Adding Comments and Notes to Your PDF

To facilitate electronic transmittal of corrections, we encourage authors to utilize the comment/annotations features in Adobe Acrobat. The PDF provided has been *comment enabled,* which allows you to utilize the comment and annotation features even if using only the free Adobe Acrobat reader (see note below regarding acceptable versions). Adobe Acrobat's Help menu provides additional details on the tools. When you open your PDF, the annotation tools are clearly shown on the tool bar (although icons may differ slightly among versions from what is shown below).

For purposes of correcting the PDF proof of your journal article, the important features to know are the following:

- To **insert text,** place your cursor at a point in text and select the Insert Text tool () from the menu bar. Type your additional text in the pop-up box.
- To **replace text,** highlight the text to be changed, select the Replace Text tool () from the menu bar, and type the new text in the pop-up box. Do this instead of deleting and then reinserting.
- To **delete text,** highlight the text to be deleted and press the Delete button on the keyboard.
- Use the **Sticky Note tool** () to describe changes that need to be made (e.g., changes in bold, italics, or capitalization use; altering or replacing a figure) or to answer a question or approve a change from the editor. To use this feature, click on the Sticky Note tool in the menu bar and then click on a point in the PDF where you would like to make a comment. Then type your comment in the pop-up box.
- Use the **Callout tool** () to point directly to changes that need to be made. Try to put the callout box in an area of white space so that you do not obscure the text.
- Use the **Highlight and Add Note to Text tool** () to indicate font problems, bad breaks, and other textual inconsistencies. Select text to be changed, choose this tool, and type your comment in the pop-up box. One note can describe many changes.
- To view a list of changes to the proof or to see a more comprehensive set of annotation tools, select **Comment** from the menu bar.

As with hand-annotated proof corrections, the important points are to communicate changes clearly and thoroughly, to answer all queries and questions, and to provide complete information to allow us to make the necessary changes to your article so it is ready for publication. Do not use tools that incorporate changes to the text in such a way that no indication of a change is visible. Such changes will not be incorporated into the final proof.

To utilize the comments features on this PDF you will need Adobe Reader version 7 or higher. This program is freely available and can be downloaded from http://get.adobe.com/reader/

Subscriptions and Special Offers

In addition to purchasing reprints of their articles, authors may purchase an annual subscription, purchase an individual issue of the journal (at a reduced rate), or request an individual issue at no cost under special "hardship" circumstances. To place your order online, visit http://www.apa.org/pubs/journals/subscriptions.aspx; or you may fill out the order form below (including the mailing label) and send the completed form and your check or credit card information to the address listed on the order form.

For information about becoming a member of the American Psychological Association, visit http://www.apa.org/membership/index.aspx; or call the Membership Office at 1-800-374-2721.

2018 APA Journal Subscription Rates

Journal*	Non-Agent Individual Rate	APA Member Rate	Journal*	Non-Agent Individual Rate	APA Member Rate
American Psychologist	$ 458	$ 12	Jrnl of Family Psychology	$ 263	$ 127
Behavioral Neuroscience	$ 473	$ 194	Jrnl of Personality & Social Psychology	$ 806	$ 288
Developmental Psychology	$ 577	$ 205	Neuropsychology	$ 263	$ 127
Emotion	$ 198	$ 127	Professional Psych: Research & Practice	$ 216	$ 68
Experimental & Clinical Psychopharmacology	$ 145	$ 100	Psychological Assessment	$ 318	$ 169
History of Psychology	$ 146	$ 79	Psychological Bulletin	$ 318	$ 169
Jrnl of Abnormal Psychology	$ 273	$ 127	Psychological Methods	$ 159	$ 68
Jrnl of Applied Psychology	$ 545	$ 169	Psychological Review	$ 263	$ 109
Jrnl of Comparative Psychology	$ 159	$ 68	Psychology & Aging	$ 263	$ 127
Jrnl of Consulting & Clinical Psychology	$ 394	$ 169	Psychology of Addictive Behaviors	$ 263	$ 127
Jrnl of Counseling Psychology	$ 216	$ 95	Psychology, Public Policy, and Law	$ 159	$ 68
Jrnl of Educational Psychology	$ 263	$ 127	Rehabilitation Psychology	$ 159	$ 68
JEP: Animal Learning and Cognition	$ 159	$ 68	Clinician's Research Digest – Adult Populations	$ 159	$ 68
JEP: Applied	$ 159	$ 68			
JEP: General	$ 432	$ 169	Clinician's Research Digest – Child and Adolescent Populations	$ 159	$ 68
JEP: Human Perception, and Performance	$ 545	$ 205			
JEP: Learning, Memory, and Cognition	$ 545	$ 205			

*For journal descriptions, see APA's website: http://www.apa.org/pubs/journals

---

Instructions: Check the appropriate box, enter journal title and price information, and complete the mailing label in the right column. Enclose a check made out to the **American Psychological Association**, and mail it with the form to the APA Order Department or complete the credit card information below. Orders can also be placed online at http://www.apa.org/pubs/journals/subscriptions.aspx.

☐ Annual Subscription (available on January-December basis only). To subscribe, specify calendar year of the subscription. Refer to the Subscription Rates shown above.

Journal: _____

Calendar year of subscription: _____ Price: _____

Special Offers! If you are a journal article author, you may take advantage of two Special Offers.

☐ **Individual Copy.** You may order individual copies of the entire issue in which your article appears. As an author, you receive a special reduced rate of $5 per copy for up to a maximum of 25 copies. No phone requests accepted.

Journal: _____

Vol. no.: _____ Issue no.: _____ Issue month: _____

____ copies @ $5 a copy = $_____ (order amount)
+_____ (handling; see below)
TOTAL enclosed: $_____

Shipping & Handling Fees			
Order amount:	U.S. & Puerto Rico	Guaranteed Non-U.S.*	Economy Non-U.S.**
Up to $14.99	$5.00	$50.00	$15.00
$15 to $59.99	$6.00	$75.00	$16.00
$60.00+	10% Order Total	$125.00	$20.00

*International rates for guaranteed service are estimates.

**I agree that international economy service is non-guaranteed and does not provide tracking or date/time specific delivery. Delivery time for this level of service can take up to 8 weeks. If this level of service is selected, APA will not be held liable and will not honor any claims for undelivered, delayed, or lost shipments.

☐ **Hardship Request.** If you do not have a personal subscription to the journal and you do not have access to an institutional or departmental subscription copy, you may obtain a single copy of the issue in which your article appears at no cost by filing out the information below.

Journal: _____

Vol. no. : _____ Issue no.: _____

Issue month: _____

CREDIT CARD PAYMENT

___ VISA ___ MASTERCARD ___ AMERICAN EXPRESS

CARD NUMBER_____

Expire Date _____ Signature _____

PRINT CLEARLY – THIS IS YOUR MAILING LABEL

SHIP TO: Phone No. _____

Name _____

Address _____

_____

City _____ State _____ Zip _____

Expedited Service (enter service required): _____

Send the completed form and your check, made out to the **American Psychological Association**, or your credit card information to:

APA Order Department
750 First Street, NE
Washington, DC 20002-4242

All orders must be prepaid. Allow 4-6 weeks after the journal is published for delivery of a single copy or the first copy of a subscription.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

American Psychological Association

Journal of Personality and Social Psychology

0022-3514/18/$12.00

http://dx.doi.org/10.1037/pspp0000206

When a Good God Makes Bad People: Testing a Theory of Religion and Immorality

AQ: 1

AQ: au
AQ: 2

Joshua Conrad Jackson and Kurt Gray
University of North Carolina at Chapel Hill

When might religious belief lower ethical standards? We propose a theory of religion and immorality that makes three central predictions. First, people will judge immoral acts as more permissible when they make *divine attributions* for these acts, seeing them as enabled by an intervening God. Second, people will be more likely to make divine attributions when evaluating *passive immorality* (e.g., keeping a lost wallet) than *active immorality* (e.g., pick-pocketing) because human action makes people less likely to infer God's agency. Third, believers will be more likely than nonbelievers to perpetrate passive immorality, because they feel justified taking advantage of God's beneficence. Thirteen studies support these predictions. Our findings show that people who attribute events to God judge morally questionable behaviors more leniently (Study 1), American states with more prayer groups have higher rates of crime (Study 2), and experimentally manipulated divine attributions lead people to see selfish and harmful behavior as less immoral (Study 3). Divine attributions—and corresponding moral permissibility—are more likely with passive immorality than with active immorality (Studies 4–7). Compared with nonbelievers, believers are more likely to justify their own passive immorality (Study 8), and to commit everyday acts of passive immorality such as parking across multiple spaces (Study 9) and keeping overdue library books (Study 10). A novel behavioral economics task reveals that although passive morality is not impacted by religious priming, it does correlate with self-reported religious belief (Studies 11–13). Finally, an internal meta-analysis supports our predictions.

Keywords: divine attributions, morality, passive immorality, religion, religious belief

AQ: 3

Supplemental materials: http://dx.doi.org/10.1037/pspp0000206.supp

In 2014, Reese Wekhoven, Cally Guasti, and Lara Russel bought a couch for $20 from a Salvation Army store. At first the couch seemed perfectly ordinary, if a little lumpy. But the roommates soon realized that the lumps were actually envelopes stuffed with $100 bills. After excitedly pulling out the money, they were faced with an ethical dilemma: should they keep it? The roommates ended up returning the money to its rightful owner—an elderly woman whose husband had stashed their savings in the couch before passing away. Upon receiving the cash, she speculated that "this is my husband looking down on me and this was supposed to happen."

The widow's assumption of divine intervention seems harmless at first, but consider what would have happened if Reese, Cally, and Lara had seen the money as a gift from above. The roommates could have easily assumed that God had sent them the couch to help Lara pay off her debt or help Reese provide for his parents. Yet if they had made these attributions, they would have kept the cash for themselves and deprived a widow of her savings. Matthew 7:7 says "Keep on asking, and you will receive what you ask for. Keep on seeking, and you will find. Keep on knocking, and the door will be opened to you." However, windfalls sometimes come at the expense of others, and a door that opens for you may be a door slammed upon your neighbor.

The case of the lumpy couch speaks to a more general debate over whether religion encourages good or evil. On the one hand, most people around the world claim that belief in God is essential to being a moral person (Pew Research Center, 2014). On the other, many atheists claim that religion makes people crueler: As Christopher Hitchens said, "we keep being told that religion, whatever its imperfections, at least instills morality. On every side, there is conclusive evidence that the contrary is the case and that faith causes people to be more mean [and] more selfish."

Unfortunately, Hitchens—and most other pundits of religion and morality—seldom collected data. If they did, they would see that past studies show no clear direct link between religion and morality. In this spirit, we pivot from the question of "*Does* religion make people bad?" to "*When* does religion encourage immorality?" Inspired by situations like the roommates' couch dilemma, we explore how people's attributions of God's will can lead them to justify stealing lost wallets, keeping overdue library books, and cheating on exams.

Our studies suggest that believers can justify questionable behavior when they believe in a God who intervenes in specific circumstances to help people, and when there is no clear person

AQ: 12 Joshua Conrad Jackson and Kurt Gray, Department of Psychology, University of North Carolina at Chapel Hill.

Correspondence concerning this article should be addressed to Joshua Conrad Jackson, Department of Psychology, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599. E-mail: joshcj@live.unc.edu

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

responsible. In cases like finding an envelope of cash, an overdue library book, or money in a lumpy couch, believers in an intervening God may not see immorality but instead a gift from above. After all, who are we to second-guess divine provenance?

Religion and Morality Contain Multitudes

Does God make you good? People do both virtuous and evil things in the name of God, with both saints and suicide bombers claiming divine inspiration. Empirical data on religion and prosociality are just as unclear, with studies suggesting positive (Brooks, 2006; Putnam & Campbell, 2010), negative (Paul, 2005; Zuckerman, 2008), and null correlations (Batson, Oleson, Weeks, Healy, & Reeves, 1989, 1993; Darley & Batson, 1973). Similarly, religious people are more likely than their secular counterparts to condemn some acts of harm (Heiphetz, Lane, Waytz, & Young, 2016; Piazza & Sousa, 2014) but less likely to condemn others (Bushman, Ridge, Das, Key, & Busath, 2007; Johnson, Rowatt, & Labouff, 2010). These mixed results suggest that there may be no direct effect of religion on morality, and that focusing on the global question of "Does God makes you good" might be unproductive (Jong, 2015; McKay & Whitehouse, 2015). We might be better served by looking for the specific forms of religion that might encourage or discourage morality, as well as the forms of morality that might be more common or less common with religion.

One popular approach to studying religion and morality focuses on a single form of "morality"—prosocial behavior—but divides up "religion" to study differences between *moralizing* gods (e.g., the Abrahamic God) and nonmoralizing gods. According to some theories, the emergence of moralizing gods encouraged unprecedented large-scale cooperation, enabling small tribal societies to grow in population size and wealth (Johnson, 2016; Norenzayan et al., 2016; Purzycki et al., 2016). Scholars have supported theories of moralizing gods by arguing that properties of these gods—like their ability to monitor or punish human behavior—reliably make people more prosocial.

The supernatural monitoring hypothesis argues the belief in an actively monitoring god encouraged people to behave more prosocially, just as if another person were always watching (Norenzayan et al., 2016; Purzycki et al., 2016). Monitoring encourages good behavior, but so might the threat of punishment (Johnson, 2016), which helps to explain why people who believe in punitive gods tend to be more compliant with social norms, more willing to pay taxes, and more willing to lend money to unrelated strangers (see also Norenzayan, 2013). People who believe in an angry God also tend to give more in economic games than people who believe in a loving God (Shariff & Norenzayan, 2011), and Hell beliefs predict less crime across the American States, whereas Heaven beliefs predict more crime (Shariff & Rhemtulla, 2012). In support of both the monitoring and punishing hypotheses, experiments have found that brief religious "primes" in societies with moralizing gods encourage people to donate more in economic games and actively cheat less in laboratory paradigms (Aveyard, 2014; Hadnes & Schumacher, 2012; Mazar, Amir, & Ariely, 2008; Piazza, Bering, & Ingram, 2011; Pichon, Boccato, & Saroglou, 2007, Study 2; Randolph-Seng & Nielsen, 2007; Shariff & Norenzayan, 2007).

Another approach to studying religion and morality keeps "religion" a single construct but divides up "morality" into different moral values. For example, Graham and Haidt (2010) theorized that religious people emphasize a broader set of moral values compared with their secular counterparts (see also Bruce, 2013). Graham and Haidt (2010) focus particularly on the values of loyalty, authority, and purity, which they claim are especially important to religious individuals, and can explain why religious people donate more to charity and volunteer more in their community than their secular counterparts.

These approaches offer valuable nuances to the study of religion and morality, but they share two limitations. First, many studies deconstruct either "religion" or "morality," but few deconstruct both at the same time. Some theoretical work has discussed nuances within both of these constructs (McKay & Whitehouse, 2015), but much of this work—along with other past literature—suffers from a second limitation: it almost exclusively focuses on how religious belief encourages forms of morality. Theories of moralizing gods and religious values help explain when religious people will donate more to anonymous strangers or comply with social norms, but not when religious people may be *less* kind or generous or *less* likely to follow prosocial norms (Galen, 2012; Greer, Berman, Varan, Bobrycki, & Watson, 2005; Leach, Berman, & Eubanks, 2008).

Here, we deconstruct both religion and morality to understand when religious belief might predict behaviors that most people would call immoral—such as justifying and perpetrating self-serving harms. We suggest that belief in an *intervening God* (vs. a nonintervening God) might be one key ingredient that allows believers to permit and perpetrate harmful behavior. Because people view God as unquestionably moral (Heiphetz et al., 2016; Heiphetz, Lane, Waytz, & Young, 2018), they are less likely to second-guess or change harmful circumstances if they believe these circumstances are the result of divine will. These divine attributions may be especially likely in harmful situations that lack a clearly responsible human agent because this encourages people to see God as responsible—and seeing God's good will at work allows earthly injustice to be justified.

An Intervening God May Encourage Immorality

Most people want to be generous and kind, but sometimes it is hard to pass up selfishness. It is especially tempting to be selfish when self-serving circumstances seem *meant to be*. It might feel like a sign when your browser window shuts down on the last page of filing taxes, or when a blizzard unexpectedly arrives on the day of your jury duty. You need not be religious to feel a little superstitious in these cases, especially because superstition serves your interests. However, believing in an intervening God might encourage immorality by transforming earthly temptation into Heaven-sent signs. This is even more likely when people perceive God as actively intervening to help them. In the two cases above, for instance, people who believe in an intervening God could easily see God as responsible for their tax-avoiding computer troubles or jury-skipping blizzard. Moreover, because "God is good," these divine attributions may lead them to deem their own misbehavior—or even other people's self-serving misbehaviors—as less immoral.

Of course, what exactly constitutes "immorality" is a matter of perception. Some people may not see cheating on taxes or skipping jury duty as especially immoral, and it is precisely this subjectivity

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

that allows acts to seem permissible when arranged by God. When we use the term "immoral" in this paper, we are referring to behaviors that violate widely held cultural norms (Gelfand & Jackson, 2016) and cause some degree of perceived harm, whether personal or societal (Schein & Gray, 2018)—both skipping jury duty and cheating on taxes would fit this description. When laypeople make these harm-related moral judgments, they must integrate perceptions of intention (Foot, 1967; Gray, Jenkins, Heberlein, & Wegner, 2011), suffering (Schein & Gray, 2015), and causation (Hume, 2006). Our theory focuses on perceptions of causation: we suggest that harmful acts seem less immoral (and therefore more permissible) when people make *divine attributions* for the causes of these acts. Consider again the case of the lumpy couch: in one interpretation of this scenario, Reese, Cally, and Lara are causally responsible for any harm that befalls the widow. However, people who see divine intervention might see God as causally responsible for event (i.e., God put the money in the couch for the roommates to find), allowing the roommates to escape responsibility for any wrongdoing.

Some work offer support for the role of divine attributions in justifying immorality. Believers may be more likely to aggress against out-groups vilified in the bible (Johnson et al., 2010), and are more likely to blast someone with noise after reading a bible passage endorsing anger (Bushman et al., 2007). Of course, while participants in the noise blast experiment were explicitly reminded about God, believers in real life must infer His hand behind events. People's assumptions about God's goodness makes it seem unlikely that believers would see His hand behind many immoral events, even when their outcomes are self-serving; instead, people may make divine attributions mostly in cases when human causation is ambiguous—what we term passive immorality.

Passive Immorality: Making Room for the Hand of God

Consider the difference between actively pick-pocketing a wallet versus keeping a wallet that you find on the street. Although both involve a suffering victim, pick-pocketing involves clearer intention and causation—that is, agency—on the part of the perpetrator (Gray, Schein, & Ward, 2014; Gray, Young, & Waytz, 2012). While the first is a case of *active immorality* (i.e., a commission), the second represents *passive immorality* (i.e., an omission). Empirical studies in philosophy and moral psychology find that people judge the harm caused by commissions as morally worse than equivalent harm caused by omissions because the causal responsibility for omissions is unclear (Baron & Ritov, 2004; Cushman, Young, & Hauser, 2006; DeScioli, Christner, & Kurzban, 2011; Spranca, Minsk, & Baron, 1991). We label omissions "passive immorality" to reflect their psychological experience: rather that actively causing harm, one simply needs to accept when harm is caused by external circumstance.

Past research supports the potential link between passive immorality and divine attributions. People are motivated to attribute events to the actions of a single intentional agent (Rosset, 2008). The most obvious intentional agent is usually another human being (Oldridge, 2004; Tannenbaum, Uhlmann, & Diermeier, 2011), but when it proves difficult to find a person to hold accountable, believers often look toward the heavens (Laurin, Shariff, Henrich, & Kay, 2012). The urge to find an intentional agent is especially strong for harmful events (Knobe, 2003), and people will often see the hand of God behind suffering (Gray & Wegner, 2010). We extend this logic to consider when people might make divine attributions when evaluating immoral behavior. When immorality has a clear human culprit—like in the case of pick-pocketing—God's hand seems unlikely. But in cases of passive immorality—like finding a wallet on the street—divine attributions are much more likely.

If passive immorality encourages divine attributions, then believers might be more likely than nonbelievers to permit and perpetrate passive immorality. Of course, as we discussed above, religious belief has many elements that promote prosociality, including beliefs in a punitive and monitoring God (Johnson, 2016; Norenzayan et al., 2016) and a rigid deontological view of moral principles (Shariff, Piazza, & Kramer, 2014). Although these elements may steer believers away from active forms of immorality, they are less relevant in passive immorality in which God's beneficence may be more salient. Consider the mindset of a pick-pocketer versus someone finding a wallet: The religious pick-pocketer will be keenly aware that God is watching—and might punish—his transgression. But the religious wallet-finder will be more attuned to whether God wanted him to find the wallet, which would encourage him to keep it.

The Present Research

Overview of Predictions

Thirteen studies examine when religious believers will permit and engage in immorality. In particular, we test three predictions: First, people who make divine attributions for immoral acts should see them as permissible. Second, making divine attributions for immorality should be most common in cases of passive immorality—when there is no clear human agency—because this makes it easier to infer God's agency. Third, because believers can make divine attributions for passive immorality, they should be more likely than nonbelievers to perpetrate these acts.

Prediction 1: Divine Attributions Encourage Immorality

Studies 1–3 tests whether seeing the hand of God behind earthly events can make immorality seem more permissible. In light of past work linking religion with prosociality, we suggest that religiosity in general may encourage moral strictness, but that divine attributions should encourage moral permissibility (see Figure 1). F1
Study 1 supports this prediction using a large online survey—and also establishes that individual differences in divine attributions are distinct from several related constructs. More support for this prediction comes from archival analyses (Study 2) and an experimental manipulation of divine attribution (Study 3).

Prediction 2: Passive Immorality Facilitates Divine Attribution

Studies 4–7 test our second prediction about *when* people make divine attributions—in cases of passive immorality. These divine attributions should then predict moral permissibility, resulting in the moderated mediational model shown in Figure 2. Studies 4 and F2

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

5 show that religious people in passive—but not active—contexts are especially likely to make divine attributions, which then predicts moral permissibility. These effects are amplified when God's agency is salient after prayer (Study 6) and are not explained by act severity (Study 7).

Prediction 3: Religious Belief Predicts Passive Immorality

Studies 8–13 test our third prediction that believers should be more likely to justify and perpetrate passive immorality compared with nonbelievers. Study 8 shows that religious people are more likely than nonreligious people to view their prior acts of passive immorality as justified, an effect that is mediated by divine attributions. Studies 9 and 10 test the link between religion belief and passive immorality in the field. Study 9 shows that drivers with religious decorations on their cars are worse parkers than drivers with either secular decorations or no decorations, and Study 10 shows that library books on Christianity are more frequently overdue than books from nearly any other topic.

Finally, Studies 11–13 test whether religious priming (Shariff, Willard, Andersen, & Norenzayan, 2016; Willard, Shariff, & Norenzayan, 2016) increases immoral behavior in a novel passive immorality task called the "envelope game." In this game, participants can benefit at the expense of another person by *failing* to act. By declining to open an envelope, participants can profit from a potentially unfair—but changeable—distribution of money between themselves and a partner. These studies revealed no effect of religious priming, but a significant—albeit small—effect of self-reported religious belief on passive immorality.

Internal Meta-Analysis

Following these 13 studies, an internal meta-analysis summarizes support for our key predictions: (a) divine attributions *positively* predicts moral permissibility while the remaining variance in religious belief *negatively* predicts moral permissibility, (b) divine attributions are stronger for passive immorality than active immorality—especially for believers, and (c) religious belief may consistently discourage active immorality, but can encourage the moral permissibility of passive immorality, especially when people judge their own behavior.

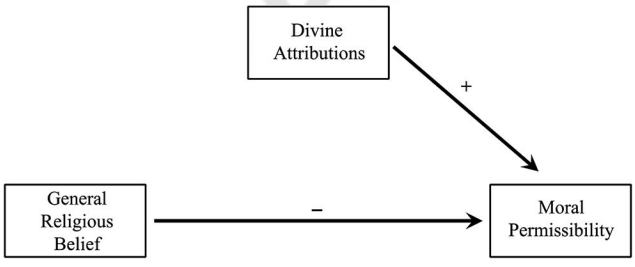


Figure 1. First, we hypothesize that people who make divine attributions should be more likely to excuse moral wrongs, whereas other aspects of belief should predict harsher moral judgment.

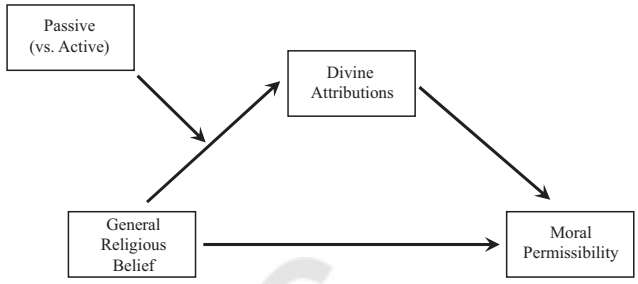


Figure 2. Second, we hypothesize that divine attributions are especially likely when people have strong religious belief and judge passive (vs. active) immorality. Divine attributions should therefore mediate an effect between belief and permissive judgments of passive immorality.

Testing Prediction 1: Divine Attributions Encourage Immorality

Studies 1–3 tested whether seeing the hand of God behind earthly events made immorality seem more permissible. Study 1 developed a new measure of divine attributions, Study 2 conducted an archival analysis religiosity and crime, and Study 3 experimentally manipulated divine attributions.

Study 1: Religious Belief and Divine Attributions Divergently Predict Moral Judgment

Our first study assessed people's evaluations of morally questionable behaviors and measured both their global religious belief and their specific tendency to attribute earthly events to an intervening God. We predicted that divine attributions would correlate positively with moral permissibility, whereas other aspects of belief would correlate negatively with permissibility—making people morally stricter (Piazza & Sousa, 2014; Shariff et al., 2014). Developing a measure of divine attributions also gave us the opportunity to examine its discriminant validity—specifically whether divine attributions are distinct from global religious belief, intrinsic religiosity, and participants' view of a benevolent (vs. angry) God.

Method

Participants. The lack of prior relevant research made it difficult for us to estimate a specific effect size in our power analysis. We recruited 500 participants from Amazon Mechanical Turk, which gave us >99% power to detect a medium-sized effect of $f^2 = .15$ and 71% power to detect a small effect of $f^2 = .02$. Three participants did not complete the study, leaving a final sample of four hundred ninety-seven participants (242 men; 255 women; M_{age} 38.82, $SD = 13.06$).[1] Fn1

Ethics statement. All studies in this paper were approved by the Office of Human Ethics at the University of North Carolina, Chapel Hill; 15–3184: Desire and Decision Making.

Procedure. Participants evaluated a series of moral transgressions before completing a series of religion scales in counterbal-

[1] Two participants reported ages over two hundred years old and were not included in our age calculations.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

anced order: (a) divine attributions, (b) global religious belief, (c) intrinsic religiosity, and (d) views of God. Participants then filled out demographics and were debriefed.

Measures.

Moral permissibility. To assess moral permissibility, we adapted five scenarios from Greene and colleagues (2001) in which someone could make a self-serving but potentially immoral decision. The decisions were (a) putting false information on their resume to get a coveted job, (b) writing off personal expenses as business expenses, (c) insider trading, (d) using a personal relationship with a judge to win a law case, and (e) keeping a lost wallet during a time of need, rather than returning it to the owner. Participants rated each decision on a scale from 1 (*not at all immoral*) to 7 (*very immoral*). We reverse-coded this scale, so that higher scores indicated more permissibility.

A factor analysis of participants' responses across the five scenarios revealed a robust one-factor solution, with one factor explaining 58% of variance (Eigenvalue = 2.90), and no other factors explaining more than 13% of variance (Eigenvalues < .65). We therefore combined the five responses into a single index (α = .82).

Global religious belief. To measure global religious belief, we used the supernatural beliefs scale (SBS), a 10-item measure (α = .97) often used as a measure of global religious belief (Jong, Bluemke, & Halberstadt, 2013). The SBS contains a series of statements regarding the existence of supernatural entities (e.g., There exists an all-loving, all-knowing, all-powerful God). Although this measure is oriented toward Christian religious beliefs, 98% of religious participants in our sample identified as Christian, and so we considered it to be appropriate. We discuss the potential for cross-cultural differences in this paper's general discussion.

Divine attributions. To assess people's tendency to make divine attributions above and beyond their global religious belief, we developed a measure in which participants chose the ending of 10 sentences with one of three alternatives—one detailing *no* divine intervention, one detailing *indirect* divine intervention, and one detailing *direct* divine intervention. For example, "when a person of faith is hoping to have a child, God . . ." (a) "doesn't directly intervene, allowing the person to try conception with their partner," (b) makes sure that the person and their partner are fertile, so that they can conceive," and (c) directly and immediately arranges for the woman to become pregnant. Our measure of divine attributions was internally consistent (α = .93), with a factor analysis revealing robust one-factor solution, with one factor explaining 63% of variance (Eigenvalue = 6.32), and no other factors explaining more than 7% of variance (Eigenvalues <.70). This scale is listed in Appendix A.

Participants were generally unlikely to make direct divine interventions—the scale had an average of 1.23 with a large positive skew (skewness = 1.58)—however, a substantial number of participants did score above the scale's midpoint (n = 103), indicating variance in divine attributions. Participants' open-ended evaluations of the scale indicated that people understood the scale and did not have difficulty completing it, although some participants noted that the scale was oriented toward Judeo-Christian believers—a limitation we acknowledge. We also note that when people make divine attributions in our measure, it does not rule out attributions to nondivine sources (e.g., biology, society, personal agency), as research shows that people attribute events to multiple causes (Legare & Gelman, 2008; Lupfer & Layman, 1996).

Other measures of religiosity.

Intrinsic religiosity. We measured intrinsic religiosity using Gorsuch and MacPherson's (1989) updating of Allport and Ross's (1967) religious orientation measure. This scale contains 10 items—three of which are reverse scored—such as "My religious beliefs are what really lie behind my whole approach to life" and "It doesn't matter what I believe so long as I lead a good life" (R) that are designed to capture individuals' intrinsic faith. Participants rated each item on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). The measure has been used extensively, and typically shows high reliability. In this study, however, the scale's three reverse scored items did not load highly with the other items and factored separately in an exploratory factor analysis using varimax rotation (with eigenvalues of 5.94 and 1.87, respectively). Rather than use these reverse coded items in a separate scale, we dropped them from analysis and only used the nonreversed items, which showed high reliability (α = .97) and loaded onto a single factor (Eigenvalue = 5.78, 83% of variance explained). See Cohen and colleagues (2017) for more information on this scoring of intrinsic religiosity. AQ: 4

Views of God. We measured participants' views of God using Shariff and Norenzayan's (2011) scale (see also Johnson, Okun, & Cohen, 2015). Participants rated the extent to which each of 14 adjectives was characteristic of how they viewed God on a scale ranging from 1 (*not at all characteristic*) to 7 (*very characteristic*). This scale is two-dimensional, where some items show God as loving and forgiving ("Loving," "Forgiving," "Gentle") and others show God as angry and punitive ("Harsh," "Punishing"). In our sample, loving views of God correlated positively with harsh views of God, r = .45, p < .001. This is not surprising, because nonbelievers rated God as low in both lovingness and punitiveness. AQ: 5

Correlations between scales and analytic strategy. Before fitting models, we analyzed our interscale correlation and probed for potential multicollinearity. The zero-order correlation matrix between scales is presented in Table 1. T1

Interitem correlations revealed moderate correlations between divine attributions and other measures of religiosity, but these correlations did not exceed .45, suggesting discriminant validity between divine attributions and other measures of religious belief. In contrast, global beliefs and intrinsic religiosity were highly intercorrelated (r = .86), suggesting that these measures tapped similar constructs. Views of a loving God were also highly correlated with intrinsic religiosity and global religious belief.

Results

How do divine attributions and religious beliefs predict moral judgment? Zero-order correlations showed that global religious belief correlated negatively with ratings of moral permissibility, r = −.18, p < .001, but divine attributions showed no correlation, r = .05, p = .26. However, divine attributions and global religious belief were correlated, r = .38, p < .001 making it difficult to interpret these correlations.

Multiple regression. We next conducted a multiple regression that allowed us to test the independent effects of divine attributions, global religious belief, and views of God on perceived AQ: 6

Table 1
Correlation Between Predictors in Study 1

Predictor	Divine attributions	Global religious beliefs	Intrinsic religiosity	Punitive God	Loving God
Divine attributions	—				
Global religious beliefs	.38	—			
Intrinsic religiosity	.43	.86	—		
Punitive God	.15	.35	.34	—	
Loving God	.23	.78	.62	.45	—

Note. All correlations were significant at .005 level.

Fn2 moral permissibility.[2] As predicted, divine attributions predicted *increased* moral permissibility of the scenarios, whereas global religious belief predicted *decreased* moral permissibility. See Table 2. T2, F3 This effect—also displayed in Figure 3—was robust to whether divine attributions were modeled alongside the SBS or intrinsic religiosity, and neither participants' views of a loving God nor a punishing God predicted ratings of moral permissibility.

Discussion

Study 1 supported our prediction: people making divine attributions viewed morally questionable behaviors as permissible, whereas global religious belief predicted decreased permissibility. This study also confirmed that divine attributions were distinct from global religious belief, intrinsic religiosity, and views of a loving and forgiving (vs. harsh and punitive) God. In sum, people who think that God often directly intervenes in situations also believe that it is permissible enjoy the benefits of morally questionable situations. We next examined whether this effect would replicate in state-level crime data.

Study 2: Prayer Group Attendance and Religious Belief Divergently Predict Crime Rates

Study 2 tested whether the average level of divine attributions within a U.S. state positively predicts that state's crime level—and whether global religious beliefs negatively predicts crime levels. To separate divine attributions from aspects of global religious belief, we analyzed three different variables: (a) statewide prayer group attendance, (b) the importance of religion in people's lives, and (c) service attendance. We reasoned that prayer groups often involve people asking God to intervene in their lives and therefore tap divine attributions. Conversely, the general importance of religion and service attendance should better tap global religious belief. While we acknowledge that not all prayer is petitionary (Ladd & Spilka, 2006; Ladd & Spilka, 2002), past studies have found that the general frequency of prayer robustly correlates with petitionary prayer (Bänziger, Uden, & Janssen, 2008). We therefore hypothesized that prayer group attendance would predict higher crime rates, whereas other forms of religious belief would predict lower crime rates.

Method

AQ: 7 **Materials and measures.** All variables were at the state level and drawn from large American national databases.

Prayer group attendance. To operationalize divine attributions, we used the 2014 Pew Religious Landscape Survey, which asked 35,000 Americans from all 50 states to rate how frequently they participated in prayer or religious study groups using a 1–4 scale, with anchors at 1 (*seldom/never*), 2 (*several times a year*), 3 (*once or twice a month*), and 4 (*at least once a week*). We computed a weighted score for each state by multiplying each scale value by the percentage of people who indicated that value (i.e., if 23% of people indicated "1," this would be represented as .23 × 1), and then summing the values. The resulting index was a continuous measure where higher values represented higher state-level prayer group attendance.

Global religious belief. To operationalize global religious belief, we used another item from the 2014 Pew Religious Landscape Survey, which asked Americans to rate how important religion was in their life on a scale from 1–4, with anchors at 1 (*not at all important*), 2 (*not too important*), 3 (*somewhat important*), and 4 (*very important*). We computed a weighted score for each state using the same method as our divine attribution measure.

Service attendance. To operationalize service attendance, we used yet another item in the 2014 Pew Religious Landscape Survey, which asked participants how often they attended religious services on a scale of 1–3 with anchors at 1 (*seldom/never*), 2 (*once or twice a month/a few times a year*), and 3 (*at least once per week*). We computed a statewide score using this information in the same method that we computed our other religiosity statewide scores, with a resulting index that ranged from 1–3.

Crime. To assess statewide measures of crime, we used data from FBI's Uniform Crime Reporting (UCR) database. Crime data has been stored in the UCR each year since 1958, so for greatest consistency with our measures of religiosity, we sampled data from the 2013–2014 wave of data collection. This wave includes data on murder and manslaughter, forcible rape (based on two definitions), robbery, aggravated assault, burglary, larceny-theft, and motor vehicle theft. Crime rates are represented as frequency of crimes per 100,000 people to avoid confounding criminal activity with population size.

Covariates. To control for other influences on religious belief and crime, we also included states' average incomes (2014 gross state income per capita from the Bureau of Economic Analysis),

[2] Intrinsic religiosity and global religious belief were highly collinear, and so we only entered global beliefs into our regression. However, when we included intrinsic religiosity in our regression, it showed nearly an identical effect to global religious belief.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

Table 2
Predictors of Moral Permissibility in Study 1

Variable	*b* (*SE*)	*t*	*p*	95% CI
Intercept	2.35 (0.20)	11.56	<.001	[1.96, 2.76]
Global religious belief	−0.10 (0.03)	−3.12	.002	[−0.16, −0.04]
Divine attributions	0.45 (0.15)	3.07	.002	[0.16, 0.74]
Authoritarian views of God	0.04 (0.04)	1.24	.22	[−0.03, 0.12]
Benevolent views of God	−0.02 (0.04)	−0.05	.63	[−0.11, 0.07]

education levels (percentage of people to graduate with a bachelor's degree from the 2014 U.S. Census), and inequality (Gini coefficients from the 2014 U.S. Census). No other variables were added to avoid multicollinearity.

Results

Global religious belief, prayer group attendance, and crime. In a multiple regression that included wealth, inequality, and education, prayer group attendance, global religious belief, and service attendance, prayer group attendance was significantly positively correlated with crime rate. Unstandardized betas indicated that every one unit increase in prayer group attendance (on a 1–4 scale), states would be expected to have 2,924 more crimes per 100,000 people. Global religious belief was negatively but nonsignificantly correlated with crime rates. See Table 3 for a display of all model coefficients. T3

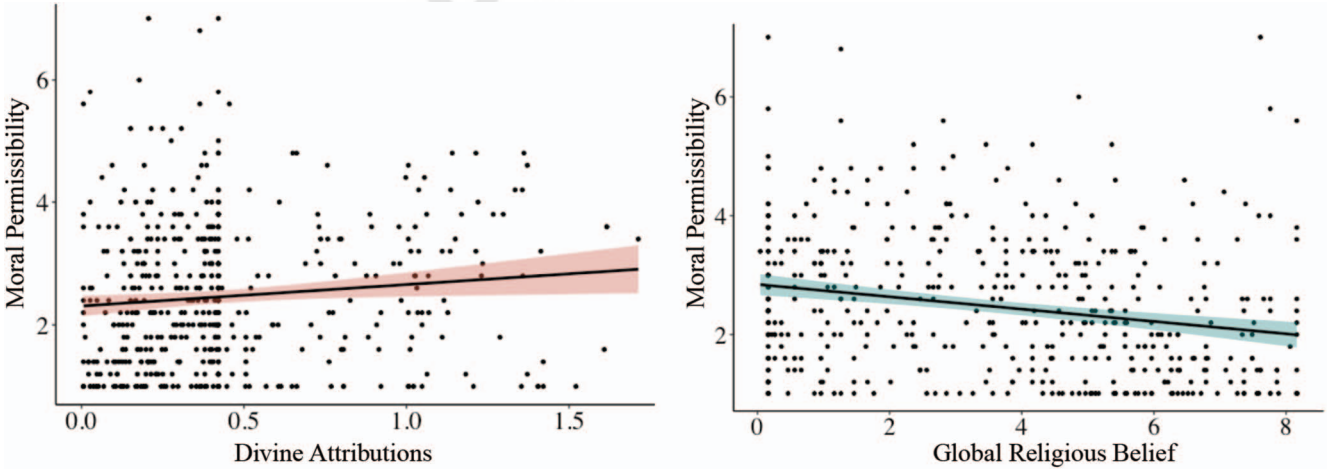
Replicating without outliers. Further analysis showed that these results were substantively unchanged when removing Washington, DC from the analyses, which represented a potential outlier with a crime rate of 6108.6 crimes per 100,000 compared with the next highest state (New Mexico), which had 4317.8 crimes for every 100,000 people. Prayer group attendance remained a significant positive predictor of crime, $b = 2331$, $SE = 790$, $t(43) = 2.95$, $p = .005$, and importance of religion remained a nonsignificant negative predictor, $b = -308$, $SE = 915$, $t(43) = -.34$, $p = .74$. These effects are graphed in Figure 4. F4

Correlations. For completeness, we also report zero-order correlations. Global religious belief and overall crime were positively correlated, $r = .31$, $p = .03$, as were prayer group attendance and overall crime, $r = .41$, $p = .003$. However, these correlations are difficult to interpret, because these religion metrics were highly correlated with each other, $r = .88$, $p < .001$, and with measures of state-wealth, $rs < -.53$, $ps < .001$, and education, $rs < -.53$, $ps < .001$. We therefore encourage readers to interpret our multiple regression, which is more informative.

Discussion

State-level prayer group attendance significantly predicted more crime, whereas global religious belief and service attendance predicted nonsignificantly less crime. This nonsignificance could stem from measurement issues (error, insufficient power, missing variables) or because the relationship between global religious belief and crime may be more nuanced, depending upon other components of belief like Heaven and Hell beliefs (Shariff & Rhemtulla, 2012).

We note that this state-level relationship between prayer group attendance and crime does not imply that praying individuals commit more crimes, especially as group-level effects can often



ONLINE COLOR

Figure 3. These plots display the unique relationships between moral judgment and global religious belief (left panel) and divine attributions (right panel) in Study 1. In multiple regression, divine attributions predicted less harsh moral judgments while global religious beliefs predicted harsher moral judgments. One outlier value has also been removed for ease of interpretation. See the online article for the color version of this figure.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

Table 3
Predictors of Statewide Crime Rates in Study 2

Variable	*b* (*SE*)	*t*	*p*	95% CI
Intercept	−605 (2,824)	−0.21	.83	[−6.30, 5.09]
Prayer group attendance	2924 (887)	3.30	.002	[1,136, 4,711]
Importance of religion	−469 (1,047)	−0.45	.66	[−2,577, 1,641]
Service attendance	−2,162 (1,691)	−1.26	.21	[−5,570, 1,245]
Gross state income per capita	−143 (193)	−0.74	.47	[−532, 247]
Inequality (state GINI)	6,200 (6,458)	0.96	.34	[−6,815, 19,214]
Statewide education	65 (40)	1.65	.11	[−14, 146]

hide inconsistent individual-level effects (Kramer, 1983). This study suggests only that states with frequent prayer group attendance also had high crime rates. We also note that this study (and Study 1) conflates participants' perceptions of God as generally controlling earthly events with perceptions of God intervening in specific cases. Our theory concerns specific attributions of divine agency, rather than general religious determinism. To more precisely manipulate this construct, our next study manipulated divine attributions and measured individual people's attitudes toward self-serving harms.

Study 3: Divine Attributions Produce Permissive Moral Judgments

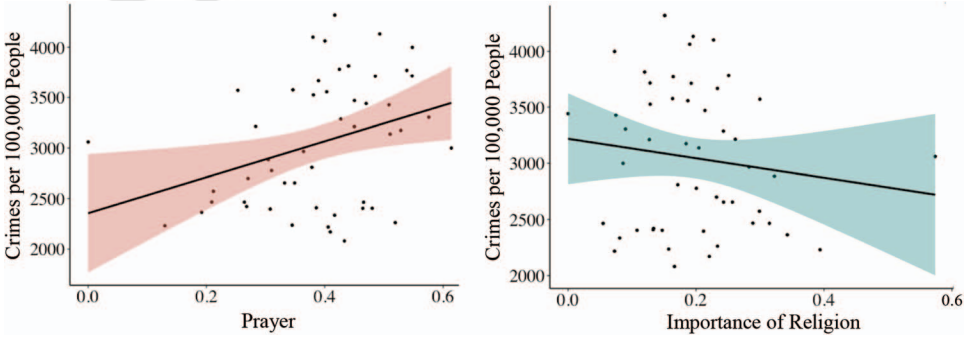
When God seems to answer prayers, do people see the harm caused as more morally permissible? We tested this question with a large online sample of religious participants, who read about the same immoral behaviors as in Study 1. Participants were told either that God had facilitated these behaviors (making divine attributions salient), a religious friend had facilitated these behaviors (making religion generally salient), or had no information (providing a control condition). We hypothesized that people would evaluate morally questionable acts as more permissible in the divine attribution condition, but less permissible in the religious friend condition, consistent with our correlational findings in Studies 1 and 2.

Method

Participants. Given Study 3's between-subjects experimental design, we chose to advertise for a large sample of 600 religious participants on Amazon Mechanical Turk. However, 667 participants (349 men, 313 women; $M_{age} = 36.92$, $SD_{age} = 11.49$) ended up completing the survey and passing our screening ("Do you believe in God or gods?"). This sample gave us 80% power to detect an effect as low as $f = 0.12$ ($d = 0.24$).

Procedure. Participants completed the procedure on Amazon Mechanical Turk. They began by reading scenarios of questionably moral behavior, and then provided demographic information.

Moral permissibility. To assess perceptions of moral permissibility, we adapted our scenarios from Study 1. As in Study 1, participants read about decisions where they could make self-serving but morally questionable decisions involving (a) wrongly getting a job, (b) taking illegal business donations from an investor, (c) insider trading, (d) using a personal relationship with a judge to win a law case, and (e) keeping a lost wallet during a time of need. The behaviors described in (a) and (b) were slightly different to accommodate our manipulations. Participants used a 1–7 scale anchored at 1 (*not at all immoral*) and 7 (*very immoral*) to rate each behavior's immorality. This scale was again reverse scored so that higher scores corresponded to more moral permissibility.



ONLINE COLOR

Figure 4. The unique relationships between prayer group attendance, importance of religion, and crime rates across states in Study 2. Whereas prayer group attendance was positively associated with statewide crime rates, importance of religion was negatively and nonsignificantly associated with statewide crime rates. Variance associated with income, inequality, and education has been removed to create these plots. Shaded regions represent 95% confidence intervals. See the online article for the color version of this figure.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

Divine attribution manipulation. In the *divine attribution condition*, participants read that they prayed to God and God answered their prayers by arranging the circumstances that made their morally questionable decision possible. In the *religious friend condition*, participants read that they asked a friend from church to help them and the friend arranged for the morally questionable circumstances. In the *control condition*, there was no explanation of who was responsible for the circumstances. Other than this manipulation, the information in the vignette was identical. Below is the "lost wallet" vignette across our study's three conditions.

Divine attribution condition. You have been hit by hard times recently, and you are struggling to pay the bills. You pray to God to help with money. God hears your prayers and leads you toward a wallet that is lying on the ground. You open the wallet and find that it contains several hundred dollars in cash as well the owner's driver's license. From the credit cards and other items in the wallet it's very clear that the wallet's owner is wealthy. You keep the wallet.

Religious friend condition. You have been hit by hard times recently, and you are struggling to pay the bills. You ask your friend from church for money. Your friend listens and some days later he leads you toward a wallet that he has found lying on the ground. You open the wallet and find that it contains several hundred dollars in cash as well the owner's driver's license. From the credit cards and other items in the wallet it's very clear that the wallet's owner is wealthy. You keep the wallet.

Control condition. You have been hit by hard times recently, and you are struggling to pay the bills. One day, you find a wallet that is lying on the ground. You open the wallet and find that it contains several hundred dollars in cash as well the owner's driver's license. From the credit cards and other items in the wallet it's very clear that the wallet's owner is wealthy. You keep the wallet.

Belief in divine intervention. Manipulating divine intervention requires that participants believe in a God who intervenes to help people. Therefore, we included a yes/no screening item—after participants read all scenarios—that asked participants "Do you believe that God intervenes in life to help people?" Of our 667 participants, 536 agreed with this item and were included in our primary analysis.

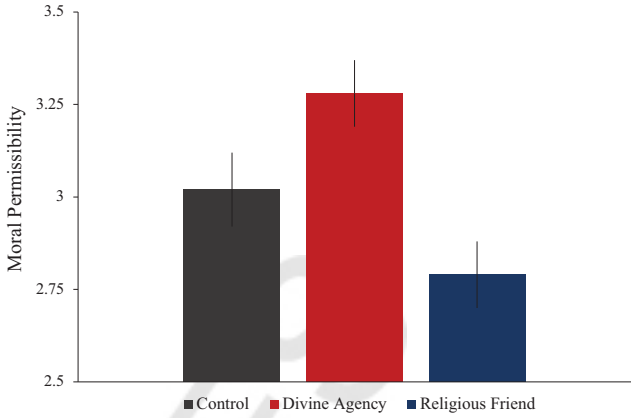
Results

Does providing divine attributions lead to increased perceptions of moral permissibility? A one-way ANOVA revealed a significant effect across conditions, $F(2, 532) = 7.18$, $p < .001$, with planned contrasts showing that participants in the divine attribution condition rated these morally questionable actions as more permissible than those in either the control condition (Ms = 3.28 vs. 3.02, SEs = 0.09, $p = .058$) or the religious friend condition (Ms = 3.28 vs. 2.79, SEs = 0.09, $p < .001$). By contrast, participants rated these actions as marginally *less* permissible in the religious friend condition than the control condition (Ms = 2.79 vs. 3.02, SEs = 0.09, $p = .076$; see Figure 5).[3]

F5, Fn3

Discussion

This study showed that—for those who believed in an intervening God—making divine attributions salient led participants to see morally questionable actions as more permissible than making religion in general salient. Unlike a fallible religious friend, God's infallible beneficence allows people to ignore the harm caused by God's actions.



ONLINE COLOR

Figure 5. Participants in Study 3 viewed morally questionable acts as more permissible when they believed God was responsible—but less permissible when they believed a religious friend was responsible—compared with a control condition. See the online article for the color version of this figure.

Testing Prediction 2: Passive Immorality Facilitates Divine Attribution

The first three studies found that an intervening God can make morally questionable acts seem more permissible, but not all morally questionable acts are equally likely to involve God. Studies 4–7 used vignettes to test whether situations of passive immortality are more amenable to divine attributions—and therefore increase moral permissibility.

Study 4: The Active-Passive Divide

Is the hand of God more salient in situations of passive immorality? We examined this question by having participants rate a series of vignettes that described people benefiting from morally questionable scenarios—with or without active human agency. We then tested a moderated-mediation model: does religious belief encourage people to make divine attributions for passive (vs. active) immorality, which then increases judgments of moral permissibility?

As in Studies 1 and 3, characters in these vignettes made self-serving and harmful decisions. However, because the characters' decisions did not directly benefit participants, we could test whether people would make divine attributions when they did not personally stand to gain from these attributions.

Method

Participants. Effect sizes from multiple regressions in Study 1 ($f^2 = 0.02$–0.03) suggested that samples of 481 and 321, respec-

[3] Another way to analyze the data is to include both those who believe and disbelieve in divine intervention and use divine intervention beliefs as a moderator. This analysis is reported in supplementary materials and is consistent with our theory.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

tively, provided sufficient power to detect an effect with 80% power. We advertised for a sample of 400 participants and 427 participants signed up for the study. However, eight of these participants did not believe in God (which we included as a screening question) and 29 additional participants did not finish the study, leaving a final sample of 390 (166 men, 224 women; M_{age} = 38.46, SD = 13.03) in our analysis.

Materials and procedure.

Procedure. Participants first completed the screener question of whether they were religious or not. Participants who qualified for the study then rated six scenarios before providing demographics including religious belief.

Stimuli. Each participant evaluated six vignettes that each described a person who benefited through a morally questionable scenario. We manipulated within subjects whether this scenario was passive (i.e., had no clear human cause) or active (i.e., had a clear human cause). Participants always saw an equal number of passive and active scenarios with the specific pairing of scenario and active/passive condition (active/passive) was randomly assigned. Examples of passive and active scenarios are below, and Appendix B lists the full set of stimuli.

Passive condition. Jim has worked hard at his company for three years, but he has not yet received a promotion. Jim desperately hopes to be promoted. One Monday, Jim's boss calls for a meeting. He tells Jim that the company's operations manager has been fired for drinking on the job and offers Jim the position. Jim is friends with the operations manager, and knows that he does not usually drink. But he keeps his doubts to himself and accepts the position.

Active condition. Jim has worked hard at his company for three years and is well-regarded, but has not yet received a promotion. Jim hopes desperately to be promoted. He knows that he is directly in line for the operation manager's position, so one day he plants a bottle of liquor in the operation manager's desk and leaves an anonymous tip with his boss. The operations manager is fired and Jim gets the job.

For each scenario, participants indicated their agreement with 6 statements using a five-point scale anchored at 1 (*strong disagree*), 2 (*disagree*), 3 (*neither agree nor disagree*), 4 (*agree*), and 5 (*strongly agree*).

Divine attributions. The first item assessed divine attributions, asking whether the circumstances had occurred "because of a higher power." For example, for the scenario above, participants were asked whether "Jim was offered the operations manager's job because of a higher power." This made it clear that participants were judging whether God had orchestrated the *circumstances* behind passive immorality (e.g., Jim being offered the job), rather than the character's actions (e.g., Jim accepting the job).

Moral permissibility. The other five items assessed moral permissibility, asking whether the character in the story "deserved" to achieve their goal, whether they were "justified" in how they had achieved their goal, the unjustness of the circumstances (reverse coded), whether the character had a good character, and whether the character was immoral (reverse coded). The scale showed high reliability of .92, with no item showing an item-total correlation of less than .49.

Global religious belief. Global religious belief was measured using the SBS—placed at the end of the study, which prevented it from biasing responses to our dependent measures.

Analytic strategy. Prior to testing our hypothesis, we restructured the data to test for interactions between active/passive immorality and participant religious belief. Ratings of scenarios (N = 4680) were nested within participants and analyzed through a repeated measures multilevel model using a restricted maximum likelihood (REML) estimation. We treated condition as a level 1 variable because it varied within participants, and we treated participant religiosity as a level 2 variable because it varied across participants. All models tested for the cross-level interaction terms between independent variables, and intercepts were modeled as randomly varying across participants to take into account the nested structure of the data.

Results

Passive versus active immorality, religious belief, and divine attributions. The first link of our theoretical model (see Figure 2) predicts that religious belief and form of immorality should interact, such that people should make more divine attributions for passive versus active immorality, and this gap should be especially large for strong believers. Note that this does not mean that the effect of condition should *only* be detected for strong believers, but that the effect of condition should increase linearly based on the strength of their belief.

As predicted, whether participants made divine attributions for a scenario depended on an interaction between condition and global religious belief, b = 0.11, SE = 0.02, $t(1948)$ = 5.12, $p < .001$. To unpack this interaction, we examined simple slopes at one standard deviation above and below the mean of global religious belief (Aiken & West, 1991). Participants were always more likely to make divine attributions for passive versus active immorality, but this effect was especially strong in the more religious (+1 SD), b = 0.70, SE = 0.05, $t(1948)$ = 15.49, $p < .001$, compared with the less religious (−1 SD) participants, b = 0.37, SE = 0.05, $t(1948)$ = 8.23, $p < .001$. AQ: 8

Additional analyses revealed that religion was negatively and significantly associated with divine attributions behind active immorality, b = −0.07, SE = 0.03, $t(496.5)$ = −2.42, p = .02, but positively and nonsignificantly associated with divine attributions behind passive immorality, b = 0.03, SE = 0.03, $t(496.5)$ = 1.09, p = .27. These latter simple slopes should be interpreted with caution, however, because even low-belief participants in this all-religious sample reported belief in God.

Overall, these results supported our prediction that passive immorality would encourage divine attributions, especially among those who had high global religious belief.

Divine attributions on moral permissibility. The second link of our theoretical model (see Figure 2) predicts that divine attributions should predict increased moral permissibility. As predicted, participants' divine attributions were positively associated with moral permissibility, b = 0.52, SE = 0.02, $t(1499)$ = 27.92, $p < .001$. People making divine attributions viewed self-serving harms as more justifiable.

Religious belief on moral permissibility. The final link of our theoretical model (Figures 1–2) predicts that religious belief should be negatively related to moral permissibility after removing variance associated with divine attributions. As predicted, global religious belief predicted less permissibility toward immorality when it was added to a multiple regression with divine attributions,

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

$b = -0.07$, $SE = 0.02$, $t(352.40) = -4.38$, $p < .001$. In this same regression, divine attributions predicted greater moral permissibility, $b = 0.51$, $SE = 0.02$, $t(1439.60) = 27.90$, $p < .001$, replicating Study 1's finding.

Moderated mediation. We predicted that religious belief (X) would interact with active/passive condition (W) to produce divine attributions (M), which would then predict moral permissibility (Y). To confirm this moderated mediation, it was necessary to confirm three effects: (a) that religious belief and condition significantly interact to predict divine attributions, (b) that divine attributions significantly predicted moral permissibility, and (c) that divine attributions remained a significant predictor of moral permissibility when global religious belief, condition, and their interaction term are added to the model.

After finding evidence for (a) and (b) in the previous analyses, we sought evidence for (c) using a multilevel regression containing global religious belief, condition, the global religious belief × condition interaction term, and divine attributions predicting moral judgment. In this regression, divine attributions remained a significant positive predictor of moral permissibility, $b = 0.40$, $SE = 0.02$, $t(1533.20) = 23.15$, $p < .001$. The global belief × condition interaction also remained significant, $b = 0.05$, $SE = 0.02$, $t(1955.60) = 2.09$, $p = .04$, indicating partial mediation. These results suggest that divine attributions help explain why highly religious people judge passive immorality as less wrong than active immorality. Figure 6 displays the full set of model coefficients.

Total effects of global religious belief. In addition to considering our theoretically specified paths, we examined—for completeness—the total effects of global religious belief on moral permissibility. Overall, religious belief was associated with less moral permissibility, $b = -0.09$, $SE = 0.02$, $t(388) = -4.85$, $p < .001$. However, this effect was moderated by active/passive condition, $b = 0.08$, $SE = 0.02$, $t(2728) = 3.85$, $p < .001$. Religious belief was associated with significantly less permissive judgments of active immorality, $b = -0.12$, $SE = 0.02$, $t(555) = -5.99$, $p < .001$, but not passive immorality, $b = -0.04$, $SE = 0.02$, $t(899.30) = -1.59$, $p = .11$. We suggest that these null general effects are unsurprising given the specific importance of divine attributions.

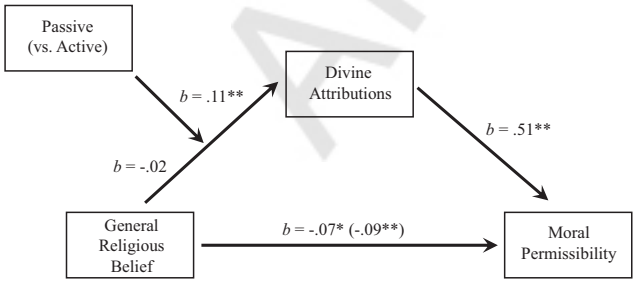


Figure 6. The moderated mediation from Study 4 in which global religious beliefs interacted with passive/active immorality condition to produce inferences of divine agency, which in turn predicted moral permissibility. Double-starred associations represent effects significant at the .005 level.

Discussion

The results of Study 4 revealed that, as predicted, religious people judging passive (vs. active) immorality were more likely to make divine attributions—and therefore more likely to see passive immorality as more morally permissible. Once these divine attributions had been covaried out of religious belief, belief then predicted *less* moral permissibility, replicating our findings from Study 1. The next study sought to replicate this effect with a general sample including both religious and nonreligious people.

Study 5: The Passive-Active Divide in a General Sample

This study attempted to generalize the effects of Study 4 by replicating them in a sample of participants that included both believers and nonbelievers.

Method

Participants. We selected our sample size for Study 5 using Study 4's effect sizes to seed a power analysis. Study 4's primary effects were (a) the effect of divine attributions on moral permissibility ($f^2 = 0.32$), and (b) the effect of active/passive condition on divine attributions ($f^2 = 0.09$). Power analyses with these effects gave respective sample recommendations of 34 and 121. To test for mediation, we sampled more than this recommendation, advertising for 150 participants. Three additional participants signed up for the study, providing a sample of 153 participants for analysis (78 men; 75 women; $M_{age} = 39.70$, $SD = 14.28$).

Materials and procedure. Our materials, procedure, and analytic strategy were nearly identical to Study 4. However, Study 5 did not screen for only religious participants.

Results

Passive versus active immorality, religious belief, and divine attributions. As predicted, whether participants made divine attributions for a scenario depended on an interaction between condition and global religious belief, $b = 0.08$, $SE = 0.01$, $t(1,763) = 5.54$, $p < .001$. People were always more likely to make divine attributions for passive rather than active immorality, but this effect was especially strong in highly religious people (+1 *SD*), $b = 0.61$, $SE = 0.06$, $t(763) = 10.45$, $p < .001$, compared with people low in belief (−1 *SD*), $b = 0.15$, $SE = 0.06$, $t(763) = 2.62$, $p = .009$.

Additional analyses revealed that religion was nonsignificantly associated with divine attributions behind active immorality, $b = 0.04$, $SE = 0.02$, $t(186) = 1.57$, $p = .12$, but significantly and positively associated with divine attributions behind passive immorality, $b = 0.12$, $SE = 0.02$, $t(186) = 5.07$, $p < .001$. In sum, passive immorality encouraged divine attributions, and this effect was more pronounced for religious people.

Divine attributions on moral permissibility. As predicted, participants' divine attributions were positively associated with moral permissibility, $b = 0.44$, $SE = 0.03$, $t(916) = 13.23$, $p < .001$. People making divine attributions viewed self-serving harms as more justifiable.

Religious belief on moral permissibility. As predicted, global religious belief predicted less moral permissibility toward

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

when added to a multiple regression with divine attributions, $b = -0.05$, $SE = 0.01$, $t(915) = -4.40$, $p < .001$, again suggesting that global religious belief was tied to reduced moral permissibility once controlling for divine attributions. In this same regression, divine attributions predicted greater permissibility toward immorality, $b = 0.47$, $SE = 0.03$, $t(915) = 14.01$, $p < .001$.

Moderated mediation. As with Study 4, we predicted that religious belief (X) would interact with passive-active context (M) to produce divine attributions (M), which would then predict moral permissibility (Y). Our previous analyses had already shown (a) that religious belief and context significantly interacted to predict ratings of divine attributions, (b) that divine attributions significantly predicted moral judgment. Therefore, we tested for whether (c) divine attributions remained a significant predictor of moral permissibility when global religious belief, passive-active context, and their interaction term were added to the model.

In a multilevel regression, divine attributions remained a significant positive predictor of moral permissibility, $b = 0.36$, $SE = 0.03$, $t(380) = 12.07$, $p < .001$. The global belief × condition did not reach significance in this model, $b = -0.04$, $SE = 0.02$, $t(775.30) = -1.47$, $p = .07$, indicating full mediation. As in Study 4, divine attributions significantly explained why highly religious people are less likely to judge passive immorality as wrong compared with active immorality. Figure 7 shows the full set of model coefficients.

Total effects of religious belief. Overall, religious belief was nonsignificantly associated with less permissive moral judgment, $b = -0.02$, $SE = 0.01$, $t(151) = -1.19$, $p = .23$, and this effect was not moderated by condition, $b = -0.006$, $SE = 0.02$, $t(763) = -.32$, $p = .75$. We again suggest that these null general effects are unsurprising given the specific importance of divine attributions. See our internal meta-analysis for further discussion of the total effect of religious belief on immorality.

Discussion

Study 5 found that religious believers were most likely to make divine attributions when evaluating passive immorality (compared with active immorality). As in other studies, these divine attributions predicted more moral permissibility, whereas global religious belief was associated with less moral permissibility once divine attributions had been covaried out. Our next study tested whether prayer widens this passive-active divide, making passive immorality seem *even more* divinely ordained and morally permissible.

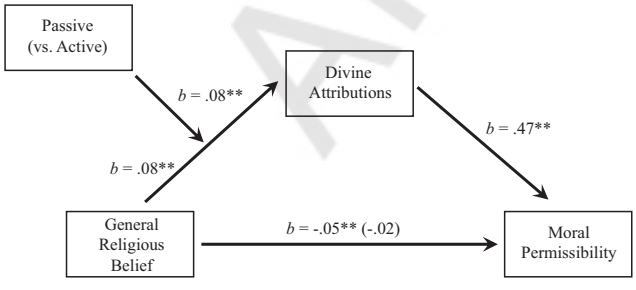


Figure 7. The moderated mediation from Study 5 in which global religious beliefs interacted with passive/active immorality condition to produce inferences of divine agency, which in turn predicted moral permissibility. Double-starred associations represent effects significant at the .005 level.

Study 6: The Liberating Power of Prayer

Study 6 tested whether prayer allowed religious believers to make even stronger divine attributions when evaluating passive immorality. Prayer—at least petitionary prayer—involves asking God to intervene in earthly affairs, which likely makes divine attributions more salient. This study used the passive immorality scenarios from Study 5 and manipulated whether the character in the vignette prayed.

An effect of prayer on the justification of passive immorality would support our earlier results linking the prevalence of prayer groups to crime (Study 2) and the salience of prayer to moral permissibility (Study 3). Whereas Study 3 also used prayer to manipulate divine agency, Study 6 included a broader sample of both religious and nonreligious participants and did not explicitly tell participants whether (or how) God had answered a person's prayers. We therefore expected that the presence of prayer would increase divine attributions—but more so for religious believers—and that these divine attributions would predict more moral permissibility.

Method

Participants. Sample size was determined using the same power analysis as Studies 3 and 4. The study was advertised on Amazon Mechanical Turk to 150 participants, but four did not complete the study, leaving a sample of 146 participants (71 men, 75 women; $M_{age} = 38.34$, $SD = 12.86$) participants.

Stimuli and procedure. All participants read five of the passive immorality scenarios vignettes from Studies 4 and 5; however, half of participants read that the character prayed for an outcome, (e.g., "Jim desperately hopes to be promoted, and eventually, he prays for a better position"), whereas the other half read only that the character hoped for the position, (e.g., "Jim desperately hopes to be promoted").

Participants answered the same items about moral permissibility as in Studies 4 and 5 but also answered an additional item about inferences of divine agency: "Jim would not have received his job if he hadn't hoped/prayed for it." When combined with our original divine attributions items (i.e., "Jim received his job because of a higher power"), this item formed a reliable divine attributions index ($\alpha = .81$). We measured global religious belief with the SBS.

Results

Prayer, religious belief, and divine attributions. As predicted, whether participants made divine attributions for a scenario depended on an interaction between prayer and global religious belief, $b = 0.10$, $SE = 0.04$, $t(140) = 2.26$, $p = .03$. Examining the simple effects revealed an interesting pattern: prayer nonsignificantly increased divine attributions among highly religious people

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

(+1 *SD*), $b = 0.20$, $SE = 0.18$, $t(140) = 1.16$, $p = .25$,[4] but decreased it among people low in belief (−1 *SD*), $b = -0.36$, $SE = 0.18$, $t(140) = -2.04$, $p = .04$. These effects suggest that religious people may always see the hand of God in passive immorality, and that nonreligious people may demonstrate reactance against the idea that prayer is effect.

However, when we examined the effect of global religious belief within each prayer condition, a more expected pattern of results emerged: religion was more strongly linked to divine attributions in the prayer condition, $b = 0.22$, $SE = 0.03$, $t(140) = 6.82$, $p < .001$, compared with the control condition, $b = 0.12$, $SE = 0.03$, $t(140) = 4.10$, $p < .001$. In sum, prayer was associated with divine attributions as a linear function of belief, and believers were especially likely to make divine attributions when prayer was salient.

Divine attributions on moral permissibility. As predicted, participants' divine attributions were positively associated with moral permissibility, $b = 0.20$, $SE = 0.03$, $t(211.49) = 6.14$, $p < .001$. People making divine attributions viewed self-serving harms as more permissible.

Religious belief on moral permissibility. As predicted, global religious belief significantly and negatively predicted moral permissibility, $b = -0.04$, $SE = 0.01$, $t(156.01) = -3.42$, $p < .001$, when it was added to the model that included divine attributions. Divine attributions remained a significant positive predictor of moral permissibility in this model, $b = 0.26$, $SE = 0.04$, $t(238.89) = 7.08$, $p < .001$.

Moderated mediation. As with Studies 4 and 5, we predicted that religious belief (X) would interact with our manipulation (M) of prayer to produce divine attributions (M), which would then predict moral permissibility (Y). Our previous analyses had already shown that (a) that religious belief and condition significantly interacted to predict ratings of divine attributions, (b) that divine attributions significantly predicted moral permissibility. Therefore, we tested for whether (c) divine attributions remained a significant predictor of moral permissibility when global religious belief, prayer condition, and their interaction term were added to the model.

In a general linear model that included the global religious belief × prayer condition interaction term, divine attributions remained a significant positive predictor of moral permissibility, $b = 0.26$, $SE = 0.04$, $t(240.72) = 6.91$, $p < .001$. Moreover, the global belief × prayer condition interaction did not reach significance, $b = 0.01$, $SE = 0.02$, $t(138.47) = .23$, $p = .82$, indicating full mediation. This suggests that divine attributions can fully account for why religious individuals are more permissive of passive immorality following prayer. Figure 8 shows all model coefficients.

Total effects of religious belief. We also tested the total effects of religious belief on moral permissibility. Overall, religious belief had no effect on moral judgment, $b = -.0001$, $SE = 0.01$, $t(142) = -.01$, $p = .99$, and this effect was not moderated by prayer condition, $b = 0.03$, $SE = 0.02$, $t(140) = 1.29$, $p = .20$. We again suggest that these null general effects are unsurprising given the specific importance of divine attributions.

Discussion

It can be tempting to think that a lost wallet is part of God's plan, and this temptation is even stronger after prayer. Believers viewed capitalizing on morally questionable scenarios as more permissible when they followed prayer, because of God's apparent agency.

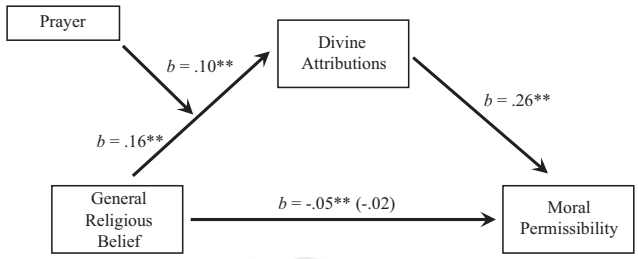


Figure 8. The moderated mediation from Study 6 in which global religious beliefs interacted with the presence of prayer to produce inferences of divine agency, which in turn predicted moral permissibility. Double-starred associations represent effects significant at the .005 level.

Study 7: Agency, Not Severity

Passive and active immorality differ on the level of human agency involved, and agency is an important element of moral severity (Gray et al., 2012). It is therefore important to rule out the role of severity per se in the effects revealed by Studies 4–6. We note that past work has found that religious believers are generally less morally permissible than nonbelievers, which means that they often see low severity violations as *worse* than nonbelievers (Piazza & Landy, 2013; Piazza & Sousa, 2014; Shariff et al., 2014). Nevertheless, we empirically tested this idea by manipulating the severity of passive immorality scenarios—which we predicted would have no effect on divine attributions.

Method

Participants. The sample size was determined as in Studies 4 and 5. One hundred fifty participants (61 men, 89 women; $M_{age} = 39.25$, $SD = 12.83$) completed this study on Amazon Mechanical Turk.

Materials and procedure. Materials and items were similar to those of Studies 4 and 5, except that used only passive immorality scenarios were used, and the severity of these transgressions was manipulated between subjects. An index of ratings of moral permissibility index was highly reliable ($\alpha = .89$).

Manipulation of severity. Harmfulness reliably predicts immorality (Schein, Goranson, & Gray, 2015) and so we manipulated scenario severity via harmfulness. For example, in the scenario when Jim's is promoted at the expense of his coworker, that coworker is either a single parent (high severity) or not (low severity). To confirm our severity manipulation, we conducted a pilot study on Mechanical Turk in which 45 participants (25 men, 20 women; $M_{age} = 34.33$, $SD = 11.64$) rated the high- and low-severity versions of all 6 scenarios. The instructions were to "Consider the consequences of [name of scenario's protagonist]'s decision in each of these scenarios. In which scenario was their decision more severe?" A series of *t* tests showed that our manip-

[4] A region of significance analysis showed that prayer would be expected to significantly increase divine attributions for participants over 3.25 *SD*s above the mean of belief.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

ulation was successful for all scenarios (all ts > 3.4, all ps $< .002$) except for one, which was excluded—leaving five scenarios total.

Results

Severity, religious belief, and divine attributions. If severity predicted divine attributions, then severity could plausibly account for the passive-active divide revealed in Studies 4 and 5. However, severity did not significantly predict divine attributions, $b = 0.03$, $SE = 0.13$, $t(148) = .20$, $p = .84$. Severity also did not interact with global religious belief to predict divine attributions, $b = 0.02$, $SE = 0.05$, $t(146) = .52$, $p = .61$, although—as expected—global religious belief did significantly predict divine attributions, $b = 0.10$, $SE = 0.03$, $t(146) = 3.01$, $p = .003$. In other words, religion was significantly and equivalently associated with divine attributions regardless of whether acts were severe, $b = 0.12$, $SE = 0.03$, $t(146) = 3.65$, $p < .001$, or not severe, $b = 0.10$, $SE = 0.03$, $t(146) = 3.00$, $p = .003$. This makes it unlikely that severity drove our earlier effects of human agency on divine attributions.

Divine attributions and moral judgment. As in previous studies, divine attributions positively predicted moral permissibility, $b = 0.19$, $SE = 0.03$, $t(378.80) = 5.56$, $p < .001$.

Religious belief on moral permissibility. Global religious belief was a marginally significant negative predictor of moral permissibility when included in a multiple regression with divine attributions, $b = -.03$, $SE = 0.01$, $t(151.70) = -1.84$, $p = .06$. Divine attributions remained a significant predictor of moral permissibility in this model, $b = 0.21$, $SE = 0.04$, $t(413.30) = 5.86$, $p < .001$.

Mediation. In Studies 4 and 5, we documented moderated mediations in which global religious belief interacted with passive versus active immorality to predict divine attributions, which in turn predicted moral permissibility. This model was inappropriate here because global belief did not significantly interact with severity on divine attributions. Therefore, we fit an alternative mediated model, in which divine attributions mediated the link between global belief and moral permissibility *controlling* for severity. All coefficients for this model are displayed below in Figure 9, and a Monte Carlo simulation confirmed that the mediated effect was statistically significant, 95% CIs [.001, .04]. This indicates that severity does not account for the relationship between divine attributions and moral judgment.

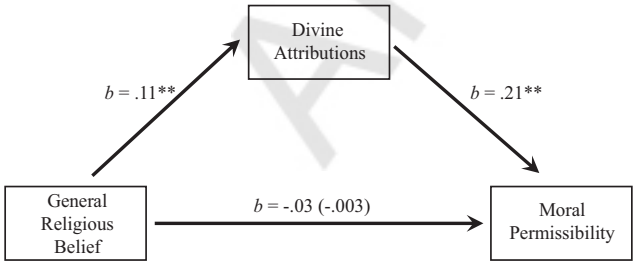


Figure 9. The mediation from Study 7 in which global religious beliefs predict inferences of divine agency behind passive immorality, which in turn predicted moral permissibility. This mediated effect was significant regardless of whether or not one controlled for the severity of transgressions. Double-starred associations represent effects significant at the .005 level and starred associations represent effects significant at the .05 level.

Total effects of religious belief. We also tested the total effects of religious belief on moral permissibility. Overall, religious belief had no effect on moral judgment, $b = -0.003$, $SE = 0.01$, $t(148) = -.24$, $p = .81$, but this main effect was moderated by severity, $b = -0.06$, $SE = 0.03$, $t(146) = -2.37$, $p = .02$. For low-severity passive immorality, religious belief was nonsignificantly associated with moral permissibility, $b = 0.03$, $SE = 0.02$, $t(146) = 1.47$, $p = .15$. For high-severity passive immorality, religious belief was negatively (but marginally) associated with moral permissibility, $b = -0.04$, $SE = 0.02$, $t(146) = -1.89$, $p = .06$.

Discussion

The results of Study 7 ruled out the potential confound between passive immorality and reduced severity. Unlike manipulations of active versus passive morality, manipulations of high versus low severity did not impact divine attributions, and severity did not moderate the link between global religious belief and divine attributions. This study also revealed the same mediational pattern as in our prior studies: religious belief predicted divine attributions, which in turn predicted moral permissibility.

Testing Prediction 3: Religious Belief Predicts Passive Immorality

Our studies have so far shown that divine attributions increase moral permissibility (Studies 1–3) and that passive immorality increases divine attributions (which in turn increase moral permissibility; Studies 4–7). These next studies (8–13) tested the direct link between religious belief and passive immorality. Study 8 tested whether religious believers were more likely than nonbelievers to justify their past passive immorality. We then tested whether believers were more likely to perpetrate two forms of passive immorality: parking across multiple spaces (Study 9) and keeping overdue library books (Study 10). Finally, Studies 11–13 tested whether religious priming or self-reported religious belief predicted passive immorality on a novel task, the "envelope game."

Study 8: Judging the Self

Would religious believers—compared with nonbelievers—view their own past passive immorality as more morally permissible? We predicted that our moderated mediation model (see Figure 2) would replicate in participants' own self-judgments: religious participants recalling passive immorality would show higher divine attributions than participants recalling active immorality and would be more likely to justify their past immoral behavior.

Method

Participants. We used the same power analysis as Studies 4–7 to determine sample size and advertised for 150 participants. However, an additional 39 participants signed up for the study. Therefore, our sample size consisted of 189 participants (101 men; 85 women, 3 gender missing; $M_{age} = 37.03$, $SD = 12.50$) Mechanical Turk participants. We excluded 19 participants from this

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

sample—16 from the active immorality condition and 3 from the passive immorality condition—because they could not recall a memory that matched our prompt and performed analyses on the remaining 170 participants (96 men; 72 women, 2 gender missing; M_{age} = 36.67, SD = 12.43).

Immorality recall. Participants began the study by recalling a memory of immorality. Participants in the passive immorality condition were asked to "recall a time in which you did not stop something good from happening to you, even though it negatively impacted someone else. For example, accepting a promotion even though it meant someone else would be fired." Those in the active condition were asked to "recall a time in which you got something you wanted by purposefully harming someone else. For example, intentionally getting somebody fired so that you could get a promotion."

Divine attributions and moral permissibility. Participants evaluated their immoral act using adaptations of the seven statements from Studies 4–7. The first two items (α = .75) concerned participants' divine attributions. They included whether the event was "meant to be" and whether it was caused by "a higher power." The next five (α = .80) concerned moral permissibility. They included whether participants "deserved" their benefit, whether they "were justified" in how they got what they wanted, whether their actions were "wrong" (reversed), whether they were a person "of good moral character," and whether they were "immoral" (reversed).

Analytic strategy. Because this was a between-subjects study in which participants provided and then rated a single memory (rather than a series of vignettes), our data were not nested and so we used general linear models.

Results

Passive versus active immorality, religious belief, and divine attributions. As predicted, participants' divine attributions depended on an interaction between active/passive immorality condition and their global religious belief, b = 0.15, SE = 0.05, $t(164)$ = 2.67, p = .008. Highly (+1 SD) religious people made more divine attributions for passive rather than active immorality, b = 0.89, SE = 0.21, $t(164)$ = 4.13, $p < .001$, but people low (−1 SD) in religiosity were equally likely to make divine attributions for passive and active immorality, b = 0.07, SE = 0.22, $t(164)$ = .30, p = .77. Additional analyses revealed that religion was nonsignificantly associated with divine attributions behind active immorality, b = 0.04, SE = 0.04, $t(164)$ = .71, p = .48, but significantly and positively associated with divine attributions behind passive immorality, b = 0.18, SE = 0.03, $t(164)$ = 5.18, $p < .001$. In other words, passive immorality encouraged only religious people to make divine attributions for their behavior, and religious people were more likely to make divine attributions for passive versus active immorality.

Divine attributions on moral permissibility. As predicted, participants' divine attributions were positively associated with moral permissibility, b = 0.33, SE = 0.06, $t(168)$ = 5.40, $p < .001$. People who saw God's hand behind their own wrongdoings saw these wrongdoings as less wrong.

Religious belief on moral permissibility. In our previous studies, religious believers condemned others more harshly for their wrongdoings, but this tendency did not translate to judging the self. When people judged their own actions, religious belief (controlling for divine attributions) did not significantly predict harsher moral judgments, b = −0.004, SE = 0.02, $t(165)$ = −.16, p = .86. In this same multiple regression, however, divine attributions remained a significant predictor of more permissive moral judgments, b = 0.33, SE = 0.07, $t(165)$ = 5.01, $p < .001$.

A secondary analysis explored the total effect between religious belief and moral permissibility. Although there was no significant interaction between religious belief by type of immorality, b = −0.03, SE = 0.02, $t(140)$ = −1.30, p = .20, religious belief correlated with seeing one's own passive immorality as more permissible, b = 0.07, SE = 0.03, $t(164)$ = 2.37, p = .02, but one's own active immorality, b = 0.01, SE = 0.04, $t(1,164)$ = .23, p = .82.

Moderated mediation. As in our previous studies, we predicted that religious belief (X) would interact with active/passive condition (M) to produce divine attributions (M), which would then predict moral permissibility (Y)—but now toward one's own past actions rather than the actions of vignette characters. Our previous analyses had already shown that (a) that religious belief and condition significantly interacted to predict ratings of divine attributions, (b) that divine attributions significantly predicted moral judgment. Therefore, we tested whether (c) divine attributions remained a significant predictor of moral permissibility when global religious belief, condition, and their interaction term were added to the model.

As predicted, divine attributions remained a significant positive predictor of moral permissibility, b = 0.23, SE = 0.06, $t(163)$ = 3.68, $p < .001$. Moreover, the global belief × condition interaction did not reach significance, b = −0.03, SE = 0.04, $t(163)$ = −.57, p = .57, indicating full mediation. As in studies in which participants judged others, divine attributions significantly explained why highly religious people judge their own passive immorality as permissible. Figure 10 shows all model coefficients. F10

Discussion

Religious believers who recalled passive immorality made more divine attributions for their ill-gotten gains and rated their (in)actions as more permissible. In addition to replicating our prior effects, Study 8 revealed an important additional effect: religious people were more likely to justify their prior passive (but not active) immorality compared with nonreligious people. This find-

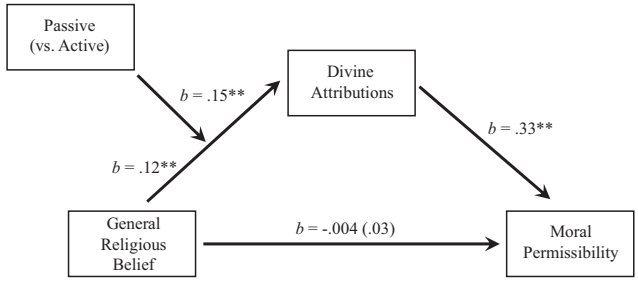


Figure 10. The moderated mediation from Study 8 in which divine attributions were highest when highly religious people judged passive immorality. Divine attributions in turn predicted moral permissibility. Double-starred associations represent effects significant at the .005 level.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

ing suggests that religiosity may also be associated with real-world cases of passive immorality, an idea we test in Studies 9 and 10.

Study 9: The Bad Parker

Poor parking is seldom intentional. We often do not notice crooked parking until we get out of the car—and then are simply too lazy to repark the car. In other words, although poor parking certainly inconveniences others, it is usually a case of *passive immorality*. In this study, we follow on the findings of Study 8 by testing whether religious drivers were likely to perpetrate passive immorality by parking badly. We compared the parking jobs of cars with religious decorations with those with secular decorations and no decorations.

Method

Venue and sample size. Study 9 was conducted in three locations in the Research Triangle Area in North Carolina: Raleigh-Durham International Airport, Southpoint Mall, and the Outlet Mall opposite Southpoint. Given the unique nature of this study, we chose to collect data from as many cars as possible, to maximize power. Therefore, we collected data at each location until security personnel stopped our research team (which occurred at each location). We concluded with a final sample of 141 cars (31 religious cars; 40 secular cars; 69 cars with no decorations), leaving us with 73% power to detect a medium effect size (f = 0.25).

Design and procedure. Research assistants received instructions to search for particular types of cars. The first research assistants searched for cars with some form of religious decorative symbol (e.g., a bumper sticker with clearly religious content; rosary beads on the dashboard or rearview mirror, religious icons on the dashboard or the rearview mirror). The second research assistant searched for cars with secular decorations (e.g., a bumper sticker, art on the dashboard or front grill, a decoration hanging from the rearview mirror, vanity plates). And the third research assistant searched for cars with no descriptive symbols. Research assistants did not know each other's search criteria and did not talk with one another during the procedure. All research assistants were blind to the study hypothesis.

Measures. Each time a research assistant found a car that fit their criteria, they wrote down the number of seats in the car, the car type (e.g., sports car, SUV), the car color (e.g., black, white, gold), the car model, the cleanliness of the car, whether the car had a tire on or over one of the parking lines (dummy-coded), the distance from the closest tire to the parking line in inches (coded 0 if the tire was on or over the line), and the width of the parking space. Of these, the two most important variables were (a) whether the car was over the line and (b) the smallest distance between a tire and the lines of space. Figure 11 gives a graphical demonstration of how these variables would be coded. On average, cars were parked 9.78 in. (SD = 5.23; range = 0–21) away from the parking line, with 10 cars on or over the line.

F11

Using information about the car size and make, we created dummy codes indicating the car's size (0 = sedan, compact, sports car; 1 = SUV, flatbed truck, minivan, van) and its status as a luxury brand (0 = Honda, GMC, Volkswagen, Toyota, Nissan, Mazda, Kia, Isuzu, Hyundai, Ford, Dodge, Chevrolet; 1 = Volvo, Mercedes, Lexus, Jeep, Infiniti, Chrysler, BMW, Acura). We coded for car size to control for potentially confounding variance associated with religious or secular individuals driving larger cars, and we coded for luxury brand given the previous association between luxury-brand cars and traffic norm violations (Piff, Stancato, Côté, Mendoza-Denton, & Keltner, 2012). We controlled for each of these variables—and cleanliness—in our analyses of religion and parking.

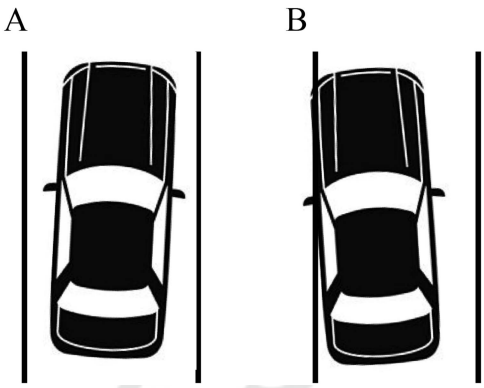


Figure 11. With our Study 9 coding scheme, car A would be classified as not over the line (dichotomous measure) and research assistants would measure the distance in inches between the front-right tire and the parking line (continuous measure), because this tire is the closest to the boundary line. Car B would be coded as over the line and as "0" inches from the parking line.

Results

Religion and parking accuracy. Are religious drivers worse parkers than nonreligious drivers? A one-way ANOVA of condition on parking accuracy revealed a significant effect, $F(2, 127)$ = 6.14, p = .003, and post hoc t tests showed that cars with religious decorations parked significantly closer to the boundary line compared with cars with secular decorations (M_{diff} = 4.39, p < .001) and cars with no decorations (M_{diff} = 2.20, p = .045). In addition, cars with secular decorations were more accurate than cars with no decorations (M_{diff} = 2.19, p = .03).

AQ: 9

Importantly, a one-way ANOVAs revealed no effects of luxury brand, $F(1, 135)$ = 1.41, p = .24, or car size, $F(1, 130)$ = .99, p = .32, on parking accuracy. Parking accuracy was not associated with car cleanliness, r = .07, p = .40, nor with car size, $F(1, 134)$ = .86, p = .36. See Figure 12 for an illustration of these effects.

F12

A logistical regression comparing cars with religious decorations versus cars without religious decorations—and with car cleanliness, size, and luxury status as covariates—confirmed that religious drivers were also more likely to park on or across the boundary line, b = 2.04, SE = 0.75, p = .006, odds ratio = 7.72. Additional analyses revealed that cars with religious decorations were also significantly more likely to park over the line than cars with no decorations, b = 1.57, SE = 0.76, p = .04, odds ratio = 4.80. Because no cars with secular decorations were parked over the line, we were unable to perform a religious-secular contrast regression. See Figure 12 for an illustration of these effects.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

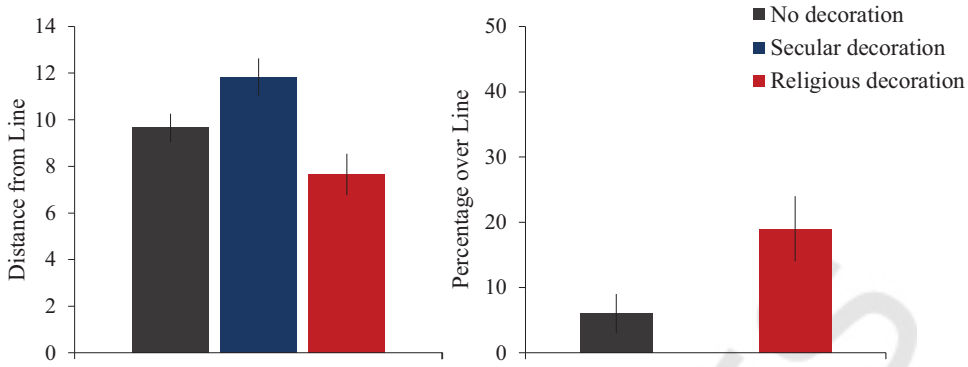


Figure 12. Cars with religious decorations parked significantly closer to the boundary line (in inches) than cars with secular decorations and no decorations (panel A) and were more likely to park with at least one wheel over the boundary line (panel B)—there were no cars with secular decorations that parked over the boundary. Data are from Study 9. Error bars are standard errors. See the online article for the color version of this figure.

Discussion

Study 9 documented a real-world link between religious belief and passive immorality. Cars with religious decorations were parked significantly poorer than cars with secular or no decorations. Religious people (or at least people who owned "religious" cars) appeared less likely to expend the effort to fix a situation that would inconvenience others. The next study examined another potential case of passive immorality—keeping overdue library books.

Study 10: The Library Thief

Keeping a library book long overdue involves passive immorality—it inconveniences others and requires only that the bookholder does nothing. A link between religion and passive immorality suggests that religious believers are more likely to keep books long overdue. Although it is difficult to collect data on what religious and nonreligious people are reading, we reasoned that religious people are more likely to read religious books. By extension, we hypothesized that religious books would be overdue more frequently than books unrelated to religion.

Library Data

Davis library, the largest library at the University of North Carolina, Chapel Hill, organizes their books according to Library of Congress guidelines and keeps an up-to-date list of missing books indexed by Library of Congress class (e.g., "Psychology, Philosophy, and Religion") and subclass (e.g., "Christianity"). Davis library provided us with information on the number of books they stored (n = 1,490,812) for each Library of Congress class (16) and subclass (109), and as well as detailed information regarding their current number of overdue books (n = 1,166).

Using this information, we constructed a dataset in which each case represented a book, with information about its Library of Congress Class and Subclass, and whether it was missing or present (dummy-coded). We also created a dummy-coded variable representing whether a subclass was religious or secular. Religious subclasses were Christianity, Islam, The Bible, Religious Mythology and Rationalism, Doctrinal Theology, Buddhism, Christian Denominations, and Practical Theology.

Results

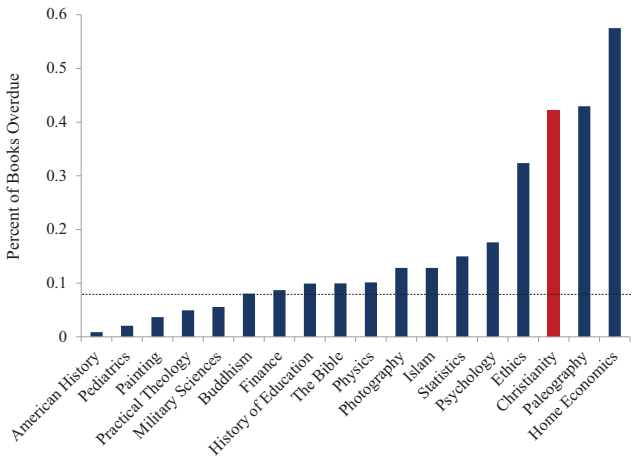
Across all subclasses, the mean rate of overdue books was 0.08%, with a median subclass overdue rate of 0.09%. An analysis of outliers identified one subclass (bridge engineering) that had an abnormally high overdue rate of 4%, more than 9 *SD*s above the mean overdue rate, and so this class was excluded from formal analysis. Otherwise, overdue rates ranged from 0.009% (American History) to 0.7% (information resources—General).

Religious overdue rates. After collapsing across eight religious subclasses, one-sample t tests revealed that religious books were overdue at 0.12%, a significantly higher rate than the overall rate, $t(84{,}001) = 3.78$, $p < .001$, and the median subclass rate, $t(84{,}001) = 2.62$, $p = .009$. An independent samples t test confirmed that religious books were also overdue at a higher rate than secular books, $t(1{,}491{,}976) = 4.88$, $p < .001$. AQ: 10

Subclass analyses revealed that the effects of religion were driven primarily by Christianity, which had the fifth highest subclass overdue rate, $t(28752) = 5.23$, $p < .001$.The four subclasses with higher ratios of overdue books than Christianity (Information Resources, Electrical Engineering, Home Economics, Paleography) made up very small sections of the library, meaning that even one missing book represented a large increase in overdue rate. Christianity had more total overdue books total than any of the sections ranked above it.

No other religious subclasses showed significant differences from this total rate, ts = 1.32, ps < .19. This effect is particularly interesting as North Carolina is a predominantly Christian state, meaning that books from the library's Christianity section may be more likely to be borrowing for personal reasons, rather than as part of course curriculum. All religious subclass means are depicted in Figure 13, and all subclass means are shown in the SOM. F13

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121



ONLINE COLOR

AQ: 13 *Figure 13.* Books about Christianity (in red) had a significantly higher overdue rate than the median subclass rate (dashed line) in Study 10. Overdue rates are indexed by the proportion of books overdue (where "1" represents all books overdue). See the online article for the color version of this figure.

Discussion

The results of this study provide additional support for the link between religion and passive immorality. Not only were religious library books more likely to be missing than secular library books, but Christianity was the only subclass with a significantly elevated overdue rate. Of course, these data cannot tell us whether religious people are generally less likely to return books, whether books on Christianity lead everyone to keep them overdue, or whether these is an interaction between the religiosity of reader and the Christian content book. It may be that religious individuals feel especially justified in keeping Christian books because of the perception of divine interventions—God wants believers to keep these books so that they might better know their faith.

We acknowledge that both this study and the parking study lack experimental control, as with many field studies (Cialdini, 2009; Jackson, Bilkey, Jong, Rossignac-Milon, & Halberstadt, 2017). In this sense, these studies should be considered alongside the more controlled effects revealed in other studies.

Studies 11–13: Religious Priming and the Envelope Game

The last 10 years have seen a surge in the popularity of religious priming, in which participants are exposed to implicit or explicit religious cues before completing dependent measures. Some religious priming effects have failed to replicate in large preregistered
AQ: 11 studies (Gomes & McCullough, 2015), but meta-analyses have otherwise provided support for the effectiveness of religious primes (Shariff et al., 2016; Willard et al., 2016). Here, we test whether religious priming—using a scrambled sentence task adapted from Shariff and Norenzayan (2007; Studies 11 and 12) and an explicit prime using a writing prompt (Study 13)—would affect behavior in an original economic task called the "envelope game." Because these studies employed almost identical methodologies and analyses, we summarize their methods together and use fixed-effect meta-analysis to evaluate their results. However, each study is described in detail within our supplemental materials.

Behaviorally Measuring Passive Immorality: The Envelope Game

In the envelope game, participants receive an envelope with some money for both themselves and a partner. Participants are told that there is a 50% chance the envelope has an even split of money between themselves and their partner, and a 50% chance the envelope has an uneven split, such that the participant receives it all. The participant must then decide whether they want to open the envelope and reveal whether the split is fair. If they decide to open the envelope, they can then decide what split should be made (i.e., 50/50 or 100/0). They then pass the envelope—opened or not—to their partner.

In this task, there are two ways for participants to profit at the expense of their partner. One is to open the envelope, and either (a) keep an unfair split or (b) change a fair split to an unfair split. Both these options involve giving an already-opened envelope to their partner, communicating clear agency. In other words, opening the envelope can guarantee making more money, but involves *active immorality* because opening the envelop requires an action. The other way to profit is via the inaction of *passive immorality*, in which participants elect to not open the envelope and hope for the best for themselves (i.e., an uneven split). In this case, they have only a half chance of getting all the money, but pass on a sealed envelope, which communicates the lack of knowledge and agency. We hypothesized that religious priming would increase participants likelihood of committing passive immorality. Making the God's agency salient should make it seem more permissible to maintain a potentially self-serving but unfair situation.

Results

Priming and passive immorality. Results reveal that religious priming did not significantly change people's likelihood of committing passive immorality in two of three studies ($N = 1003$). Although our effect was positively trending for religious participants (see Figure 14, left plot), the pooled effect did not reach F14
statistical significance. Moreover, the only study that revealed a statistically significant effect of religious priming on passive immorality (Study 10) had the lowest power ($N_{\text{Study 10}} = 230$ vs. $N_{\text{Study 11}} = 371$ & $N_{\text{Study 10}} = 402$). Effects from these three studies—and a pooled effect size using fixed effects meta-analysis—are displayed in Figure 14.

Why did we find no effect of religious priming on passive immorality, in light of our correlational and field studies? One possibility is that the paradigm did not effectively capture passive immorality; another is that priming did not sufficiently affect people's state of mind. To further probe these possibilities, we tested for whether participants' religious belief—as measured by their ratings on the SBS—influenced their likelihood of opening the envelope.

Global religious belief and passive immorality. A meta-analytic test revealed that, across studies, religious participants were significantly less likely to open the envelope, indicating an association between religion and passive immorality, $r_{\text{pooled}} = .06$, 95% CIs [.11, .02]. This effect—displayed in Figure 14—is con-

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

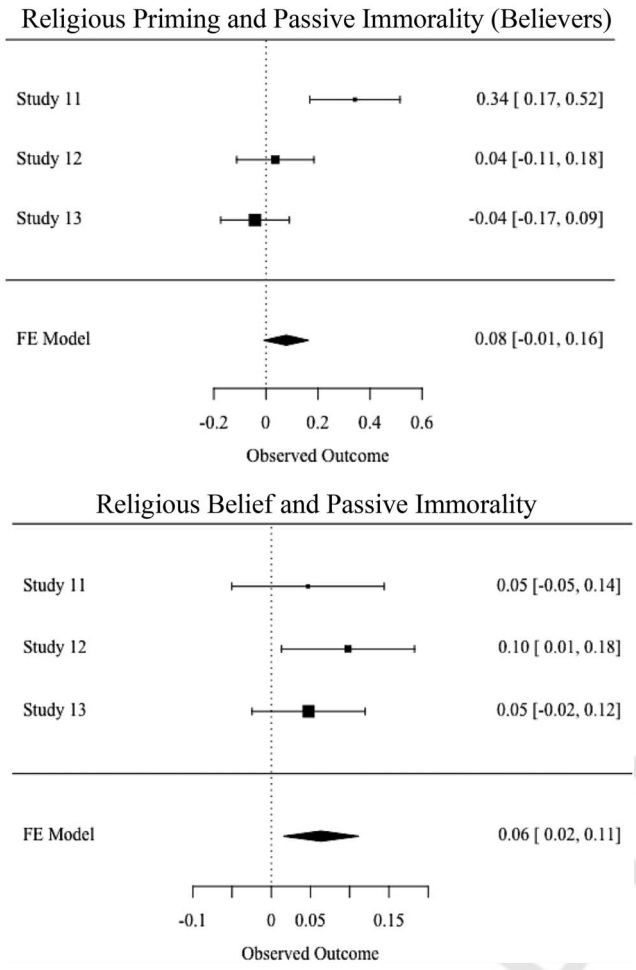


Figure 14. Religious priming across Studies 11–13 did not significantly change people's likelihood of committing passive immorality. The *x* axis represents effect size. Box size represents number of participants. Dashed line represents the line of null effect. Error bars represent 95% confidence intervals.

sistent with the results of Studies 9 and 10 and suggests that global religious belief does predict passive immorality in an economic game—but the small effect size suggests that this result should be interpreted with caution.

Discussion

Religious priming did not make individuals—religious or otherwise—more likely to commit passive immorality in a novel economic game, although self-reported religiosity was correlated with passive immorality. These mixed results suggest that our effects are strongest when considered as individual differences. Our supplemental materials feature a lengthier discussion of these effects, as well as a discussion of how the envelope task may have tapped participants' lay theories of fairness.

Internal Meta-Analysis

To test our theory of religion and immorality, we have described many studies using diverse methodologies. To synthesize these findings, we provide an internal meta-analysis—consistent with recommendations from Braver, Thoemmes, and Rosenthal, 2014. This meta-analysis examines the empirical evidence for our three main predictions: First, people who make divine attributions for immoral acts will see them as permissible. Second, making divine attributions for immorality will be most common in cases of passive immorality—when human agency is ambiguous—because it allows room for the hand of God. Third, because believers will be more likely than nonbelievers to perpetrate passive immorality since they can make divine attributions for these acts.

Method

Study inclusion. This meta-analysis included Study 1, Studies 3–9, and Studies 11–13 ($N = 3570$)—although different subsets of studies were sampled to test each prediction (see below). We excluded Studies 2 and 10 from analyses because individual people were not the unit of analysis in these studies. Study 2 sampled states and Study 10 sampled books within libraries. In addition, we also included a correlational pilot ($N = 97$) that assessed the relationship between global religious belief, divine attributions, and passive immorality with identical materials and procedure to the passive immorality conditions of Studies 4 and 5.[5] Although the small sample size precluded us from including this study in our paper, we describe the study and its effects in detail in our supplemental materials and include it here to maximize the comprehensiveness of our meta-analysis. In total, then, our meta-analysis included 12 studies. Fn5

Strategy. There are two basic approaches to meta-analysis: fixed effects modeling and random effects modeling. Fixed effects modeling assumes all studies in the meta-analysis are drawn from a common population, and there is a single "true" effect across these samples. These models assume that variance in the observed effect across studies is due to random error inherent to each study. By contrast, random effects models assume that studies are drawn from different populations and assumed no "true" effect. Studies with similar methodologies, samples, and procedures are often meta-analyzed using fixed effects models, whereas studies with diverse methods, samples, or procedure are meta-analyzed using random effects models.

We employed a combination of fixed-effects and random-effects modeling in the current analysis. For analyses that only included our vignette-based correlational studies with Amazon Mechanical Turk samples (pilot, Studies 1, 3–8), we used fixed-effects modeling. But for analyses that also incorporated our field studies or our studies with the envelope game paradigm (Studies 9, 11–13), we used random effects modeling with restricted maximum likelihood (REML) estimation.

Results

Initial test: How does global religious belief relate to overall moral permissibility. Before examining our three focal predictions, we first tested whether global religious belief correlated with moral permissibility or moral harshness. This analysis included all

[5] The results of our pilot replicated regardless of whether we included this pilot. We present the results with the pilot included for the sake of comprehensiveness.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

studies in our meta-analysis sample. Zero-order correlation coefficients between religious belief (measured through the SBS) and the permissibility of all morally questionable scenarios revealed no correlation between religion and morality, r_{pooled} = .05, SE_{pooled} = .05, 95% CI [−.05, .14], indicating that global religious belief had no meaningful impact on moral judgment (see Figure 15).

Prediction 1: Divine attributions encourage immorality. Does perceiving the hand of an intervening God make morally questionable acts seem more permissible? And when controlling for this link, is global religious belief tied to moral permissibility or harshness? To answer these questions, we analyzed studies in which both global religious belief and divine attributions were measured (pilot, Study 1, Studies 4–8). We first analyzed the correlation between global belief and moral permissibility while regressing out variance in global religious belief associated with divine attributions, and then analyzed the correlation between divine attributions and moral permissibility while regressing out variance associated with global belief.

As predicted, this analysis revealed a robust positive association between divine attributions and moral permissibility, r_{pooled} = .34, SE_{pooled} = .02, 95% CI [.30, .37], and a small but robust negative association between global belief and moral permissibility, r_{pooled} = −.14, SE_{pooled} = .03, 95% CI [−.19, −.09]. Figure 16 shows this pattern of results.

Prediction 2: Passive immorality facilitates divine attribution. Are divine attributions more likely when people judge scenarios of passive versus active immorality? To answer this question, we pooled effects from the pilot study, Studies 4–5, and Study 8 in which we manipulated passive versus active immorality and measured divine attributions.

As predicted, divine attributions were significantly higher with passive immorality than with active immorality, r_{pooled} = .26, SE_{pooled} = .04, 95% CI [.33, .19]. People were more likely to see the hand of God when there is no human hand readily available. Unsurprisingly, this effect was more pronounced for people higher (+1 *SD* within the student sample) in belief, r_{pooled} = .38, SE_{pooled} = .03, 95% CI [.44, .33] compared with people lower (−1 *SD* within the study sample) in belief, r_{pooled} = .14, SE_{pooled} = .03, 95% CI [.20, .08].

Prediction 3: Religious belief predicts passive immorality. Are believers more likely than nonbelievers to view passive immorality as permissible? To answer this question, we pooled all studies in which religious belief and passive immorality were measured (pilot, Studies 1, 4–9, 11–13). We also tested religion's effect on active immorality in studies that measured active immorality (pilot, Studies 4, 5, and 8).

The analysis revealed a small and marginally significant positive relationship between global religious belief and passive immorality, r_{pooled} = .08, SE_{pooled} = .05, 95% CI [−.01, .18], and a

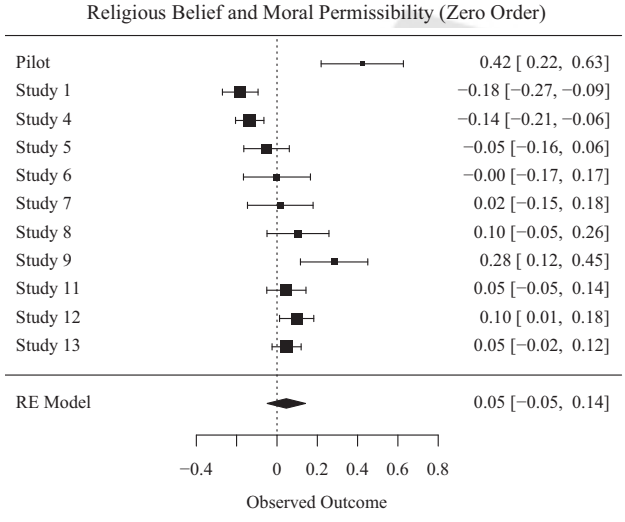


Figure 15. In a random-effects meta-analysis, global religious belief weakly showed no significant zero-order relationship with moral permissibility. The *x* axis represents effect size. Box size represents number of participants. Dashed line represents the line of null effect. Error bars represent 95% confidence intervals.

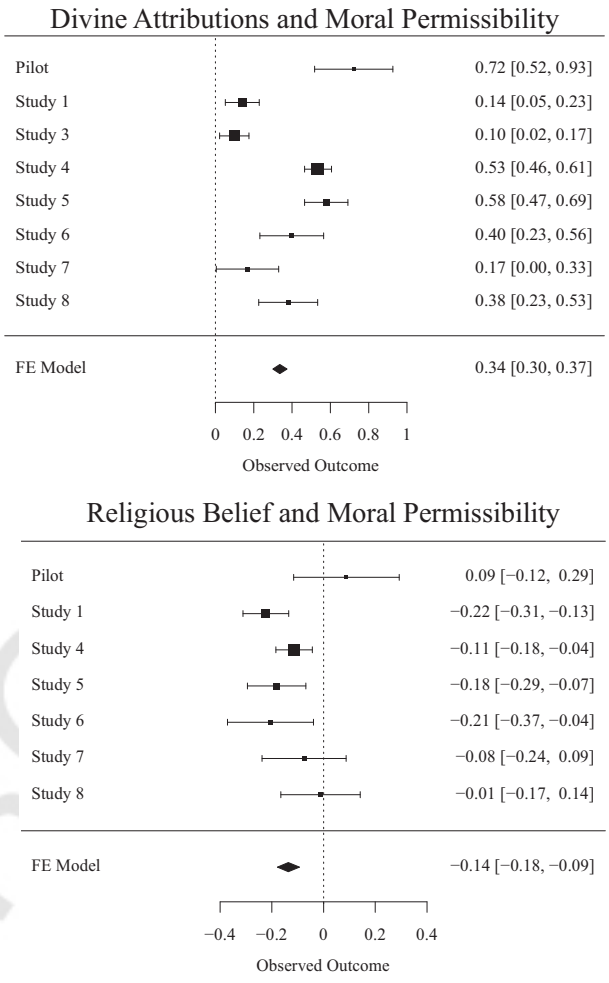


Figure 16. In fixed-effects meta-analyses, the unique effect of divine attributions predicted more permissive moral judgments, whereas the unique effect of global religious belief predicted less permissive moral judgments. The *x* axis represents effect size. Box size represents number of participants. Dashed line represents the line of null effect. Error bars represent 95% confidence intervals.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

significant negative link between global religious belief and active immorality, $r_{pooled} = -.18$, $SE_{pooled} = .04$, 95% CI [−.27, .10]. Moreover, religion showed a positive and significant relationship with passive immorality in studies where people judged their own behavior (Studies 8–9 and Studies 11–13), $r_{pooled} = .11$, $SE_{pooled} = .04$, 95% CI [.03, .19]. Religious belief led people to see their own passive immorality as permissible.

Discussion

This meta-analysis evaluated the evidence for our three central predictions. First, although there was no relationship between global religious belief and judgments of moral permissibility, there was a robust positive link between divine attributions and moral permissibility. There was also a negative link between the remaining variance in global religious belief and moral permissibility—once variance associated with divine attributions had been removed. Second, people were more likely to make divine attributions in passive versus active contexts, an effect that was larger for believers than for nonbelievers. And third, global religious belief negatively predicted active immorality but positively predicted passive immorality—especially with respect to their own passive immorality. Taken together, this meta-analysis supports the idea that religious people are more likely to make divine attributions for passive immorality, which makes these acts seem morally permissible.

General Discussion

Does God make you good, or does He help you justify immorality? We suggest that both alternatives are true, and that the link between God and religion is more complex than once thought. Properties of religious belief such as supernatural monitoring and punishment may encourage prosociality (Johnson, 2005; Norenzayan & Shariff, 2008), but beliefs in divine intervention seem to encourage the rationalization of immorality—especially in cases of passive immorality when human agency is absent. The present research provides support for this idea, revealing that global religious belief has little zero-order association with moral judgment. Instead, divine attributions increase moral permissiveness, whereas global religious belief predict stricter moral judgments once variance associated with divine attributions has been removed.

Thirteen studies—and an internal meta-analysis—reveal evidence supporting three key predictions. Our first prediction was that people who make divine attributions for immoral acts see them as more permissible (Studies 1–3). Study 1 used self-report measures to show that divine attributions predict permissive moral judgment, whereas global religious belief predict stricter moral judgments once variance associated with divine attributions has been removed. Study 2 found that prayer group membership—a group-level proxy for divine attributions—positively predicts statewide crime rates whereas religious belief negatively but nonsignificantly predicts crime. Study 3 replicated the correlational link between divine attributions and moral permissibility with an experimentally manipulation of divine attributions.

Our second prediction was that divine attributions for immorality should be most common in cases of passive immorality—when human agency is ambiguous—because these situations encourage people to infer God's agency (Studies 4–7). Studies 4 and 5 revealed that passive (vs. active) immorality predicts divine attributions, which are linked to seeing other people's transgressions as more morally permissible. Study 6 showed that this effect is strongest when God's agency is salient via prayer, and Study 7 showed that the active-passive divide cannot be explained by differences in act severity.

Our third prediction was that, because believers can make divine attributions for passive immorality, they should be more likely than nonbelievers to perpetrate these acts (Studies 8–10). Study 8 found that believers are more likely to justify their past passive immorality compared with nonbelievers, an effect that is mediated by divine attributions. Studies 9 and 10 showed that religion is linked to two forms of real-world passive immorality: failing to correct bad parking (Study 9) and failing to return overdue library books (Study 10). Studies 11–13 also showed that religious belief predicts more passive immorality in a novel economic game, though these effects were not impacted by religious priming.

Open Questions

Although this paper contains a large number of studies with a diverse set of methodologies, many open questions remain. In this section, we discuss some of the most pressing.

What is the true effect of religious belief on passive immorality? In our field studies, global religious belief predicted parking badly and keeping library books long overdue (Studies 9 and 10). These results suggested a significant direct link between religious belief and passive immorality, which may have been mediated by divine attributions. However, Studies 4–7 showed no direct link between religious belief and passive immorality. At first, these results appear inconsistent—religion both does and does not encourage passive immorality—but this inconsistency can be resolved by considering the beneficiary of passive immorality. We suggest that global religious belief directly increases the moral permissibility of passive immorality for the self but not others.

Consistent with this idea, Study 8 found that people see self-serving immorality as permissible when they reflected on their *own* past behavior, even though this pattern was not evident in cases when people judged other people's behaviors. These data are consistent with past evidence of religious hypocrisy—religious people often expect others to follow moral principles that they themselves do not follow (Batson, Kobrynowicz, Dinnerstein, Kampf, & Wilson, 1997; Valdesolo & Desteno, 2007; cf. Carpenter & Marshall, 2009).

Do people only make divine attributions when it benefits them? There are two potential reasons why the total effect of religion lead to more passive immorality when people judged themselves versus when they judged others. One is that people were *more* likely to make divine attributions when they stood to personally benefit from these attributions. The other is that people were *less* likely to think of religious values that encourage stricter morality (e.g., deontological thinking) when judging the self. We believe that the second of these possibilities is more likely. Passive immorality encouraged divine attributions equally in studies where people rated others (Studies 4 and 5) and themselves (Study 8). On the other hand, global religious belief decreased morally permissibility when they judged others but had no effect on self-judgments. These effects suggest that divine attributions are not sensitive to people's personal interests, while other elements of religion might be.

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

Divine attributions or general determinism? When people made divine attributions, they tended to adopt a more morally permissible frame of mind. Other work finds a similar increase in moral permissible among people who see events of the world as predetermined rather than as a product of human will (Baumeister, Masicampo, & DeWall, 2009; Vohs & Schooler, 2008). Are these the same effect? One could argue that a universe with an intervening God is also a universe in which the events are determined outside of people's control. However, evidence suggests that divine attributions and determinism increase immorality for different reasons. Determinists do not deny the immorality behind bad actions, but only their responsibility for doing them (Schulz, Cokely, & Feltz, 2011), whereas making divine attributions actually leads people to claim that clearly harmful actions are morally justified. These differences suggest that divine attributions could license passive immorality regardless of whether belief systems encourage free will or are deterministic (e.g., Calvinism).

Evidence from our studies further distinguishes divine attributions from general religious determinism. In Study 1, our divine attributions questionnaire correlated only moderately with beliefs in an all-knowing, all-powerful God—suggesting that even an all-powerful God may not be seen as intervening in all events. In Studies 4 and 5, our divine attribution items were sensitive to the presence of human agency—which should be irrelevant if all human acts are ultimately preordained by God (i.e., in a divinely deterministic universe, all human acts are acts of God).

How would our findings generalize across cultures? Our results were obtained with Christians—would they replicate with believers from other religions? Many cultures believe that gods seldom intervene (e.g., Hadza people of Tanzania; Aranda culture of Australia), and so religious belief would probably not encourage divine attributions that facilitate passive immorality. Even within Judeo-Christian believers, there is substantial variance in how people conceive of divine agency (see Norenzayan, 2016), which would likely affect the link between religion and passive immorality.

Religions also vary across cultures in the moral character of their gods. The Judeo-Christian God is perceived as morally infallible (Heiphetz et al., 2016; Heiphetz et al., 2018), which is likely a significant factor behind our results. When God can do no wrong, then taking a wallet that God left for you to find seems morally permissible. Yet many other religions do not have a morally infallible high God (Botero et al., 2014). In fact, many other gods can trick and deceive people (e.g., the Norse god Loki or the Greek god Hermes), and we would predict different effects of divine attribution on moral permissibility for those who believe in these gods. Believing in a corrupt or deceiving god might even lead people to tied divine attributions to *less* moral permissibility.

Our results could also vary cross-culturally by the extent to which cultures see fate as influencing people's decisions (Leung & Bond, 2004; Leung et al., 2007). Previous research has shown that these "fate control" beliefs predict whether religious people see unexplainable events as part of a supernatural plan (Leung et al., 2007). Because passive immorality opens the door to supernatural agency, people in cultures with high fate control might be especially likely to justify and commit passive immorality.

How would our findings generalize to more severe transgressions? Many of our studies featured minor acts of immorality, such as keeping library books and parking poorly. Our vignette studies were somewhat more severe—academic cheating, lying to sell a house, and getting an unfair promotion at work—but a far cry from murder or genocide. Would our effects replicate for these more severe transgressions? On the one hand, divine attributions have resulted in some of the most tragic and gruesome acts as history, such as the Crusades, the Spanish inquisition, and the Salem Witch Hunts. However, these cases may be outliers, and people may be less willing to attribute immoral events to God's will when they are very severe. Our own manipulation of severity (Study 7) suggests severity may not matter much in divine attributions—beyond its link to passiveness—but future research should investigate this idea.

Ambiguous agency or ambiguous patiency? In our paper's opening scenario, Resse, Cally, and Lara do not know where the money in their couch has come from, which could prompt divine attributions. We have suggested that divine attributions are encouraged from a lack of clear human agency, but the couch dilemma lacks both agency and patiency—there was no clear victim harmed by keeping the money. Fortunately, our studies clarify this ambiguity, as Studies 4–7 manipulated only agency and kept constant the suffering of others. Nevertheless, future research should investigate the link between patiency and divine attributions.

Limitations

We also note three important caveats of the current research.

External validity. First, many of our studies involved recall- or vignette-based paradigms using Amazon Mechanical Turk workers. This sample is arguably more diverse than students in university subject pools (Buhrmester, Kwang, & Gosling, 2011), but still limits the generalizability of our findings, particularly across cultures. Our field and archival studies suggest that religious belief and divine attributions are linked to real-world outcomes, but more research is needed to identify the ecological boundaries of our effects.

Correlational design. Second, many of our studies are correlational, making causal claims difficult. However, Study 3 provides causal evidence that divine attributions impact moral permissibility, and our mediational models provide consistent evidence for the role of divine attributions in making passive immorality seem more permissible to religious believers. This makes it unlikely that covariates of global religious belief (e.g., gender, age, or education level) can account for the link between religiosity and passive immorality.

Multiple determination. Third, many of our studies—particularly our field studies—could have been multiply determined. Divine attributions are likely not only reason why religiously decorated cars parked poorly, why religious books were more overdue, and why prayer group attendance was linked with statewide crime. However, our findings do triangulate on a likely association between religious belief and passive immorality, which is at least partially accounted for by believers' tendency to see God's hand when there is no clear human cause behind a self-serving event. Although our methods and findings might be diverse, our hypotheses provide the most parsimonious explanation for the results that we observed—especially when interpreted in light of our experimental studies.

Extensions and Implications

Religious prosociality and passive immorality. At first glance, our research seems at odds with popular theories of religion and the

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

cultural evolution of large-scale cooperation (Brewer et al., 2017; Bulbulia, 2004; Norenzayan et al., 2016; Sosis & Alcorta, 2003; Wilson, 2010). In particular, they seem to contradict the idea that people's awareness of a moralizing and watchful god increases prosociality (e.g., Johnson, 2016; Norenzayan et al., 2016). However, most research on the supernatural monitoring hypothesis uses only measures of active immorality, not passive immorality.

Although a full discussion of religious prosociality is beyond the scope of this paper (see Bloom, 2012; Galen, 2012; McKay & Whitehouse, 2015; Norenzayan et al., 2016 for different perspectives), there are at least two ways to reconcile our findings with theories that link religion with large-scale cooperation. One possibility is that religious belief in general encourages prosociality, while divine attributions in particular encourages immorality. Another possibility is that global religious *belief* might not directly encourage prosociality but coexists with other features of organized religion (e.g., rituals and stronger social norms) that do (see Gelfand, Harrington, & Jackson, 2017).

Practical implications. Intense debate surrounds whether religion is generally good or bad for humanity. Religious believers donate more than nonbelievers to charity (Brooks, 2006), volunteer more (Putnam & Campbell, 2010), and report greater community involvement (Youniss, McLellan, Su, & Yates, 1999). However, religious belief also leads to wars, suicide bombings, and community segregation (Dawkins, 1997; Dennett, 2006; Harris, 2005; Hitchens, 2008; Jackson, Halberstadt, Jong, & Felman, 2015). Our research suggests that these two sets of facts are not as contradictory as they seem. When believers feel personally responsible for their own behavior, religion could lead to many benefits, but when believers make divine attributions for their behavior, religion could lead to hostility, discrimination, and even violence. At the very least, our research suggests that pundits and policymakers should consider the role of personal agency when discussing the impact of religion.

Conclusion

Thirteen studies and a meta-analysis expose the complexity in a contentious question: "Does God make us good?"—or more specifically "Does religion make us moral?" The answer depends on how "religion" is defined. Divine attributions are associated with permitting and perpetrating immorality, but other elements of religious belief are associated with moral rectitude. The impact of religion on morality also depends upon how "morality" is defined: religion may discourage active immorality but may encourage passive immorality. These findings synthesize a wealth of past research on religion and morality and help us understand why both saints and sinners invoke God when explaining their actions. In our studies, perpetrators of passive immorality did not see their harmful behavior as wrong; they were merely capitalizing on God's beneficence when capitalized on the suffering of others. Bear these results in mind the next time you find a lost wallet on the street. Remember, the money inside is not God's to give, and it is not yours to take.

References

Allport, G. W., & Ross, J. M. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology, 5,* 432–443. http://dx.doi.org/10.1037/h0021212

Aveyard, M. E. (2014). A call to honesty: Extending religious priming of moral behavior to Middle Eastern Muslims. *PLoS ONE, 9,* e99447. http://dx.doi.org/10.1371/journal.pone.0099447

Bänziger, S., Uden, M. V., & Janssen, J. (2008). Praying and coping: The relation between varieties of praying and religious coping styles. *Mental Health, Religion & Culture, 11,* 101–118. http://dx.doi.org/10.1080/13674670600748386

Baron, J., & Ritov, I. (2004). Omission bias, individual differences, and normality. *Organizational Behavior and Human Decision Processes, 94,* 74–85. http://dx.doi.org/10.1016/j.obhdp.2004.03.003

Batson, C. D., Kobrynowicz, D., Dinnerstein, J. L., Kampf, H. C., & Wilson, A. D. (1997). In a very different voice: Unmasking moral hypocrisy. *Journal of Personality and Social Psychology, 72,* 1335–1348. http://dx.doi.org/10.1037/0022-3514.72.6.1335

Batson, C. D., Oleson, K. C., Weeks, J. L., Healy, S. P., & Reeves, P. J. (1989). Religious prosocial motivation: Is it altruistic or egoistic? *Journal of Personality and Social Psychology, 57,* 873–884. http://dx.doi.org/10.1037/0022-3514.57.5.873

Batson, C. D., Schoenrade, P., & Ventis, W. L. (1993). *Religion and the individual: A social-psychological perspective*. New York, NY: Oxford University Press.

Baumeister, R. F., Masicampo, E. J., & Dewall, C. N. (2009). Prosocial benefits of feeling free: Disbelief in free will increases aggression and reduces helpfulness. *Personality and Social Psychology Bulletin, 35,* 260–268. http://dx.doi.org/10.1177/0146167208327217

Bloom, P. (2012). Religion, morality, evolution. *Annual Review of Psychology, 63,* 179–199. http://dx.doi.org/10.1146/annurev-psych-120710-100334

Botero, C. A., Gardner, B., Kirby, K. R., Bulbulia, J., Gavin, M. C., & Gray, R. D. (2014). The ecology of religious beliefs. *PNAS Proceedings of the National Academy of Sciences of the United States of America, 111,* 16784–16789. http://dx.doi.org/10.1073/pnas.1408701111

Braver, S. L., Thoemmes, F. J., & Rosenthal, R. (2014). Continuously cumulating meta-analysis and replicability. *Perspectives on Psychological Science, 9,* 333–342. http://dx.doi.org/10.1177/1745691614529796

Brewer, J., Gelfand, M., Jackson, J. C., MacDonald, I. F., Peregrine, P. N., Richerson, P. J., . . . Wilson, D. S. (2017). Grand challenges for the study of cultural evolution. *Nature Ecology and Evolution, 1,* 0070.

Brooks, A. C. (2006). *Who really cares: The surprising truth about compassionate conservatism*. New York, NY: Basic Books.

Bruce, J. R. (2013). Uniting theories of morality, religion, and social interaction: Grid-group cultural theory, the "Big Three" ethics, and moral foundations theory. *Psychology & Society, 5,* 37–50.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science, 6,* 3–5. http://dx.doi.org/10.1177/1745691610393980

Bulbulia, J. (2004). The cognitive and evolutionary psychology of religion. *Biology & Philosophy, 19,* 655–686. http://dx.doi.org/10.1007/s10539-005-5568-6

Bushman, B. J., Ridge, R. D., Das, E., Key, C. W., & Busath, G. L. (2007). When god sanctions killing: Effect of scriptural violence on aggression. *Psychological Science, 18,* 204–207. http://dx.doi.org/10.1111/j.1467-9280.2007.01873.x

Carpenter, T. P., & Marshall, M. A. (2009). An examination of religious priming and intrinsic religious motivation in the moral hypocrisy paradigm. *Journal for the Scientific Study of Religion, 48,* 386–393. http://dx.doi.org/10.1111/j.1468-5906.2009.01454.x

Cialdini, R. B. (2009). We have to break up. *Perspectives on Psychological Science, 4,* 5–6. http://dx.doi.org/10.1111/j.1745-6924.2009.01091.x

Cohen, A. B., Mazza, G. L., Johnson, K. A., Enders, C. K., Warner, C. M., Pasek, M. H., & Cook, J. E. (2017). Theorizing and measuring religiosity across cultures. *Personality and Social Psychology Bulletin, 43,* 1724–1736. http://dx.doi.org/10.1177/0146167217727732

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

Cushman, F., Young, L., & Hauser, M. (2006). The role of conscious reasoning and intuition in moral judgment: Testing three principles of harm. *Psychological Science, 17,* 1082–1089. http://dx.doi.org/10.1111/j.1467-9280.2006.01834.x

Darley, J., & Batson, C. D. (1973). From Jerusalem to Jericho: A study of situational and dispositional variables in helping behaviour. *Journal of Personality and Social Psychology, 27,* 100–108. http://dx.doi.org/10.1037/h0034449

Dawkins, R. (1997). Is science a religion? *The Humanist, 57,* 26–29.

Dennett, D. C. (2006). *Breaking the spell: Religion as a natural phenomenon* (Vol. 14). New York, NY: Penguin.

DeScioli, P., Christner, J., & Kurzban, R. (2011). The omission strategy. *Psychological Science, 22,* 442–446. http://dx.doi.org/10.1177/0956797611400616

Foot, P. (1967). The problem of abortion and the doctrine of double effect. *Oxford Review, 5,* 5–15.

Galen, L. W. (2012). Does religious belief promote prosociality? A critical examination. *Psychological Bulletin, 138,* 876–906. http://dx.doi.org/10.1037/a0028251

Gelfand, M. J., Harrington, J. R., & Jackson, J. C. (2017). The strength of social norms across human groups. *Perspectives on Psychological Science, 12,* 800–809. http://dx.doi.org/10.1177/1745691617708631

Gelfand, M. J., & Jackson, J. C. (2016). From one mind to many: The emerging science of cultural norms. *Current Opinion in Psychology, 8,* 175–181. http://dx.doi.org/10.1016/j.copsyc.2015.11.002

Graham, J., & Haidt, J. (2010). Beyond beliefs: Religions bind individuals into moral communities. *Personality and Social Psychology Review, 14,* 140–150. http://dx.doi.org/10.1177/1088868309353415

Gray, K., Jenkins, A. C., Heberlein, A. S., & Wegner, D. M. (2011). Distortions of mind perception in psychopathology. *PNAS Proceedings of the National Academy of Sciences of the United States of America, 108,* 477–479. http://dx.doi.org/10.1073/pnas.1015493108

Gray, K., Schein, C., & Ward, A. F. (2014). The myth of harmless wrongs in moral cognition: Automatic dyadic completion from sin to suffering. *Journal of Experimental Psychology: General, 143,* 1600–1615. http://dx.doi.org/10.1037/a0036149

Gray, K., & Wegner, D. M. (2010). Blaming god for our pain: Human suffering and the divine mind. *Personality and Social Psychology Review, 14,* 7–16. http://dx.doi.org/10.1177/1088868309350299

Gray, K., Young, L., & Waytz, A. (2012). Mind perception is the essence of morality. *Psychological Inquiry, 23,* 101–124. http://dx.doi.org/10.1080/1047840X.2012.651387

Greene, J. D., Sommerville, R. B., Nystrom, L. E., Darley, J. M., & Cohen, J. D. (2001). An fMRI investigation of emotional engagement in moral judgment. *Science, 293,* 2105–2108. http://dx.doi.org/10.1126/science.1062872

Greer, T., Berman, M., Varan, V., Bobrycki, L., & Watson, S. (2005). We are a religious people; we are a vengeful people. *Journal for the Scientific Study of Religion, 44,* 45–57. http://dx.doi.org/10.1111/j.1468-5906.2005.00264.x

Hadnes, M., & Schumacher, H. (2012). The Gods are watching: An experimental study of religion and traditional belief in Burkina Faso. *Journal for the Scientific Study of Religion, 51,* 689–704. http://dx.doi.org/10.1111/j.1468-5906.2012.01676.x

Harris, S. (2005). *The end of faith: Religion, terror, and the future of reason*. New York, NY: W. W. Norton & Company.

Heiphetz, L., Lane, J. D., Waytz, A., & Young, L. L. (2016). How children and adults represent God's mind. *Cognitive Science, 40,* 121–144. http://dx.doi.org/10.1111/cogs.12232

Heiphetz, L., Lane, J. D., Waytz, A., & Young, L. L. (2018). My mind, your mind, and God's mind: How children and adults conceive of different agents' moral beliefs. *British Journal of Developmental Psychology*. Advance online publication. http://dx.doi.org/10.1111/bjdp.12231

Hitchens, C. (2008). *God is not great: How religion poisons everything*. New York, NY: McClelland & Stewart.

Hume, D. (2006). *An enquiry concerning the principles of morals* (Vol. 4). Oxford, UK: Oxford University Press.

Jackson, J. C., Bilkey, D., Jong, J., Rossignac-Milon, M., & Halberstadt, J. (2017). Strangers in a stadium: Studying group dynamics with in vivo behavioral tracking. *Social Psychological and Personality Science, 8,* 509–518. http://dx.doi.org/10.1177/1948550617709112

Jackson, J., Halberstadt, J., Jong, J., & Felman, H. (2015). Perceived openness to experience accounts for religious homogamy. *Social Psychological and Personality Science, 6,* 630–638. http://dx.doi.org/10.1177/1948550615574302

Johnson, D. D. (2005). God's punishment and public goods. *Human Nature, 16,* 410–446.

Johnson, D. (2016). *God is watching you: How the fear of god makes us human*. New York, NY: Oxford University Press.

Johnson, K. A., Okun, M. A., & Cohen, A. B. (2015). The mind of the Lord: Measuring authoritarian and benevolent God representations. *Psychology of Religion and Spirituality, 7,* 227–238. http://dx.doi.org/10.1037/rel0000011

Johnson, M. K., Rowatt, W. C., & LaBouff, J. (2010). Priming Christian religious concepts increases racial prejudice. *Social Psychological and Personality Science, 1,* 119–126. http://dx.doi.org/10.1177/1948550609357246

Jong, J. (2015). On (not) defining (non) religion. *Science, Religion and Culture, 2,* 15–24. http://dx.doi.org/10.17582/journal.src/2015/2.3.15.24

Jong, J., Bluemke, M., & Halberstadt, J. (2013). Fear of death and supernatural beliefs: Developing a new supernatural belief scale to test the relationship. *European Journal of Personality, 27,* 495–506.

Knobe, J. (2003). Intentional action and side effects in ordinary language. *Analysis, 63,* 190–194. http://dx.doi.org/10.1093/analys/63.3.190

Kramer, G. H. (1983). The ecological fallacy revisited: Aggregate-versus individual-level findings on economics and elections, and sociotropic voting. *The American Political Science Review, 77,* 92–111. http://dx.doi.org/10.2307/1956013

Ladd, K. L., & Spilka, B. (2002). Inward, outward, and upward: Cognitive aspects of prayer. *Journal for the Scientific Study of Religion, 41,* 475–484. http://dx.doi.org/10.1111/1468-5906.00131

Ladd, K. L., & Spilka, B. (2006). Inward, outward, upward prayer: Scale reliability and validation. *Journal for the Scientific Study of Religion, 45,* 233–251. http://dx.doi.org/10.1111/j.1468-5906.2006.00303.x

Laurin, K., Shariff, A. F., Henrich, J., & Kay, A. C. (2012). Outsourcing punishment to God: Beliefs in divine control reduce earthly punishment. *Proceedings of the Royal Society of London B: Biological Sciences, 279,* 3272–3281.

Leach, M. M., Berman, M. E., & Eubanks, L. (2008). Religious activities, religious orientation, and aggressive behavior. *Journal for the Scientific Study of Religion, 47,* 311–319. http://dx.doi.org/10.1111/j.1468-5906.2008.00409.x

Legare, C. H., & Gelman, S. A. (2008). Bewitchment, biology, or both: The co-existence of natural and supernatural explanatory frameworks across development. *Cognitive Science, 32,* 607–642. http://dx.doi.org/10.1080/03640210802066766

Leung, K., Au, A., Huang, X., Kurman, J., Niit, T., & Niit, K. K. (2007). Social axioms and values: A cross-cultural examination. *European Journal of Personality, 21,* 91–111. http://dx.doi.org/10.1002/per.615

Leung, K., & Bond, M. H. (2004). Social axioms: A model of social beliefs in multi-cultural perspective. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 36, pp. 119–197). San Diego, CA: Elsevier Academic Press.

Lupfer, M. B., & Layman, E. (1996). Invoking naturalistic and religious attributions: A case of applying the availability heuristic? The representativeness heuristic? *Social Cognition, 14,* 55–76. http://dx.doi.org/10.1521/soco.1996.14.1.55

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

Mazar, N., Amir, O., & Ariely, D. (2008). The dishonesty of honest people: A theory of self-concept maintenance. *Journal of Marketing Research, 45,* 633–644. http://dx.doi.org/10.1509/jmkr.45.6.633

McKay, R., & Whitehouse, H. (2015). Religion and morality. *Psychological Bulletin, 141,* 447–473. http://dx.doi.org/10.1037/a0038455

Norenzayan, A. (2013). *Big gods: How religion transformed cooperation and conflict*. Princeton, NJ: Princeton University Press.

Norenzayan, A. (2016). Theodiversity. *Annual Review of Psychology, 67,* 465–488. http://dx.doi.org/10.1146/annurev-psych-122414-033426

Norenzayan, A., & Shariff, A. F. (2008). The origin and evolution of religious prosociality. *Science, 322,* 58–62. http://dx.doi.org/10.1126/science.1158757

Norenzayan, A., Shariff, A. F., Gervais, W. M., Willard, A. K., McNamara, R. A., Slingerland, E., & Henrich, J. (2016). The cultural evolution of prosocial religions. *Behavioral and Brain Sciences, 39,* e1. http://dx.doi.org/10.1017/S0140525X14001356

Oldridge, D. (2004). *Strange histories: The trial of the pig, the walking dead, and other matters of fact from the medieval and renaissance worlds*. London, UK: Routledge.

Paul, G. (2005). Cross-national correlations of quantifiable societal health with popular religiosity and secularism in the prosperous democracies. *Journal of Religion in Society, 7,* 1–17.

Pew Research Center. (2014). Worldwide, many people see belief in God as essential to morality: Richer nations are exception. Retrieved from http://www.pewglobal.org/files/2014/03/Pew-Research-Center-Global-Attitudes-Project-Belief-in-God-Report-FINAL-March-13-2014.pdf

Piazza, J., Bering, J. M., & Ingram, G. (2011). "Princess Alice is watching you": Children's belief in an invisible person inhibits cheating. *Journal of Experimental Child Psychology, 109,* 311–320. http://dx.doi.org/10.1016/j.jecp.2011.02.003

Piazza, J., & Landy, J. F. (2013). "Lean not on your own understanding": Belief that morality is founded on divine authority and non-utilitarian moral judgments. *Judgment and Decision Making, 8,* 639–661.

Piazza, J., & Sousa, P. (2014). Religiosity, political orientation, and consequentialist moral thinking. *Social Psychological and Personality Science, 5,* 334–342. http://dx.doi.org/10.1177/1948550613492826

Pichon, I., Boccato, G., & Saroglou, V. (2007). Nonconscious influences of religion on prosociality: A priming study. *European Journal of Social Psychology, 37,* 1032–1045. http://dx.doi.org/10.1002/ejsp.416

Piff, P. K., Stancato, D. M., Côté, S., Mendoza-Denton, R., & Keltner, D. (2012). Higher social class predicts increased unethical behavior. *PNAS Proceedings of the National Academy of Sciences of the United States of America, 109,* 4086–4091. http://dx.doi.org/10.1073/pnas.1118373109

Purzycki, B. G., Apicella, C., Atkinson, Q. D., Cohen, E., McNamara, R. A., Willard, A. K., . . . Henrich, J. (2016). Moralistic gods, supernatural punishment and the expansion of human sociality. *Nature, 530,* 327–330. http://dx.doi.org/10.1038/nature16980

Putnam, R., & Campbell, D. (2010). *American grace: How religion divides and unites us*. New York, NY: Simon & Schuster.

Randolph-Seng, B., & Nielsen, M. E. (2007). Honesty: One effect of primed religious representations. *International Journal for the Psychology of Religion, 17,* 303–315. http://dx.doi.org/10.1080/10508610701572812

Rosset, E. (2008). It's no accident: Our bias for intentional explanations. *Cognition, 108,* 771–780. http://dx.doi.org/10.1016/j.cognition.2008.07.001

Schein, C., Goranson, A., & Gray, K. (2015). The uncensored truth about morality. *The Psychologist, 28,* 982–985.

Schein, C., & Gray, K. (2015). The unifying moral dyad: Liberals and conservatives share the same harm-based moral template. *Personality and Social Psychology Bulletin, 41,* 1147–1163. http://dx.doi.org/10.1177/0146167215591501

Schein, C., & Gray, K. (2018). The theory of dyadic morality: Reinventing moral judgment by redefining harm. *Personality and Social Psychology Review, 22,* 32–70. http://dx.doi.org/10.1177/1088868317698288

Schulz, E., Cokely, E. T., & Feltz, A. (2011). Persistent bias in expert judgments about free will and moral responsibility: A test of the expertise defense. *Consciousness and Cognition, 20,* 1722–1731. http://dx.doi.org/10.1016/j.concog.2011.04.007

Shariff, A. F., & Norenzayan, A. (2007). God is watching you: Priming God concepts increases prosocial behavior in an anonymous economic game. *Psychological Science, 18,* 803–809. http://dx.doi.org/10.1111/j.1467-9280.2007.01983.x

Shariff, A. F., & Norenzayan, A. (2011). Mean gods make good people: Different views of God predict cheating behavior. *International Journal for the Psychology of Religion, 21,* 85–96. http://dx.doi.org/10.1080/10508619.2011.556990

Shariff, A. F., Piazza, J., & Kramer, S. R. (2014). Morality and the religious mind: Why theists and nontheists differ. *Trends in Cognitive Sciences, 18,* 439–441. http://dx.doi.org/10.1016/j.tics.2014.05.003

Shariff, A. F., & Rhemtulla, M. (2012). Divergent effects of beliefs in heaven and hell on national crime rates. *PLoS ONE, 7,* e39048. http://dx.doi.org/10.1371/journal.pone.0039048

Shariff, A. F., Willard, A. K., Andersen, T., & Norenzayan, A. (2016). Religious priming: A meta-analysis with a focus on prosociality. *Personality and Social Psychology Review, 20,* 27–48. http://dx.doi.org/10.1177/1088868314568811

Sosis, R., & Alcorta, C. (2003). Signaling, solidarity, and the sacred: The evolution of religious behavior. *Evolutionary Anthropology, 12,* 264–274. http://dx.doi.org/10.1002/evan.10120

Spranca, M., Minsk, E., & Baron, J. (1991). Omission and commission in judgment and choice. *Journal of Experimental Social Psychology, 27,* 76–105. http://dx.doi.org/10.1016/0022-1031(91)90011-T

Tannenbaum, D., Uhlmann, E. L., & Diermeier, D. (2011). Moral signals, public outrage, and immaterial harms. *Journal of Experimental Social Psychology, 47,* 1249–1254. http://dx.doi.org/10.1016/j.jesp.2011.05.010

Valdesolo, P., & DeSteno, D. (2007). Moral hypocrisy: Social groups and the flexibility of virtue. *Psychological Science, 18,* 689–690. http://dx.doi.org/10.1111/j.1467-9280.2007.01961.x

Vohs, K. D., & Schooler, J. W. (2008). The value of believing in free will: Encouraging a belief in determinism increases cheating. *Psychological Science, 19,* 49–54. http://dx.doi.org/10.1111/j.1467-9280.2008.02045.x

Willard, A. K., Shariff, A. F., & Norenzayan, A. (2016). Religious priming as a research tool for studying religion: Evidentiary value, current issues, and future directions. *Current Opinion in Psychology, 12,* 71–75. http://dx.doi.org/10.1016/j.copsyc.2016.06.003

Wilson, D. S. (2010). *Darwin's cathedral: Evolution, religion, and the nature of society*. Chicago, IL: University of Chicago Press.

Youniss, J., Mclellan, J. A., Su, Y., & Yates, M. (1999). The role of community service in identity development: Normative, unconventional, and deviant orientations. *Journal of Adolescent Research, 14,* 248–261. http://dx.doi.org/10.1177/0743558499142006

Zuckerman, P. (2008). *Society without God: What the least religious nations can tell us about contentment*. New York, NY: NYU Press.

(*Appendices follow*)

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

Appendix A

Divine Attributions Scale

1. When a person of faith gets diagnosed with terminal cancer, God _____
   a. Doesn't directly intervene, allowing doctors to help the person
   b. Makes sure that the person gets the best doctors for their treatment
   c. Directly rids the person's body of cancer
2. When a person of faith is struggling to pay rent, God _____
   a. Doesn't directly intervene, allowing the person to work independently to make more money
   b. Makes sure the person finds a good job, with which they can pay off their rent
   c. Directly deposits money into the person's bank account
3. When a person of faith is struggling with depression, God _____
   a. Doesn't directly intervene, allowing the person to resolve their mental illness independently
   b. Makes sure the person is contacted by the best mental health professionals possible
   c. Directly rids their brain of mental illness
4. When a person of faith is searching for a romantic partner, God _____
   a. Doesn't directly intervene, allowing the person to explore the dating pool
   b. Makes sure that the person meets many potential matches
   c. Directly pairs the person with their soulmate
5. When a person of faith wants to win an award, God _____
   a. Doesn't directly intervene, allowing the person to work hard for their award
   b. Makes sure the person meets the awards committee before they make their decision
   c. Directly ensures that the person wins the award
6. When a person of faith wants to buy a house, God _____
   a. Doesn't directly intervene, allowing the person to seek out the best house for them
   b. Makes sure that the person works with an effective real-estate agent
   c. Directly matches the person with the perfect house
7. When a person of faith has some items stolen from them, God _____
   a. Doesn't directly intervene, allowing the person to recover or replace the items
   b. Makes sure that the person finds clues about the theft, allowing them to recover the items
   c. Directly restores the items to the person's house
8. When a person of faith is looking for a job, God _____
   a. Doesn't directly intervene, allowing the person to actively job-search
   b. Makes sure that the person's resume is viewed by interested businesses
   c. Directly ensures that the person finds their dream job
9. When a person of faith is hoping to have a child, God _____
   a. Doesn't directly intervene, allowing the person to try conception with their partner
   b. Makes sure that the person and their partner are both fertile, so that they can conceive
   c. Directly and immediately arranges for conception

(*Appendices continue*)

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

10. When a person of faith wants to lose weight, God _____

    a. Doesn't directly intervene, allowing the person to exercise and eat better

    b. Makes sure that the person finds an effective personal trainer who can help them

    c. Directly removes fat from the person's body, and restores muscle

Appendix B

Passive and Active Immorality Vignettes

Passive 1

Jim has worked hard at his company for three years and is well-regarded, but has not yet received a promotion. Jim desperately hopes to be promoted. One Monday, Jim's boss calls for a meeting. He tells Jim that the company's operations manager has been fired for drinking on the job and offers Jim the position. Jim is friends with the operations manager, and knows that he does not usually drink. But he keeps his doubts to himself and accepts the position.

Active 1

Jim has worked hard at his company for three years and is well-regarded, but has not yet received a promotion. Jim desperately hopes to be promoted. He knows that he is directly in line for the operations manager's position, so one day he plants a bottle of liquor in the operations manager's desk and leaves an anonymous tip with his boss. His operations manager is fired and Jim gets the job.

Passive 2

David is still in love with his high school sweetheart, Rebecca. They had dated in college but then she left him for another man. He desperately wants her back. One day, she knocks on his door. She tells him that she is getting married the next day, but is having doubt about the arrangement. David convinces Rebecca to give their relationship another chance, and he helps her avoid her family and partner before the wedding.

Active 2

David is still in love with his high school sweetheart, Rebecca. They had dated in college but then she left him for another man. He desperately wants her back. He discovers through mutual friends when she is getting married, and finds her the day before the wedding as she is leaving work. He pleads with her to talk with him and threatens to hurt himself if she ignores him. Eventually, he convinces her to postpone her wedding and give their relationship another chance. After she relents, he helps her avoid her family and partner.

Passive 3

Taylor is studying for a very important exam, which she is afraid she will fail. In a state of anxiety, she schedules an appointment with her TA, hoping that he can help her pass. The TA shows Taylor a copy of the previous year's test along with the correct responses. When Taylor takes the exam, she notices that the questions are identical to those from last year. She receives an A, and does not raise the issue with her professor.

Active 3

Taylor is studying for a very important exam, which she is afraid she will fail. In a state of anxiety, she schedules an appointment with her TA, hoping that he can help her pass. Then, while her TA is in the restroom, Taylor notices a copy of the exam and stuffs it in her purse. Taylor gets an A on the exam, after memorizing the answers to the stolen copy.

Passive 4

Ginny needs a new car. Her commute to work has become increasingly difficult because her old car breaks down and has terrible gas mileage. Ginny desperately browses "for sale" listings but does not have the money to buy any of the models that meet her needs. One afternoon, she finds a perfect car for a low price. She immediately contacts the seller and buys it. Soon afterward, she reads about the arrest of a man who has been selling stolen vehicles online for low prices. She doesn't investigate the matter further, and she is not contacted by any authorities, but she suspects that she may have bought her car off this man.

Active 4

Ginny needs a new car. Her commute to work has become increasingly difficult because her old car breaks down and has terrible gas mileage. Ginny desperately browses "for sale" listings but does not have the money to buy any of the models that meet her needs. One afternoon, Ginny's finds out about a man who has been reselling stolen cars for low prices. She contacts the man and buys a car that she could never have legitimately afforded.

(*Appendices continue*)

tapraid5/z2g-perpsy/z2g-perpsy/z2g99918/z2g4716d18z | xppws | S=1 | 5/8/18 | 14:33 | Art: P-2017-1121

Passive 5

Sarah is a recent college graduate who is working at an unpaid internship. She has large student loans and is struggling to pay her bills. Eventually, Sarah cannot pay her rent any more, and is threatened with eviction. She desperately hopes for money. One day, she is walking home after work and finds an envelope with $10,000 on the sidewalk in front of a bank. Sarah takes the money, and uses it to pay her rent until she is offered a salaried job.

Active 5

Sarah is a recent college graduate who is working at an unpaid internship. She has large student loans and is struggling to pay her bills. Eventually, Sarah cannot pay her rent any more, and is threatened with eviction. She desperately hopes for money. One day, when she is at the bank, she notices an envelope full of money sticking out of a woman's purse. Sarah takes the envelop, and finds that it contains $10,000. She uses it to pay her rent until she is offered a salaried job.

Passive 6

Martin is a homeowner who is moving out of town. Before he puts his house up for sale, an inspection reveals that his insulation is badly in need of repair, which would cost thousands of dollars to whoever buys the house. Martin discloses this information on his advertisement, and for months after, nobody expresses interest. Martin hopes desperately for a bite. Shortly afterward, a young couple makes a generous offer on the house. From their paperwork, Martin realizes that they did not notice the poor insulation, but he still accepts the offer.

Active 6

Martin is a homeowner who is moving out of town. Before he puts his house up for sale, an inspection reveals that his insulation is badly in need of repair, which would cost thousands of dollars to whoever buys the house. Martin discloses this information on his advertisement, and for months after, nobody expresses interest. Martin hopes desperately for a bite. Shortly afterward, Martin removes the information about the poor insulation, and young couple makes a generous offer on the house. When they ask Martin if they should be concerned about anything, he tells them they have nothing to fear.

Received November 28, 2017
Revision received April 16, 2018
Accepted April 19, 2018 ■

AUTHOR QUERIES

AUTHOR PLEASE ANSWER ALL QUERIES 1

AQau—Please confirm the given-names and surnames are identified properly by the colors. ■= Given-Name, ■= Surname
The colors are for proofing purposes only. The colors will not appear online or in print.

AQ1—Author: This article has been lightly edited for grammar, style, and usage. Please compare against your original document and make changes on these paged proofs. If no change is required in response to a question, please write "OK as set" in the margin.

AQ2—Author: Please be sure to provide the name of the department(s) with which you and your coauthors are affiliated at your respective institutes if you have not already done so. If you are affiliated with a governmental department, business, hospital, clinic, VA center, or other nonuniversity-based institute, please provide the city and U.S. state (or the city, province, and country) in which the institute is based. Departments should be listed in the author footnote only, not the byline. If you or your coauthors have changed affiliations since the article was written, please include a separate note indicating the new department/affiliation: [author's name] is now at [affiliation].

AQ3—Author: Your article contains supplemental material. If you have queries for references that are not cited in the text, these can be ignored if the references are found in the supplemental material.

AQ4—Author: Gorsuch and MacPherson (1989) is not in your references. Please add to the reference list or delete from the text.

AQ5—Author: Please review the typeset table(s) carefully against your original table(s) to verify accuracy of editing and typesetting.

AQ6—Author: Single subordinate-level headings are not permitted in a section; please add a second level-2 heading to the Results section or delete heading 'Multiple regression.'

AQ7—Author: Single subordinate-level headings are not permitted in a section; please add a second level-2 heading to the Method section or delete heading 'Materials and measures.'

AQ8—Author: Aiken & West (1991) is not in your references. Please add to the reference list or delete from the text.

AQ9—Author: Single subordinate-level headings are not permitted in a section; please add a

AUTHOR QUERIES

AUTHOR PLEASE ANSWER ALL QUERIES

second level-2 heading to the Results section or delete heading 'Religion and parking accuracy.'

AQ10—Author: Single subordinate-level headings are not permitted in a section; please add a second level-2 heading to the Results section or delete heading 'Religious overdue rates.'

AQ11—Author: Gomes & McCullough (2015) is not in your references. Please add to the reference list or delete from the text.

AQ12—Author: Please confirm that all authors' institutional affiliations (including city/state/country locations) and correspondence information are correct as shown in the affiliations footnote.

AQ13—Author: Figure 13 will appear in color online only. To ensure that your figure can be understood by both print and online readers, please provide alternative wording in parentheses immediately following each mention of color (e.g., 'red (dark gray) bars represent …') in both the figure legend and article text, or rewrite. Submit a new figure if necessary.