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VARIETIES OF RELIGIOUS PERCEPTION: A Q METHODOLOGICAL APPROACH
TO THE STUDY OF RELIGIOUS BELIEFS

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VARIETIES OF RELIGIOUS PERCEPTION: A Q METHODOLOGICAL APPROACH
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Abstract

Religion is at the heart of all cultures. Three of the most widely known religions are Christianity, Islam, and Judaism. To determine if differences exist, a Q-methodology study of religious beliefs was conducted. The experiment consisted of two parts: an extensive study and an intensive study. Experiment 1 involved participants completing a q-sort asking about personal religious beliefs. A FANOVA, a combination of Principle Components Analysis (PCA) and a Multivariate Analysis of Variance (MANOVA), was run. Two factors emerged: a religious factor and a nonreligious factor. The results for Factor 1 $F(3, 157) = 82.188$, $p < .001$, $\eta^2 = 0.661$, and Factor 2 were $F(3, 157) = 76.330$, $p < .001$, $\eta^2 = 0.593$; KMO = 0.822. The null hypothesis was rejected. Experiment 2 was conducted to analyze beliefs from prominent members of religions. A Catholic priest, a Muslim Imam, and a Jewish Rabbi completed an intensive sixteen-item q-sort. From the intensive study, three factors emerged in all participants: a religious factor, a parental factor, and a spiritual factor. These results show that religiosity differs from spirituality. Secondly, it suggests that parents have an overwhelming effect on religious beliefs. The results from both experiments suggest that the perception of religious beliefs is similar in all religions tested despite differences observed in the media.

Keywords: religion, psychology, Q-methodology, Christianity, Judaism, Islam, Atheism, comparative religion

Introduction

“God has made many doors opening into truth which He opens to all who knock upon them with hands of faith” Kahlil Gibran, *Secrets of the Heart*, p. 269

Worldwide, there are an estimated twenty-two major religions. To be considered a major religion, it must have at least 500,000 followers, must have members in more than one region of the world, and must clearly be a religion independent of others (*Major Religions of the World*, 2007; World Christian Database, 2004). These religions range from those that most people recognize, i.e. Christianity or Buddhism, to those that people may not know, such as Shinto, Japan, or Baha’i, Persia.

The largest group of religious people is those that can be grouped into Abrahamic religions. An estimate of the number of those who follow an Abrahamic religion is 3.6 billion (*Major Religions of the World*, 2007). The religions in this group are Christianity, Judaism, and Islam. The religions of this group are termed Abrahamic because each of these religions were founded and created by Abraham. This occurred when God, Allah, or Yahweh commanded Abraham to take his son to a mountain and kill him (*The Holy Bible*, 2006; *The Holy Qur’an*, 1934; *The Torah*, 1996).

Even though these religions are founded by one man and are siblings, they tend to see issues differently, especially Christianity. Christianity is the largest religious group in the world with roughly 2.1 billion members (*Major Religions of the World*, 2007). This subset of the Abrahamic group has its original source in Judaism. The Messiah of Christianity, Jesus Christ for whom it gets its name, was Jewish. The Christian bible, *The Holy Bible*, has two sections. The first is a collection of books pre-Jesus. These books are called The Old Testament. Five of these books are from the Jewish texts. The Old

Testament also describes the coming of the Messiah to save the world from damnation. The New Testament is about the life of Jesus and his teachings. These are the new teachings from which Christianity emerges (God Squad, Gellman, & Hartman, 2002; Lazarus & Sullivan, 2008).

Many Christians are prejudiced toward other religions and especially sexuality (Ford, Brignall, VanValey, Macaluso, 2009). These prejudices cause distress and hatred towards most of the people that are not members of Christianity. This prejudice towards others is not present in only Christians; it is present in other religions and in many Americans. The prejudices Christians hold are a hazard and detriment to other people and have caused wars and terrorist attacks. Possibilities of these prejudices are from non-education of other religions and especially other people. Adding education about other religions promotes tolerance and understanding of the other beliefs (Paluck, 2009).

The oldest of the Abrahamic religions is Judaism. Judaism essentially began when Abraham followed God's orders, as Abraham was titled the first Hebrew. The first possible grouping of Judaism would have begun when Moses led the Israelites out of Egypt. This process is known as the Exodus. After exiting Egypt, Moses and the Israelites wandered for many years. Jacob, appointed successor after Moses, then lead the Israelites to present day Israel where they settled and built temples and truly established religion (*The Holy Bible*, 2006). Moses was also the one that gave Jews their sacred texts, *The Torah*, of which Moses received on Mount Sinai. Even though Moses led the Israelites out of Egypt, he is not considered the Messiah of the religion, but an extremely important figure (1996). The Jewish people have not found their Messiah as of yet (Armstrong, 1997; God Squad, Gellman, & Hartman, 2002). For many centuries, the

Jewish people have been and still are persecuted and have fought discrimination and wars against many of the nations of the ancient and modern world.

Traditionally, there are three types of Jews: Orthodox, Reform, and Liberal. Each of these has a different level of tolerance of others. These types of Judaism are listed from the most traditional down to least traditional. Those who are Reform and Liberal are more accepting than Orthodox. The Reform and Liberal Jews accept homosexuals, whereas Orthodox Jews do not accept homosexuals (B. Cohen, personal communication, November 27, 2007). Many members of the Jewish faith also accept other religions as possibly being correct or having other ways to reach Yahweh and heaven (Lazarus & Sullivan, 2008).

The most recent of the Abrahamic religions is Islam. Islam, which means submission, is believed to have been founded originally with Adam in the Garden of Eden. From there, Muslims believe their religion has followed a succession of prophets with the religion coming to a whole when Abraham took his son to Mount Sinai. The last prophet of the religion, and perhaps their most important, is Muhammad, PBUH¹. He was the one who dictated and gave the Muslims their sacred book, *The Holy Qur'an*, and essentially started the religion, circa 600 CE. Muslims have beliefs equivalent to Christians, but Muslims have one major addition: they believe that all religions are correct and each religion has its own prophet whose job it is to lead them to Allah, the Muslim God (L. Hamad, personal communication, November 28, 2007). The evidence of this ascension is found in the *Qur'an*, Aal Imran 3:84.

The extremist Muslims seen on television are not true followers of Islam; they are the equivalent of Christianity's extremists. The number of extremist Muslims is roughly

¹ Peace Be Upon Him

10-15% of the entire population, which would be about 2.2 million people (L. Hamad, personal communication, November 28, 2007; Kopping, 2005). Many of the non-extremist Muslims disregard and do not like the extremist Muslims, which is equivalent to what Christians do with extremist Christians. Many Muslims are against the current situation of extremists, and have issued a fatwa against the extremists, published new decrees against the extremists, and staged public demonstrations against extremists (Gledhill, 2010).

The last major religious group is Atheist/Agnostic. Atheist/Agnostics have been grouped together for some time; however, it is very important to note two differences. One, they have different beliefs. Two, it is very probable that some religions group these two together because they were not in a religious group. Atheists believe there is no God, no Heaven, no Hell, Devil, etc. They have a complete belief in the nonexistence of deities of any sort, and recently have been grouped to be in a sect of scientists that are out to destroy religion. Those who are followers of Atheism, since it is not organized, on average tends to believe that there is a lack of evidence to support religion and the ideas of it (God Squad, Gellman, & Hartman, 2002; Lazarus & Sullivan, 2008).

Agnostics, who were quite different during early years of Christianity, believe there is a God, but one must consider all sources of evidence, such as the *Nag Hammadi*, which are not published in sacred texts. Agnostics today are different from ancient agnostics during biblical times. The term comes from *gnosis*, meaning knowledge (Lazarus & Sullivan, 2008). However, during biblical times, agnostics were more of a mystical group who believed in God, but were also seeking more knowledge. They could be considered similar to the Kabbalah sect of Judaism.

The study of religion scientifically declined for many years, and the only reason for this was the divorce of science and religion by the members of each. This divorce was the greatest mistake of scientific insight in the last century (Campbell, 1967). Perhaps one of the best-known documents in psychology about religion is by William James. James' book, *The Varieties of Religious Experience*, was a compilation of his lectures. This book not only discusses the implications of science and religion, but its main discourse comes down to religion and health. James discusses how those who have religion in their lives tend to have more happiness and are optimistic. He also says those who may not have religion tend to be depressed more often than those who are religious. This difference may be because they have a pessimistic view on life (James, 1902).

Recent articles in psychological-religious studies stem from religiosity and health to how religious individuals view themselves. The reasoning behind so many articles dealing with religiosity and health is that counselors are finding that if religion is added to treatment, their patients may recover faster or have a better outcome than those who do not practice a form of religion (Burris, Brechting, Salsman, & Carlson, 2009; Costanzo, Ryff, & Singer, 2009). Adding spirituality or religiosity to treatment plans is occurring more often, and it looks like it will continue and even increase (Cattich & Knudson-Martin, 2009).

Propst (1980) researched whether religious imagery used in treatment would help decrease depression found in participants. Using the Beck Depression Inventory (BDI) and a religiosity scale, the first step was to determine a level of depression and religiosity. For a treatment, the researchers used nonreligious imagery treatment for one group and religious imagery treatment for the second group. After treatment, the religious imagery

treatment group had a lower score on the BDI, as reported on a post-test, for patients of both low and high-level religious beliefs.

Cohen and Hill (2007) researched if religions were intrinsic or extrinsic and whether they were individualistic or collectivistic in nature. America is highly individualistic, but the researchers wanted to know if that also meant the religions practiced in America reflected the country's values or if they reflected the values of the religion. The researchers hypothesized Protestants and Catholics would be individualistic because they had a basis in America. They then hypothesized Jews would be collectivistic because of the camaraderie they held not only in their family but also among everyone. They believed this was partially due to how membership in a religion is claimed: by your belief or heredity. Traditionally, in Judaism one is Jewish if their mother was Jewish (Morris, 1997). This approach is in contrast to Christianity where one is a Christian if they accept Jesus or by belief. In the experiment, the researchers went to churches and synagogues with questionnaires consisting of a Likert scale and questions relating to life satisfaction, education, and various other aspects relating to individualism and collectivism. They found what they expected: Protestants were individualistic and the Jewish were collectivistic in beliefs. They related this finding to what they originally believed as well; Protestants held American individualistic beliefs while the Jewish held their old beliefs (Cohen & Hill, 2007).

The second part of the Cohen & Hill (2007) study investigated intrinsic and extrinsic religiosity among Jews, Protestants, and Catholics. They hypothesized that when primed to think in terms of religiousness, people would reveal they held an intrinsic view. In contrast, when primed to think of the social function of religion, they would

reveal they held an extrinsic view. The same method was used as in the previous study but with different questions. The results were what the researchers expected. From their research, they were able to show for the first time that American Jews and Catholics are collectivistic while Protestants are not. Their future directions lead to religious differences and cultural differences.

Part of the problem with studying religion is the overuse and overreliance of self-reports, surveys, and other measures that invite bias. With religious research being limited to either surveys or only psychological and physical health, empirically validated research that uses methods without bias is limited. However, there is one method for gathering data that allows for an individual's thoughts and feelings to be measured with little or no bias, Q-methodology. Stephenson (1953) developed Q-methodology; this methodology utilizes factor analysis and the process of Q-methodology involves sorting certain words or pictures in certain concourses such as Self or Preferred-Self. After a sort is complete, the position of the words sorted is correlated with other slides, such as Self x Preferred-Self, and the researcher can then calculate how similar one condition is to another.

Within Q-methodology, there are concepts and terminology that must be discussed and understood. The first is a "concourse." A concourse, as used by Stephenson (1953) is collection of statements, words, or pictures. The number of the items used in the concourse can vary greatly. The actual statements or words used in the concourse are, of course, important. However, what is more important are the feelings and meaning the participant thrusts into the concourse. Without the participants' meaning placed into the items in the concourse, the concourse is simply a random set of words lacking meaning.

This empirical rigor is one of the major strengths of Q-methodology. It allows an individual to place meaning and importance on something that otherwise would not have any; it could be likened to a Rorschach test where meaning is projected onto the card.

A second Stephensonian concept to understand is a “condition of instruction.” A condition of instruction is what the individual is sorting the concourse against; for example, the “self.” In this situation, an individual would use the concourse of a randomly generated word list to describe how they see themselves (Stephenson, 1953). Therefore, the condition of instruction is also similar to a Rorschach; the words placed, which already have projected meanings, are then placed according to a self-perception or a currently held meaning within the mind.

Within Q-methodology, there are two different courses of study, extensive and intensive. Extensive studies are what one normally finds within the field of psychology. Extensive studies are normally one condition of instruction with many words in the concourse. In extensive studies, many participants are utilized in order for a generalization to a population. Without these generalizations, many feel data may not matter (Stephenson, 1953, 1974). Intensive studies are keen on studying one individual. One individual will sort many different conditions of instruction with the same concourses. Intensive studies are the lesser known of studies as with studying one individual, a generalization to a population is usually not possible. However, it gives the possibility to learn more about the psyche than normally possible (Knight, Frederickson, & Martin, 1987; Stephenson, 1974).

In much research today, Q-methodology is used to compare self and ideal-self or, as in the case of political sciences, to determine an ideal politician (Kaniham & Kinsey,

1997; Knight, Frederickson & Martin, 1987). Research in Q-methodology has led to partners determining their mate and ideal mate. In Zetner (2005), the researcher used Q-methodology to determine if there were similarities between what partner someone has now compared to what the ideal partner would be of that person. The results from this study indicated there are differences in both sexes. For women, there is a positive correlation, but it can change depending on the time of month. For men, the correlation was also positive, but this was not dependent on any extraneous factors.

Q-methodology has also been tested to determine if the understanding of words has any effect on the outcome and data. When tested, participants were able to have the same outcome when sorting data using Hopi Indian words compared to using regular words (Sanders, 1997). The results from this study show that the concourse or even the conditions of instruction in Q-methodology do not truly matter. What matters is how the participant projects his or her feelings into the words chosen in the sorting processes.

Within q-methodological and factor analytic studies, there are some examinations of religion. Spilka and Reynolds (1965) used factor analysis to study religion, specifically peoples' concept of God, in humans that are religious prejudiced versus non-religious prejudiced. They hypothesized that those who are prejudiced would view God as someone who was harsh and non-human, and those who are not prejudiced or against prejudice would see God as humane and warm. The study had a major fault, as the only participants were Catholic females. The researchers believed this potential confound was why no significance was found in any factor or in the entire study. Using a Catholic worldview was detrimental to the study and its results.

Spilka, Armatas, and Nussbaum (1964) studied the concept of God using a q-sort was used along with factor analysis in order to determine how humans describe God. Again, the researchers used only Catholic girls, but this time paired that population with a random sample of undergraduates. The Catholic girls were used in the study as a “very” religious sample. The major factor for this very religious group was a wrathful-damning God, potentially what one would find in a study of how many Catholics would view God. In fact, the majority of the factors that emerged suggested a view of God as cruel and damning, with only a few people viewing God favorably. From other undergraduates the major factor that emerged suggested a comforting and considerate God. In the factors created by the undergraduates, the majority were found to be peaceful and nice, with only one factor showing a mean and brutal God. Again, Spilka et al. (1964) recommends using different groups of religious peoples to study God.

Gorsuch (1968) used a form of Q-methodology and factor analysis to determine how people rate God using adjectives, using Spilka et al. (1964) as a base for their study. Several factors emerged, most notably, a factor with high loading adjectives many Christians such as, “absolute” and “all-wise.” Next, there was benevolent deity and companionable. Gorsuch (1968) further hypothesized that Christians would continue to load on the first factor, while Atheists would load on the benevolent deity factor. The final major factor, companionable, would most likely have Christian loadings as well, but could be mixed with the other Abrahamic faiths if tested further.

Nelson and Jones (1957) used Q-methodology to determine religious concepts, mainly what is the concept of God in comparison to Jesus, Mother, and Father. The researchers found that the closest correlation in the comparisons was between God and

Jesus, with no surprise. The results for that instance were above the 1% confidence interval. Mother and Father were not significant in results; however, the most common result found was a negative correlation. The authors concluded that Q-methodology would be a great tool for the further study of religious concepts.

Broen (1957) somewhat brought other studies together to research religion using Q-methodology. In this study, which was a dissertation and written into an article, Broen used Q-methodology to determine how religions are built, that is, what their beliefs are. As he states, his results are contrary to other studies. His results show that religious beliefs are multidimensional. This finding suggests that there are subtle differences among all of the Christian denominations. He also states that there could be some fault in the study as to differences in his study versus others, mainly that his participants would be rated lower on a religiosity scale. Two main factors were discovered: "Nearness of God" and "Fundamentalism-Humanitarianism." Using these two factors, Broen has since created a religiosity scale using loadings on each factor. It was found that Lutherans and denominations that are stricter loaded on factor two while more liberal denominations loaded on factor one. Broen states that it would be best to analyze multiple religions using Q-methodology to determine what other religions' beliefs are. Within the realm of empirically based studies of psychology and religion, this study encapsulates the majority of other studies.

Campbell (1967) noted that cultures are born from religion. When a new religion is added to a culture, the culture will usually change slightly to accept this new religion. When this occurs, differences in religious beliefs and old-culture are obvious. When these differences become visible, prejudice occurs. Prejudice occurs because of a lack of

knowledge of the new culture or religion and because many people do not like change (Donnellan & Lucas, 2008; Poropat, 2009). When prejudice starts to appear, the views of other religions begin to change as well. These views are often distorted; people do not realize what the other religion truly believes. Stereotypes are then created for other religions; humans then trust in these stereotypes.

The stereotypes become so prevalent that almost nothing will change them. This resistance is especially true among Christians. Arguably, Christians have refused to believe they are similar to other religions, even other Abrahamic religions. This sense of uniqueness can be due to recent terrorist attacks, but most of this prejudice is due to the lack of education and knowledge of the other religions (Cohen & Rozin, 2001; Poropat, 2009). In contrast, Muslims are commanded by Allah to respect other religions and accept prophets in other religions as possibly correct. Judaism also tends to accept other religions because of old and ancient beliefs held within their culture (Armstrong, 1997). However different they may claim to be, or perceive to be, they are all still born of the same father.

This experiment is not studying stereotypes of religion; rather, perception of one's own religion is the subject of study. This experiment aims at discovering if religious beliefs within the Abrahamic faiths are similar or different, as many see them to be different. Upon completion of the experiment, there is hope that people will realize similarities instead of differences and create some harmony among all the humans on Earth (Sherif, Harvey, White, Hood, & Sherif, 1954). What is being studied is how each religion sees itself; second, are all of the beliefs similar, and finally, in its more abstract form, can this information be used to influence other followers? From the main

experiment, a second experiment was also conducted. This second experiment takes on the intensive part of Q-methodology.

As previously stated, in an intensive Q-methodological experiment, one participant takes multiple q-sorts in order to determine what factors could be found in a sort, an exploratory factor analysis (EFA). Reasons for a second experiment are twofold: 1) the understanding of a religion cannot be found from a random assortment of its followers. It can, however, be better understood from the perspective of a leader or teacher from the religion. 2) The depth of religious attitudes in our nation today stretch far and wide. When given the possibility to gather data from four teachers of the top religions in America, it gives an gain an understanding of people's perceptions of other religions normally not attainable. Thurstone (1947) says,

“In factorial investigation it is not of any consequence whether any of the groups of experiment subjects are representative of a general population. The important consideration is that the experimental subjects should vary among themselves as much as possible within the domain that is being investigated” (p. 471).

From an extensive review of the literature about religion and its history, and through the recent publications in religious studies, it is apparent that religion seems to be everywhere. What can also be discovered is a common ground not only among all religions, but also more specifically among the three Abrahamic religions. The three Abrahamic religions have the same father and same laws. Therefore, it is hypothesized that there is a significant difference in perceptions between Abrahamic religions and those following Atheist/Agnostic traditions. It is further hypothesized that there is no significant difference in religious beliefs among the three Abrahamic religions meaning,

their religious beliefs are similar; however, the same difference will still be shown between the religions and non-religious.

Method for Experiment 1

Participants

The majority of the participants were freshman at the University of Central Oklahoma who were participating in an experiment for the fulfillment of course requirements (n=159). Two participants were from an outside source, places of worship, one Muslim and one Jew. The total participants for the study equaled 161. When broken down by gender, 67.1% were females (n=108), 32.9% were males (n=53). The ethnicities for the participants are Caucasian 74.5%, African-American 6.8%, Hispanic/Latino 5.6%, Asian-American 3.7%, American-Indian 3.7%, Asian 3.1%, Middle Eastern 1.2%, and Other 1.2%. The average age for the participants was 21.75. The age range was from 18-58. It should be noted that the level of highest education completed ranged from high school graduate to those currently enrolled in graduate school. For experiment one, none of the participants were in a level above graduate school or had completed graduate school.

Roughly half of the participants were high school graduates, all were freshmen enrolled in college, 50.9%. The next highest, 42.2%, were those who had completed two years of college, classified as juniors or seniors. Those who had a college degree but coming back for a second comprised 4.3%. A few were in graduate school, comprising only 1.9%. Finally, one participant did not answer the question of highest level of education completed comprising 0.6% of the total data for education completed.

Political party was also asked for in the survey for some data comparisons: Democrat 34.2%, Republican 31.7%, None 19.9%, Independent 12.4%, and Other 1.9%. The results from the political party affiliation are contrary to the widely held popular belief that Oklahoma is a very large Republican state with the majority of its residents being Republican. However, it should be noted that, as previously stated, the sample is a majority of university students, primarily freshman.

Relationship status was also asked for, participant responses varied. The most common relationship status among the participants was single, which was at 75.2%. Married participants were the next highest at 10.6%, engaged 7.5%, other 5%, divorced 1.2%, and widowed/widower 0.6%. The participants who defined themselves as other indicated they were currently in a relationship, such as boyfriend/girlfriend or currently dating.

For the experiment, the religious beliefs are as follows, Christian 75.2% (n=121); Other 22.4% (n=36); Jewish 1.9% (n=3), and Muslim 0.6% (n=1). The religious beliefs in the experiment were nearly identical to the Pew Study, which found 78.4% Christian, 16.1% Other, 1.7% Jewish, and 0.6% Muslim (Pew Forum on Religion & Public Life, 2008). The religious beliefs are also close to the data found by the U.S. Census Statistical Abstracts: 80.1% Christian, 19.7% Other, 1.2% Jewish, and 0.6% Muslim (U.S. Census Bureau, 2010). The religious beliefs of the participants in the experiment are near identical to those of Oklahoma and the United States, which shows a stratified sample for both. All participants were treated fairly and according to the ethics guidelines as published by the American Psychological Association (American Psychological Association, 2001).

Materials

Materials for the experiment consisted of two q-sorts created by the researcher and the Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccaccini, 1997). The first q-sort page, which was the front page for all participants, consisted of a thirty-six item q-sort with all items consisting of randomly selected words. The first condition of instruction that the participant was to sort the words against was “Self.” This condition allowed for a q-sort with the intention of allowing the participant to become used to filling out q-sorts and understanding the process. Data from the first page was not analyzed. The second page, which data was collected and analyzed from, consisted of thirty-six religious statements, nine from each of the religions being tested; Christianity, Judaism, Islam and Atheism/Agnosticism. The religious statements that were used were chosen because of the link they shared with their religious belief. The statements were taken from pamphlets over the religion, interviews from teachers of the faith, and informational websites sponsored by the belief. The second condition of instruction against which participants sorted was “My Personal Religious Beliefs.”

The Santa Clara Strength of Religious Faith Questionnaire was chosen among all other religiosity questionnaires due to the repeated validation of the questionnaire (Lewis, Shevlin, McGuckin, & Navrátil, 2001; Sherman, Plante, Simonton, Adams, Burris, & Harbison, 1999; Sherman, Simonton, Adams, Latif, Plante, Burns, & Poling, 2001) but also that a shorter version was created which holds as much validity as the full version (Plante, Vallaeys, Sherman, & Wallston, 2002). The first and longer version of the questionnaire consists of ten questions rated on a scale of 1-4. The scale from 1-4 ranges from strongly disagree to strongly agree. The shorter scale consists of five questions to

rate using the scale. The difference between the two was minimal, but the decision was made to use the normal scale. Q-sorts can be found in Appendices C & D (pages 62 & 63), and the Santa Clara Strength of Religious Faith Questionnaire is in Appendix B (page 61).

Procedure

All data collection was completed in the room 309 of the education building on campus at the University of Central Oklahoma. Participants were seated randomly at tables in the room; their identities were not known through the duration of the experiment. Upon arrival of all participants, a sign-in sheet was passed around for all participants to initial next to their names. Next, all participants read and signed an informed consent form with the researcher. After completion and collection of the forms, the experiment began. It should be noted that no late arrivals were allowed into the room for the experiment, as it would have disrupted the processes.

All participants were handed a packet for the experiment. The packet consisted of three pages. The first two pages were q-sorts for the participant to complete, and the final page was a short survey for demographics and the Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccaccini, 1997). The contents of these can be found in Appendices A-C (page 60-62). After all packets were passed out, instructions were read to the participant. The instructions described what a q-sort was and how to complete one, with an example shown on a screen. The participants were then allowed to begin filling out the pages for the experiment. The entire experiment took about 20-25 minutes for the majority of the participants to complete, with a few completing the experiment at a

quicker rate, 10 minutes, and some participants completing the q-sort in a much longer time period, 40 minutes.

Data analysis

Analysis of the data consisted of FANOVA, developed by Frederickson & Knight (no year). FANOVA consists of utilizing Principle Components Analysis (PCA) with a 2 x 2 BW ANOVA; in essence, it is a factor analysis combined with a MANOVA (Frederickson, Knight, & Goldman, 1999; Mather & Knight, 2007). The factor extraction method was Principle Components Analysis with Varimax rotation. The number of factors to extract was forced to two factors due to the nature of the hypothesis, specifically, that there is no difference among religions, but there is a difference between Abrahamic religions and all others, Atheist/Agnostics. Factor scores were saved as Anderson-Rubin variables for MANOVA analysis. There was no factor score suppression used; suppression of the scores would have hindered the results of determining the factors for this part of the experiment.

Results

Results of experiment one supported the hypothesis there is a difference between Abrahamic religions and those that are Atheist/Agnostic or other. The second hypothesis that the three Abrahamic religions are similar in beliefs and ideals was also supported. Analysis of the data yielded two factors, with suppression. Eigenvalues for the two factors are as follows Factor 1, 62.1 and Factor 2, 16.6. Factor 1 was determined to be the Religious factor while Factor 2 was the Nonreligious or Secular factor.

From the Anderson-Rubin variables, a Fisher's Z transformation, sometimes referred to as r' , was used for the ability to use the correlative variables in a MANOVA.

The formula used for transformation was $r' = (0.5) \log_e[(1+r)/(1-r)]$ (Howell, 2007; Mather & Knight, 2007). From the transformed variables, a first analysis of Abrahamic to all else was conducted using a 2 x 2 BW ANOVA in order to determine if there was a significant statistical difference; $F(1, 159) = 229.38, p < .001, \eta^2 = .591$, all assumptions were met. From these results, the null hypothesis of there is no significant difference between religious beliefs and nonreligious beliefs was rejected.

To further determine differences among the religious beliefs, a MANOVA was run. In this design, the two factors were run against the four possible religious types, Christian, Jewish, Muslim, or Other. The null hypothesis of there is no significant equality among the three Abrahamic religions was tested. The results for Factor 1 $F(3, 157) = 82.188, p < .001, \eta^2 = 0.661$, and Factor 2 were $F(3, 157) = 76.330, p < .001, \eta^2 = 0.593$; KMO = 0.822, with all assumptions met. Therefore, the null hypothesis was again rejected. In pairwise comparisons, it was further found there is no significant difference among the three Abrahamic religions, these results can be found in *Table 1* (page 72). The results of the pairwise comparisons can be seen in the following figure.

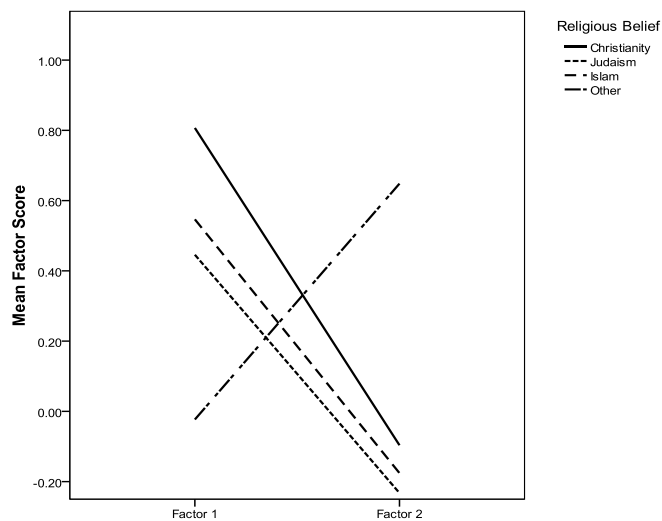


Figure 1. Line graph displaying religious belief loadings on the two factors.

Level of religiosity versus the factor loadings was what one would expect, high religiosity was found on Factor 1 and low religiosity was found on Factor 2. Significant difference between high and low religiosity was found, $F(1,159) = 101.50, p < .001, \eta^2 = 0.392$. The figure showing religiosity can be found on *Figure 2* (pages 82). Political affiliation, ethnicity, highest level of education, sex, and relationship status results can be found in *Figures 3-7* (pages 83-87), statistical significance was not found in these groups, but the graphs show similar loadings for the majority of the groups.

As previously stated, two factors were forced. Factor 1 was determined to be a religious factor and Factor 2 was determined to be a secular factor. This was determined through an analysis of the two factors by looking at the words that loaded highest and lowest on each factor. For the religious factor, *God is love; There is but one God; What is hateful unto you, don't do to others; Salvation is by grace; God knows the thoughts of me; and Everyone will be judged in the end* were the highest loading factors. The factor loading was cut-off at 1.0. The lowest ratings for this factor were *God had no son; God is unfair; I feel abandoned by God; I don't know if God exists; Man creates God; Death is the end; and Reject religious ideas if it conflicts with science*. Again, the factor loadings were cut-off at 1.0.

For Factor 2, the highest loadings were *Hypocrisy is common in religion; What is hateful to you, don't do unto others; I must take care of nature; I don't know if God exists; Man creates God; and All religions and beliefs are man-made*. The lowest loadings were *My religion is perfect and absolute; Baptism is the only way to reach Heaven; and The Messiah will come*. Factor loadings were cut-off at 1.0. A full listing of the factor loadings may be found in *Table 2* (pages 73).

Discussion

As stated in the results, the outcome of the experiment was expected. The results show that the three Abrahamic religions are different from Atheist/Agnostics. They further show that within the Abrahamic religions, the beliefs are similar. So, what does this all mean? Does this mean that the Abrahamic religions are all the same, or are they still different? Within this section, these and other questions will be answered.

Factor 1

The first step is to analyze the results, that is, describe what this means without all of the numbers. Factor 1 was deemed the religious factor, or the factor that those who belong to an Abrahamic religion, Christianity, Judaism, or Islam, load on. The highest loading phrase in this factor was *God is love*. This is perhaps one of the most fundamental aspects in Christianity. There is even a biblical phrase that says this (1 John 4:8). It is easy to understand why Christians would load with this phrase. However, the phrase is not found in *The Torah* or the *Holy Qur'an*. Within each of these sacred books, various phrases exhibit similar qualities such as God is Love. For example, in Surah 11:90, “the Loving One” is referred to in the *Holy Qur'an*. In the *Torah*, God, or Yahweh is referred as loving and kind. The reason that the other two religious groups loaded on this factor would be due to other similarities within the experiment, that they too believe God is love.

The next highest factor is simple to explain; *there is but one God*. The three Abrahamic religions are monotheistic; they follow one God. To think otherwise is blasphemy against their God. There is a commandment in each sacred text that reads

something along the lines of “I am above all other Gods” meaning that no other deity shall be worshipped or followed.

The next loading was found to load on both Factor 1 and Factor 2, *What is hateful to you, don't do unto others*. This is the Golden Rule, but rephrased. It is simply to understand why everyone would have this phrase loading within their belief as it is simply humanity to believe that if you are hated, you should not hate.

The next three highest loadings, *Salvation is by grace, God knows my thoughts,* and *everyone will be judged in the end* are fundamental basics of each of the three Abrahamic religions. Within each religion, there is a belief that only God, the deity, can save you and bring you to Paradise. Your deeds on Earth do not influence or change your chance of getting to Paradise; the only thing that can take you to Paradise is God's grace.

With God knowing one's thoughts, it is said within the *Bible* that thinking of a sin is committing a sin, which could lead one to think, why not just go ahead and commit it (G. Rupp, personal communication, December 1, 2009)? Well, with God knowing one's thoughts, it is also known if one is sorry and asks for forgiveness, and this leads to the redemption and receiving God's grace.

Finally, being judged in the end is a major part of many religions (Lazarus & Sullivan, 2008). Being judged has been described from placing one's heart on a scale and seeing if it outweighs the bad to having God determine if your deeds have been good and you have accepted Him as the one and only God. This is where it can get a little tricky in Christianity. Deeds are weighed out against a person, but what is more important is if this person has accepted Jesus, who is also God, as their savior. The more important aspect is accepting Jesus, but it is also important that you have treated others kindly. If one is

found to be good and have done things correctly, they are ushered into Paradise. If, however, they have not done anything correctly, according to the scriptures, they will be cast into a fiery lake.

Now, it is essential to describe the phrases that do not load with the three Abrahamic religions. The one phrase that is the most opposite of those who load on Factor 1 is *God had no son*. Now, within Christianity and Islam, there is a belief that God had a son, Jesus. Yes, both religions believe this. Islam, however, believes that Mohammed, PBUH, was the final and perfect prophet. Judaism believes in Jesus, but not necessarily that he was a savior or God's son (Lazarus & Sullivan, 2008). Another reason that this would have loaded with Islam and Judaism is that the Christians vastly outnumbered these other two religions, but it was stratified sample.

Next, *God is unfair* loaded as not with their faiths. This is an interesting phrase to discuss. Many people, Christians included, feel that life is unfair or God is unfair, at times. This is the important part here, *at times*. Even though they believe that times may be hard and He could be testing you, God is fair and just throughout life. A God that is unjust and unfair, does not fit within the sacred texts as God always helps and protects those who follow Him and worship Him, this fits with the just world hypothesis; if you are bad, bad things will happen. If you are good, good things will happen (Lerner & Miller, 1978).

The next loadings, all five of them, coincide with their currently held religious beliefs not being correct, so it is easy to understand why they would not load as descriptors of their religion. *I feel abandoned by God, I don't know if God exists, Man creates God, Death is the end, and Reject religious ideas if it conflicts with science*. All

of these phrases were originally chosen as phrases to describe Atheism, so, simply put, these phrases are the most opposite of the three Abrahamic religions.

Factor 2

Factor 2 holds the “other” group. Within this group are Atheist/Agnostics, and those who do not specify or belong to any religion or currently held belief. The highest loading factor for this group is *Hypocrisy is common in religion*. This can be understood with a recent example. Pat Robertson, who is a self-described Christian, said that Haiti deserved the earthquake; it received justice (Goldman, 2010). In an interview with the Atheist used in experiment two, it was discovered that people like this are the reason he is an Atheist, as he described it, “these two-faced bastards” (Atheist, personal communication, January, 25, 2010).

Next, only one other phrase loads on Factor 1; *what is hateful to you, don't do unto others*. This phrase was already described, and in the aspect of this group, it means what it says; treat everyone nicely and you reap what you sow.

The next phrase is an interesting phrase; *I must take care of nature*. This phrase can almost go hand-in-hand with the above phrase. We live on Earth, and she, Mother that is, takes care of us and has for many millennia. Therefore, we should take care of her. Within the experiment, there were some spiritualists or Wiccans, who agreed with the above paraphrase.

The next three phrases, *I don't know if God exists*, *Man creates God*, and *All religions are beliefs are man-made*, all describe Atheism in a nutshell. The Atheists as a group assume God does not exist. God, they tend to argue, is a creation of man; religion in this frame is a coping mechanism, or much as Freud thought, religiosity was a neurosis

(Freud, 1927). Finally, this phrase— all religions and beliefs are man-made— is nearly identical to the Man creates God statement; it just encapsulates everything left out.

The phrases that do not load on Factor 2 are simply to explain. The first, *My religion is perfect and absolute*. Obviously, Atheists are not in a religion; therefore, it cannot be perfect and absolute. However, it could be, and has been, argued that Atheism is a religion; in fact, some groups often meet together to discuss how much they hate God (Lazarus & Sullivan, 2008). If following that thought, it is interesting to think Atheists do not believe their thought to be perfect. It is interesting to note here that many of the Atheists had a high religiosity rating, and this is due to how the religiosity scale was composed.

The next phrase is taken directly from Christian theology; *Baptism is the only way to reach Heaven*. Now, Atheists could have rejected this phrase based on two parts, either the belief in Baptism or the belief in Heaven. Neither of these are believed by Atheists; after death is just a dark void (God Squad, Gellman, & Hartman, 2002). therefore, there is no reason for an Atheist to be baptized.

The next three are also parts of the three Abrahamic religions; *The Messiah will come, I must confess sin to gain eternal life, and All people are from Adam*. The first can be described in two ways. First, those in the Jewish faith have not received their Messiah yet, so it can fit here. Second, it could refer to the end times Messiah. At the end times, the Messiah will return to save humanity from the Anti-Christ (Kubier, 2007). Both of these reasons involve religion, and thus require an Atheist to negate them.

Confessing sin is part of religion; it acknowledges that one is sorry and asks for forgiveness. In fact, Catholicism has a confessional where the followers go to tell the

priest what they have done wrong (Cahill, 1996). In return, the sinner is told to perform some action, i.e. Hail Mary, so many times. This idea, obviously, goes against the idea of Atheism.

Finally, *All people are from Adam*. Well, if you know an Atheist, and chances are good that everyone knows at least one Atheist, they tend to strongly believe in evolution. There is no chance that all of humanity descended from one man and one woman. Nevertheless, humankind could not have come from one individual. Evolution versus religions is an entire different debate. However, personally, I agree with *South Park*. In the episode that discusses exactly what this thesis is over, that is, that all religions are similar although they just have different names, the plot reveals that there is no reason to go to war over a name. There is one specific quote from Stan that fits this debate, “Can’t evolution be the answer to how and religion the answer to why?” (Parker & Stone, 1997).

To ask what does this all mean is a tough question for any researcher to answer, especially within this experimental context. The results of this experiment show that the religious beliefs within the three Abrahamic religions are equal. This means that these three religions are all equal in crucial thoughts and beliefs. However, it does not mean they are the same. This subtle difference is an important concept to realize. These religions, no matter how different or similar they appear, will never be experienced exactly the same way for all people.

Method for Experiment 2

Participants

Following in the stead of experiment one, this experiment used one member of each of the Abrahamic religions and one Atheist. For the experiment, a Catholic Priest, a Muslim Imam, a Jewish Rabbi, and an Atheist were used. The participants for this experiment were chosen due to their leadership roles within their respective beliefs. These leaders were first contacted through the Interfaith Alliance of Oklahoma City. This organization, which stems from a national organization, believes that it is important to work together with all religions to battle against extremist factions. They also believe it is important to work towards religious freedom and tolerance (Rev. J. Hamilton, personal communication, December 17, 2009).

The ethnicities of the participants were three Caucasian and one Middle-Eastern. The Middle Easterner was the Imam, while the others were Caucasian. All participants in the experiment were male. All of the participants were also highly educated having completed some form of a graduate school. The ages of the participants did not vary widely; the Priest was 58, the Imam was 60, the Rabbi 55 and the Atheist was 45. Political affiliation was also asked for, and all participants in this experiment self-identified as Democrat. For relationship status, the only participant that was not married was the Catholic Priest, and in Catholic priesthood, the priests are to be celibate because of tradition from St. Peter, who was not celibate.

Materials

For the intensive study, a sixteen-item q-sort with eighteen conditions was used. The conditions used for the study were Self, Preferred Self, Man, Woman, Jesus,

Mohammed PBUH, Moses, Satan, Buddha, Joseph Smith, God, Religiosity, Spirituality, Savior, Trinity, Ideal Leader, Ideal Father, and Ideal Mother. A list of the words used for each condition remained the same throughout the study. These words, along with a copy of the intensive q-sort slides, can be found in Appendix D (page 63-71).

A sixteen-item q-sort may seem like an unlikely choice number in q-sorts. However, when actually participating in intensive q-sorts, participants often find it difficult to finish when there are more than about five q-sorts to fill out. Therefore, after much consideration, and to avoid a fatigue in participants, the q-sorts were limited to sixteen items. It should be noted that when doing an intensive study, many times researchers use many more words. However, Professor Brown, a direct student of William Stephenson, stated that you could limit the number of items down to as few as you would like. There would be no statistical significance in difference of long versus short q-sorts. The only difference would be a growth or lack of power in results (S. Brown, personal communication, February 21, 2010). Therefore, limiting the number of words to be sorted to sixteen would not have an adverse effect on the data.

To determine what words would be used for this study, a survey was conducted with undergraduate psychology students. In this survey, the participants were asked for ten words that described religion and ten words that did not. Out of all twenty-two participants, the words with the highest frequency were chosen to be used. The same survey used in experiment one was used in this experiment as well.

Procedure

Data for this experiment was collected at the respective places of worship for the Priest, Imam, and Rabbi. The data for the Atheist was collected at the University of

Central Oklahoma in the education building, room 309. The reason for data collection at the places of worship was by completing the experiment in a place that is 1) familiar and 2) more influential of beliefs, that a stronger effect would be observed. This is similar to state-dependent and mood-dependent learning. When in a place that is familiar and more homely, the leaders and teachers of the religions would be able to recall past experiences and have more of an influencing judgment when completing the q-sort (Lewis & Williams, 1989; Weingartner, Miller, & Murphy, 1977). It was also too hard for them to try to make it to UCO for the experiment. The Atheist completed the q-sort on the campus of UCO for ease of the participant. He also believed in science strongly and suggested that he complete the experiment where he felt his beliefs were strongest.

Before beginning the experiment, participants were briefed over the experiment and what it was testing for, how they view religion and various aspects of religion. The participants were also given a consent form to read and sign. After the brief and consent form, instructions for the experiment were then read to the participant so they would know how to complete the q-sort. The time to complete the intensive q-sort averaged to about thirty minutes. After completion of the intensive q-sort, a few demographic questions were asked, including age, political party affiliation, and ethnicity. After the experiment was completed for each participant and factor analysis was completed, a follow up interview was conducted with each participant in order to help in determination of factors. The follow up interview was conducted through email for all participants due to some scheduling conflicts.

Data analysis

Analysis for experiment two consisted of principal components analysis (PCA) with Varimax rotation. This analysis consisted of not forcing a certain number of factors, but allowing factors that hold an Eigenvalue of 1.0 to emerge. This approach allows any number of factors with some significance to show; therefore, it allowed for the factors from the religious teachers to emerge from their q-sorts. Factor score suppression was used in order to limit the number of factor loadings on each factor; this allowed for a better analysis into what each factor is. The factor suppression was set at 0.5. Factor scores were saved as Anderson-Rubin variables.

Results

Catholic Priest

The first individual to be discussed within the second experiment is the Catholic priest. From the q-sorts, three factors emerged. As previously stated, the factors were not forced to three, but as long as the Eigenvalues were above 1.0, the factors would be allowed. The Eigenvalues for the factors are as follows; Factor 1, 13.2; Factor 2, 1.62; and Factor 3, 1.14. By allowing the factors to emerge without constraint, 88.654% of the variance was explained through these three factors.

The first factor, Christianity, is thought to be centered on his religious beliefs due to the highest factor loadings being associated with Christianity; Trinity, 0.879; Woman, 0.868; Savior, 0.865; and God, 0.862. Jesus also loads on this factor, at 0.767. Satan loads on this factor as well, but at a negatively, -0.873. It is thought that in the sense of Woman, two ideal Christian figures emerge, the Virgin Mary and Eve from the Garden of Eden. Both of these women help to explain why Woman has a high loading on the first

factor. Within the first factor, the highest loading words are Loving, Kind and Generous, the main ideas behind Christianity. There is only one word that had a significant loading on not loading with this factor, Malevolent, and one would not expect a priest to think the idea behind Christianity is Malevolent. Factor loadings for the words in Experiment 2 were cut off at 0.9 instead of 1.0 because of the limited number of words choices sorted.

Factor 2, is thought to be a spirituality factor, has Joseph Smith, 0.893, as the highest loading religious image. Moses, 0.838; and Mohammed, 0.808; follow in this factor. Now, these may not seem to be associated with spirituality, but the idea of spirituality loads on this factor, 0.681, and of course, it is not the reason that it was deemed the spiritual factor. What made the deciding factor were the words that loaded on the factor as the highest-ranking word choices, Spiritual and Virtuous. These words are commonly associated with the idea of spirituality. Words that are not associated with this factor are Aggressive, Barbaric, & Malevolent; what you would not expect spiritual to be.

The final factor was a bit of a challenge to decipher. It should be noted that there are two possibilities for this factor. One, it could be the Human factor. Two, it could just be left over variance that was able to be placed into one group. Without the third factor, 74.542% of the variance was explained, which is still a significant amount of variance. Therefore, either the third factor is related to humanity or both the computer and I are trying to make shit shine. The only conditions loading on the first factor are Man, 0.876; Preferred Self, 0.582; and Buddha, 0.526. Words associated with this factor are Aggressive, Honest, and Virtuous. Words not associated with the final factor are Judgmental and Deceptive. After reviewing these results, it is hard to analyze and

determine the third factor. The factor loadings for the Catholic priest can be found on pages 74 and 75.

Jewish Rabbi

The factor analysis for the Rabbi resulted in three factors emerging. The Eigenvalues for the factors are as follows; Factor 1, 12.4; Factor 2, 1.83; and Factor 3 1.21. From the factor analysis, the three factors explain 85.567% of the variance.

The first factor is thought to be a Parental/Loving factor. The factor loadings for this factor are Trinity, 0.875; Woman, 0.857; Savior, 0.855; Ideal Mother, 0.805; God, 0.803; Self, 0.687; Ideal Leader, 0.641; and Ideal Father, 0.569. There was one loading which had a negative loading for the first factor, Satan, -0.766. Three words characterize the first factor, again above 0.9; loving, generous, and kind. The only word not loading positively is Malevolent. The main reason this factor is thought to be a Parental/Loving factor was the major loadings of both Ideal Mother and Ideal Father. In the Jewish community, much emphasis is put on the parents of the family for their respect and honor (Rabbi, personal communication, January 28, 2010). A second reason is the words loadings, which the Rabbi stated he felt most explained what love is, and what his parents are.

The second factor is thought to be a Religious Ideal factor. Within this factor, the majority of the religious icons or ideals load. Buddha had the highest loading, 0.887. The next loadings are Religiosity, 0.885; Mohammed, 0.840; Spirituality, 0.826; Jesus, 0.790; Preferred Self, 0.773; Ideal Leader, 0.653; Moses, 0.585; and Self, 0.519. From a glance through these loadings, it is apparent that the majority of what is built into the three Abrahamic religions is present within this factor. When looking at what words load on

this factor, there are three words that load positively; Peaceful, Honest, and Virtuous. All of these words, as the Rabbi says, are what he would consider a perfect religion. In opposition, there are two words that do not describe this factor; Malevolent and Barbaric, both of which he states are the opposite of what a religion should be.

The final factor for the Rabbi was termed Left Over, and this was due to the indecipherability of the factor; nothing could be made from it, and without this factor, 71.559% of the variance is explained, so it could almost be thrown out. However, an analysis must continue. The factor loadings for this factor are Ideal Father, 0.658; Joseph Smith, -.0757; and Man, -0.837. If just using the factors, one would assume it was how he would describe Ideal Father. However, when using the word loadings, Tolerant and Malevolent are the highest loading words to associate with this factor, of which the Rabbi would not use to describe his Ideal Father. Forceful, Greedy, Judgmental, and Deceptive all are on the opposite end, and do not help to explain this factor. Therefore, it is thought this factor is a Left Over variance factor where words and factors could make some sense, but nothing of importance. The factor loadings for the Rabbi can be found on pages 76 and 77.

Muslim Imam

From the Imam's results, three factors emerged. The Eigenvalues for these factors are Factor 1, 11.1; Factor 2, 2.68; and Factor 3, 1.28. These three factors explain 83.096% of the variance.

The first factor is thought to be a Parental/Religious factor. When looking at the factor loadings for this factor, many of the conditions of instruction load. God, 0.904; Woman, 0.890; Ideal Mother, 0.797; Ideal Father, 0.797; Self, 0.742; Ideal Leader, 0.734;

Spirituality, 0.725; Jesus, 0.710; Preferred Self, 0.699; and Mohammed, 0.535. Both Joseph Smith and Satan had negative loadings, -0.543 and -0.869, respectively. When considering the words that loaded on this factor, Loving, Generous, and Kind all loaded positively, this is similar to the Rabbi. However, what distinguishes the Imam from the Rabbi is that on this factor, Forceful and Malevolent both have negative loadings. Again, after asking the Imam about these loadings, he stated this was how he felt that both a religion and parents should be Loving, Generous, and Kind (Imam, personal communication, February 1, 2010).

The second factor is thought to be a Patriarchal/Spiritual factor. In this factor, Man, 0.833; Buddha, 0.813; Religiosity, 0.771; Moses, 0.751; Mohammed, 0.627; Ideal Leader, 0.570; and Self, 0.551. The word loadings for this factor are Spiritual, Virtuous, Forceful, and Honest. Malevolent, Barbaric, Judgmental, and Deceptive do not load positively for this factor. When asked about these loadings, the Imam stated that after some thought; these word loadings were how he saw his father growing up. It was also how he saw or envisioned those who would be spiritual, thus the name of the factor.

The final factor is thought to be an Unneeded factor, as it is named. In this factor, Trinity, 0.880; Savior, 0.784; and Joseph Smith, 0.536 are the factor loadings. When looking at the words that load for this factor, Spiritual, Deceptive, and Judgmental all load positively. Barbaric, Tolerant, Honest, and Aggressive are loading negatively. Originally, it was thought this factor could be another left over random assortment of variance; however, without this factor, only 67.700% of the variance is explained. When asked about these loadings, the Imam was not sure what it means. What he did say was that in the Muslim religion, one does not need to have the Trinity, as they do not believe

in the Trinity. They also do not associate Mohammed, PBUH, as a savior, but as a prophet, which there are different traits. Therefore, he said that these items are unneeded in a religion, more specifically, his. The factor and word loadings for the Imam can be found on pages 78 and 79.

Atheist

The final participant to discuss is the Atheist. He stated he used logic and reason to complete the q-sorts, and not feelings or hatred towards religion. This was because he felt that the logic and reason were the most respectful parts of Atheism. The factor analysis from the Atheist found four factors. The first factors Eigenvalue is 7.83; Factor 2, 3.8; Factor 3, 1.84; and Factor 4 1.14. From these four factors, 79.2% of the variance was explained.

Factor 1 is thought to be either a religious factor or an evil/bad factor. This was determined by the factor loadings. The highest loading religious ideal on this factor is God, 0.824. This is followed by Savior, 0.804; Religiosity, 0.755; and Trinity, 0.678. Two ideals do not load on this factor, Ideal Father, -0.524 and Ideal Mother, -0.573. From the religious ideals, it is easy to determine this factor most likely represents a religious factor.

However, the word loadings on this factor seem to make an interpretation a little difficult. Deceptive, Judgmental, and Forceful, load on this factor. Loving, Peaceful, Honest, Barbaric, and Tolerant do not load on this factor. This factor seems to show religion, but in a negative fashion. According to this factor, religion is deceptive, but not tolerant.

Factor 2 is thought to be a spiritual factor. Spirituality, 0.906; Buddha, 0.834; and Moses, 0.683 all load on this factor. Satan has a negative loading, -0.744. In discussing these results with the participant, it was discovered that he has negative feelings towards Moses and positive feelings towards Satan. In his words, “Satan seems like a good guy if you think about it; he is willing to accept anyone into his domain no matter what is wrong with them. Moses seems like an asshole, he lead people into a desert for a long time and let them die” (Atheist, personal communication, January 27, 2010).

Words loading on this factor were Spiritual, Virtuous, and Peaceful. Words that are not associated with this factor are Deceptive and Malevolent. Now, according to his philosophy, Moses should have been Barbaric and Violent. However, according to the q-sort, Moses was Spiritual and Virtuous. Also according to his philosophy, Satan should have been accepting and kind, but instead was found to be Deceptive and Malevolent.

Factor 3 is thought to be a Paternal or Patriarchal factor. Self, 0.945; Ideal leader, 0.857; Preferred Self, 0.829; and Ideal Father, 0.583 all load on this factor. From the word choices, Honest was the highest loading word. Barbaric, Malevolent, and Spiritual did not load on this factor. When asked about the results, he said after reviewing the words sorted in order of most like to least like, it would describe his father or what he would want in a father.

The final Factor is thought to be a Maternal factor. Woman and Jesus are the highest loading on this factor, with loadings at 0.873 and 0.719, respectively. Words loading on this factor are Loving, Tolerant, Deceptive, and Malevolent. The only word that did not have a significant loading was Barbaric. These results are in line with the idea behind the religious factor being evil as well. This factor could be left over variance

as well. However, without this factor, only 66.483% of the variance can be explained through these factors. The factor loadings for the Atheist can be found on pages 80 and 81.

Discussion

This experiment was built on the idea of trying to determine what underlying structures and factors are incorporated into religious ideals or icons. By having the teachers of major religious complete q-sorts designed to detect the underlying structures, it may be possible to determine how religious people view or construct the world. Now, by no means can these results be generalized to each religion as a whole. However, these results shed light on the inner workings of religion and its followers, and this is much more important for this part of the experiment.

In beginning to discuss this part of the thesis, it is of importance to review the similarities between the results. Perhaps the first major similarity is that all four of the participants had a factor that dealt with religion. The Priest had Christianity and Spirituality, the Rabbi had Religious Ideals, the Imam had a Parental/Religious and Patriarchal/Spiritual, and the Atheist had a Religious and Spiritual factor.

Now, of course, there would probably be some factor that resulted in religious ideals due to the construction of the experiment. However, the first and major factor for each participant resulted in this religious factor. This helps to shed some light on the results. The fact that the first factor, which has the highest Eigenvalue meaning it explains the most variance, is a religious factor helps to show that these people have a large underlying factor of religious perception in their world, including the Atheist. This is not due to just the q-sorts themselves. From each participant, more than just religious

ideals or icons factored into the first and major religious factor, usually parents or self. This could possibly, most likely does; mean that parents are a huge factor in religious beliefs and ideals.

This leads to the next major factor that showed in participants. With the exception of the Priest, a factor pertaining to parents emerged from the participants. The Rabbi and Imam had a Parental factor, although it could also be named something else, they both agreed that the words sorted matched their parents. The Atheist had a Paternal and Maternal factor, two separate factors for parents. This result shows that parents are a major force in life; they alter and instill beliefs in their children. This factor could be explained in two ways; one, parents are a major determination for a child's social perception, or, two, in the case of religious beliefs, nurture wins over nature.

The next major factor that shows in the participants is the last of the similarities. Spirituality tends to be seen as a separate factor from religiosity, except in the case of the Rabbi. The Priest, Imam, and Atheist all have one factor devoted to spirituality; in their minds, this factor is what describes spirituality. The Rabbi does not have a separate factor devoted to spirituality like the others. However, hints of spirituality show in his first and second factor, which could mean that his definition of spirituality is intertwined with religion. This brings up an important debate, religiosity versus spirituality. Religiosity has been defined as a factor that is constructed from the outside world, it is socially constructed. Spirituality, on the other hand is thought to be constructed from within the self (Cattich & Knudson-Martin, 2009; Cohen & Hill, 2007). Therefore, the results would make sense from the idea that religiosity and spirituality are thought to be separate ideas.

The one major dissimilarity among the participants was the final factor. In all the participants, a final factor emerged. This final factor usually could not be explained 100% by either the results or through an interview with the participant. The final factors that emerged were Human, Left Over, Unneeded, and Maternal. With the case of the Atheist, which was Maternal, his final factor was difficult to describe, but he was most certain it could describe his mother. However, Human, Left Over, and Unneeded; from the Priest, Rabbi, and Imam, respectively, were not completely sure on the naming of the factors. This is both a similarity and dissimilarity among the participants. Similarly, they all have an indistinguishable factor. Dissimilarly, however, this final factor is vastly different in both factor and word loadings. This major difference does not hinder results; it only increases the difficulty of analyzing and determining the factors.

The major discovery behind this second experiment helps the first experiment by revealing what participants would have been using to sort the religious phrases on the q-sorts. Their religious beliefs, their parents, and their definition of spirituality all factored into how participants sorted the items in the first experiment.

From this factor analysis, it has been discovered that when humans are thinking of religious ideals, they have three major factors Religion, Parents, and Spirituality. It has been found that humans have basic categorization skills that are innate. However, there has not been evidence of more advanced categories that are innate in humans. Therefore, these categories are most likely created within the human; they are not innate. These main factors are the determination of religious ideals. Without the influence of these three factors, there may not be a fully constructed idea of religion. From these same results, it could be predicted that all humans, and not just the religious teachers, have the same

three main schemas behind religion, which leaves room for further research within this realm.

General Discussion

For this experiment, the results turned out as expected. In Experiment 1, two factors were named: Religious and Nonreligious. These two factors also had specialized groups loading on each factor; religious people on the first factor and nonreligious people on the second factor. From the results, it has been determined that there is no significant statistical difference among the three Abrahamic religions in their beliefs. The results show that the three Abrahamic religions have essentially the same beliefs.

The first factor in Experiment 1 is a religious factor. The majority of the religious beliefs for the three Abrahamic religions load in the top 18 factor loadings. The only beliefs that do not load highly on the first factor are the beliefs associated with Atheistic thoughts and beliefs. When analyzed further, it is determinable that all participants loading on Factor 1 have equal beliefs in how they describe their personal religious beliefs; most agree God is love, there is one God, and that everyone will be judged in the end. These beliefs are at the core of the Abrahamic religions.

Factor 2 in Experiment 1 is the nonreligious factor. Those who were not associated with religion, Atheists/Agnostics or no religion, loaded on this factor. This factor is characterized by beliefs of no God, hypocrisy in religion, and religion is created by man. The second factor describes how the nonreligious view their beliefs; as logical thought. It also shows how they view religion, as a joke.

In Experiment 2, factors emerged that help to explain how humans view religion and how these beliefs are influenced and created. The most common factor in the second

experiment was a religious factor. The next factor that was most common was a parental factor. The parental factor helps to explain how people obtain their religious beliefs. The religious factor and parental factor were either one in the same, or were very similar in the words that loaded on these factors. The way humans construct their religious beliefs is evidence that the ability to group and categorize is not a strictly innate ability; it can be learned.

The question of what do the results from both experiments mean has probably arisen in many minds by now. Simply, the results do not, by any means, mean that all religions are the same. The results show that the religious beliefs among the three Abrahamic religions are similar. All religious people in this study loaded on the first factor, which is a religious factor. This factor held all of the highly religious statements taken from the religions at the top of the list. The results show that there is no significant statistical difference among the religions in their beliefs. One word in the previous sentence is of great importance, statistical. The phrase no significant statistical difference simply means that through some numbers, the beliefs of the religions are similar.

When simply observing these religions, there are obvious differences in both beliefs and practices. For instance, those in the Jewish faith cannot eat pork, however, Christians may. The Sabbath is also different for the religions, Islam is Friday, Judaism is Saturday, and Christianity is Sunday (Lazarus & Sullivan, 2007). However, there are also observable similarities; they all have one God, which is thought to be the same God, just different names. Each believes there will be an end times, and all will be judged. Finally, each religion was born from Abraham. Therefore, even though there are no statistical

differences among these three religions, it is important to keep in mind that differences do exist in their beliefs and behaviors.

The implications for the results in regards to religion are vast. First and foremost, the research from this experiment shows that we, as humans, all have similarities even in religious beliefs. By having similarities in an area that is assumed special and molded toward each person, biases can be eliminated. When biases are trying to be reduced, there are two ways to accomplish that; one, find common ground; two, find a common enemy (Sherif, Harvey, White, Hood, & Sherif, 1954). This experiment shows that the religious beliefs are the same for the three Abrahamic religions. Thus, the information should be taught and allow people to understand that the religious beliefs are equal among the religions; this would help in the reduction of bias. Of course, the results do not mean world peace will finally be achieved. However, in teaching religion to those in churches, synagogues, or mosques, it would be of great importance to make note that all of the Abrahamic religions have beliefs that are similar.

Second, the experiment has shown how those who are not religious view those who are religious, hypocritical, two-faced, and not genuine; even religious people believe hypocrisy is common; it was ranked tenth on the factor loadings. If religious groups are trying to win others over, then a suggestion of following through with what is said is given. They could also try not forcing religious beliefs upon people, as many in the experiment agree this is the major problem with religious folk, they try and force their way into someone's life and win them over. This does not work, and people do not like as evident by some of the factor results. Interestingly, for those who loaded on the second factor, the phrase describing not proselytizing was ranked sixth highest. For those in the

first factor, it was ranked sixteen. Obviously, nonreligious peoples have strong feelings towards this ideal. These results are not meant to be used to try to turn every person to a religion, they are simply meant to help people of all faiths and beliefs.

Finally, the experiment shows how religious teachers, and perhaps most people, view religious icons, and group the world. This experiment also has implications for new archetypes. An archetype is a model of a person or ideal. Jung made archetypes famous from his psychological archetypes: the Self, the Shadow, the Anima, the Animus, and the Persona. Each of these archetypes represents a part of the psyche; the Self is the self, the Shadow is the alter identity, the Anima is a representation of man; the Animus is a representation of woman, and the Persona, which is the mask worn in different situations (Jung, 1964).

In relation to this experiment, it would appear that some new archetypes might have emerged. From the first experiment, it is evident that there were two groups, religious and nonreligious. This is evidence for a new categorization or new archetype of viewing phrases or even people. Now, it could be common knowledge that most people are seen as either religious or nonreligious, but now there is evidence for it. The structures of the two groups also show that simple phrases and even words can cause someone to immediately those words or phrases into either a religious or a nonreligious group.

From the second experiment, three new archetypes might have emerged, Religion, Spirituality, and Parents. The emergence of these three groups could be due to a number of variables. However, the random assortment of the words used in the second experiment eliminates some of the variables. Secondly, when describing the word

loadings for these factors to the participants, the first thing they stated was how similar the loadings were to how they viewed their religion, how they view spirituality, or how they view their parents currently, not ideally. This is strong evidence for a new grouping or archetype humans have.

As stated at the beginning, researching religion is difficult to do because normally, researchers are limited to a self-report. Self-reports do not carry much validity, mainly because the data is not quantifiable. One implication that arises from this experiment is that religious research can catch a revival; a different methodology has been successfully used to gather data about one's religious beliefs, and it is quantifiable and can be treated as an independent variable.

Q-methodology, as previously stated, can obtain feelings and data that participants may not give during an interview or when answering an open-ended question. Therefore, the use of Q-methodology vastly helps research in religion. It would be of greatly help to any religious researcher to use Q-methodology if the researcher is trying to obtain information, but does not want the information to be skewed or hidden. In answering Batson, Schoenrade, and Ventis' (1993) quest for an independent variable in religious research, one has been found and tested.

Within this experiment, there are potentially two major problems. The first is the sample that was utilized. The second is the Santa Clara Scale of Religiosity. In discussing the first problem, there are two problems that one could see from the sample used are one, the majority of the participants in the first experiment were from Oklahoma, were used and two, the samples of each religion were not high enough to be able to generalize to the religions.

First, the majority of the participants were from Oklahoma. Oklahoma is a very religious and very devout state, in regards to religion. It ranks religion as both very important and it is party of daily life (Gallup, 2009). When using a sample that is very religious and strong in their beliefs, the results from the experiment would only increase the power and effect they have. By using this sample, the results are trustworthy because if a religious state such as Oklahoma has these results, then any person who takes the experiment, with little or no religiosity, would be expected to have the same results. Granted, the results could weaken if people that took it are not as religious as those in Oklahoma. However, with the effect size found in the experiment, which was a medium to strong effect size, this would mean the results should be consistent wherever it is tested.

Second, in regards to the sample size, the experiment does not falter from what the normal population is of both Oklahoma and the United States of America (Pew Forum on Religion & Public Life, 2008; U.S. Census Bureau, 2010). When using a stratified sample, the results can be truly generalized to a population because it is a direct representation of the population. In comparison to a random sample, which emerged from the population at UCO, a stratified sample is just as accurate, if sometimes not more accurate, as a random sample (Cochran, 1946). Therefore, the sample used is both random and accurate, and the results can be generalized to the population.

A second problem separate from the sample could be considered somewhat confusing, the Santa Clara Scale of Religiosity. Now, the scale has been tested many times and found to be accurate by different accounts (Lewis, Shevlin, McGuckin, & Navrátil, 2001; Sherman, Plante, Simonton, Adams, Burris, & Harbison, 1999; Sherman,

Simonton, Adams, Latif, Plante, Burns, & Poling, 2001). However, even Atheists, who should have low religiosity according to Plante and Boccaccini (1997), can rank as highly religious on the scale. The questions on the scale are designed to determine someone's level of religiosity. However, due to the nature of the questions, such as "I enjoy being around others who share my faith," any person of any belief could potentially score in a medium to high range on the scale. This problem did not create any statistical differences in the results, but the scale may need to be altered for the addition of other faiths and beliefs besides Christianity.

The research from this experiment has yielded new areas to research. As already stated, Q-methodology is capable of gathering the data of participants in religious studies without having the bias of a self-report. For instance, future studies need to make more use of Q-methodology and religious studies. Within this study, a couple of future research projects can easily be linked. First, the religious beliefs that were used for Experiment 1 were taken from sacred texts, interviews, and informational pages about the religions. In order to verify if these beliefs are true or if they are statements, it would be of importance to test these. For instance, God is love would be a good place to start.

A second experiment stemming from this study would be determining if the participants have biases about other religions already. This is where the Implicit Attitudes Test (IAT) would come in. By using the IAT as a second dependent variable, it would be possible to see if results differ by amount of bias in a person.

Finally, as with all experiments, it would be of great importance to perform the same experiment but with a different sample from a different area; perhaps even different countries. This would further validate the idea that religious beliefs are all perceived as

similar, especially if the results are similar worldwide. This experiment used participants from various levels of education and different ages, however, it would be of great importance to test this further and gather larger samples for these uses.

Religion is an important factor for many people; it truly is the foundation for many cultures, and has a large influence on everyday actions. Religion and science have had a great divorce, and both areas have suffered from this, as Einstein said, “Science without religion is lame, religion without science is blind” (1941). This experiment has only scratched the surface for what is to come from future studies in religion. This experiment has also shown how a new methodology can help in testing religious beliefs. However, most importantly, it has shown how religious beliefs are all similar, despite what the world says. From this information, we can learn how to cooperate and live together. QED.

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Footnote

1. The phrase “Peace Be Upon Him,” (PBUH) is said or written each time Mohammed’s name is said or written. This is from the great reverence Muslims have for their prophet; it is also notated for respect from other religions.

Appendix A

UNIVERSITY OF CENTRAL OKLAHOMA
INFORMED CONSENT FORM

Research Project Title: Social Perception: Religion

Researcher (s): Patrick Kubier

- A. Purpose of this research:** Determine why humans perceive religions differently.
- B. Procedures/treatments involved:** You will sort words and statements with pencil and paper. This will test how your religious belief. There are three pages, one for Self, one for Personal Religious Belief and a short survey asking for demographic information.
- C. Expected length of participation:** 30 minutes
- D. Potential benefits: (Student):** No immediate benefits to the participant. Hopefully, it will allow people to realize we are more alike than previously thought.
- E. Potential risks or discomforts:** Discomforts for the experiment are possible fatigue, as you will be sitting for about 15 minutes. You will not be viewing any pictures or videos in the experiment. You will not be required to complete the experiment if you feel you cannot continue.
- F. Medical/mental health contact information (if required):** If you would like to contact the student counseling services for any reason, you may do so by calling 405-974-2215.
- G. Contact information for researchers:** Patrick Kubier: pkubier@uco.edu; Gabriel Rupp: grupp@uco.edu or 405-974-5444; IRB office jdevenport@uco.edu or 405-974-5479
- H. Explanation of confidentiality and privacy:** The surveys do not require names and are not connected with participants. After completion of the experiment, the hard copies (papers) will be locked in a safe deposit box at MidFirst Bank. The data will be kept on a flash drive with an encrypted password. After the 5 year period, all information will be destroyed properly. All information will be kept for a minimum of 5 years per journal instructions. Only Patrick Kubier, Gabriel Rupp, Mark Hamlin, and Siegfried Heit will have access to any data.
- I. Assurance of voluntary participation:** The participation in this experiment is completely voluntary. You have the right to refuse to answer or complete the experiment without penalty.

AFFIRMATION BY RESEARCH SUBJECT/ REVIEWER/ RATER

I hereby voluntarily agree to participate in the above listed research project and further understand the above listed explanations and descriptions of the research project. I affirm that I am of 18 years of age at the time of this experiment, or that I am the legal parent or guardian of the child under 18 years of age. I also understand that there is no penalty for refusal to participate, and that I am free to withdraw my consent and participation in this project at any time without penalty. I have read and fully understand this Informed Consent Form. I sign it freely and voluntarily. I acknowledge that copy of this Informed Consent Form has been given to me to keep.

Research Subject's Name: _____

Signature: _____

Date _____

Appendix B

Santa Clara Religiosity Scale and Survey

Please answer the following questions about religious faith using the scale below. Indicate the level of agreement (or disagreement) for each statement.

1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

- ___ 1. My religious faith is extremely important to me.
- ___ 2. I pray daily.
- ___ 3. I look to my faith as a source of inspiration.
- ___ 4. I look to my faith as providing meaning and purpose in my life.
- ___ 5. I consider myself active in my faith or church.
- ___ 6. My faith is an important part of who I am.
- ___ 7. My relationship with God is extremely important to me.
- ___ 8. I enjoy being around others who share my faith.
- ___ 9. I look to my faith as a source of comfort.
- ___ 10. My faith impacts many of my decisions.

Please provide the following information. All information is voluntary and kept anonymous.

Ethnicity: Caucasian African-American Hispanic/Latino Asian-American Other: _____

Sex: Male Female Other: _____ **Age:** _____

Political Affiliation: Republican Democrat Independent None Other: _____

Religious Belief (group): Christian Muslim Jewish Other: _____

If religious, what is your denomination? _____

Highest Level of Education: High School Two Years of College College Degree Graduate School

If you are in college, what is your classification? Freshman Sophomore Junior Senior

Relationship Status: Single Married Engaged Divorced Widowed/Widower Other: _____

Appendix D

Q-Sort Slides Experiment 2

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Self

A Q-sort grid for 'Self' consisting of 7 columns and 4 rows of boxes. The bottom row is labeled 'Most Like' on the left and 'Least Like' on the right. The grid is structured as follows:

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Preferred Self

A Q-sort grid for 'Preferred Self' consisting of 7 columns and 4 rows of boxes. The bottom row is labeled 'Most Like' on the left and 'Least Like' on the right. The grid is structured as follows:

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Man

Most Like Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Woman

Most Like Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Jesus

Most Like

Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Mohammed

Most Like

Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Moses

Most Like

Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Satan

Most Like

Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Buddha

Most Like

Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Joseph Smith

Most Like

Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

God

Most Like

Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Religiosity

Most Like

Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Spirituality

Most Like Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Savior

Most Like Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Trinity

Most Like

Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Ideal Leader

Most Like

Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Ideal Father

Most Like
Least Like

Pick two descriptions that are most like what you believe describes the noun below. Write the corresponding numbers in the boxes "Most Like". Then, pick the words that are least like the noun and write the corresponding numbers in the "Least Like" box. You will continue working from the left and right until all the columns are filled. You will have four words left to place in the middle, that go in no particular order. Use each word once. Review all the words before beginning.

- | | | | |
|--------------|---------------|----------------|----------------|
| 1. Honest | 5. Virtuous | 9. Deceptive | 13. Barbaric |
| 2. Forceful | 6. Violent | 10. Greedy | 14. Generous |
| 3. Tolerant | 7. Peaceful | 11. Loving | 15. Malevolent |
| 4. Spiritual | 8. Judgmental | 12. Aggressive | 16. Kind |

Ideal Mother

Most Like
Least Like

Tables

Table 1

Pairwise Comparison of Religious Beliefs

Dependent Variable	(I) Religious Belief	(J) Religious Belief	a		
			Mean Difference (I-J)	Std. Error	Sig. ^a
Factor 1	Christianity	Judaism	.361	.163	.170
		Islam	.260	.280	1.000
		Other	.830*	.053	.000
	Judaism	Christianity	-.361	.163	.170
		Islam	-.101	.322	1.000
		Other	.469*	.168	.035
	Islam	Christianity	-.260	.280	1.000
		Judaism	.101	.322	1.000
		Other	.570	.283	.274
	Other	Christianity	-.830*	.053	.000
		Judaism	-.469*	.168	.035
		Islam	-.570	.283	.274
Factor 2	Christianity	Judaism	.136	.153	1.000
		Islam	.079	.263	1.000
		Other	-.745*	.050	.000
	Judaism	Christianity	-.136	.153	1.000
		Islam	-.057	.303	1.000
		Other	-.881*	.157	.000
	Islam	Christianity	-.079	.263	1.000
		Judaism	.057	.303	1.000
		Other	-.824*	.266	.014
	Other	Christianity	.745*	.050	.000
		Judaism	.881*	.157	.000
		Islam	.824*	.266	.014

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

*. The mean difference is significant at the .05 level.

This table displays pairwise comparisons between each religion to another religion. For instance, when comparing Christianity and Judaism, the significance is .170, this means there is no significance. Therefore, the null hypothesis that there is no significant difference between these two religions cannot be rejected.

Table 2

Factor Loadings for Experiment 1

Religious Factor	Factor 1	Nonreligious Factor	Factor 2
1.God is love	-2.28522	12.Hypocrisy is common in religion	-2.22289
14.There is but one God	-1.79531	15.What is hateful to you, don't do unto others	-2.12321
15.What is hateful to you, don't do unto others	-1.35467	3.I must take care of nature	-1.78849
9.Salvation is by grace	-1.2185	24.I don't know if God exists	-1.3166
35.God knows the thoughts of me	-1.10073	20.Man creates God	-1.25491
13.Everyone will be judged in the end	-1.06757	28.All religions and beliefs are man-made	-1.23241
3.I must take care of nature	-0.72857	30.God will guide people to Him, I will not proselytize	-0.98518
33.I believe in the virgin birth	-0.72373	32.Natural selection created the world	-0.8466
5.I believe in a Trinity	-0.70295	31.There is no original sin	-0.72883
10.I struggle between my wants and God's	-0.66058	26.My eternal destination is determined by deeds	-0.70342
12.Hypocrisy is common in religion	-0.64307	10.I struggle between my wants and God's	-0.51458
7.The Messiah will come	-0.6133	16.Reject religious ideas if it conflicts with science	-0.31386
25.My Messiah will come again	-0.48189	1.God is love	-0.16915
27.Prayer is directed to God alone	-0.42138	11.I believe in strict discipline	-0.16164
21.I must confess sin to gain eternal life	-0.40281	35.God knows the thoughts of me	-0.02446
30.God will guide people to Him, I will not proselytize	-0.27394	36.Death is the end	-0.02061
34.I pray many times a day	-0.19528	4.God is unfair	0.06169
29.My Messiah is divine and human	0.0105	9.Salvation is by grace	0.1716
23.The dead will be resurrected	0.02285	8.I feel abandoned by God	0.28625
22.All people are from Adam	0.07868	19.God rewards the good and punishes the bad	0.32784
26.My eternal destination is determined by deeds	0.08212	27.Prayer is directed to God alone	0.40237
19.God rewards the good and punishes the bad	0.08503	33.I believe in the virgin birth	0.45822
11.I believe in strict discipline	0.32576	18.God had no son	0.46763
31.There is no original sin	0.3437	6.God will show hostility to those who harm others	0.48126
2.My religion is perfect and absolute	0.48933	23.The dead will be resurrected	0.58349
6.God will show hostility to those who harm others	0.73353	29.My Messiah is divine and human	0.58891
28.All religions and beliefs are man-made	0.81614	14.There is but one God	0.73167
32.Natural selection created the world	0.94465	13.Everyone will be judged in the end	0.78371
17.Baptism is the only way to reach Heaven	0.96796	5.I believe in a Trinity	0.79306
16.Reject religious ideas if it conflicts with science	1.1631	34.I pray many times a day	0.86253
36.Death is the end	1.1697	25.My Messiah will come again	0.88789
20.Man creates God	1.3083	22.All people are from Adam	0.92287
24.I don't know if God exists	1.37734	21.I must confess sin to gain eternal life	0.94675
8.I feel abandoned by God	1.43356	7.The Messiah will come	1.03775
4.God is unfair	1.56199	17.Baptism is the only way to reach Heaven	1.76184
18.God had no son	1.75524	2.My religion is perfect and absolute	1.8495

This table shows the factor loadings for Factor 1 and 2 of the first experiment. The negative numbers show a high loading whereas positive numbers show a low loading. The boxes that are highlighted are the most significant loadings, those at a 1.0 value or higher. It may be of surprise that the phrases that are selected to be the most fitting to the factor are negative; this is due to the way they are calculated. They are still considered the best fit for the factor even though they have a negative number; this is the same for all of the following tables displaying factor loadings.

Table 3

Factor Loadings for Catholic Priest

Christianity	Factor 1	Spirituality	Factor 2	Human	Factor 3
Trinity	.879	Joseph Smith	.893	Man	.876
Woman	.868	Moses	.838	Preferred Self	.582
Savior	.865	Mohammed	.808	Buddha	.526
God	.862	Religiosity	.784		
Ideal Mother	.775	Spirituality	.681		
Ideal Father	.775	Buddha	.669		
Jesus	.767				
Preferred Self	.702				
Self	.694				
Ideal Leader	.691				
Spirituality	.650				
Satan	-.873				

Table 2 displays the factor loadings for the Catholic priest. Factor 1, out of all three, is the highest loading factor. It holds twelve of the sixteen conditions of instruction. The first factor has been determined to be the Christianity factor; the second factor spirituality, and the third human.

Table 4

Word Loadings for Catholic Priest

Christianity	Factor 1	Spirituality	Factor 2	Human	Factor 3
11. Loving	-2.44144	4. Spiritual	-2.75299	12. Aggressive	-1.76103
16. Kind	-1.29277	5. Virtuous	-1.01715	1. Honest	-1.30337
14. Generous	-1.03922	2. Forceful	-0.67962	5. Virtuous	-1.08911
1. Honest	-0.56232	8. Judgmental	-0.36559	2. Forceful	-0.81706
7. Peaceful	-0.52146	14. Generous	-0.34932	3. Tolerant	-0.67838
3. Tolerant	-0.42458	7. Peaceful	-0.2065	16. Kind	-0.65013
8. Judgmental	-0.12032	1. Honest	-0.10956	7. Peaceful	-0.28124
5. Virtuous	0.37465	16. Kind	-0.09926	14. Generous	0.04934
9. Deceptive	0.39215	9. Deceptive	0.06882	15. Malevolent	0.31732
10. Greedy	0.48523	6. Violent	0.25596	4. Spiritual	0.38907
13. Barbaric	0.5757	10. Greedy	0.27567	10. Greedy	0.45738
6. Violent	0.59471	11. Loving	0.63604	13. Barbaric	0.58279
4. Spiritual	0.71545	3. Tolerant	0.64763	11. Loving	0.63742
12. Aggressive	0.89199	12. Aggressive	1.05519	6. Violent	0.85166
2. Forceful	0.89516	13. Barbaric	1.18977	8. Judgmental	1.54851
15. Malevolent	1.47707	15. Malevolent	1.45093	9. Deceptive	1.74684

These are the factor loadings for the Catholic Priest. The highlighted words are the words that had the most significance in loading, again, at 1.0 or higher. The other religious leaders were set at 0.9 because of lack of words. However, there are no loadings at the 0.9 level in this table. The position at which the words load are vital in helping determine what each factor could be. It is interesting to note that in the first two factors, deceptive has one of the lowest ratings and in the third factor; it is the strongest loading word against the factor.

Table 5

Jewish Rabbi Factor Loadings

Parental/Loving	Factor 1	Religious Ideals	Factor 2	Left Over	Factor 3
Trinity	0.875	Buddha	0.887	Ideal Father	0.658
Woman	0.857	Religiosity	0.885	Joseph Smith	-0.757
Savior	0.855	Mohammed	0.840	Man	-0.837
Ideal Mother	0.805	Spirituality	0.826		
God	0.803	Jesus	0.790		
Self	0.687	Preferred Self	0.773		
Ideal Leader	0.641	Ideal Leader	0.653		
Ideal Father	0.569	Moses	0.585		
Satan	-0.766	Self	0.519		

The factor loadings for the Jewish Rabbi are shown here. The first factor has been determined to be a Parental or Loving factor. The second factor is a Religious Ideal factor, or what one would find in an ideal religion. The final factor is thought to be left over variance grouped together as these factor loadings with the list of words do not make sense and do not necessarily correlate into a single factor that is decipherable.

Table 6

Jewish Rabbi Word Loadings

Parental/Loving	Factor 1	Religious Ideals	Factor 2	Left Over	Factor 3
11. Loving	-2.31522	4. Spiritual	-2.39478	3. Tolerant	-1.70946
14. Generous	-1.48282	7. Peaceful	-1.26658	15. Malevolent	-1.21044
16. Kind	-1.25488	1. Honest	-1.05224	1. Honest	-0.84065
8. Judgmental	-0.49983	5. Virtuous	-0.9652	16. Kind	-0.58799
1. Honest	-0.36612	16. Kind	-0.17376	12. Aggressive	-0.55595
2. Forceful	-0.21899	6. Violent	0.052	11. Loving	-0.51079
3. Tolerant	-0.08918	2. Forceful	0.06576	5. Virtuous	-0.42324
7. Peaceful	0.30988	14. Generous	0.13465	13. Barbaric	-0.35403
5. Virtuous	0.34255	10. Greedy	0.24834	7. Peaceful	-0.26561
9. Deceptive	0.35772	3. Tolerant	0.317	6. Violent	0.26194
10. Greedy	0.59946	12. Aggressive	0.46072	4. Spiritual	0.29669
12. Aggressive	0.72559	8. Judgmental	0.48105	14. Generous	0.41658
6. Violent	0.75643	9. Deceptive	0.58355	2. Forceful	1.02288
13. Barbaric	0.77862	11. Loving	0.60332	10. Greedy	1.08084
4. Spiritual	0.82931	15. Malevolent	1.32388	8. Judgmental	1.26477
15. Malevolent	1.52747	13. Barbaric	1.58229	9. Deceptive	2.11444

This table displays the word loadings for the Rabbi. Highlighted words are the words that most associate with the factor, set at 0.9 or higher due to the lower choice of words. There is still significance at this level in word choice and order. As noticed in the final factor, Factor 3, the words loading the highest do not necessarily correlate with the Rabbi's Ideal Father of whom he rated Honest as the top quality; again, most likely left over variance.

Table 7

Muslim Imam Factor Loadings

Parental/Religious Factor 1	Patriarchal/Spiritual Factor 2	Unneeded Factor 3
God .904	Man .833	Trinity .880
Woman .890	Buddha .813	Savior .784
Ideal Mother .797	Religiosity .771	Joseph Smith .536
Ideal Father .797	Moses .751	
Self .742	Mohammed .627	
Ideal Leader .734	Ideal Leader .570	
Spirituality .725	Self .551	
Jesus .710		
Preferred Self .699		
Mohammed .535		
Joseph Smith -.543		
Satan -.869		

The factor loadings for the Imam are shown above. Three factors emerged from the analysis. The first factor is thought to either be a Parental or Religious factor as either could easily fit. The second factor is thought to be either Patriarchal or Spiritual, again either would fit. Finally, the last fact could be thought of unneeded in religion or things that are unnecessary for his religious beliefs.

Table 8

Muslim Imam Word Loadings

Parental/Religious	Factor 1	Patriarchal/Spiritual	Factor 2	Unneeded	Factor 3
11. Loving	-2.26522	4. Spiritual	-1.6982	4. Spiritual	-2.01154
14. Generous	-1.1345	5. Virtuous	-1.5086	9. Deceptive	-1.67715
16. Kind	-1.09791	2. Forceful	-1.1833	8. Judgmental	-1.34648
1. Honest	-0.81515	1. Honest	-0.9119	2. Forceful	-0.33804
3. Tolerant	-0.6185	12. Aggressive	-0.6142	16. Kind	-0.32118
7. Peaceful	-0.41056	16. Kind	-0.3065	14. Generous	-0.10863
8. Judgmental	-0.19234	7. Peaceful	-0.2575	7. Peaceful	-0.07819
5. Virtuous	0.2875	3. Tolerant	-0.1341	10. Greedy	-0.06447
9. Deceptive	0.35748	14. Generous	-0.0249	5. Virtuous	0.01411
4. Spiritual	0.36919	10. Greedy	0.50899	11. Loving	0.15615
6. Violent	0.44944	6. Violent	0.53992	6. Violent	0.54983
10. Greedy	0.70736	11. Loving	0.83192	15. Malevolent	0.577
12. Aggressive	0.84319	15. Malevolent	1.05414	13. Barbaric	1.02616
13. Barbaric	0.85964	13. Barbaric	1.09032	3. Tolerant	1.18387
2. Forceful	1.12305	8. Judgmental	1.09092	1. Honest	1.20005
15. Malevolent	1.53733	9. Deceptive	1.52303	12. Aggressive	1.2385

The word loadings for the Imam are shown above. The words with scores above 0.9 are highlighted. For the first two factors, it can be easily distinguished how either named factor could fit from both the factor loadings and the word scores. It could be possible that the final factor is left over variance, but with the third factor accounted for, 83.096% of the variance is explained.

Table 9

Atheist Factor Loadings

Religious Factor	Factor 1	Spiritual Factor	Factor 2	Paternal	Factor 3	Maternal	Factor 4
God	0.824	Spirituality	0.906	Self	0.945	Woman	0.873
Savior	0.804	Buddha	0.834	Ideal Leader	0.857	Jesus	0.719
Religiosity	0.755	Moses	0.683	Preferred Self	0.829		
Joseph Smith	0.732	Not Satan	-0.744	Ideal Father	0.583		
Trinity	0.678						
Mohammed	0.543						
Not Ideal Father	-0.524						
Not Ideal Mother	-0.573						

The factor loadings for the Atheist are shown above. The Atheist was the only participant to show four separate factors from the intensive part of the experiment. Again, in his results, a religious factor emerged. There is also the paternal and maternal factors which are present in other sorts but as one instead of two factors.

Table 10

Atheist Word Loadings

Religious Factor	Factor 1	Spiritual Factor	Factor 2	Paternal	Factor 3	Maternal	Factor 4
9. Deceptive	-1.73959	4. Spiritual	-2.18546	1. Honest	-2.06433	11. Loving	-1.87721
8. Judgmental	-1.71724	5. Virtuous	-1.58663	2. Forceful	-0.85394	3. Tolerant	-1.46838
2. Forceful	-1.53255	7. Peaceful	-0.90737	3. Tolerant	-0.82423	9. Deceptive	-1.08819
4. Spiritual	-0.7314	14. Generous	-0.69667	8. Judgmental	-0.72133	15. Malevolent	-0.9137
5. Virtuous	-0.34801	16. Kind	-0.63428	14. Generous	-0.71359	7. Peaceful	-0.66032
10. Greedy	-0.06924	11. Loving	-0.30036	11. Loving	-0.55917	16. Kind	-0.54455
12. Aggressive	0.02293	1. Honest	-0.06254	12. Aggressive	-0.55017	4. Spiritual	-0.12837
14. Generous	0.25504	8. Judgmental	0.24256	5. Virtuous	-0.27114	8. Judgmental	0.15794
16. Kind	0.26612	2. Forceful	0.3689	16. Kind	0.192	5. Virtuous	0.37125
15. Malevolent	0.31724	12. Aggressive	0.41695	9. Deceptive	0.19397	14. Generous	0.51238
6. Violent	0.35164	3. Tolerant	0.5667	7. Peaceful	0.47234	6. Violent	0.62257
11. Loving	0.40122	10. Greedy	0.65943	6. Violent	0.64827	1. Honest	0.73012
7. Peaceful	0.64335	13. Barbaric	0.66397	10. Greedy	0.67536	10. Greedy	0.81415
1. Honest	1.09801	6. Violent	0.66399	13. Barbaric	1.29292	12. Aggressive	0.8424
13. Barbaric	1.35216	9. Deceptive	1.38096	15. Malevolent	1.45973	2. Forceful	0.8818
3. Tolerant	1.43033	15. Malevolent	1.40985	4. Spiritual	1.62331	13. Barbaric	1.74812

The word loadings for the Atheist are shown above, cut off at the 0.9 level. From each factor, the Atheist stated he believed that the word loadings were exact on how he would describe each factor after it was named.

Figures

Figure 2. This line graph shows the comparison of both factors by level of religiosity. Those who are high in religiosity load on Factor 1 while those who are low in religiosity load on Factor 2.

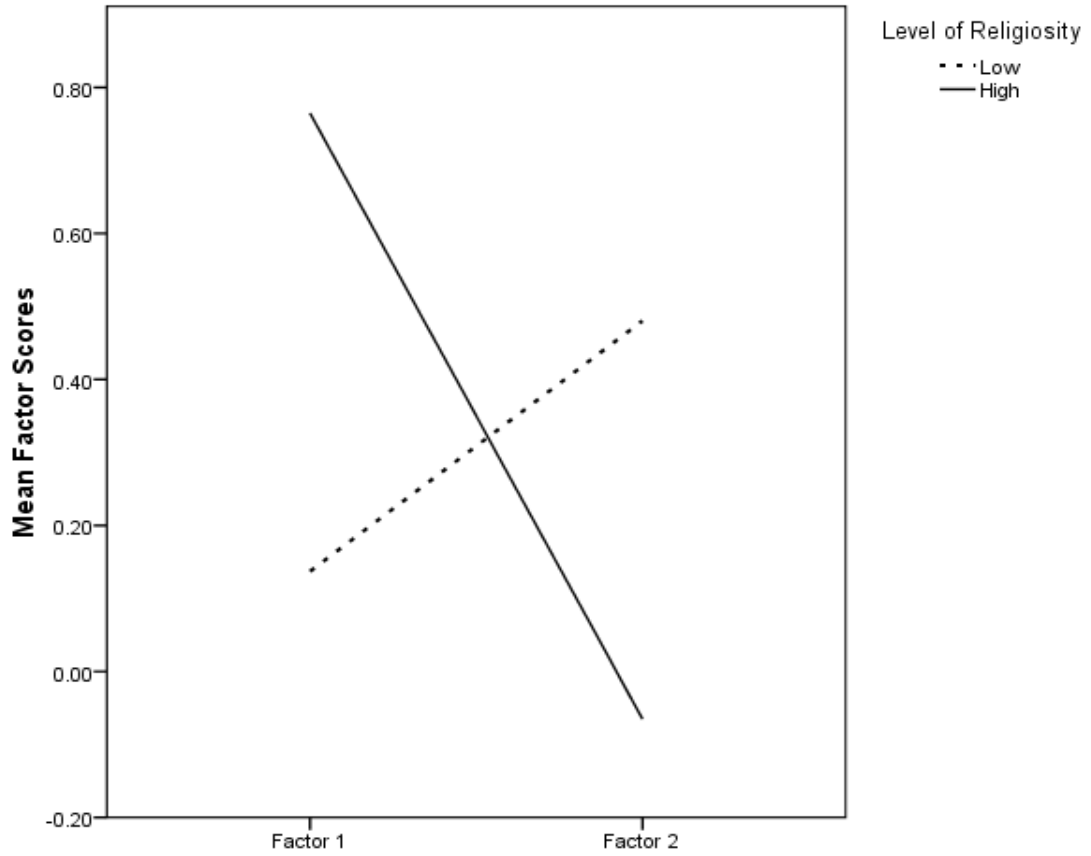


Figure 3. This graph shows the factor scores loadings as compared by political party. All political parties load on the first factor, which was the religious factor. The only political party that could possibly load on the second factor if more were added could be Independents. This graph shows there is not much difference among the political parties in this experiment in regards to religious beliefs.

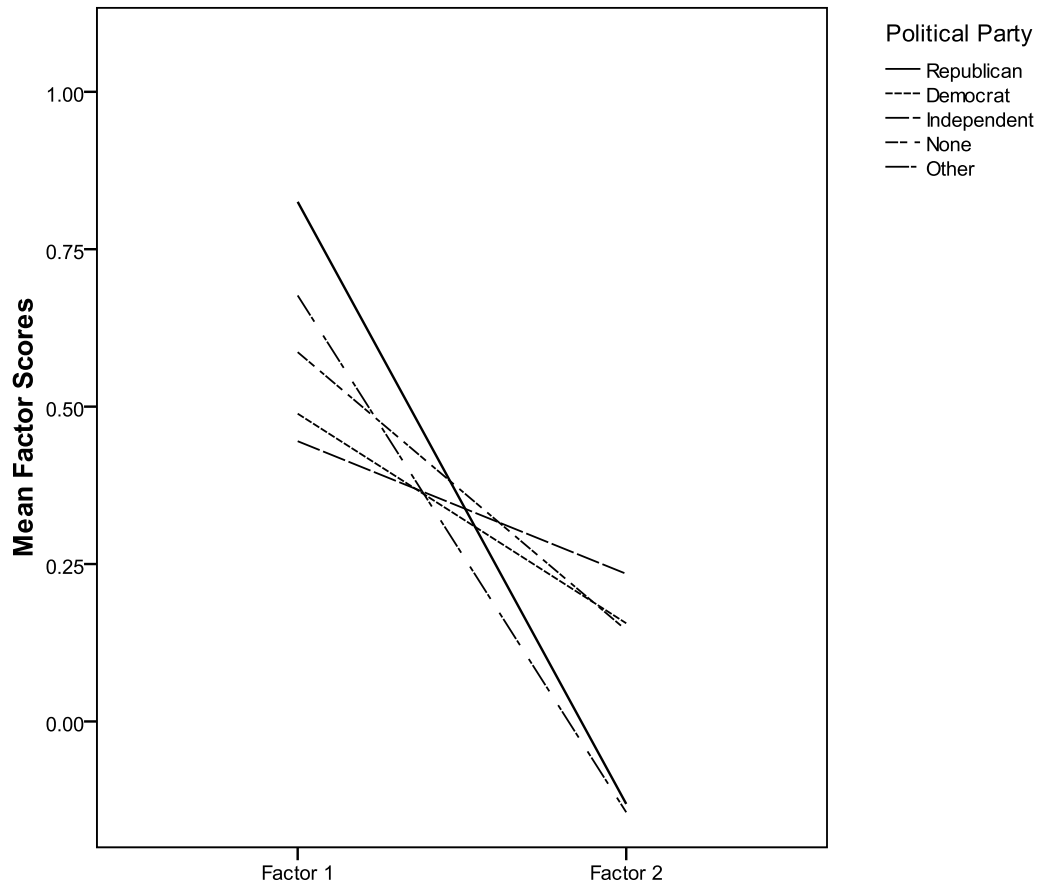


Figure 4. This graph shows the factor loadings by ethnicity. The graph is hard to read due to the high number of self-identified ethnicities in the experiment. The only ethnicity that does not positively load on the first factor is Middle-Eastern. American-Indian is very close to loading on the second factor, it is almost flat.

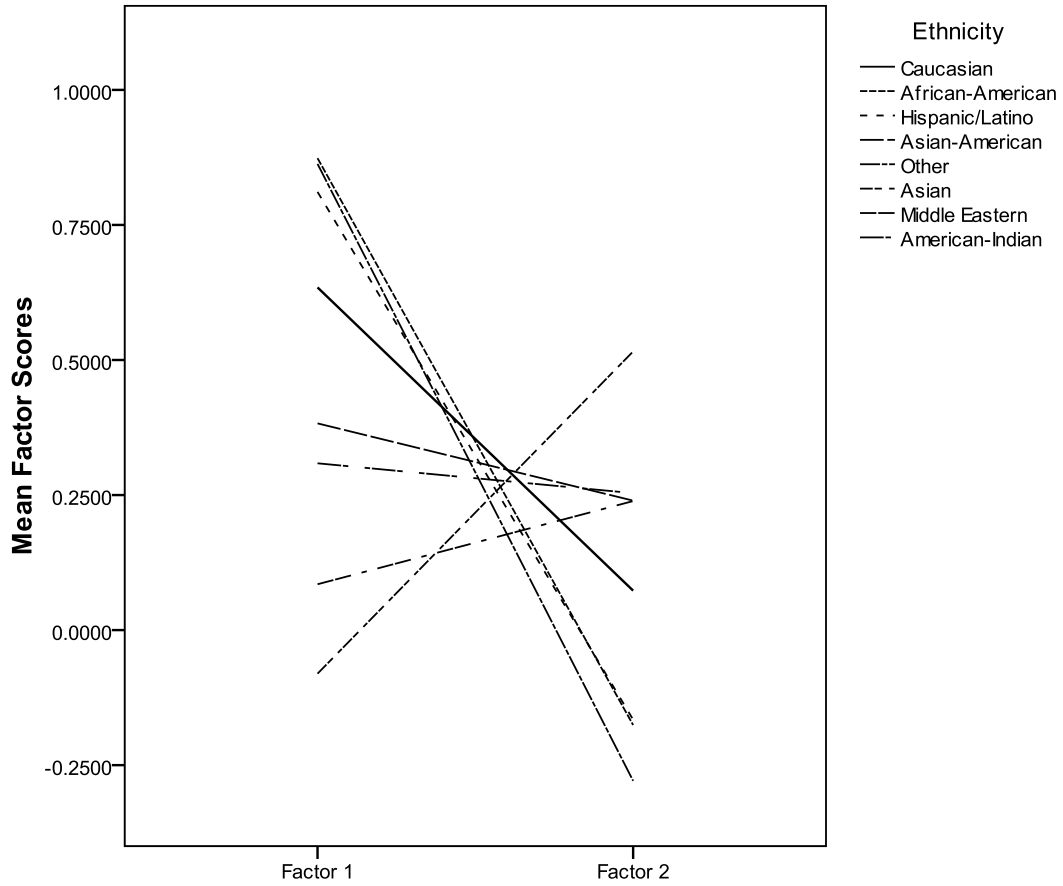


Figure 5. This graph displays the differences in factor loadings by level of education. The highest level of education held by a participant was graduate school. All levels of education load on the first factor, the religious factor.

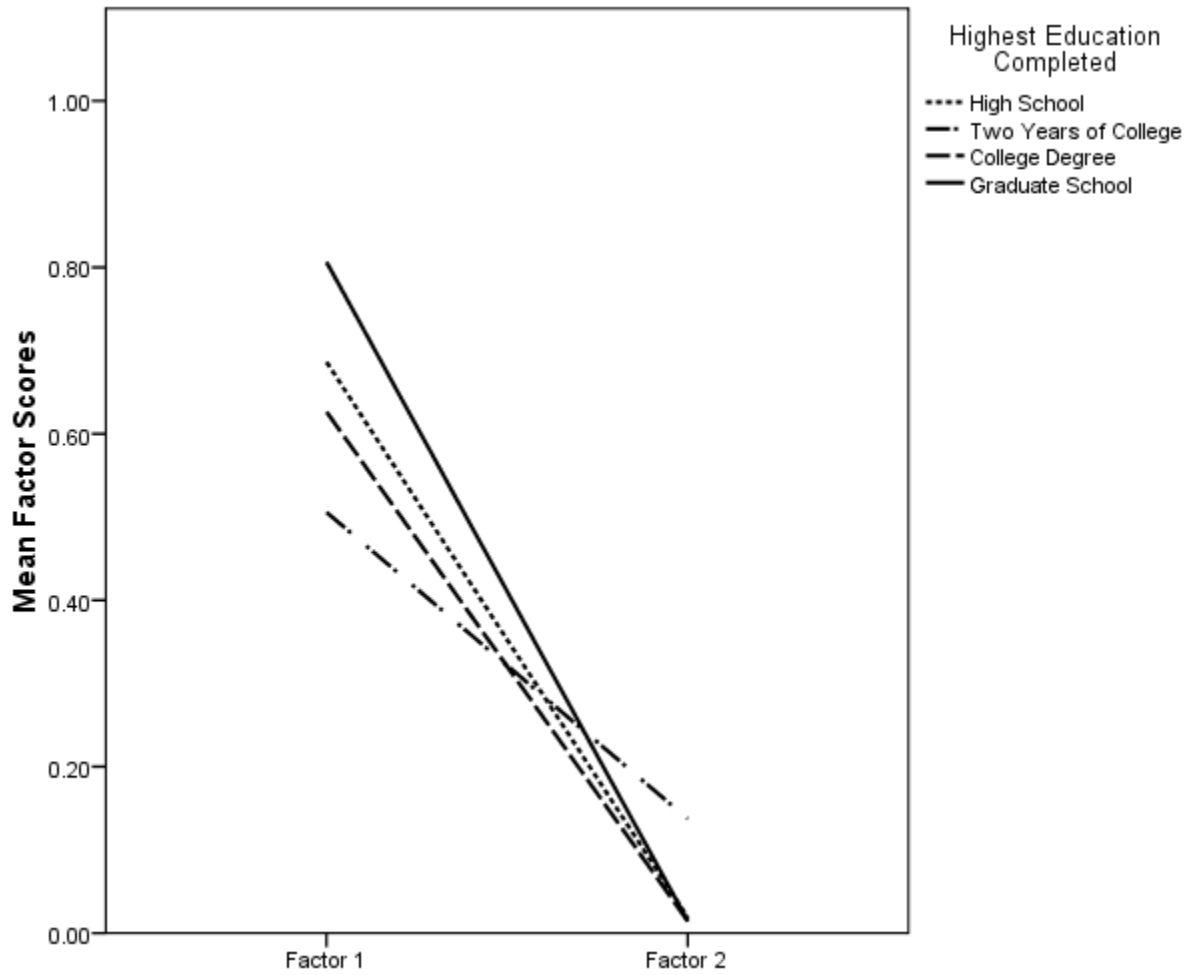


Figure 6. This graph displays differences in sex. There are no differences between males and females in factor loadings.

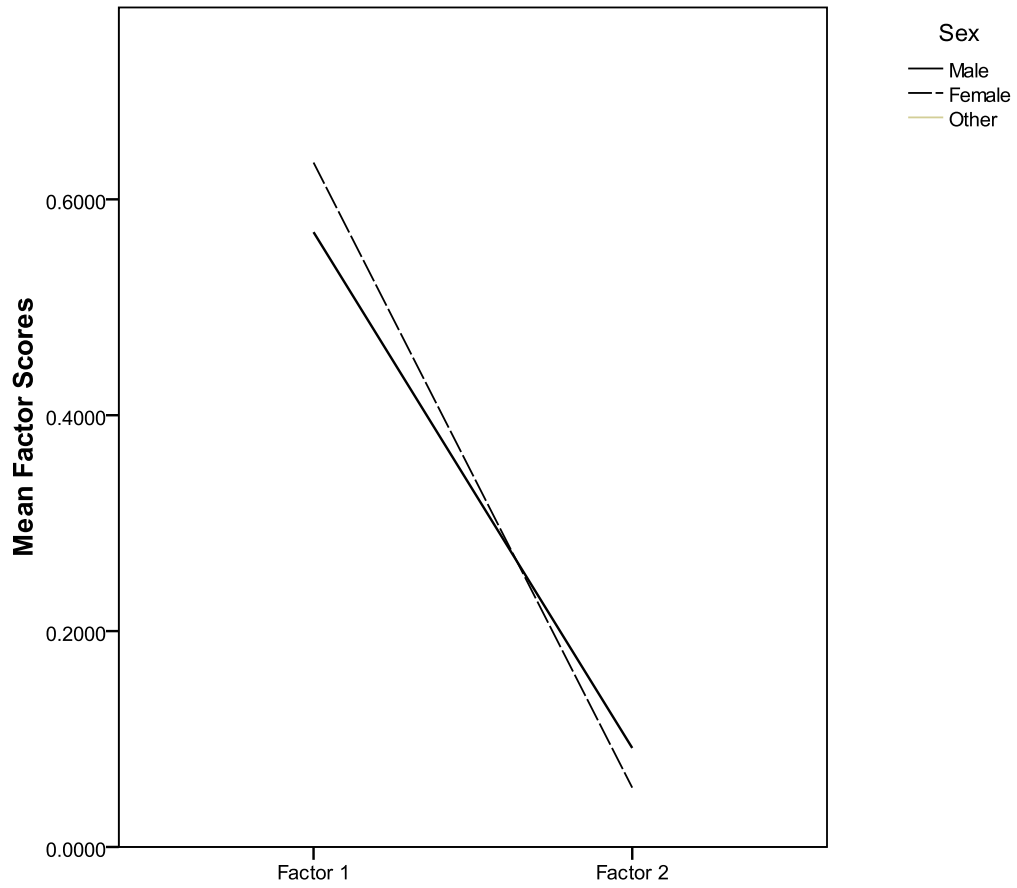


Figure 7. The final graph displays differences in relationship status. Divorced and Other are the only two that are close to loading on the second factor. Those in the Other category all self-identified as boyfriend/girlfriend.

