

# Towards a Better Understanding of Religious Priming: An Experiment Proposal

Leah Hess and Timur Almazov

## Introduction

The question of whether religion fosters generosity has been subject to a great amount of debate in recent years (Sablosky, 2014). The concerns revolve largely around the quantitative evidence and its implications with either side using experimental support to justify their own claims on the extent to which the link exists. Within this broad topic is a narrower one concerning religious priming. A handful of studies have shown that priming individuals with certain religious words leads to an increase in prosocial behavior from subjects. The link is clear, but the explanation is not. Some argue that religious priming evokes an idea of some supernatural being watching, which makes one behave in a more prosocial manner (Shariff, 2007). Others believe that religious words are associated with generous behavior and thus encourage it (B. Randolph-Seng, 2008). To help resolve this question we seek to provide more evidence that may shed light on this topic. Religious priming experiments available in the literature currently have overlooked two elements: the effect of religious affiliation (not whether one identifies as religious, but rather what religious group one subscribes to) on one's susceptibility to religious priming, and the effect of religious words that are associated more frequently with non-Christian religions.

This paper takes a standard religious priming experiment and makes two modifications: first, religious words were sourced from an Islamic text, and second, the data was evaluated so as to account for the effects of religious affiliations. We hope our proposed experiment will provide much needed data which, depending on the outcome, will corroborate an existing hypothesis, or perhaps even suggest an alternative explanation. The outcome of this proposed experiment is difficult to predict with certainty but within this analysis we have explored multiple potential outcomes and their implications. Before we move on to the experiment, it is necessary to contextualize the debate with which this paper is concerned.

## Literature Review and Analysis

A considerable amount of research has been done regarding religious priming and prosocial behavior. In general, the relationship appears to be positive and suggests that religious primes lead to increased generosity. In the Ahmed & Salas (2010) experiment, subjects were primed using the “scrambled sentence task” (Srull & Wyer, 1979) whereby the individuals were given a set of five words (e.g. “food, tasty, cinema, was, the”) and were asked to eliminate one in order to form a coherent sentence (in this case: “the food was tasty”, eliminating “cinema”). The test subjects were divided into two groups where one was given neutral scrambled sentences whilst the other was exposed to a sentence with religious connotations, such as “she felt herself spiritual.” The subjects were then asked to play one round of a standard dictator game and one round of a standard prisoner’s dilemma. The results show that the religiously primed group was significantly more likely to donate a larger amount (average endowment was 25% greater than that of the control group) in the dictator game as well as cooperate in the prisoner’s dilemma when exposed to a religious prime (43.75% compared to control’s 26.79%).

Interestingly, the researchers have also looked at the implications of subjects’ religiousness, labeling subjects as religious or non-religious based on a self-report questionnaire administered after completion of the activity. Analysis of religious identification in conjunction with relative response to the religious primes revealed no relationship between an indi-

vidual's acceptance of religion and his or her prosocial behavior. Religious priming had the same impact on both believers and atheists. A point to draw attention to is the researchers' choice to include words with a broad religious connotation rather than selecting words from a specific religion for a specific meaning. Their chosen words were: "spiritual, divine, benediction, holy, Jerusalem, god, Jesus, and prophet."

Another study, conducted by Shariff & Norenzayan (2007), emphasized the religious words selected as part of their independent variable. The researchers in this study intentionally selected words relating to God such as "spirit, divine, God, sacred, and prophet." They used the same priming method as previously explored by Srull and Wyer, running an anonymous dictator game, also taking note of individuals' religious background. However, unlike Ahmed & Salas (2010), non-college students were also invited to partake in this study. In addition, the researchers created a secular-priming group, whereby words like "civic, jury, court, police, and contract," were used to prime the subjects. These words were selected due to their association with law, authority and justice. In this iteration of the study, the religiously primed subjects again gave away significantly more of their endowment to the "receiver" than members of the control group. However, the added group, primed with government and authority words, matched the increased donation of the religious group. It is interesting to note that while the non-religious college students were influenced by religious priming, the same influence was not present among the non-religious individuals who were not college students.

Although there are some points of contestation, such as the appropriate method of religious grouping of college students (Shariff & Norenzayan, 2007), in general there are no disagreements with the overall methodology and re-creation of the results seen in the two aforementioned studies. What the researchers generally find problematic is the justification behind human tendencies noticed in these studies. Why does religious priming lead to prosocial behavior? Three fundamental theories have been put forward to explain this phenomena. The first one posits that religious priming leads to an increased positive mood or an increased feeling of empathic concern, both of which have been shown to influence prosocial behavior (Schaller & Cialdini, 1990; Eisenberg & Miller, 1987). However, in a 2006 study, Shariff & Norenzayan sought to disprove this hypothe-

sis, by measuring self-reported positive affect and dispositional empathy following the priming task. This study concluded there was no evidence of increased levels of either of these emotions. The second hypothesis claims that religious priming arouses an imagined presence of supernatural watchers and that individuals tend to act more pro-socially when being watched (Shariff & Norenzayan, 2007). This justification is partially inspired by evidence showing that individuals are more likely to donate money or in general tend to act more pro-socially if they are exposed to something as simple as an image of a pair of eyes (Haley & Fessler, 2005; Bateson, Nettle, & Roberts, 2006). Both of these theories suggest that someone (or something) watching you is enough to influence generous behavior. The third hypothesis proposes that “priming” words (whether religious, secular-moral, or otherwise) that are mentally associated with prosocial perceptions and behavior, lead to such behavior due to an existing mental association (Randolph-Seng and Nielsen, 2007).

## Filling in the Gap

Our aim is to provide new evidence to further the discourse surrounding the relationship between religious priming and prosocial behavior. In order to do so, it is necessary to understand the gaps in knowledge and evidence. From our evaluation of present literature, it seems that there are two crucial elements that have been overlooked. First, the term ‘religious’ is used in a very broad sense. Authors in this area of study have not explicitly noted what they meant by this term and whether they aim to link their finding to a specific religion. However, looking more closely at the selected ‘religious’ words or texts used in these studies, several conclusions can be drawn. The terms referred to as ‘religious’ are words that bear moral connotations taken specifically from Christianity. As far as we know, there have not been similar experiments carried out in the Western world that prime subjects with religious words coming from Islamic, Judaic or other religious texts (nor have there been experiments that used religious words that don’t carry blatant moral connotations, e.g. sacramental bread, King Solomon, etc). Thus, one may wonder if the researchers in this field expect the same positive generosity response if the scrambled sentence task had words taken from other religions. Furthermore, looking at the three explanatory hypotheses mentioned earlier,

would their proponents assume that words taken from any religious text will have the same impact? Referring to the second hypothesis, it should not matter as long as an individual infers some supreme being is monitoring his or her actions. In relation to the first and third hypotheses, one may wonder whether any sort of religious text carries with it an association of empathic concerns or prosocial behavior. Would an American be implicitly primed to behave pro-socially by Hindu gods? Collecting evidence that answers this set of questions can help us figure out which of these theories most aptly explains the puzzle of religious priming.

Beyond this, another largely overlooked question is the religious affiliation of individuals being tested. While there have been plenty of studies showing that one's religious identity has no impact on his or her prosocial behavior, none have looked at how one's religious background impacts their exposure to priming. Despite the fact that both Ahmed (2010) and Shariff (2007) studies have counted up the number of Christian, Jewish, Muslim or Hindu believers that are part their religious groups. The only distinction that has been given substantial attention is the differentiation between the religious and the non-religious individuals. This dichotomy does not reveal any difference in generosity behavior between religious and non-religious adults in the presence of religious primes. In light of this, it would be naive to assume that individuals affiliated with different religions all behave in the same manner when exposed to religious words from only one specified religion. Thus, two elements within the literature of religious priming have been overlooked. The first is the implication of religious words taken from non-Christian religions. Second is the impact of religious affiliation on priming. We propose an experiment that explores these concerns.

## Proposed Experiment

### *Goal*

The goal of this study is to measure the effects of religious words associated with Islam on the generosity of individuals of several religious identities.

### *Subjects*

In order to ensure that geographic location or age do not confound the effects observed in this study, subjects will be selected from the same geographic location and will be of the same age group. One method of finding and recruiting subjects would be through advertising to college students across colleges in a specific city; however, this method will not be perfect as students would only represent a highly educated, cosmopolitan demographic. Additionally, the study will recruit members from four different religions including Islam, Christianity, Hinduism and Atheism. We will have subjects self-identify their religion and, if possible, control for factors such as level of religious identity and devotion. We hope to recruit subjects who are similarly involved in their religion, meaning they attend religious community events as well as perform religious practices at a similar rate. However, cultural differences in the extent to which one engages in religious practices must also be considered.

### *Method*

To assess the relative generosity of subjects across treatment groups, a modified dictator game, modeling the framework established by Bolton et al. (1998), will be used. Accounting for religious identity (Christian, Muslim, Hindu or Atheist), subjects will be randomly assigned into either the control or the exposure condition. This will lead to eight different experimental groups throughout the study.

In the control group, subjects are told that they have been randomly assigned the role of “dictator.” Before being presented with his or her decision-making assignment, the subject will be asked to descramble words using the Srull and Wyler task (Srull and Wyler 1979). The scrambled sentence task will involve asking participants to descramble words to make sentences. As mentioned earlier, one such example may be descrambling a set of words like “drink, ordered, a, tiger, she” into “She ordered a drink.” The words in the control condition, as in this example, are arbitrary and have nothing to do with religion or giving. After spending a couple minutes on this activity, subjects will be given ten dollars in tokens and be presented with the following instructions:

“You have been chosen as the dictator in this economic decision-making activity. You will be given 10 one-dollar coins. Your role is to take and keep as many of these coins as you would like, knowing that however many you leave, if any, will be given to the receiver subject to keep.”

Subjects will then be informed that no one will know the result of their decision except for the second player in the activity. This explicit information will be given with the hope that subjects will not consider any social implication implications within their allocation decisions following these directions.

Within the exposure condition, subjects will be given the same instruction as members of the control group, however, the words that subjects are given to unscramble will be related to Islam and its sacred text. Words in this condition will include phrases such as “Allah,” “hijab,” “Halal” and “prophet.” At this point, subjects will be asked to form a sentence in much the same way they would in the control condition. Members of the exposure condition will then be given their ten one-dollar tokens and asked in the same way as the control condition the amount they would like to assign to the “receiver.”

### *Experiment Results Hypothesis*

The data from this experiment can be understood in several ways leading to a two-fold hypothesis. First, comparison within the control condition allows insight into whether certain religious groups are more generous than other groups without priming a specific religion. We hope to provide clearer evidence for the claim that has been cited earlier: that no single religious group will show an inherent propensity towards generosity. We also hypothesize that there will be no average difference between the three religious groups and the non-religious group, corroborating Shariff’s (2007) and Ahmed’s (2010) findings.

The second variable within these tests is the extent to which each group is affected by the religious primes compared to the control primes at the start of the experiment. By priming individuals with words from their own religious text, we predict that Muslims will have the most immediate and direct response to the treatment condition. These words are from their

immediate spiritual text and will remind them the most of their religious values and faith inherent to their religious identity.

We then predict that members of the Christian faith would be moved by the text at a great amount and show the second largest deviation from their baseline mean and median. We attribute this belief to the similarity of Islam and Christianity in key doctrine, values and even figures. Additionally, Christians share with Muslims a monotheistic outlook, which will be directly evoked within the text presented to them. While we do expect to see a difference between the baseline and exposure conditions, we believe that Hindus will be minimally affected by the religious texts due to fundamental differences in the practice of religion. We do not predict that the individuals in this condition will be affected by the primes of a singular God in the same way that Jews and Christians would due to the polytheistic themes within the religion and practices.

Finally, we hypothesize no difference between the test and the control groups for people who do not practice any religion. Beyond that, it would be interesting to see if any group will be negatively affected by the exposure to Islamic words. Our reasons for such claim stem from the belief that Islamic ideas may bear some negative connotations in the present Western culture. If that is the case, then according to the first hypothesis discussed by Schaller, increased negative mood will lead to increased antisocial behavior (1990). Since our test subject pool is taken from a multicultural environment, it is more than reasonable to not expect any reactions of islamophobia, however, given how little research has been done on this question no outcome can be predicted with certainty.

### *Data Collection*

The average allocation (mean), mode and standard deviation across each of the eight groups will be measured. Additionally, we will make note of the number of non-zero allocations within each of the dictation decisions. Throughout the data collection process, it will be important to use a baseline set within the control condition for each of the religion variables. For example, if there is an initial difference in the average donation of a Muslim person compared to a Hindu person within the control, a failure to account for an alteration from the baseline could result in missed pattern

observation. Therefore, intra-group comparisons between the control and the test will be taken to understand and isolate the effects of the test within each of the groups.

## Discussion

The results of this experiment will lead to interesting insights into the generosity behavior amongst religious and non-religious individuals. Additionally, these tests can lead to a better understanding of whether any religious text primes respondents to act more generously as abstracted from previous experiments or whether a specific text is necessary for a specific religious group.

It is expected that religious identity will have no impact on one's levels of prosocial behavior in the control condition as demonstrated time and again, but none of the experiments so far have specifically looked at and compared individuals coming from one geographic location with concrete religious differences. Even if the results confirm the previously held argument, it is still more puzzling that religious affiliation has no impact on one's prosocial behavior. It is much more intuitive that the variation in practice, values and doctrine would manifest in different religious identities. Further research and theorizing into the lack of relation between religious background and generosity is necessary.

If religious people are no more generous than non-religious individuals, what can be said about the institutions that elevate themselves on virtues such as charity and equity? Additionally, if it is found that one religion in the baseline condition, on average, has a higher correlation with generous behavior than other religions, can that information then be used to argue that it is some specific doctrine in that religion that draws out this behavior? It can be inferred that individuals might self-select into a religion where they believe the people are more generous. Therefore, witnessing a more generous baseline for one group of people would not be enough to make a claim that a given religion causes more generous behavior.

The second portion of the experiment will reveal interesting information on the effects of Muslim religious words on generosity. Previous litera-

ture on religion and generosity poses broad statements on the positive effects of “religious text” on prosocial behavior. However, to what extent this claim can be generalized to non-western religions or words that are not traditionally associated with Christianity is unknown.

The extent to which individuals of non-Muslim religions are affected by Islamic primes is an interesting and complex discussion. The main question is whether individuals will think about “religion” or “Islam” when prompted with words associated with primes from Islamic texts. Will the evocation of religion through a religious prime have a greater effect in one religion over another? Will Christians be more generous than Hindus or vice versa when they think of their own identity within a religion?

On the other hand, will individuals think about the specific Islamic words being presented to them and think more specifically about the Muslim faith? In this case, a further question may be asked: whether individuals think about the extent to which their religious beliefs and identities align with the faith of Islam, or whether an individual is driven by his or her preconceived notions of Islam. If the latter is the case, then what are the general preconceptions of the Islamic faith in terms of the behavior that is derived from it?

It will be difficult to separate the degree to which individuals are primed by their own faith when confronted with specific religious information compared to their beliefs about the Muslim faith. We believe, however that Christians should be more prompted by Muslim words than are Hindus due to their religious similarity. The Muslim and Christian faith share a history of monotheistic belief and many of the same prophets. Results indicating otherwise might suggest some bias against the Muslim faith and could be some sort of an instinctual reaction against Islam.

If the subjects claiming to be non-religious are in fact unaffected by the priming, then the experiment further supports the evidence discovered in the second study of Shariff’s (2007) experiment. This conclusion draws a shadow on the “God is watching you” hypothesis, for it appears that invoking a supernatural idea of being observed does not have an effect on the non-religious. This begs the question: what criteria are necessary

to invoke the sense of being watched in an individual? It appears that the image of a superior being has no effect on the atheists, but what about the image of a government? What if the image is just as fabricated as the image of God? If the image of ghosts was enough to make people behave more honestly (Bering, McLeod, & Shackelford, 2005), then why does a Christian or a Muslim God not have the same effect?

The implications of the outcomes of our experiment are multifold, and though it remains clear that this means further studies will be needed to help explain any new correlations discovered, this paper proposes to advance the understanding of how religion informs behavior. The proposed experiment delves into questions which are yet to be explored and which have ample material that can illuminate the relationship between religious priming and prosocial behavior.

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