This surprising finding would seem to rule out the possibility that the lack of interest in prayer observed among those higher in narcissism was due to the total absence of guilt feelings. These findings are noteworthy because they are at odds with the widespread characterization of narcissists as lacking remorse and being insusceptible to guilt (e.g., Lasch 1979; McWilliams and Lependorf 1990). Apparently, those higher in narcissism will and do express feelings of guilt under certain circumstances. In our experiment, we prompted participants to identify a guilt-producing event from their personal past. Those higher in narcissism may be more comfortable expressing feelings of guilt related to experiences in the past than those in the present. Likewise, narcissists may be much more likely to report feelings of guilt when identifying transgressions themselves than when they are pointed out by others.

Two of our prayer indices, confession and supplication, exhibited patterns that differed from other forms of prayer. This difference warrants further exploration in future research. In hindsight, the null findings on the confession-oriented prayer index might be most parsimoniously explained by the observation that the essay written by participants in the guilt condition was a form of confession; if participants had already confessed to wrongdoing, they probably were less interested in confessional prayer regardless of their level of narcissism. Consistent with this explanation, the mean ratings on the confession index were the lowest of the five indices.

Our findings on the supplication prayer index were more puzzling and intriguing. The null findings from the analyses using our measure of grandiose narcissism differed from the patterns observed on the adoration, thanksgiving, and reception indices. On the one hand, given the highly agentic and self-centered nature of those higher in grandiose narcissism, we might expect a negative correlation with this kind of prayer. Yet this was not observed. It may be that those higher and lower in grandiose narcissism simply ask God for different types of things (e.g., help defeating their enemies vs. help with being a better person), but are equally likely to turn to God for specific kinds of assistance. Future studies will need to explore this relationship between narcissism and supplication more carefully. We can only note that our findings suggest that guilt did not influence motivation to engage in this kind of prayer regardless of subjects' level of grandiose narcissism. We did, however, observe a greater correlation between vulnerable narcissism and supplication-oriented prayer in the control condition than in the guilt condition. Although these effects should be interpreted with caution, the positive correlation between vulnerable narcissism and supplication-oriented prayer in the control condition is consistent with Zondag and van Uden's (2011) correlational finding that the HSNS is positively associated with petitionary prayer. There is little research concerning the degree to which vulnerable narcissism is correlated with guilt-proneness. Our findings on the supplication index make a small contribution toward this insofar as they suggest that guilt is not particularly likely to motivate people characterized by vulnerable narcissism to seek the help of God. In fact, the only evidence that we observed that guilt had any particular effect on those high in vulnerable narcissism was a marginal trend for it to decrease their motivation to engage in supplicatory prayer. Given its links to low self-esteem and neuroticism (Miller et al. 2011), vulnerable narcissism may be more closely related to shame-proneness and shame may be a stronger motivation of both social and spiritual behavior for those high in the trait.

Unlike Zondag and van Uden (2011), we found little evidence to suggest that grandiose narcissism is positively correlated with interest in prayer of any kind in either control or experimental conditions. This most likely reflects the use of different measures of prayer between our study and theirs. The most robust link that Zondag and van Uden observed between self-oriented prayer and grandiose narcissism was obtained using a measure of prayer developed by Banziger (2007) with several items that reflected prayers that had little mention of or connection to God (e.g., "When I pray, I look inward"; "I pray for inner peace"). The closest items in Laird et al. (2004) that we adapted would be the reception subscale, but these items tend to reflect the desire to be open to God's guidance (e.g., "Open myself to God for insight to my problems"; "Try to be receptive to wisdom and guidance"). Given the lack of similarity between the measures, our study should not be viewed as an attempt at replicating this effect nor an inquiry into whether guilt would moderate it. Future studies should, however, examine these issues.

Our emphasis on having participants report their interest at that moment might have also attenuated the relationship between grandiose narcissism and interest in prayer. It is possible that those higher in grandiose narcissism are more likely to exhibit a self-serving bias in their retrospective reports of prayer behavior (Robins and Beer 2001), but less so when focusing on their interest in the moment. The Banziger (2007) measure asks participants to report typical prayer habits, including both the motivation for prayer as well as context and, as such, it might be more subject to this sort of bias than a self-report of current interest. It is also possible those higher in grandiose narcissism, in fact, engage in some types of prayer more often than

those lower in the trait, but that their prayer is often context dependent, as the Banziger (2007) measure emphasizes. Our participants may have exhibited less interest in such prayer in this specific experimental context (i.e., in a computer lab in the middle of the day).

It is important to note that our findings may apply only to prayer and not to other kinds of religious behavior. While guilt does not appear to motivate those higher in narcissism to engage in prayer, it may motivate other types of spiritual behavior. If confronting past violations of trust inflicts some degree of “narcissistic injury,” individuals higher in narcissism may be motivated to engage in spiritual behaviors that bolster a positive self-view. Those higher in narcissism may, for example, be more likely to respond to “moral” emotions like guilt by engaging in public charitable acts, religious self-affirmations, or even proselytizing to shore up their public image and/or private self-evaluation.

An intriguing finding is that, in the guilt condition, motivation to exercise neatly paralleled motivation to pray for participants higher and lower in narcissism. It is possible that exercise and prayer share contrasting meanings to individuals at either end of the narcissism continuum (e.g., opportunity for self-improvement, an unpleasant but necessary ritual, opportunity to face your shortcomings). Spiritual activities, like many other kinds of activities, perform a vital role in regulating emotions and in providing coping strategies related to the maintenance of personal well-being (Pargament 1997; Silberman 2003). This ancillary finding highlights the need for more complete understanding of the ways that both guilt and narcissism influence either the perceived value or the adaptive potential of various spiritual activities.

It is also important to mention that this study is best viewed as an initial investigation into guilt, narcissism, and spiritual behavior. Our sample was relatively small, predominantly Caucasian, female, and Christian, so additional research is needed to examine the degree to which our findings generalize more broadly. In the case of gender, although research using the NPI consistently shows that men are more narcissistic than women (Foster, Campbell, and Twenge 2003), far fewer studies have indicated that narcissism is related to outcomes differently for men and women (see Foster and Campbell 2005). Although the lack of men in our sample undermined the statistical power necessary for detecting higher-order interactions, analyses of this type did not suggest that gender and narcissism interacted in any way. Moreover, although it will be important to establish the degree to which our findings are externally valid, this study does provide clear evidence that guilt can motivate prayer and that its effectiveness is likely moderated by grandiose narcissism.

Our findings suggest that although guilt motivates most individuals to turn to God in prayer, it is not likely to inspire those higher in grandiose narcissism. The lack of motivational impact on those higher in grandiose narcissism and the rise of this trait in recent decades (Twenge et al. 2008) may help to explain changes in modern spiritual practices. Thus, for example, underlying changes in the degree to which guilt motivates religious behavior might account for such observed cultural changes as the rise of mega-churches offering various kinds of self-improvement programming and the seeming decline of old-fashioned “fire and brimstone” approaches to proselytizing. Future research can more directly address how higher levels of narcissism shape preferences for both individual and collective spiritual practices.

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