IS RELIGION THE PROBLEM? INVESTIGATING THE MITIGATION OF OUT-

GROUP BIAS IN INTERFAITH GROUPS

A Thesis

by

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ABSTRACT

This paper investigates the relationship between a person's level of religiosity, their ability to tolerate outsiders to their faith and their level of openness-to-experience (a big five personality trait).   This relationship is of interest because religious individuals are often intolerant to outsiders of their faith and prejudicial interactions between religious groups have negative implications globally. Openness may mitigate these types of prejudicial reactions due to its characteristic high level of comfort with new situations and ideas.

The study focuses on an interfaith organization called Interfaith Ministries for Greater Houston Area (IMGH) as its sample population. This was a good choice as these individuals willingly display behaviors that tolerate religious outsiders. In order to test if openness was mitigating religious prejudice in these individuals the IMGH sample must score high on both measures of religiosity and tolerance. Once it has been established that these individuals are religious and tolerant to other religions they were then tested to determine their score on openness. Once a baseline was established for the sample a correlational analysis was run to establish if there was a statistically significant correlation between openness, tolerance and religiosity. To show that openness is the mitigating factor there would need to be no correlation between tolerance and religiosity alone.

While this study found high values of religiosity, openness and tolerance in the IMGH sample there was no statistically significant evidence that openness was responsible for mitigating religious prejudice in this interfaith group. While the

hypothesis was disproven a correlation was seen between the most fundamental individuals in the group and measures of external control of prejudice. Accordingly, interfaith group fundamental individuals were able to interact positively with religious out-group members as long as there was a perceived external pressure from the IMGH group to do so. While the results of this study were largely inconclusive it has shown that there are many reasons that individuals may behave tolerantly in interfaith organizations.

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1. INTRODUCTION

Highly religious individuals, those shown to score high on measures of religiosity and fundamentalism scores, have also been shown to portray low tolerance to outsiders of their group (Allport, 1967; Hall, 2010; Johnson et al., 2011; Whitley, 2009). Groups have developed advantages that place the survival of the group ahead of the survival of both individuals in that group and other competing groups. If a group is to grow and thrive it follows that they would benefit themselves by rejecting outsiders as outsiders are likely to dilute the strength of this fitness (Wilson, 2002). Religious groups are an extension of this natural human propensity to form groups. They offer multiple benefits to their members thereby increasing their group's fitness and allowing them to thrive at higher numbers (Wilson, 2002). This ability to positively assort with members of one's own religious group and to reject outsiders has been demonstrated in many studies (Cuhadar & Dayton, 2011; Hogg & Terry, 2000; Lewis & Bates, 2010). The act of being religious leads individuals to be more apt to associate with those in the same group. Psychological studies of religious individuals have uncovered that along with a higher propensity to assort with like individuals these religious individuals tend to be very low in their abilities to show tolerance to minority groups (Allport, 1954; Hall, 2010; Johnson et al., 2011; Whitley, 2009).

While it is true that highly religious groups tend towards prejudice, it is especially true in relation to race and sexuality differences (Dunbar & Simonova, 2003; Plant & Devine, 1998; Whitley, 2009). While it has been shown that religious groups

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tend to show higher levels of prejudice against certain minority groups, research has also shown that populations who scored higher on religiosity also scored lower in measures of general tolerance (Allport, 1954; Hall, 2010; Johnson et al., 2011; Whitley, 2009). If it is true that highly religious people are more apt to reject interactions with people who are not like them, then one should expect highly religious people to avoid interactions with those who are from a different religious background. Outsiders to their religious group would be seen as vastly different and so would be at higher risk of intolerant behavior in interactions (Flynn, 2005).

While these assumptions seem to be backed by scientific studies they do not appear to line up with the complex religious world that exists in the 21st century. It is now commonplace in large urban centers for different religious populations to intermingle frequently. Today interactions with others who hold different ideals about many topics in life, including but not limited to religion, are becoming more difficult to avoid (Groff, 2007). While these people hold vastly different beliefs they do not continuously interact in hate-filled and marginalizing ways. Contrary to what current theories suggest (Hall, 2010; Johnson et al., 2011; Karpov, 2002), as religious diversity has increased in North America, there has also been an increase in religious tolerance and interfaith dialogue (Dalai Lama, 2010; 1993; Merdjanova, 2009; Patel, 2007). This change has been helped along by interfaith organizations that have sprung up to address this increase in religious interactions (Neufeldt, 2011).

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The growth of interfaith organizations in many western countries is intriguing, as it goes against the type of in-group favoritism and out-group bias expected of group interactions as well as previously observed ostracism of religious sects (Lachmann, 2010; Wilson, 2002). Instead of seeing highly religious individuals discriminating and avoiding people of other faiths, it appears that some highly religious people are actively seeking out these interactions. Why would some religious individuals be forming connections to embrace those of other religions? The interfaith community is not seeking to convert religious others to a certain faith, nor are they seeking to attack them, they are simply looking for a way to better understand and support these differences. This has been looked at in other interfaith groups and is explicitly expressed in the Interfaith Ministries for Greater Houston Area code of conduct for their Dinner Dialogue evenings and their mission statement (Interfaith Ministries for Greater Houston Area, 2013). This is very different from what the current literature on group selection, and the psychology of groups, suggests about the nature of groups (Allport, 1967; Wilson, 2002). What enables these groups to act so differently?

The ability of some highly religious people to tolerate members of the religious out-group may be linked to specific personality traits that they have. Personality traits have been studied at length in connection to religion (Eysenck, 1998; Saroglou, 2002a, 2002b; Saroglou & Muñoz-García, 2008; Taylor & MacDonald, 1999). While there are many different personality traits that correlate highly with religious adherence the most meaningful for this study is openness-to-experience. People who are rated as high in

religiosity most often score low on openness-to-experience (Saroglou, 2002b; Taylor & MacDonald, 1999). My research asks if interfaith groups may be showing a different pattern. Openness is a trait that allows individuals to be more accepting of diverse ideas and creative in their workings with the world (Flynn, 2005; McCrae, 1996; Saroglou, 2002b). Highly open people would be comfortable with the kind of dialogue interfaith organizations are promoting. Is it possible for someone to be both religious and open to outsiders?

By focusing this study on those who seek out interfaith dialogue, an understanding may be gained about what compels them to behave so differently from the majority of those who are highly religious. If it is possible to determine what sets the interfaith community apart it may be possible to create ways of increasing positive interfaith interactions by capitalizing on these natural interreligious diplomats.

1.1 Significance

Through an increased understanding of the traits associated with positive and fulfilling interreligious interactions, it may be possible to find new ways to promote interfaith peace in the coming decades. Knowing how and why the interfaith community behaves as they do will also aid in the creation of new programs that target those willing to think of religious tolerance on a broader scale.

This study is different from previous studies of religion and personality as it measures the degree to which personality traits may mediate relationships between religiosity and tolerance. While there have been studies analyzing the link between religiosity and racial prejudice there has not been a study done to discern if these findings can be extrapolated and applied to other areas of intolerance, such as religious intolerance. It is important to develop a deeper understanding of interreligious interactions and this study will help to progress this research forward.

As there have been no studies previously conducted on the psychological and tolerance capabilities of the interfaith community there were no specific studies for me to base this study's design around. Much work has been done in the field of sociology with this movement but there have been no major findings on their personality profiles or their ability to tolerate outsiders. My sample comes from an ethnically mixed group of individuals involved in interfaith dialogue through the Interfaith Ministries for Greater Houston Area Organization (IMGH). As this study pulls from a mixed age and ethnic group and not university student pools it may be less affected by W.E.I.R.D. *(W*estern, *E*ducated, *I*ndustrialized, *R*ich, and *D*emocratic) conditions than other studies in psychology (Henrich, Heine, & Norenzayan, 2010).

Although this study draws heavily from the fields of psychology and sociology it remains of interest to the anthropological community as well. These type of religious communities, interfaith groups, are an understudied and poorly understood group of

individuals. Furthering the understanding of minority groups has always been at the forefront of anthropology and this study seeks to illuminate an interesting group of religious individuals to the broader society. It may also prove particularly useful for applied anthropologists who are working to increase social discourse between diverse religious groups.

2. LITERATURE REVIEW

In order to best understand the way human groups and religious organizations typically influence their members the previous research must be addressed. The psychological understanding of both tolerance and personality will also be examined in order to understand the types of people found in these interfaith groups. The literature review will be laid out according to these four questions:

1. Why do humans form groups? It is important to know how group structure works and to understand the ways in which groups have been influential in our evolution as a species. This will allow a closer examination of specific kinds of groups.

2. Is religion a group adaptation? With religious groups being at the core of this study it is important to know how they differ from other types of groups and why religious groups are so prevalent.

3. How are religiosity, tolerance and openness related? These are the basic measurements used and will outline the relationship between them as established through previous research.

4. What sets the interfaith community apart from other religious groups? While there is little specific research into interfaith groups personality and tolerance levels I will briefly touch on what may be found in this group of individuals. I will also cover the reasons why they exist in the first place and the demographics of the IMGH sample.

The review is broken down as such to give the best overview of the biological and cultural reasons that humans are likely to form groups and compete against these other groups. It will also illustrate how the traits of openness and tolerance interact together in the previous literature and how my sample group is different from the others studied.

2.1 Why do Humans Form Groups?

2.1.1: Natural Selection

Humans readily form into groups. This tendency is easy to observe and has been studied at length. There are many theories about why this may be natural in humans. For the purposes of this paper I will focus on group formation by means of Multi-level Selection Theory. This theory focuses on how human groups are evolutionarily advantageous to our survival and our proliferation as a species (Wilson, 2007a). For groups to be advantageous they must have improved our likelihood of survival and reproduction of populations compared to those who were less oriented to forming groups, and research has demonstrated that they have done exactly that (Boehm, 2012; Gurven, Stieglitz, Hooper, Gomes, & Kaplan, 2012; Hamilton, 1972; Wilson, 2007a; Wilson, 2012; Wynne-Edwards, 1993).

2.1.2: Protection and Resource Gathering

There are many reasons that humans would have had selective advantages by forming groups. Firstly, when a predator enters the human's environment it is more easily spotted by a group of people than a lone person as there are more pairs of eyes scanning the environment (Wilson, 2007a). Once a predator has been spotted it is less likely to attack when there is a large group presence. The probability for it to be injured or killed is higher when more humans are involved and the predator is less likely to be able to isolate one person to kill them (Wilson, 2007a). If, on the rare occasion, an attack does occur groups are much better able to fight predators off with less expended energy per person than an individual traveling alone (Hamilton, 1972). Once grouping behavior has been established in an area it reinforces the power of that group, in any fights with other competing groups there will be minimal risk to the individuals that are fighting. When a group is attacked the cost to fight is mitigated and spread out across multiple individuals thus making it less taxing to each person individually (Wilson, 2007a). Groups, therefore, are selectively advantageous to their members for protection both from predation and against aggression form other groups (Wilson, 2007a).

Besides protection, food gathering is more easily accomplished when there is group participation (Smith, 1992). Humans are able to hunt larger game and gather more food when they work together than would be possible working alone (Smith, 1992). It would have been impossible for our ancestors to fell prey as large as mammoths without collective action (Hill, 1982). Even rabbits, which could be sourced

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by one person alone, are able to meet the caloric needs of more people if a group pools their catches together and no one is left hungry (Gurven et al., 2012). Groups are better protected and better fed than lone humans as evidenced throughout history and pre-history. This means that they are much more likely to reproduce and be more reproductively fit. Children are another interesting part of human group necessity.

2.1.3: Childrearing

Lastly, we are more efficient at birthing and raising children in group settings. When a human female is ready to give birth, her child's head is actually larger than can easily fit through her pelvic opening. In order to fit, the baby's head retains "soft spots" that allow its skull to compress dramatically without breaking (Rosenberg & Trevathan, 2002). Along with the skull compression the baby must rotate in the birth canal to align its large head with the widest parts of the pelvis. The baby must make many turns during the birthing process to attain the best fit with its mother's specific pelvic shape (Rosenberg & Trevathan, 2002). The combination of the shape of the human infant's head and the shape the human pelvis has taken to allow bipedal movement leads to a phenomenon known as the obstetrical dilemma. This means that human labor is much longer and more difficult than any other animals, including our primate cousins (Rosenberg & Trevathan, 2002).

The difficulty of childbirth is much more likely to lead to positive outcomes for mother and baby when a helper is present. If we did not have a group structure we

would be less likely to have a helper in the birth process and more women and children would die during the event (Rosenberg & Trevathan, 2002). Human groups have been beneficial to the birth process, allowing for assisted births and larger babies. With others standing guard for hours during labor these pregnant women were less likely to die of predation. By helping to guide the infant out of the pelvic girdle more children were delivered safely into the world. Through the communal nature of groups, group members were able to be more reproductively successful (Rosenberg & Trevathan, 2002). So human groups have supported our ability to become the intelligent and bipedal apes we are today.

Once human babies are born they are much more dependent on others for care than are other animal infants at birth (Gurven et al., 2012). Humans in groups are heavily involved in raising, not only their own offspring but, all the infants within a group - a practice known as allocare. This cooperative childrearing has been implicated in the development of our characteristically large brain (Gurven et al., 2012; Isler & van Schaik, 2012). Our large brains place an excessive amount of caloric stress on our bodies, without adequate food supplies it is unlikely that we would have been evolutionarily able to become the large brained apes we are today (Gurven et al., 2012). Without multiple caregivers to help feed the young children, groups would not have been able to gather enough food to sustain their development. Young human children are just not capable of acquiring the necessary energy stores from food they gather alone (Hill, 1982). The double advantage of the human group, giving caregivers and group

hunting to fell large prey, allowed us to develop into the large brained, highly skilled animals we are today (Alexander, 1974; Gurven et al., 2012; Wilson, 2002).

Even menopause has been hypothesized to be an adaptive benefit for the larger family group (Isler & van Schaik, 2012; Lee & Chu, 2012). Older females who are no longer reproductively active are able to secure food sources for their female children who are often expending a greater amount of energy due to pregnancy and lactation, this is known as the grandmother hypothesis (O'Connell, Hawkes, & Blurton Jones, 1999). By living longer than they can reproduce, women ensure proper food gathering in their families and increase the survival of all members (Isler & van Schaik, 2012). By engaging in allocare with other members of the group the grandmother effect is then able to strengthen not just one's own family unit but also the group as a whole. Having access to large groups that can help to support the immature and dependent children is a selective advantage to all young within a group (Gurven et al., 2012) and thus to the group's existence in general. With more offspring and fewer deaths from starvation human groups would have thrived.

At this point it is clear that, from a biological standpoint, humans have much to gain from organizing themselves into groups and that groups are biologically advantageous. However, humans are driven by other things besides biology. Culture has a strong pull on human behavior and human group formation as well. So, it is through culture that we now examine group advantages.

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2.1.4: Cultural Selection

All the biological reasons for human group formation cannot completely account for the flexibility of human groups or for the vast array of group types that we see today (Boyd & Richerson, 1982).   In order to address the adaptability of groups and their prevalence in the world we must also look at culture, which allows the human species to adapt rapidly to change (Mesoudi, 2011). Our culture allows us to adapt to new situations quickly without needing to wait for genetic adaptation to catch up which can take hundreds of years. This is sometimes referred to as cultural evolution, it allows humans to be adaptive to a wider range of quickly shifting environments (Mesoudi, 2011). Without culture humans would not be as versatile and widespread as they are. In fact, it is impossible to adequately explain the vast differences between societies through biology alone. We need culture to explain the diversity in behavior found on earth today (Mesoudi, 2011). Culture allows us to catch fish with hooks, to convey messages and meaning to future generations through spoken word and writing, to adorn ourselves in colorful and distinct clothing and to better form into groups.

Cultural developments in human history have also allowed the groups that we form to become more distinct from one another (Mesoudi, 2011) and there is evidence that the degree to which a group is distinct from neighboring groups increases its group cohesion (Hogg & Terry, 2000). We will now examine how culture has allowed human groups to become more perfectly suited to their environments than biology alone and

how these groups have become more tightly connected through their cultural distinctness.

2.1.5: In-Group Characteristics

People that grow up in different cultures exhibit vastly different ways of being in the world (Mesoudi, 2011). This cultural distinctness leads to a stronger group identity because as people's similarities within the group are heightened the differences between groups are also heightened. As cultural evolution occurs in response to the environment, like biological evolution does, it follows that different environments might produce very different types of cultures. Examples include how the parka that Inuit peoples have developed is beneficial over the loin cloths favored in the Amazon, or the fork that western societies use versus the chop sticks favored in eastern cultures (Mesoudi, 2011). These cultural differences, if they are beneficial to the culture that they are in, can then become strengthened until they become part of that culture's identity. Identity formation is incredibly important for strengthening the bonds within a group (Chen & Li, 2009). It is through the similarities seen within one's culture that we learn about other groups, and through the differences that we become closer to our own.

Certain cultural ideas become linked with a group of people and they begin to use this as a way to distinguish group membership. At times, this is an idea or way of thinking and other times it is related to cultural dress or the display of an emblem to signal membership (Mesoudi, 2011). A process known as conformity helps to drive this

onwards until it is shared by the whole group because people want to fit in (Levine, 1999). Conformity is the tendency of people in a group to disproportionately choose the most common trait in that group than to simply copy at random (Boyd & Richerson, 1982). By conforming to the group the individuals are able to gain all that the group has to offer, protection, food and aid. As it is vastly beneficial conforming is something that humans perform innately (Mesoudi, 2011). We are born with the ability to discover the trends in our own culture and to copy them. At birth we can copy any culture, but with time we lose the ability to copy all and become experts in our own (Mesoudi, 2011). By conforming we give ourselves the very best chance at survival because we ensure our acceptance into the group. With the group's help we are much more likely to survive than we would on our own. The adaptive survival we see in the world today is made possible through cultural selection and implementation.

2.1.6: Group Norms and Reputation Building

In order to maintain group identity and ensure that all members of the group behave in similar ways humans could not rely on cultural selection and conforming alone. To achieve a greater sense of group cohesion norms are enforced by a system of rewards and punishments that change from culture to culture (Wilson, 2002). The idea of what constitutes right and wrong will change from culture to culture but generally ensures the overall security and happiness of the group (Wilson, 2002). These norms are often applied to promote group wellbeing, with all people in the group working together in the same way, so that they do better in terms of survival than they would alone. These

norms form written and unwritten rules which help to maintain uniformity within the group.

Aside from allowing groups to form societal norms, culture also allows us ways of tracking behavior, watching for the way that others interact and if they are keeping to these norms (Fehr & Fischbacher, 2004a). This is a useful skill as we are then able to communicate with others in the group about these interactions and hold others accountable for norm breaking (Fehr & Fischbacher, 2004b). The ability to track our peers' past interactions allows the group to build up a mental inventory, or written as with a legal system, of those individuals who are selfish or destructive in their actions. The information about group members can then be spread, via gossip, and helps to build a reputation within the group (Fehr & Fischbacher, 2004b). Gossip and norms work together through culture to afford groups a measure of stability that helps the maintenance and strength of the group. When groups are well adapted and in control of their norms the group becomes a thriving unit which allows them the best opportunity to outcompete their rivals.

2.1.7: Out-Group Bias

Group-level competition might provide another purpose for conformity: it allows for easy identification of an out-group, accentuates the idea of an insider circle and creates an ease of identity in case of an attack (Ellemers, Kortekaas, & Ouwerkerk, 1999). This is very important when looking at groups that exist in close proximity. In

close proximity to other groups a process called accentuation is used to create clear lines of difference between these different groups. By strengthening their behaviors within groups with norms and then accentuating the ways in which these behaviors differ from surrounding groups, members are more able to identify personal alignment (Ellemers et al., 1999). The way that this influences group formation and dynamics is two-fold: by strengthening the feeling of belonging to their own group a person becomes more likely to want to work cooperatively for the good of the group. Also, by accentuating the differences between the groups they become more likely to experience feelings of negativity and even malice towards people from the out-group (Ellemers et al., 1999). This dynamic creates a strong preference to assort and cooperate with others from inside one's own group while rejecting those from the out-group (Ellemers et al., 1999). Maintaining high membership numbers and not being beat out by surrounding groups is essential if a group is to survive long term.

This is very important, if strong group ties mean stronger chances at survival as seen in the biological reasoning behind group formation. This in-group favoritism and out-group bias causes the person to be positively involved and respected in their group but may come with a negative impact on involvement with out-group members (Brown, 2000). In this way the interfaith community is very interesting, as they hold both a close association with the members of their own religious faith tradition and yet do not appear to have negative reactions when dealing with outsiders.

Thus far it has been shown that humans form into groups easily and that this ability has many evolutionary advantages for survival. We have also seen that humans use cultural adaptations to strengthen these groups, through the use of norms and out-group biasing, thus improving their odds of survival further. Cultural group selection can help to explain the ways our species has maintained groups over such a long time frame. One type of group that has been pervasive in human history is the religious group. It is possible that our reliance on religion has grown directly out of these selection processes for group maintenance.

2.2 Is Religion a Group Adaptation?

2.2.1 Altruism

Humans seem to have a natural propensity towards religion, and there are many scientific theories as to why this might be so, from individual level selection theories of selfish advantages, to theories stating the need for a moral code to theories about group advantages (Dawkins, 2008; Durkheim, [1912] 1995; Lachmann, 2010; Wilson, 2002). One thing is clear, religious groups tend to grow and form into strong group units. This may be due to the fact that religious groups often promote altruism, and religious adherents tend to engage in more altruistic behaviors. While selfishness is king (Dawkins, 1976) in interactions between individuals, with each person out for their own best interests, altruistic groups tend to beat out selfish groups when they compete against one another (Wilson, 2007b). This happens due to the altruistic groups' members

heightened ability to work cooperatively and not undercut others within the group for their own selfish advantages.

When a member is behaving altruistically it means that they are helping others in the group out of their own selflessness and not because they are concerned that they will be punished for not helping (Sober & Wilson, 1999). Religious groups tend to uphold morals above other norms and to leave policing of the norms primarily to the individual. This kind of norm policing allows for a system that relies on members' altruism rather than their response to rewards and punishments to force conformity (Wilson, 2002). It can be difficult to gage how many actions are truly altruistic as norms can work in very intricate ways to support the desired group behavior. However, religious groups value traits like forgiveness and generosity highly and their members tend to behave this way leading to higher instances of altruism. Religions are perfectly set up to increase levels of altruism in their members as religious tenets in most major religions actually prescribe selfless behavior (Wilson, 2002). These altruistic traits that occur in these groups naturally are then increased in frequency through norm behavior and reciprocation. As more altruistic a group the more likely it is to beat out selfish groups and religious groups could be said to be the most altruistic groups around.

2.2.2: Norm Behaviors in Religious Groups

Through moral behaviors and norms religions have been able to maintain high group cohesion and intra-group altruism to the benefit of its members (Wilson, 2002).

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Religious members are less likely to die of sickness or poverty than non-religious group members and they are much more likely to reinforce these altruistic behaviors through reputation and norm codes than non-religious groups (Boehm, 2012; Wilson, 2002). It is through this process that cultural evolution acts on all groups but its impact has become more refined in the case of religion. With strict moral codes of conduct that switch and shift in different environments and within different time periods religions are able to hold onto their group members even in times of rapid societal change (Wilson, 2007a). While all groups are able to monitor and track their member's behavior through norms religions offer something more specific, a divine punisher. This is a concept that does not exist in other non-religious groups.

By moving the idea of punishment off of the humans in the group and onto another all powerful, un-seeable figure the group is able to increase the compliance of its members. This compliance increases for two reasons. Frist, the members who are being punished and chastised are no longer able to seek retribution on their punishers (Johnson & Krüger, 2004). By human beings carrying out "god's punishment" in real time the person being punished cannot argue with the punisher. The punisher is simply doing the work they are instructed to perform by god (Johnson & Krüger, 2004). By removing any threat to the enforcers person religions are able to increase the punishments that are carried out against members that have transgressed. The more likely individuals are to be punished for a transgression the less likely they are to commit it.

Second, over and above the increased compliance through actual punishments meted out to members, religious members commit transgressions less often than non-religious members. This is because humans behave as they are expected to behave when they are being watched by a person that is in control of them. Even if that person does not actually exist (Piazza, Bering, & Ingram, 2011). In an experiment Piazza et. al asked children to perform a complex game with many rules. Some children were left in a rom alone to perform the task, others were left in the room with the researcher and other children were left alone in the room but told that a fictitious character named "Princess Alice" was sitting in a chair watching them (Piazza et al., 2011). The children in the unattended room cheated the most, but the children in both the rooms attended by the researcher or Princess Alice cheated at about the same rate (Piazza et al., 2011). The children were as affected by the presence of the fictitious, invisible person as they were by a real person in the room. This shows that when humans believe their every move is being watched and judged by someone they will behave as though they are. Even when there is no evidence that anyone is actually there. This tendency of humans behaving well because of supernatural beliefs has been shown in many countries around the world (Johnson, 2005). When a human is involved in a religious or spiritual group that believes in the existence of a divine punisher the members behave as though they are really being watched and judged (Johnson, 2005).

Looking at religious groups in this way it is possible that they have become so integral to human societal fabric because they increase the group's ability to survive and

beat out other groups (Rossano, 2010). By using altruism as well as norm and punishment behavior religions are able to perform best in a world of intergroup conflict helping that group proliferate (Wilson, 2002). When more altruistic groups out-compete more selfish groups then more children are born with altruistic predispositions. The children are then expected to enhance their innate altruism further through religious norms allowing the group to become more altruistic and more likely to beat out competing less altruistic groups. In that case the most altruists groups win the evolutionary race because those with the most descendants win (Darwin, 1871; Dawkins, 1976; Wilson, 2007a) .

2.2.3: Health and Membership Proliferation

Over and above the altruistic reasons a religious group might survive better, religions have another way of promoting growth in their memberships. Many religions include pro-fertility tenets, often urging members to "go forth and multiply," as an adaptive unit it would seem they have done very well (Graham & Haidt, 2010; Wilson, 2002). Religions must grow their membership numbers by encouraging reproductive rates to increase or through strengthening the membership feeling of unity and gathering new members.

Religious growth from conversion of outsiders is only beneficial to the religion as long as the members that they attract are sincere and altruistic in their nature. Religious groups do not want a bunch of free-riding selfish individuals to enter the

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religion and then not contribute to the well-being of other members (Sosis, 2003). To ensure maximum growth rates from conversion without risking the groups saliency and strength many religions practice costly-signaling to prove group loyalty (Sosis, 2004). These costly displays show the adherents commitment to the group, at times risking their own lives. Some notable examples include snake charming and war with other religious groups. New members are actually more likely to contribute to the religious organization they join the higher the cost of their signaling is (Sosis, 2003). The signaling increases the cohesive nature of the groups and deters free riders from joining when they do not actually want to invest energy and time in helping the group thrive (Sosis, 2003). So through increased birth rates and controlled conversion rates religious membership is able to grow and flourish all while outcompeting less altruistic groups.

As a productive adaptation, religions would need to proliferate and expand their group size. It makes sense then that religions would not tolerate other religious movements as they pose a direct threat to their own advantage (Lachmann, 2010). They portray a general level of out-group bias when dealing with other religious groups that should be difficult to get around. For a long time this has seemed to be the case in religious interactions; it is only in recent history in which religious groups have been force into cooperation in a close global society (Allport, 1954; Groff, 2005; Neufeldt, 2011). In today's global society, where multiple religions must coexist, it may be becoming more advantageous to find ways around the natural tendency to dominate and destroy other religions (Groff, 2007). The development of interfaith groups has been

interesting. They cannot behave as true religious groups as they are not bent on promoting only their own religion at the expense of other groups and are not operating with a strong out-group bias. This sets this type of religious organization apart from almost all others and against what has been advantageous to our evolution in the past.

2.3 What Sets the Interfaith Community
Apart from Other Religious Groups?

While, biologically speaking, interreligious strife and fighting might be adaptive there are specific groups that no longer ascribe to this pattern. The interfaith movement has formed a small but growing community in North American cities (Patel, 2007). Its goal is to create meaningful interactions between people of different faith backgrounds to help lessen the prejudice and out-group bias often felt towards people of different traditions (Patel, 2007). At its core this movement believes that, through dialogue, people of different faiths can forge relationships, share meaningful interactions about their beliefs, and cooperate to accomplish difficult tasks.

2.3.1: The Interfaith Movement

While the interfaith movement has gained the most adherents in the 20th century its roots can be traced back to Chicago in 1893 with the development of the Parliament of the World's Religions (Kuschel, 1993). This conference was attended annually by major religious leaders and officials. 1893 marked the first time that all major world religions gathered together to discuss world affairs specifically in an attempt to find

commonalities to foster cooperation between them (Seager, R.H., 1993). Since the late

1800s the idea of interfaith dialogue has lingered in the background of North American

culture but it was not until the events of WWII and 9/11 that the United States began to

really focus in on this idea (Groff, 2007). These two events lead to a drastic increase in

the number of people engaging in interfaith events, as well as the amount of attention

world governments have been devoting to their own interfaith relations (Patel, 2007).

The main tool that the interfaith movement uses to facilitate positive interaction is

structured dialogue (Groff, 2007).

The interfaith movement draws heavily from the contact hypothesis in its design

and implementation of programs (Allport, 1954). The contact hypothesis states that to

improve relations between groups one must first have meaningful interactions between

their members (Allport, 1954). Intergroup dialogue and personal interactions are

essential to bridge the gaps caused by out-group bias and conflict. This theory states that

these interactions must meet four criteria to be effective at reducing conflict: the groups

must (1) be of equal status, (2) have common goals, (3) be allowed to get to know each

other in a personal manner and (4) have the express support of the religious authorities

(Allport, 1954). If all of these criteria are met then this contact can facilitate meaningful

relationship building between individuals in the opposing groups (Groff, 2007).

2.3.2: Interfaith Ministries for Greater Houston Area

Many interfaith groups have taken up this model and have been implementing it to create meaningful interaction between its diverse members. IMGH is one such organization and is the population pool from which participants in this study were drawn. IMGH is a not-for-profit organization that was founded in 1955. Founded by the Council of Churches it was designed as a Protestant welfare bureau to help Houston's poor (Interfaith Ministries for Greater Houston Area, 2013). This structure was maintained until 1969 when it was refashioned into a broader Protestant charity group that worked in many ways in the community. As time progressed this organization began to work closely with the Jewish community in Houston on many tasks. This relationship with the Jewish community would eventually grow and strengthen the organization's feelings of unity and connected action with different faith groups (Interfaith Ministries for Greater Houston Area, 2013). Through these repeated interactions with other faith-based communities it became clear that they were all working toward the same community-improvement goals and that they could accomplish more if they worked together.

In order to facilitate and nurture their continued interactions with other faith groups the organization transformed yet again in 1992. Over time the number of faiths involved has increased to include the Baha'i, Buddhist, Hindu, Jain, Muslim, Sikh, Christian, Muslim, Jewish and Unitarian Universalist communities in Houston (Interfaith Ministries for Greater Houston Area, 2013). Other smaller religious groups

also work within the organization but do not make up the majority of its members. The goal of this organization is two-fold: to work together to improve the community of Houston through collective action and to reduce prejudice towards other faith groups based on dialogue that promotes understanding (Santere, 2012).

The mission statement of the organization declares that its purpose is to "bring people of different faiths together for dialogue, collaboration and service as a demonstration of shared beliefs" (Interfaith Ministries for Greater Houston Area, 2013). In order to achieve this goal they have implemented many programs aimed at reducing prejudice through contact (Santere, 2012). They run a meals-on-wheels for seniors program with assistance from multiple places of worship. This is done with multiple faith groups in the hope that increased contact will allow for reduced prejudice in the senior community. As seen in contact theory the more chances a person has to interact with minorities the less foreign they seem to be and the less the person is willing to marginalize them (Allport, 1954). To ensure smooth interactions the organization also acts as liaison between these houses of worship enabling them to organize multiple faith groups and at times coordinate events that bring them together to also increase contact and support.

2.3.3: Dinner Dialogues

In addition to the programs that IMGH runs to decrease prejudice through community service they also employ a more structured program to increase

understanding of the multiple faith traditions that they interact with. They do this through events called Dinner Dialogues. Dinner Dialogues are 3 hour events that began in 2007 and were held once a year in halls and school gymnasiums. It began as a collaboration between IMGH and the Boniuk Center for Religious Tolerance at Rice University utilizing a research project from Minnesota called the Amazing Faiths Project (Interfaith Ministries for Greater Houston Area, 2013). This project uses a book and a series of cue cards that were developed to be used during interfaith dialogue events to best facilitate positive, meaningful interaction. These dinners are non-academic in nature and are intended as an exercise in acceptance and love (Santere, 2012).

The Amazing Faiths Project uses prepared question cards at these events, which are used to target and facilitate conversation at the event. A person draws a card from the deck and is then allowed to answer without interruption or comment from the others in the group. These ground rules help to establish a feeling of calm confidence in the speaker (Santere, 2012). The cards are then passed to another member who does the same. These questions are structured to provoke deep thinking about one's own faith (Santere, 2012). It also allows an opportunity for others to learn how the speaker's faith reacts to the issue on the card. This type of interaction continues for the first half of the dinner as participants draw a card, answer and then pass the cards to the next person. During this portion there is to be no commentary or rebuttal from the other participants, this is kept in check by the moderators at the event, who make sure the evening stays respectful and positive in nature. Moderators are selected based on their experience with

multiple faiths, are chosen at the discretion of IMGH and are trained before attending the event (Interfaith Ministries for Greater Houston Area, 2013).

There is limited interaction between participants until the second half of the dinner. At this time the participants are encouraged to engage in open conversation regarding what has been learned about other faith traditions. They may also reflect on how that has changed their vision of that faith or illuminated ways that the faiths in the group are similar. The cards are not used in a structured way in the second half of the evening but may be utilized to aid conversation if needed; usually, it is the moderator's task to structure if necessary. This was the structure of dialogue dinners from 2007-2010.

Now in the 2012-2014 sessions the organization runs multiple events in a year as opposed to just one. These events are now hosted directly in individual's homes. The dinners also focus on a specific religious tradition which changes three times a year (Santere, 2012). By giving the event a religious focus from which to draw inspiration, the groups gain a deeper level of understanding of the target religion. Now, the first half of the evening consists of an informal presentation by the host family to explain their faith traditions (Santere, 2012). During this presentation commentary is discouraged and, as in previous events, moderators are on hand to assist. This portion of the event is accompanied by a dinner. The dinners are specifically chosen to showcase traditional fare associated with the religious tradition that is the focus at that event (Santere, 2012).

Once the dinner is finished the groups move on to the second half of the evening, this is when the real dialogue comes into play.

In this portion of the evening the floor is open to any participant who wants to discuss what was learned in the first half of the evening or to discuss ways that the information was similar or different from their own faith. There is no real structure to this portion of the event and it is strictly up to each participant whether they engage or not. These dinners now consist of 6-14 participants per house and an average of 20 homes participate each time they are run (Santere, 2012).

2.3.4: Demographic Breakdown of Events

The overall demographic of these events reveals a few notable trends. Firstly, the large majority (over 50%) of the dialogue participants were Christian in affiliation (Interfaith Ministries for Greater Houston Area, 2010). These dinners also tended to be primarily white, with 70% of the participants being Caucasian (IMGH Survey, 2010). The overwhelming presence of both majority groups, racially and religiously, may negatively impact the openness of members from minority groups and must be strictly controlled by the moderators. It is interesting to note that the two next largest religious groups in attendance were Muslims and Jews; the main contributing faction of these dialogues thus comes from the Abrahamic faith traditions alone. An average of 74% of the dialogue dinners were of Abrahamic traditions leaving only 26% for all other religions (Interfaith Ministries for Greater Houston Area, 2010). In an average group of

10 the break-down the participants would be: 1 or 2 Muslims, 1 Jew, 5 Christians, and 2 for "other" faiths. This picture is decidedly less interfaith than would be ideal, especially considering that 7 of the 10 participants are also Caucasian.

In 2012 IMGH expanded its reach into minority religions in the Houston area and was expecting a 10% increase in religions such as Sikhism, Hinduism, Buddhism, as well as the Jain and Baha'i faiths. This was to allow the dialogue events to reach a broader, more culturally diverse group of individuals and thus be less hampered by W.E.I.R.D. demographics (Henrich et al., 2010).

While much is known about the interreligious faiths groups in North America today research has not yet delved deeply into the psychological makeup of their participants. Most research on these groups is centered on how they impact the community but not on what sets them apart. It is difficult to determine how the group differs from other religious or unaffiliated groups as we do not have this type of information on them. The lack of psychological studies on the interfaith community, as well as the group's atypical response to out-group members, helped to pique my interest in the group and focus in on this topic.

In order to better understand how the interfaith community differs from other religious organizations I had to investigate the traits one would expect to find in these people. Looking for the types of traits associated with interfaith dialogue attendees

allowed me to gather further information on the traits I would use in this study. I researched into tolerance, openness-to-experience and levels of religiosity to gain a better understanding of how these variables worked together.

2.4 How are Religiosity, Tolerance and Openness Related?

While the research on interfaith groups and personality is limited there has been a lot of research about religion's impact on personalities and human behavior (Eysenck, 1998; Saroglou, 2002b; Saroglou & Muñoz-García, 2008). This literature was helpful in forming the hypothesis for this project and in understanding the ways in which religion can influence a person's interactions.

2.4.1: How Does Personality Correlate with Religion?

Much research into the psychology of religion examines the relationship between personality traits and religion in people's lives. Religiosity is measured through many different scales that focus around a person's adherence to a specific dogma, as well as the type of role that religion plays in their day-to-day lives (Duck & Hunsberger, 1999; Johnson et al., 2011; Saroglou, 2002b). The Five Factor Model (FFM) which measures the personality traits of agreeableness, conscientiousness, extroversion, neuroticism and openness-to-experience has become the most commonly implemented personality assessment tool (Saroglou, 2002b).

In this assessment agreeableness measures traits associated with trustworthiness, modesty, compliance, altruism and straightforwardness (McCrae, 2010). Conscientiousness measures competence, affinity for order, dutifulness, self-discipline and deliberation (McCrae, 2010). Extroversion measures warmth, gregariousness, assertiveness, penchant for activity, excitement seeking and positive outlook (McCrae, 2010). Neuroticism measures anxiety, hostility, depression, self-consciousness, vulnerability and impulsiveness (McCrae, 2010). Openness measures affinity for fantasy, aesthetics, receptivity to feelings, willingness to try new things, intellectual curiosity and an ability to examine personal values (McCrae, 2010). This five factor personality analysis has become the preferred method for analyzing personality in relation to religion and was the method utilized in this study (Saroglou, 2002b; Taylor & MacDonald, 1999).

Each of the FFM traits has been analyzed for their relationship to religion (Eysenck, 1998; Saroglou, 2002b; Taylor & MacDonald, 1999). For agreeableness, neuroticism and conscientiousness religious individuals score higher than the average population (Saroglou, 2002b). These correlations have been shown in multiple studies and tend to be stable across culture, age, and religious denominations (Saroglou, 2002a, 2002b; Saroglou & Muñoz-García, 2008; Taylor & MacDonald, 1999). The same consistency cannot be stated for the trait of openness which shows an unclear association to the trait of religiosity.

In Saroglou's meta-analysis on religion and personality traits he looks deeply into the trait of openness-to-experience. He reports that religious individuals score lower in openness, especially highly fundamental individuals, yet unaffiliated spiritual individuals and mature religious individuals score higher (Saroglou & Muñoz-García, 2008). Fundamentalists are defined as individuals who are dogmatic in their adherence to religion and strict in their use of religious texts, fundamentalism shows a -0.14 correlation with openness (Saroglou & Muñoz-García, 2008). By comparison, averagely religious individuals are neither permissive nor stringent in their religious beliefs. Average religiosity has a correlation with openness of -0.06 (Saroglou & Muñoz-García, 2008). Lastly, he identified individuals that have a permissive and mature religious belief structure or that were open to spirituality. Mature religious belief shows a +0.22 correlation with openness (Saroglou & Muñoz-García, 2008). All of these effects were found to be statistically significant.

For the purposes of this study religiosity will mean a strong relationship to religion and religion having an important impact on the way an individual governs their life. No specific measures for unaffiliated spiritualism were included in my survey. Interfaith Ministries members then are religious and ascribe to an actual documented religion. It is evident from these studies that the strength of one's religious belief does not preclude a low score for openness to experience (Saroglou, 2002b). If it is possible for individuals to be open to spirituality and yet still retain a high level of openness, it may be possible that individuals in this study could have high levels of religiosity and

still retain high openness. There is no reason to expect that a group high in religiosity should also be low in openness-to-experience.

2.4.2: How Does Personality Correlate with Tolerance?

While the interaction of personality traits with a person's religiosity can be complex, Saroglou's results definitely show that religious conviction does not equate to low openness for all people. In the question of how personality traits influence interfaith interactions, it will help to look at the impact of openness on one's ability to show tolerance to others.

On one end of the scale, low-openness individuals are much more conservative, realistic, insensitive and conventional (Roccas, Sagiv, Schwartz, & Knafo, 2002). They are more apt to stick to a traditional routine than to explore new ideas and ways of doing things (Flynn, 2005). Low openness also has a very strong correlation to conservative values (Flynn, 2005). It is then not surprising that studies have shown individuals low in openness to be much more prone to racial prejudice and negative reactions to racial cues (Flynn, 2005). While my study is focused on religious tolerance and not racial tolerance, the same traits are involved in making a person more or less accepting of new ideas, be they religious or racially centered (Johnson et al., 2011).

On the other end of the scale there are individuals that show a high level of openness; this means that they are more intellectual, open-minded, sensitive and

imaginative (Roccas et al., 2002). These individuals show a tendency to value

universalism and to reject strict conformity (Roccas et al., 2002). When tested for

tolerance to race, using racial stereotypes and racial profiling, individuals that score high

in openness are much less likely than average to adopt racial prejudice or engage in

profiling behaviors (Flynn, 2005). In Flynn's study he uses measurements of openness

to determine if individuals will be more likely to be flexible with racial stereotypes and

able to change their racial attitudes. He found that high scores in openness did in fact

mitigate racial prejudice and made individuals more flexible when dealing with minority

groups (Flynn, 2005). This is likely due to openness' large influence on interpersonal

interactions and social behavior (McCrae, 1996). Concern for pluralism and tolerance of

diverse groups makes the liberal political stance very much in line with their personality

(Caprara, Schwartz, Capanna, Vecchione, & Barbaranelli, 2006). In relation to religious

groups other than their own, high-openness individuals should show a much more

accepting attitude and be more likely to engage in interactions than individuals with a

low openness score. For this study the focus will be on the personality trait openness-to-

experience. Openness reflects a strong relationship to tolerance measures, and I am

interested in how this relationship is expressed in interfaith communities.

2.4.3: How Does Tolerance Correlate with Religiosity?

While there has been research linking openness to religion (Eysenck, 1998;

Saroglou, 2002b; Saroglou & Muñoz-García, 2008) there has been far more research

into religion's link with prejudice and tolerance (Allport, 1967; Aziz & Rehman, 1996;

Duck & Hunsberger, 1999; Hall, 2010; Johnson et al., 2011; Karpov, 2002). This research has shown a strong relationship between religious belief and an increased risk for prejudiced behaviors. This holds true when dealing with tolerance of different political beliefs (Karpov, 2002), sexual orientation (Duck & Hunsberger, 1999; Johnson et al., 2011; Whitley, 2009), and race (Aziz & Rehman, 1996; Hall, 2010; Karpov, 2002). Highly religious individuals have been found to react negatively to outsiders that do not conform to their beliefs.

This relationship is prominent even when the religion in question espouses ideas of tolerance and loving acceptance within their own group (Hall, 2010). While many individuals high in religiosity are found to be benevolent humanitarians, meaning that they are highly motivated to act selflessly in their relationships with close others, they do not extend this selflessness to other diverse groups, outside their close circle and are low in the corresponding value of universalism (Hall, 2010). These correlations have been shown to hold true across culture and religion (Aziz & Rehman, 1996; Karpov, 2002).

While the trend in previous research has been to examine how individual religiosity affects tolerance/prejudice levels, research is beginning to look at groups that do not react in these prejudiced ways (Aziz & Rehman, 1996; Johnson et al., 2011). New research is uncovering that while highly religious individuals are often more prejudiced, this is not always due to religiosity itself (Aziz & Rehman, 1996; Johnson et al., 2011; Saroglou, 2002b). Findings that fundamentalist groups and those scoring high

on measures of right wing ideology were considerably more prejudiced when compared to other religiously moderate groups had sparked some interest in whether or not religiosity was truly behind low tolerance scores (Duck & Hunsberger, 1999; Johnson et al., 2011; Karpov, 2002). Some researchers now argue that personal values, political ideologies and personality traits are behind the increase in prejudice among the highly religious and not the religious tendencies themselves (Allport, 1967; Duck & Hunsberger, 1999; Johnson et al., 2011; Saroglou & Muñoz-García, 2008). This study focused on the trait of openness which might be acting as a buffer against prejudice.

This is one of the key aspects I will examine in my study: is religion really the main problem stopping the development of positive interfaith relationships? Is it that religious individuals simply cannot get along and do not tolerate outsiders well? The previous research into personality, tolerance, and religiosity suggest there may be more influencing the intolerant actions of some religious individuals than religion alone. If individuals who are open to spirituality (Saroglou & Muñoz-García, 2008) are able to be tolerant to others because of their high level of openness it may be possible for other types of religious individuals to show the same tolerant behavior to outsiders, provided they are also high in openness.

3. HYPOTHESIS AND PREDICTIONS

My hypothesis is that openness mediates the negative relationship between religiosity and tolerance as seen in previous studies. In order to test this I have found people from an interfaith organization (IMGH) who by their behavior and involvement can be judged to be tolerant of religious outsiders. My study will show if tolerance and religion, tolerance and openness, and religion and openness are linked or not. I've predicted that the sample will score very high on openness, religiosity and tolerance; that tolerance and religiosity will not be statistically linked; and that openness will be positively linked to both religiosity and tolerance, giving statistical evidence of openness' ability to act upon tolerance, mediating any religious out-group bias.

4. METHODS AND ANALYSIS

4.1 Project Description

Participants' levels of openness, religiosity, and tolerance were assessed via an online survey. Participants were e-mailed a link to the survey via the director of interfaith relations, Lauren Santerre, at IMGH. This method of distribution allowed the IMGH organization and its members to feel at ease with their role in the study and maximized the number of participants involved. I wrote the e-mail and Lauren forwarded it to individuals that had previously exhibited interest due to their involvement with prior interfaith activities. As these individuals had previously attended a Dinner Dialogue, a service only available to interfaith members and their guests, these names were on a mailing list that is kept by the organization. Once the participants received the e-mail from Lauren, it was at their discretion whether or not to participate. No reply regarding participation was required. There were no negative repercussions if an individual chose not to participate in the study.

Participants' names were not attached to their survey responses in the data set. Instead their participation was logged through their e-mail addresses with the address kept separate from their responses to ensure anonymity. For their participation and time each individual was given the opportunity to enter an e-mail address for a chance to win one (1) of three (3) two hundred dollar ($200) visa gift cards. The gift cards were sent out via e-mail and no further information was collected in relation to the participants.

4.2 Sample and Procedure

My sample was comprised from one self-selected population that has chosen to learn more about and interact with members of religious traditions different than their own. This group was pulled from the Interfaith Ministries for Greater Houston Area, an organization that facilitates interfaith dialogue and interaction within the community of Houston, TX. I rate these individuals as seeking interfaith interaction based on their involvement in said organization. Contact was sent out to 653 individuals. I examined the dataset for differences between the sample group and the norm, paying specific attention to openness, religiosity and tolerance and the correlations among these variables.

I used the survey software Qualtrics to upload my surveys to the internet and to collect and store the results. In addition, I used Excel and JMP 10 programs to perform the statistical analysis of the data. Five self-disclosure surveys were uploaded to Qualtrics as one long self-report survey, which the participants gained access to through e-mail.

4.3 Measures

The survey that participants accessed was a combination of these five surveys:

1.   NEO-FFI-3 Personality Test: Openness section only. Created in 2010 as a shortened form for the NEO-PI personality test by Paul Costa, Jr. and

Robert McCrae (McCrae, 2010). It is controlled through PAR INC. who sells this personality test to psychologists with clearance to run level B psychological assessments. For the purposes of this study I used only the openness profile consisting of 12 Likert- response questions administered to measure the level of openness-to-experience.

As a psychological assessment tool I am unable to administer this test. Due to this restriction it was uploaded by a Psychology grad student, Angela Telford, at the University of Calgary, Calgary, Alberta, Canada. It was then assessed with the help of Dr. Joshua Hicks, professor of Psychology at Texas A&M University. The measure was scored using the NEO inventories professional manual where answers from strongly disagree to strongly agree are assigned a score of 0-4 respectively (McCrae, 2010).

There were 5 normally scored questions and 5 reverse scored questions to give a total score on this assessment out of 48 (McCrae, 2010). Higher scores on this measure show high openness-to-experience: meaning the individual has an active imagination, is more sensitive to aesthetics and beauty, monitors their own and others' feelings well, is naturally curious and has a strong desire for variety (McCrae, 2010).

2.   Santa Clara Religious Strength Questionnaire: Short Form.

Created by T.G. Plante, C. Vallaeys, A.C. Sherman & K.A. Wallston in 2002

(Plante, Vallaeys, Sherman, & Wallston, 2002). It was created in order to assess

traits of religiosity in settings where using the original 10-item test would be

difficult, such as clinical settings or brief surveys responses (Plante et al., 2002).

It consists of 5 Likert-response questions used to determine levels of religiosity

in participants (Plante et al., 2002). This measure shows how meaningful religion

is in participants lives as well as how much time they devote to religious practice.

It is scored using the marking directions found in the 2002 paper, published in

Pastoral Psychology, on a scale from strongly disagree to strongly agree with

values of 1-4 respectively. Higher scores here show a person who is highly

religious in their daily lives, using prayer and spiritual guidance to help

overcome obstacles (Plante et al., 2002).

3.   Revised Fundamentalism Scale: Created in 2004 as a shortened

form of the already existing twenty-item Fundamentalism Questionnaire by Bob

Altemeyer and Bruce Hunsberger (Altemeyer & Hunsberger, 2004). It consists

of 12 Likert- response questions used to determine levels of religious importance

and expression in the subject's lives with specific focus given to adherence to

dogma and belief in one true faith (Altemeyer & Hunsberger, 2004). It is scored

using the paper published in the International Journal for the Psychology of

Religion in 2004 with answers ranging from very strongly disagree to very

strongly agree with a scale from 1-8 (Altemeyer & Hunsberger, 2004; Davis & Hicks, 2014). The test is scored out of 96. These scores were then averaged to give each participant a score out of 8. High scores on this measure mean that the individual is more strict in their religious dogma, believing in one true religion and showing a high outsider bias (Altemeyer & Hunsberger, 2004).

4.   Gough Tolerance/Prejudice Scale: Created in 1951 by H.G. Gough (Gough, 1951). It consists of 32 true/false response questions used to measure the level of tolerance or prejudice subjects have for outsiders. It was assessed using the 1951 paper's instructions as provided by Edward Dunbar of the University of California at Los Angeles who has been using this scale the last 30 years. Marks were assigned as 0 for false and1 for true to a total of 38 points (Gough, 1951). High scores on this measure mean that the person is prejudiced in their world view and will not handle outsiders to their faith well (Gough, 1951).

5.   External and Internal Motivations to Appear Non-Prejudice Scale: Created in 1998 by E. Ashby Plant and Patricia G. Devine (Plant & Devine, 1998). It consists of 5 internal motivation questions and 5 external motivation questions both in Likert-style responses used to measure how subjects hide their prejudice and what motivates them to act without prejudice. It was scored using the measures outlined in Plant and Devine's paper published in the Journal of Personality and Social Psychology in 1998. The answers range from strongly

disagree to strongly agree and are assigned a value from 1-9 respectively, for a total score of 90 (Plant & Devine, 1998). In the 1998 paper these scores were then averaged out to a score out of 9 for both internal and external control of prejudice (Plant & Devine, 1998). High scores on these measures show a person who is more likely to try to hide the prejudiced feelings they have and behave in a tolerant way (Plant & Devine, 1998).

All of these surveys have been tested and used in previous studies. They have been shown to be reliable in measuring the traits of interest and are considered to be effective tools (Altemeyer & Hunsberger, 2004; Gough, 1951; Hull, Beaujean, Worrell, & Verdisco, 2010; Plant & Devine, 1998; Plante et al., 2002).

In addition to these surveys I will be including two questions to gage the participants' level of involvement with the interfaith organization.

    1.   The length of time they have been involved in IMGH via a scale: 1) less than one year 2) 1-3 years 3) 4-6 years 4) 7-10 years 5) 10+ years
This is asked in order to determine if they are new to the group or have made the conscious decision to remain involved over time.

    2.   To rate their level of involvement in the organization as being important to their self-concept via a scale:
1) Strongly disagree - 5) Strongly agree.

This is asked in order to determine if the participants highly value their

involvement with the organization or not.

4.4 Analysis

The survey was divided into two sections: the first consisting of the religious and

tolerance measurements and the second consisting of the personality profile. 56 people

completed the first half while only 36 of those participants returned to take the second.

My sample yielded 32 completed surveys that could be analyzed giving my study a 5%

response rate from the population of 653. While small, a response of over thirty

participants is considered sufficient for a normal statistical distribution (Ott, 2010).

These responses were then scored in the manner consistent with the scoring performed in

the comparative studies.

In order to determine if there is a correlation between openness, tolerance and

religiosity a Pearson's correlation (r) was run against the eight separate measures:

openness, tolerance, religiosity, fundamentalism, external motivation, internal

motivation, time involved with IMGH, and importance of involvement in IMGH. A 2

sided t- test was then run on these correlations to get the p value to determine statistical

significance. Given my hypothesis and predictions I was hoping to find correlations

between tolerance and openness as well as religiosity and openness, but no correlations

between religiosity and tolerance. It was important that if any of these correlations were

found that the results hold statistical significance for my population showing that in interfaith organizations openness can mitigate religious prejudice.

For this study, any r values > 0.3 were investigated further while any r values related to the hypothesis were also addressed regardless of the correlation value. I chose to start at that relatively low threshold due to my small sample size which affected the power of these tests. I ran a power analysis of the correlational results and found that a sample size of 32 would be necessary to achieve 80% power with 95 % confidence. As my sample size falls right at the threshold for statistical power further studies would need to be conducted to determine if the correlations would increase in significance and present more robust findings when run with a larger sample. Therefore, any r values between 0.0-0.3 were marked as no correlation, 0.3-0.4 were marked as a weak correlation, 0.4-0.5 were marked as moderate, and >0.5 were marked as a strong correlation. This relationship is shown in Table 1 on page below:

Table 1.
Correlation Guide for IMGH Sample Results*

Correlational Strength:	**R value:**
No correlation	0.0 - 0.3
Weak	0.3 - 0.4
Moderate	0.4 - 0.5
Strong	>0.5

Note. *= created for this study and does not represent correlation strength in any comparative sets.

The second type of analysis that was conducted on the data was to create an average response rating for each of the five surveys. By doing this I was able to make a profile of the average person that participates in IMGH activities: how they measure on religiosity, tolerance to outsiders, and their openness to experience levels. This average was then compared against the comparative data sets to determine if the sample population differed from the comparative set as my predictions expected. The questions related to the participants' involvement in IMGH were added without expectation of a correlation but to guard against either factor being confounds.

5. RESULTS

The results of this study were split into two categories: results that are related to the original hypotheses and results that I had not set out to analyze but that produced correlations of enough substance to warrant further examination. All results will be further addressed in the discussion section of this paper.

5.1 Hypothesis Testing

5.1.1: Average Participant

My first prediction centered around the idea that individuals are able to score high in measures of religiosity while still measuring low on tolerance. This is the most common result that had been illustrated in earlier literature, that highly religious groups tend not to be tolerant of outsiders (Allport, 1954; Allport, 1967; Duck & Hunsberger, 1999; Hall, 2010). However, I hypothesized that there was something more than strict religiosity involved. While there is some evidence linking high openness measures to higher levels of spirituality and mature religiosity (Saroglou, 2002b) I chose to focus on religion as it pertains to organized religious groups. Saroglou's spirituality was looking for those with more broad and loosely defined religious ideals. I predicted that highly religious participants would be able to remain low in prejudice, as measured by the Gough scale, if they also showed high scores in the personality trait of openness, as measured by the NEO FFI-3 personality test. Openness traits are related to an accepting attitude around new and varied ideas and experiences. Therefore, while the average religious individual has been seen to be less tolerant the trait of openness in this

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population may be mitigating these prejudicial tendencies. Openness is linked to people that are more adventurous in life and this may extend to their religious encounters making them more accepting to outsider views.

To examine this hypothesis an average response set for the survey populations was created. I was then able to ascertain how an average participant, from IMGH, would differ from the average person as previously measured with these surveys.   In the comparative sample set surveys were administered to a North American population, using varying sample sizes as seen in Table 2. The comparative sample NEO FFI-3, and Internal/External Motivation to hide prejudice scales pulled their samples from undergraduate students in psychology. While the Santa Clara Religiosity Questionnaire used a combined sample consisting of undergraduate psychology students and cancer patients and the Gough scale pulled its sample from a high school population. The Fundamentalism scale in Altemeyer's 2004 paper used psychology students as well, however, this paper did not provide means and standard deviations so I used Davis and Hicks' data which was collected using Amazon MTurk (Davis & Hicks, 2014).

These means and standard deviations were then used as a baseline when testing for difference in the IMGH sample. Table 2 on page 50 shows the survey means and standard deviations of the comparative set and Table 3 on page 51 shows the means and standard deviations found in the IMGH sample.

Table 2.

Mean and Standard Deviation of the Comparative Dataset

Name of Survey	Mean Score	Standard Deviation	Sample Size
NEO-FFI: Openness Scale	28.4	6.3	635
Santa Clara Religiosity Questionnaire	14.5*	7*	1584
Fundamentalism Scale	3.34	2.19	260
Gough Tolerance/Prejudice Scale	12	5.77	263
External Motivation Scale to Hide Prejudice	4.61	1.96	1363
Internal Motivation Scale to Hide Prejudice	7.83	1.29	1363

Note.*=Average of the mean and standard deviation range. There were many samples in the comparative data set and I have used the average of these findings.

Note**=Table is continued from page 49.

Table 3.
Mean and Standard Deviation of the IMGH Sample

Name of Survey	Mean Score	Standard Deviation	Range	Difference from the Comparative Set	Sample Size
NEO-FFI: Openness Scale	36.26	5.97	24	+7.86 Mean -0.43 St.Dev. (t test: p value < 0.0001)	35
Santa Clara Religiosity Questionnaire	15.53	3.45	13	+1.03 Mean -2.55 St.Dev. (t test p value: 0.3864)	32
Fundamentalism Scale	3.24	1.62	6.92	-0.10 mean -0.57 St.Dev. (t test p value 0.8029	32
Gough Tolerance/ Prejudice Scale	7.40	2.72	11	-4.6 Mean -3.05 St.Dev. (t-test p value <0.0001)	32
External Motivation Scale to Hide Prejudice	3.91	9.02	38	-0.7 Mean +7.06 St.Dev. (t- test p value 0.2159)	32
Internal Motivation Scale to Hide Prejudice	7	3.86	29	-0.83 Mean +2.57 St.Dev (t-test p value 0.0049)	32

The differences between the IMGH sample and the comparative sets were very interesting. These results are broken down by the individual surveys below.

5.1.1.1: Openness in the IMGH Sample vs the Comparative Dataset

Openness showed a score that was a full 7.86 points higher in the IMGH sample than the control with a corresponding p value of <0.0001. The difference between the comparative set and the IMGH sample is seen in Figure 1 below.

Figure 1. NEO FFI-3 scores in the IMGH sample. The red line on the box plot shows the comparative samples mean score. While the red line on the normal quantile plot represents the sample mean to visually represents the samples normative dist.

These results may help explain the individual's choice to seek-out outsiders to their faith. The mean score of the comparative dataset is situated incredibly low in

relation to the IMGH scores, resting right above the bottom whisker of the boxplot.

People who score very high in openness are more likely to be liberal minded in social

issues, like racial and religious diversity, and to seek out new experiences and variety

(McCrae, 2010). These qualities make an organization like IMGH very appealing,

allowing the members to experience different ideals than they would normally

encounter, sating the curiosity driven by their own propensity to be more open in

personality.

5.1.1.2: Religiosity in the IMGH Sample vs the Comparative Dataset

The IMGH sample population scored similarly to the comparative population on

the Santa Clara measure of religiosity. The difference between the comparative dataset

and the IMGH sample in the Santa Clara Survey is seen in Figure 2 on page 55.

Figure 2. Santa Clara scores in the IMGH sample. The red line on the box plot shows the comparative samples mean score. While the red line on the normal quantile plot represents the sample mean to visually represents the samples normative dist.

This shows that the individuals in the IMGH sample have an average level of religiosity and that their faith plays a moderate role in their lives (Plante et al., 2002). The level of religiosity of the IMGH group was of particular interest to this study as my prediction stated that the sample should score high in religiosity. This was not the case. The sample was on the higher end of average religiosity scores. There were a few outliers who scored slightly higher but they were balanced by other outliers who scored slightly lower. This was unanticipated as I was hopeful that the group would yield a higher than normal religious experience but there was no statistical merit to this prediction.

5.1.1.3: Fundamentalism in the IMGH Sample vs the Comparative Dataset

The fundamentalism scale produced very interesting results in relation to the comparative set. This scale measures how likely a religious individual is to adhere to strict doctrine and to believe that their faith is the only true religion in the world (Altemeyer & Hunsberger, 2004). This measure was used specifically to distinguish overall religiosity, the willingness to follow an organized religion, from fundamentalism, the tendency to see one faith as more right than another and to follow very strictly to their religious code (Altemeyer & Hunsberger, 2004).

Overall, the sample scored almost exactly average in relation to the comparative dataset, scoring only 0.10 points below the mean with a standard deviation of only 0.57 points below the comparison. With a p value of 0.8029 this difference is not of statistical significance. However, there were 4 outliers in this sample that may be of interest. The comparison between the IMGH sample and the comparative dataset is seen in Figure 3 on page 57.

Figure 3. Fundamentalism scores in the IMG sample. The red line on the box plot shows the comparative samples mean score. While the red line on the normal quantile plot represents the sample mean to visually represents the samples normative dist. In this sample outliers are clearly shown both at the high and low end of the range.

The massive outliers seen in the fundamentalism scores illustrate that IMGH contains a wide variety of religious beliefs ranging from highly fundamental to not fundamental at all. This was surprising as I had anticipated relatively low values for fundamentalism due to the nature of the population. There must be a reason that these highly fundamental individuals are choosing to enroll in an organization that promotes interfaith cooperation and tolerance. This is not the typical behavior seen in these individuals. This result will become important during the correlation analysis as I examine for reasons that fundamental individuals may be involved with interfaith groups at all.

5.1.1.4: Gough Scores in the IMGH Sample vs the Comparative Dataset

The Gough scale showed extremely low scores in this sample, well below the comparative set's mean. The Gough tolerance/prejudice scale measures the likelihood that an individual will behave in tolerant ways toward people who are different from themselves and a low score indicates that these individuals are very tolerant (Gough, 1951). This was anticipated given the nature of the IMGH sample but was even lower than would have been expected. With a mean score 4.6 points lower than the comparative population the members of IMGH are highly tolerant of outsiders to their religious beliefs. The difference between the IMGH Gough scores and the comparative sample is seen in Figure 4 on page 59.
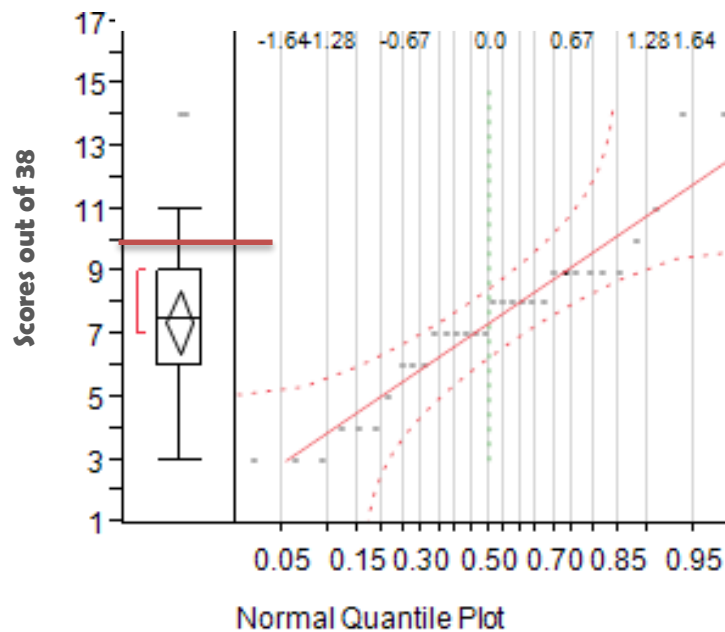
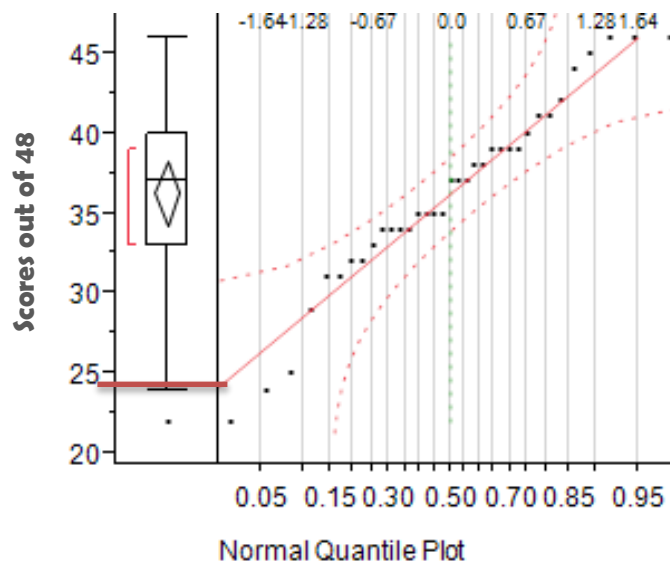*Figure 4: Gough scores in the IMGH sample. The red line on the box plot shows the comparative samples mean score. While the red line on the normal quantile plot represents the sample mean to visually represents the samples normative dist. In this sample outliers are clearly shown at the high end of the range.*

While the sample did not score high in the measure of religiosity they have scored extremely low on measures of prejudice. This sample scored so far below the comparative mean that the mean line is sitting well above the quartile range of the whisker plot. While this low score indicates that the population is significantly less prejudiced than average people the Gough scale cannot inform us as to why this is the case.

5.1.1.5: External Motivation to Appear Non-Prejudiced in the IMGH Sample vs the Comparative Dataset

The external and internal motivation to appear non-prejudiced scales, which measure an individual's reasons for acting in a non-prejudiced manner can help to discover why the population is more tolerant. The external measure shows a mean score similar to that found in the comparative population meaning that they are no more controlled by outside pressures to behave tolerantly than other populations. However, the dataset exhibited higher than normal variance. With a standard deviation of 9.02 there was a larger than normal spread which was related to a few high scoring outliers. Although the difference was not found to be statistically significant. The difference between the comparative set and the IMGH sample is shown in Figure 5 on page 61.
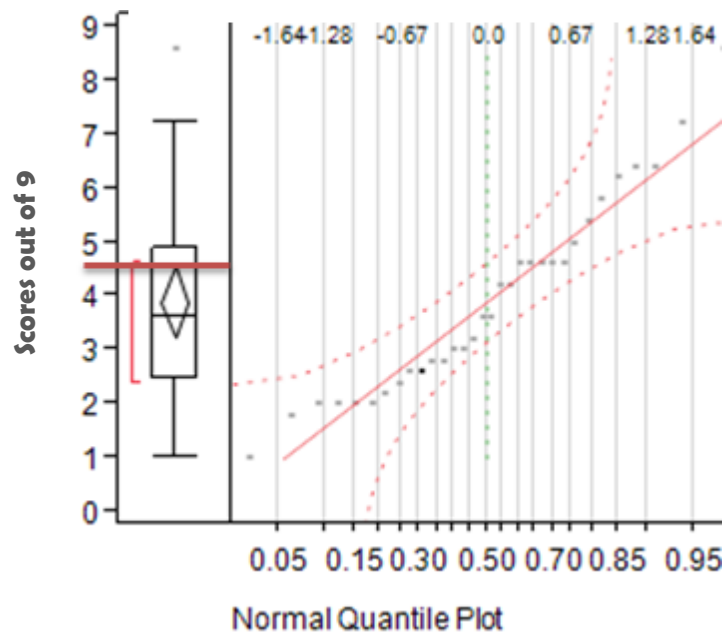
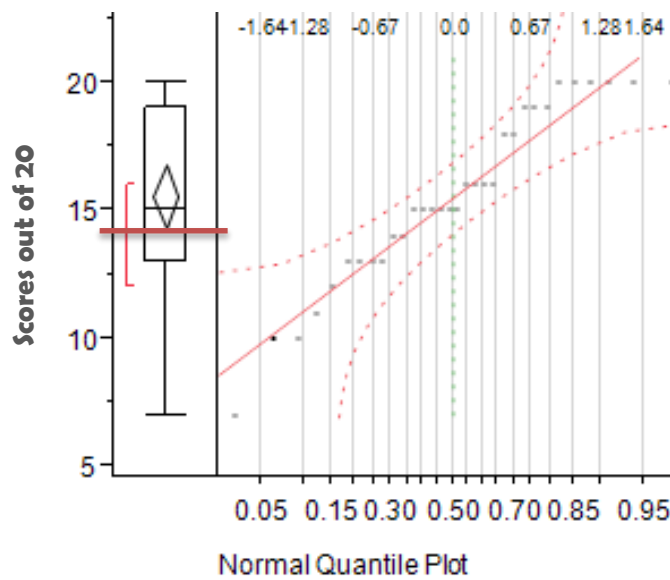*Figure 5: External Motivations Scores in the IMGH sample. The red line on the box plot shows the comparative samples mean score. While the red line on the normal quantile plot represents the sample mean to visually represents the samples normative dist. In this sample outliers are shown at the high end of the range.*

As seen in the box plot there were some significant outliers in this measure. These outliers are the same people that scored high on the fundamentalism survey. This shows that the individuals in the IMGH sample are overall averagely compelled by outside influences to appear non-prejudiced but there are a few individuals that are more compelled than the rest. I will investigate the correlation between the high fundamentalism outliers and those in the external measure during the correlational analysis later in this paper.

5.1.1.5: Internal Motivation to Appear Non-Prejudiced in the IMGH Sample vs the Comparative Dataset

The internal motivation to appear non-prejudiced scale was unremarkable in its averages but did show some statistically significant changes in the standard deviation with a value 2.57 points above the comparative population. With a p value=0.0049 there was enough of a difference in the spread of the internal motivation scores to be of interest. The IMGH sample scored similarly to other groups that have taken this measure but with some significant outliers. The outliers in this group were responsible for the higher variance in scores. This relationship is seen in Figure 6 below.

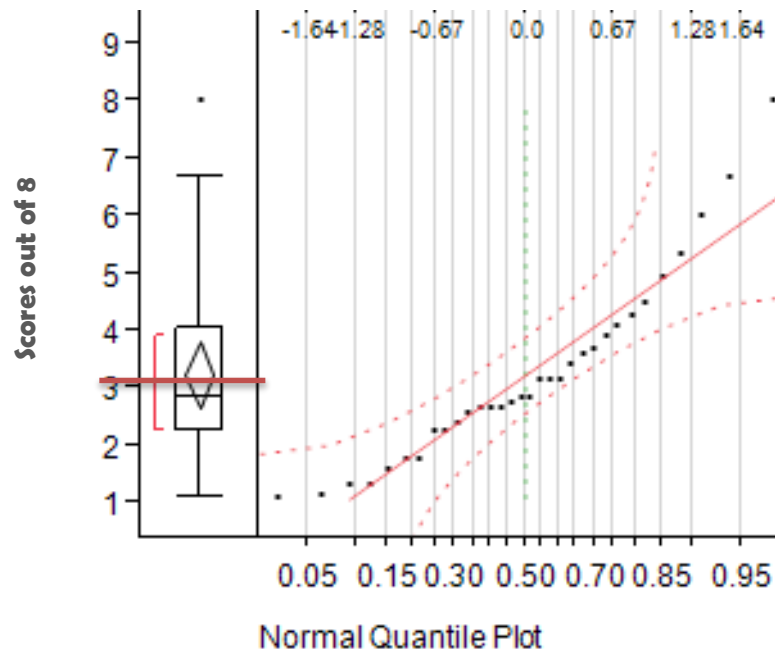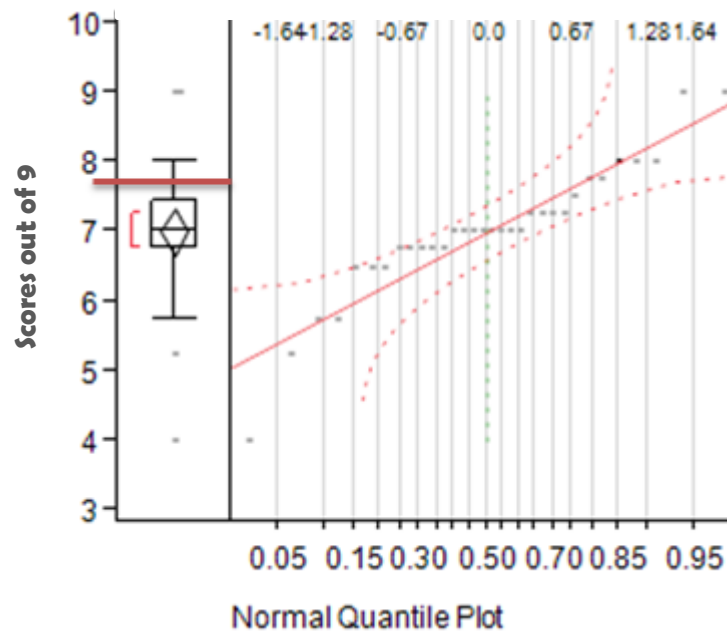*Figure 6: Internal Motivation Scores in the IMGH sample. The red line on the box plot shows the comparative samples mean score. While the red line on the normal quantile plot represents the sample mean to visually represents the samples normative dist. In this sample outliers are shown at the high and low end of the range.*

While the IMGH sample distribution of this survey fell within the bounds of the comparative dataset both sample means scored on the higher end of the scale. In the boxplot you can see that this scale is out of 9 and that both populations scored an average of between 7 and 8. Being as these are North American samples this may reflect internalized social pressures to be accepting of difference. This was not a part of my prediction or hypothesis and would need to be tested further with future studies.

5.1.1.6: Summary of the IMGH Results vs the Comparative Dataset

As a summarization of the values above, while it can be said that the average person in the IMGH organization holds religious beliefs comparable to the comparative sample, they are shown to be considerably more tolerant to outsiders and much more open to new experiences than the comparative populations. Interestingly, they also score low in fundamentalism with a high variance in this measure which appears to agree with a similarly large variance in the external motivation to appear non-prejudiced scale. These IMGH averages do not support the prediction that one can be highly religious and remain tolerant of outsiders of their faith as the sample was not found to be highly religious.

5.1.2: Correlational Analysis of the Hypothesis

My second hypothesis for the study was that religiosity and tolerance would not be correlated, showing no statistical significance to assign religious individuals with low tolerance. That instead both religiosity and tolerance would be independently linked to

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measures of openness and that the openness personality trait would then mediate any

negative correlations found in previous studies between religiosity and tolerance

(Saroglou, 2002a, 2002b). To test this I ran a Pearson correlation analysis (r) on the raw

data from the survey. While it was discovered that religiosity and tolerance were indeed

statistically independent, they were not found to be linked to openness. Table 4 below

shows the correlational results for the Pearson correlation on all eight measures.

Table 4.
Correlational Analysis of Surveys: r values

	1	2	3	4	5	6	7	8
1. NEO FFI	-							
2. Santa Clara Religiosity	.26	-						
3. Fundamental	-.10	.61*	-					
4. Gough Prejudice	.21	-.05	.11	-				
5. External Motivation	.07	.24	.39*	.37*	-			
6. Internal Motivation	-.13	.20	.13	.06	.26	-		
7. Length of Time Involved	-.10	-.24	-.36*	.07	-.12	.27	-	
8. Importance of Group	-.13	-.12	.05	.14	.12	-.06	-.14	-

Note.=correlations show a p value <0.05 and are considered statistically significant.*

As seen in Table 4 on page 64, both measures of religiosity, the Santa Clara religiosity questionnaire and the religious fundamentalism scale, showed no correlation to the Gough scale having an r= -0.048 and 0.11 respectively. No correlation between religiosity and tolerance was found in this sample set. This is interesting as previous studies have linked higher religiosity to lower tolerance (Hall, 2010; Karpov, 2002) but it is unclear if these studies adequately controlled for personality or other confounds. The relationship between these two measures, outlined in previous studies, may be explained by the relationship of fundamentalism and openness to experience, because more fundamental individuals are also low in openness it follows that they would also be less tolerant of outsiders. The low variance of the standard deviation for religiosity in this sample set may also have been a confounding factor; reducing any effect that would have been found with a more normally distributed sample.

The Santa Clara questionnaire and the fundamentalism scale showed no correlation to measures of openness as well, with values of r =0.259 and -0.129 respectively with no statistical significance. While this study failed to illustrate meaningful correlations in this area others have. In Saroglou's 2002 meta-analytic review he found similar levels of correlation in his sample with fundamentalism correlating at -0.14 and mature religiosity correlating at 0.22 (Saroglou, 2002b) with statistical significance in his sample. This result suggests that the interfaith individuals in this study may be displaying a mature religiosity. Unfortunately, this study did not control for that type of religiosity as no separate measure was used to determine mature

religious belief structure. It would be beneficial to test this correlation in further studies of interfaith organizations.

The measure of openness also was not statistically linked to measures of tolerance, neither the Gough scale nor the Plante external/internal scales, with Pearson' correlation scores of r=0.206 and 0.069/ -0.129 respectively. These finding were not strong enough to be considered statistically significant. In order to control any confounding effects that religion might have been exerting on correlations between openness and tolerance I ran a multiple regression analysis as well. Even when controlling for religiosity (B=-0.05, p=0.703), I did not find any significant effects between openness and tolerance (p=0.345) leading to no meaningful results at this time.

This was interesting as in Flynn's 2005 study he did find a significant effect in his test samples where people with higher openness were more flexible to racial stereotypes and more able to rethink racial labels assigned to outsiders (Flynn, 2005). However, Flynn's correlational study also found a weak correlation with no statistical significance between openness and tolerance (Flynn, 2005) so it is unclear what the cause of his observed results may have been. Now with the ambiguous result from this study it is clear that this effect must be more thoroughly studied in a project with a much larger sample size to rule out the power of my results having been affected.

Without further studies my hypothesis is disproven as religion is not statistically linked to tolerance and neither was it statistically linked to openness. This may be related to religiosity scores that were not high enough to show stronger correlations but, without further study, openness cannot be said to mediate religious prejudice in the IMGH population.

5.2 Unanticipated Findings

In addition to the results presented above, there were a number of unanticipated correlational findings. The following section will review correlations not addressed by my hypothesis and predictions.

The second measure of tolerance, the external/internal measures scale, was particularly interesting. Chosen to show the reasoning behind whether participants behaved in non-prejudiced ways it revealed much about this sample's tolerant behavior. As seen in the scores from Gough's scale it is possible that averagely religious people can be more tolerant. While this was interesting the underlying reasons behind their more tolerant behaviors are not demonstrated with Gough's scale, to find the reasoning I implemented the Plant Internal/external scale. This addition turned out to be very informative. The external measure scores were weakly correlated with the Gough scale where r=0.373 and p value=0.035. This relationship is illustrated in Figure 7 on page 68.
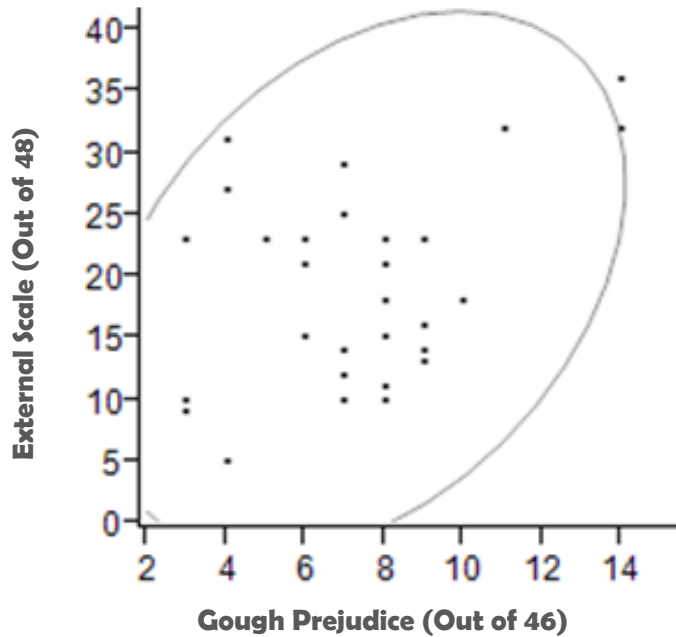
Figure 7. External measures correlated with Gough prejudice scale. This scatter plot shows the moderate correlation between External Measures and the Gough tolerance scale.

Looking at the scatter plot you can clearly see that as Gough scores increase, and the levels of prejudice go up, the external scores go up and the person is better able to hide their prejudice. This is highly beneficial to the individuals as all participants were involved in an organization that highly prized acceptance of other religions. This idea of more radical group members existing but controlling their actions because of social expectations and norms was an unexpected but insightful finding.

It was interesting that there was no similar correlation between the Gough scale internal measures to appear non-prejudiced. With r=0.05 there is essentially no link

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between the two measures at all. This may mean that the Gough scale is better at

measuring a person's externalized reasons to appear non-prejudiced and less confident

when measuring internal controls that allow a person to interact well with outsiders.

Next it is important to look at a weak correlation between the external motivation

to appear non-prejudice and the fundamentalism scale r=0.388 and p value=0.031. This

shows that as the IMGH group became more fundamental in their beliefs they also

became more highly motivated to mask their marginalizing behavior towards others.

This relationship is illustrated in Figure 8 below.

Figure 8. Fundamentalism correlated with External Measures. This scatter plot shows the moderate negative correlation the Fundamentalism and External Measures.

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This weak correlation between the fundamentalism scale and the external measure illustrates the same idea that the previous correlation between the Gough scale and the external measures of prejudice did, both show that in this sample as individuals became less accepting of outsiders they became more heavily influenced by outside pressures to appear tolerant. These correlations were statistically significant even with few people in the sample scoring high on prejudice and high on fundamentalism. That the correlation is so clear only reinforces my idea that it is fundamentalist beliefs, and not religiosity, in general that link to low openness and low tolerance. I suspect that the people who were least likely to engage positively with outsiders to their faith were able to hold those emotions in check due to the expectations of the group. This idea has major implications going forward for methods that may be used to increase cooperation in religious groups that would typically shy away from interfaith interactions.

Indeed, length of time involved in the IMGH organization and fundamentalism were also strongly negatively correlated in this study at $r=-0.358$ with a p value$=0.048$ meaning that people in IMGH are less likely to be regarded as fundamental in their beliefs the longer they are with the organization. This relationship is illustrated in Figure 9 on page 71.
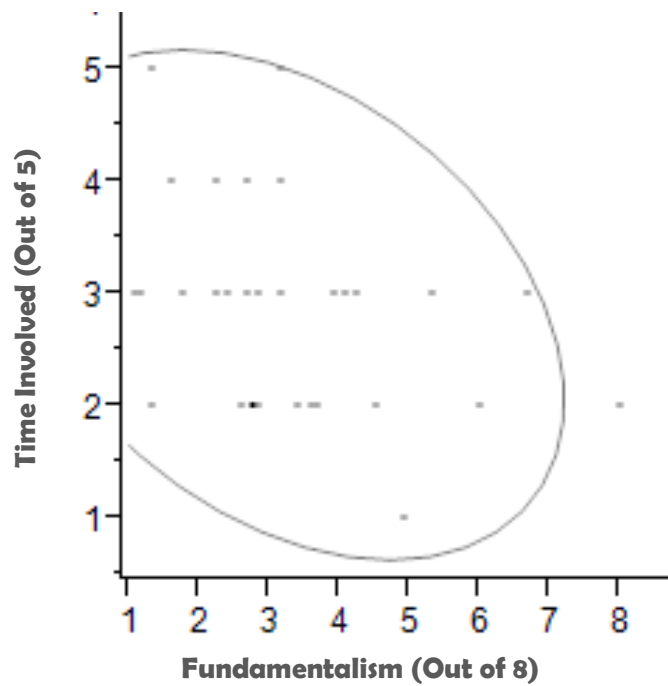
Figure 9: Fundamentalism correlated with time involved in IMGH. This scatter plot shows the strong negative correlation between fundamentalism and the length of time involved.

From the scatterplot the relationship is very clear. As time passes there it is less likely that people in IMGH will identify as fundamental in their religious beliefs. This may be because of declining severity of strict adherence to doctrine based on exposure to others views, as is seen in the contact hypothesis (Allport, 1954), or because fundamental individuals are more likely to leave the group over time. Due to the correlational nature of this study more research would be needed to determine which of these reasons may be the cause of the declining fundamentalism.

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The strongest correlation identified, by far, was between the Santa Clara questionnaire and the Fundamentalism scale. They were strongly correlated with r=0.611 and p value=0.000. This means that as the participants level of religiosity increased so did their fundamental belief structure. This relationship is illustrated in Figure 10 below.
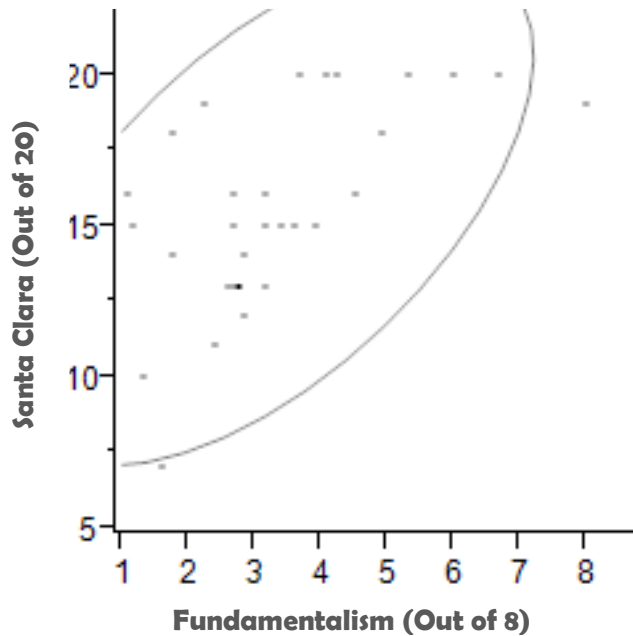
Figure 10: Fundamentalism correlated with the Santa Clara Religiosity Scale. This scatter plot shows the strong positive correlation between fundamentalism and the Santa Clara religiosity scale.

Even with so few fundamental participants in my study those that showed the highest potential of fundamentalist belief structures also showed the highest importance of religion in their lives. This correlation suggests that the more fundamental an

individual is the more devoted they will be in their practice of their religion. While scoring high in the Santa Clara questionnaire does not ensure a high score on the fundamentalism scale the two surveys are certainly measuring very similar traits.

It is important to remember that while the traits are similar it is unlikely that they are measuring the same thing as correlations between these scales and the other surveys in our sample varied widely. It is a very fine difference between religion and fundamentalism, the difference being that more fundamental groups express their religious devotion in more dogmatic ways (Saroglou, 2002a). The two measures, however similar, are nonetheless distinct as they did not show correlations to the same measures. This correlation was stronger than I would have anticipated based on the small number of individuals that were in this sample to draw from. This means that the correlation is very meaningful and will be useful going forward with future research.

6. DISCUSSION AND FURTHER RESEARCH

6.1 Discussion

While this study did not conclusively answer the reasons that interfaith participants are able to mitigate religious prejudice in their dealings with outsiders of their faith it did propose some ideas as to what might be affecting this relationship. It may be that the types of people willing to participate in interfaith activities have a higher than average tolerance for outsiders because they are more socially aware of expectations to behave with civility. It may be that these types of individuals are higher in the personality trait of openness, and so are more likely to seek out experiences that bring them into contact with outsiders of their faith. These kinds of reasons would explain why these individuals joined the interfaith community in the first place.

My study has also illustrated that simply being religious does not necessarily preclude a person's ability to tolerate outsiders and also does not preclude the person's willingness to experience new things. Religion and tolerance were shown in my sample to not be linked. While this study failed to find meaningful correlations between openness and tolerance, other similar studies have (Flynn, 2005). This study may well have had stronger correlational findings had a larger sample size afforded greater statistical power to my results.

Another issue that may have impacted the results of the openness measure was the high average in the IMGH sample. The average being 7.86 points higher than the

comparative sample. The standard deviations were similar between the IMGH sample and the comparative study, suggesting that these IMGH scores were normally distributed around a much higher center point. This may have made it difficult to track correlations that could have appeared in a more diverse population. Due to the ambiguous results in this study I cannot say that religious tolerance is mitigated by high levels of openness.

When I began this project I was looking to openness to control any negative reactions to outsiders but I did not find this to be the case. However, I did discover other factors that may be involved in mitigating these negative reactions. Social norms and group expectations were found to play a significant role in this mitigation process. Especially in regards to the highest religiosity scores in my sample, produced by the fundamentalists.

Societal pressure must also be addressed as a component in these religious people's choices to pursue interfaith interactions. It is unclear from the correlational nature of this study if people who are more socially conscious about external pressures to reduce prejudice are more likely to join organizations like IMGH in the first place. It may be that people who are in these organizations are more likely to rein in any underlying prejudices that they have due to external expectations of other members. At any rate, it is important to address the highly normative behavior that this study's result reflects. The most striking correlations found were those that surrounded the fundamental individuals in the group and their ability to control their prejudiced impulse.

Humans are very sensitive to norm behaviors and so are more willing to act in accordance with these norms than risk being removed from or restricted within the group (Wilson, 2002). Norms are pervasive in all societies; they are in-place to do exactly what they have been observed doing in this study, keep group members acting in certain prescribed ways to maximize the cohesion of the group.

There is evidence from the contact hypothesis that people who are exposed to different ideas that these ideas begin to appear as less strange than before the exposure (Allport, 1954). This idea of opinions becoming less defined was hinted-at with the correlation between fundamental participants and the length of time they were in the program. As individuals spent more time in the IMGH programs they may have become less prejudiced and more accepting of other religious behaviors in the group. In order to ascertain these results a longitudinal study would need to be done. They may have been becoming less stringent in their beliefs over time because of the exposure to others views. While we cannot prove causation in this point it does appear to coincide with the findings of the contact hypothesis (Allport, 1954).

While these findings are interesting, and can be used as a basis for further discussion and research, it is imperative to note that all conclusions remain correlational in nature and they do not imply causation. It would be up to future researchers to look into the causation of these correlations. I have done my best to speculate on what they might mean but do not claim to hold the full answers.

6.2 Issues and Further Research

Some of the issues that arose through the course of this study that may have reduced the effectiveness of the research are broken into two categories: issues with the sample population and issues with the survey distribution process.

6.2.1: Sample Demographics

My sample population was only composed of Houston-area residents that were involved in the Interfaith Ministries Dinner Dialogue programs. These programs are set up to bring diverse religious peoples into a common setting to enjoy a meal and discuss their beliefs in an open and supportive environment. These individuals self-select to participate in the dinners and so only those individuals with a genuine desire to interact with outsiders to their faith were included in the sample. This was useful in this study as I wanted to isolate religious belief from religious fundamentalism and look at links to openness and tolerance. This was more easily accomplished with a group of people who I knew were religious and open to meeting outsiders to their faith. However, this may have created a sampling bias in my study that would need to be investigated with further research.

There was also an inherent bias of location as the study did not include interfaith groups outside of the city of Houston or the state of Texas. In further studies it would be beneficial to expand the research area to see if the results are applicable to the broader United States and to other countries in other areas of the world.

In future research it would be prudent to include some questions to gauge demographic information to better understand how representative these individuals are of the population at-large and to know if there were gender biases as have been illustrated in previous studies (Eysenck, 1998). Also, measures of mature religiosity should be included in future studies to better assess the interfaith communities distinct type of religiosity.

6.2.2: Survey Methods

This survey was completed online and, as is common in these types of surveys, completion rate was low. This occurs because the researcher is not present to ensure survey completion and the participants feel no urgency in the task and may forget about it until a later date. The low rate of survey completion had a definite effect on the statistical significance of my results. This study achieved the 30 person sample size required to show a natural bell curve, which we have determined was the case in this group. However, the sample size was not large enough to achieve reliable p values for the most of correlational data. With further studies it would be important to pull from more than one organization to increase the odds of having a healthy sample size.

Another issue that I encountered relates to survey administration as handled by IMGH. In an effort to retain anonymity for study participants, the e-mail linking to the survey was sent directly from the Director of Interfaith Relations. While this was helpful in the credibility of the study, it did not allow me the opportunity to follow up

with participants. In online surveys the best response rates were achieved when the researchers were in contact with participants an average of four times: to contact them initially, to remind them of the survey, to encourage them to complete the survey, and to remind them of the social and monetary rewards at stake. Without the ability to contact our group multiple times this study was at a decided disadvantage. In further studies it would be helpful to set up the contact differently to ensure multiple prompts. If these new research projects were to find results similar to my own the results would be much more robust.

7. CONCLUSION

Through this study I have illustrated that religion has no relationship with openness to experience which may have been misinterpreted in previous studies. It is important to have a much clearer scientific knowledge about the different types of religious groups that tend to be lumped together into religious and non-religious groups in future research. The ways in which an individual conforms to their faith and the ways that their faith is impacted by their personality and personal beliefs can help to paint a much fuller picture of these religious individuals. There is more to the issue of interreligious tolerance/conflict than simply religion in the broad sense. It is becoming increasingly important to start talking about religion in a more nuanced sense, as people are living their religion in many different ways and interacting with many types of groups (Patel, 2007).

What once seemed to be a clear issue of religion predicting religious discrimination, exclusion and intolerance is no longer certain. This study found no relationship between religion and tolerance at all and these measures should no longer be used as a measuring stick for the other. It is not religion that we must look to when discussing prejudice. There are more complex interactions occurring at the individual level that mediate a person's relationship with outsiders.

While this study was inconclusive, high levels of openness to experience may mediate religious tendencies to adhere to convention and shun new religious ideals, as

has been seen in earlier studies focusing on racial tolerance (Flynn, 2005). Further research with larger sample sizes will help to illuminate these ambiguous results. Above all, high levels of external pressure may be effectively mitigating fundamentally religious people's dislike of outsiders while they are in interfaith programs. The norms of these groups influence them to behave civilly with those who do not share in their religious faith. This study has shown that there is still much to be learned about the interfaith community and the individuals that to belong to them.

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APPENDIX A

NOMENCLATURE

Openness-to-experience (openness): Will refer to the personality trait measured by the NEO-FFI personality test which measures levels of active imagination, aesthetic sensitivity, attentiveness to inner feelings, preference for variety, and intellectual curiosity (McCrae, 2010).

Religiosity: Will refer to religious importance in a person's life and will be measured through the Santa Clara Religious Strength Questionnaire. Religiosity is distinct from Fundamentalism in this paper (Plante et al., 2002).

Fundamentalism: Will refer to the propensity of an individual to stick to strict doctrines of any faith and to view their ideals as the "right" path. I will use the Fundamentalism Scale to determine intensity of fundamentalism (Altemeyer & Hunsberger, 2004).

Tolerance: Will refer to a person's ability to be accepting,

                                non-judgmental and permissive in their social

                                beliefs. These traits are measured by the Gough

                                Tolerance Scale (Gough, 1951).

Internal/External Prejudice control: Will refer to a person's ability and want to appear

                                less prejudiced than they actually are. This scale

                                differentiates between external controls such as

                                societal expectations and repercussions and internal

                                controls such as importance to the person's identity

                                (Plant & Devine, 1998).

Interfaith Interaction: Will refer specifically to interactions occurring in a

                                structured dialogue focused setting through an

                                interfaith organization. It will not refer to

                                incidental casual relationships with people of

                                another faith. The interfaith relationship must have

                                been sought out to learn more about another faith.

                                This will be controlled for as all study participants

                                are drawn from an interfaith organization.

IMGH: Interfaith Ministries for Greater Houston Area.

The not for profit organization that participated in

this study.

APPENDIX B

SURVEY QUESTIONNAIRES

B.1: Abbreviated Santa Clara Strength of Religious Faith Questionnaire

Primary Reference: (Plante et al., 2002)

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. I pray daily.

__ 2. I look to my faith as providing meaning and purpose in my life.

__ 3. I consider myself active in my faith or church.

__ 4. I enjoy being around others who share my faith.

__ 5. My faith impacts many of my decisions.

B.2: Revised Fundamentalism Scale

Primary Source: (Altemeyer & Hunsberger, 2004)

Instructions: This survey is part of an investigation of public opinion concerning a variety of social issues. You will probably find that you agree with some of the statements and disagree with others, to varying extents. Please indicate your reaction by selecting based on the scale below.

If you find that agree with a part of the statement while disagreeing with another part of the same statement please combine your answers. For Example: if you "strongly agree" to the first part and "slightly agree" to the second half please choose the difference of "moderately agree".

Questions:

1. God has given humanity a complete, unfailing guide to happiness and salvation, which must be totally followed.

2. No single book of religious teaching contains all the intrinsic, fundamental truths about life.

3. The basic cause of evil in the world is Satan, who is still constantly and ferociously fighting against God.

4. It is more important to be a good person than to believe in God and the right religion.

5. There is a particular set of religious teachings in this world that are so true, you can't go any "deeper" because they are the basic, bedrock message that God has given humanity.

6. When you get right down to it, there are basically only two kinds of people in the world: the righteous, who will be rewarded by God; and the rest, who will not.

7. Scriptures may contain general truths, but they should NOT be considered completely, literally true from beginning to end.

8. To lead the best, most meaningful life, one must belong to the one, fundamentally true religion.

9. "Satan" is just the name people give to their own bad impulses. There really is no such thing as a diabolical "Prince of Darkness" who tempts us.

10. Whenever science and sacred scripture conflict, science is probably right

11. The fundamentals of God's religion should never be tampered with, or compromised by others beliefs.

12. All of the religions of the world have flaws and wrong teachings. There is no perfectly true, right religion.

B.3: Gough Tolerance Scale

Primary Source: Granted permission for use by Dr. Ed Dunbar at the University of California: LA via e-mail correspondence.

Instructions: This inventory consists of a series of statements. Read each statement and decide whether it is *true as applied to you or false as applied to you*. If a statement does not apply to you or if it is something that you don't know about, do not circle either response in the left hand column. But do try to give a response to every statement.

Questions:

T F 1. Once a week or oftener I feel suddenly hot all over, without apparent cause.

T **F** 2. I like poetry.

T F 3. I think most people would lie to get ahead.

T F 4. These days I find it hard not to give up hope of amounting to something.

T F 5. Much of the time I feel as if I have done something wrong or evil.

T F 6. Most people are honest chiefly through fear of being caught.

T F 7. Most people will use somewhat unfair means to gain profit or advantage rather than to lose it.

T F 8. I commonly wonder what hidden reason another person may have for doing something nice for me.

T F 9. Sometimes I feel as if I must injure either myself or someone else.

T F 10. I feel that I have often been punished without cause.

T F 11. It makes me uncomfortable to put on a stunt at a party when others are doing the same sort of things.

T F 12. I do not have a great fear of snakes.

T F 13. I frequently notice my hand shakes when I try to do something.

T F 14. I like science.

T F 15. I don't blame anyone for trying to grab everything he can get in this world.

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T F 16. Most people make friends because friends are likely to be useful to them.

T F 17. In school I found it very hard to talk before the class.

T F 18. I refuse to play some games because I am not good at them.

T F 19. The man who provides temptation by leaving valuable property unprotected is about as much to blame for its theft as the one who steals it.

T F 20 Most people inwardly dislike putting themselves out to help other people.

T F 21. I have had very peculiar and strange experiences.

T F 22. I have certainly had more than my share of things to worry about.

T F 23. I have strange and peculiar thoughts.

T F 24. I feel sure that there is only one true religion.

T F 25. The future is too uncertain for a person to make serious plans.

T F 26. I have often met people who were supposed to be experts who were no better than I.

T F 27. It makes me feel like a failure when I hear of the success of someone I know well.

T F 28. Usually I would prefer to work with women.

T F 29. It is all right to get around the law if you don't actually break it.

T F 30. I have often found people jealous of my good ideas, just because they had not thought of them first.

T F 31. When a man is with a woman he is usually thinking about things related to her sex.

T F 32. Several times a week I feel as if something dreadful is about to happen.

B.4: NEO-FFI-3: Openness Profile

Instructions: This questionnaire contains 12 statements. Read each question carefully. For each statement select a choice from Strongly Disagree to Strongly Agree. Choose Strongly Disagree if the statement is definitely false and Disagree if the statement is mostly false. Neither Agree nor Disagree if you are neutral on the topic. Agree if the statement is mostly true and Strongly Agree if the statement is definitively true. Choose only one answer per statement.

Questions:
1. I enjoy concentrating on a fantasy or daydream and exploring all its possibilities, letting it grow and develop.

2. I think it's interesting to learn and develop new hobbies.

3. I am intrigued by the patterns I find in art and nature.

4. I believe letting students hear controversial speakers can only confuse and mislead them.

5. Poetry has little or no effect on me.

6. I would have difficulty just letting my mind wander without control or guidance.

7. I seldom notice moods or feelings that different environments produce.

8. I experience a wide range of emotions or feelings.

9. Sometimes when I am reading poetry or looking at a work of art, I feel a chill or wave of excitement.

10. I have little interest in speculating on the nature of the universe or the human condition.

11. I have a lot of intellectual curiosity.

12. I often enjoy playing with theories or abstract ideas.

B.5: Internal/External Motivations to Appear Non-Prejudiced Scale:

Original source: Internal and External Motivation to Respond Without Prejudice, Plant, E. Ashby; Devine, Patricia G, Journal of Personality & Social Psychology, 75, 3, 1998.

Instructions: The following questions concern various reasons or motivations people might have for trying to respond in non-prejudiced ways toward people of other religious groups. Some of the reasons reflect internal-personal motivations whereas others reflect more external-social motivations. Of course, people may be motivated for both internal and external reasons; we want to emphasize that neither type of motivation is by definition better than the other. Please give your response according to the scale below. Participants rate 10 items on a scale ranging from 1 *(strongly disagree)* to 9 *(strongly agree)*.

External Motivation Items:

1. Because of today's PC (politically correct) standards I try to appear non-prejudiced toward people from other religions.

2. I try to hide any negative thoughts about people from other religions in order to avoid negative reactions from others.

3. If I acted prejudiced toward people from other religions, I would be concerned that others would be angry with me.

4. I attempt to appear non-prejudiced toward people from other religions in order to avoid disapproval from others.

5. I try to act non-prejudiced toward people from other religions because of pressure from others.

Internal Motivation Items:

1. I attempt to act in non-prejudiced ways toward people from other religions because it is personally important to me.

2. I am personally motivated by my beliefs to be non-prejudiced toward people from other religions.

3. Because of my personal values, I believe that using stereotypes about people from other religions is wrong.

4. Being non-prejudiced toward people from other religions is important to my self-concept.

APPENDIX C

CONSENT DOCUMENTS

C.1: Email Cover Letter*:*

Dear Lauren Santerre,

Thank you for your interest in my study focusing on Interfaith Relations. I am writing to ask you to please pass along the enclosed information to colleagues and organization members who may also be interested in learning about and participating in this research study. You are under no obligation to share this information and whether or not you share this information will not affect your relationship me, Kaeleigh MacDonald, or with Texas A&M University.
Thank you for your time and consideration.

Sincerely,
Kaeleigh MacDonald
Department of Anthropology
Texas A&M University

C.2: Email Letter to Participants:
Hello,

My name is Kaeleigh MacDonald and I am a graduate student in the department of anthropology at Texas A&M University. I am conducting research into interfaith relations and I am writing to ask if you would be interested in participating in my study. If you agree to participate you will gain access to a four part survey through a web link. The total time to complete this survey is approximately 40 min. These surveys will ask you questions regarding your views on your own religious practices as well as your degree of tolerance (comfort) with religions other than your own.

Participating in this research is voluntary and if you choose to participate your identity will remain anonymous, both to me and anyone reading the study. There will be no link between yourself and your survey answers as your name will not be collected at any point. Any interfaith organization's that have provided you with knowledge of this study will also not be identified in the study or the surveys. I do not anticipate any risks to you as you complete these surveys online. However, if at any point you do feel uncomfortable you are able to drop out and not complete the surveys. The reason your participation would be so valuable is because it will help us to gain information about the people do and do not participate in interfaith interactions. It is my goal to help broaden horizons and increase societal knowledge of the movement towards better interfaith relationships and am so grateful for your involvement. Aside from the

potential benefits to society your participation will also allow you to enter into a draw for one (1) of three (3) One hundred dollar ($100.00) visa gift cards!

This project [insert IRB Reference Number or Exemption Number] was approved by the Texas State IRB on [insert IRB approval date or date of Exemption]. If you have any questions about me or my research please feel free to contact me directly through e-mail at research.macdonald@gmail.com or by phone 1-587-438-4644. If you have questions or concerns about your rights as a research subject please direct them to the IRB chair, Dr. Jon Lasser (512-245-3413 - lasser@txstate.edu) and to Becky Northcut, Director, Research Integrity & Compliance (512-245-2314 - bnorthcut@txstate.edu).

If you are willing to participate in my research you can follow this link: ***. That will take you to the survey forms to complete. Please make sure to leave you e-mail address when asked if you would like to participate in the raffle for 1 of 3 $100.00 visa gift cards. This will allow me to contact you when you win! Any e-mail information collected to facilitate the raffle will be destroyed at the competition of the study.

Thank you so much for taking the time to read this letter and I wish you all the best! Your participation will help to further our understanding of the interfaith community.

Sincerely,
Kaeleigh MacDonald
Department of Anthropology
Texas A&M University

C.3: Consent Information Sheet Attached to Survey:

You are invited to take part in a research study being conducted by Kaeleigh MacDonald, a researcher from Texas A&M University. The information in this form is provided to help you decide whether or not to take part. If you decide you do not want to participate, there will be no penalty to you, and you will not lose any benefits you normally would have.

Why Is This Study Being Done?
The purpose of this study is to investigate the relationship between the personality trait openness-to-experience and the strength of your religious conviction (to your own faith). The study will seek to determine how both of these levels might influence your level of tolerance for members of other religious groups (other than your own faith). I want to determine why some people seek out interfaith interactions, why others do not, and how to increase the acceptance of many different religious traditions.

Why Am I Being Asked To Be In This Study?

You are being asked to be in this study because of your previous interest in interfaith organizations and your willingness to learn more about multiple religious traditions.

What Are the Alternatives to being in this study?

There are no alternatives to participation in this study.   If you choose not to participate please do not click the arrow to move from this information page onto the surveys. To not participate please close out of this browser window now.

What Will I Be Asked To Do In This Study?

You will be asked to complete a four part survey. Your participation in this study will last approximately 40 minutes.

Are There Any Risks To Me?

The things that you will be doing are no riskier than you would come across in everyday life. You will be seated at your own personal computer to complete these surveys and should feel no more than very mild discomfort with any of the survey questions. You do not have to answer anything you do not want to and may quit the survey without completion at any time.

Will There Be Any Costs To Me?

Aside from your time, there are no costs for taking part in the study.

Will I Be Paid To Be In This Study?

Your participation in this study will allow you to enter into a draw for one (1) of three (3) One hundred dollar ($100.00) visa gift cards that will be drawn from the pool of participants at the completion of this study. You will be contacted by e-mail if you win.

Will Information From This Study Be Kept Private?

The records of this study will be kept private. No identifiers linking you to this study will be included in any sort of report that might be published. Research records will be stored securely and only Kaeleigh MacDonald and her research supervisors will have access to the records.

Survey information will be stored in computer files protected with a password. No names of participants will be known to the researchers and no names or identifying information on the participants will be stored. Information about you and related to this study will be kept confidential to the extent permitted or required by law.

Who may I Contact for More Information?

If you have any questions about me or my research please feel free to contact me directly through e-mail at research.macdonald@gmail.com or by phone 1-587-438-4644.

If you have questions or concerns about your rights as a research subject please direct them to the IRB chair, Dr. Jon Lasser (512-245-3413 - lasser@txstate.edu) and to Becky Northcut, Director, Research Integrity & Compliance (512-245-2314 - bnorthcut@txstate.edu).

For questions about your rights as a research participant; or if you have questions, complaints, or concerns about the research, you may call the Texas A&M University Human Subjects Protection Program office at (979) 458-4067 or irb@tamu.edu.

What if I Change My Mind About Participating?

This research is voluntary and you have the choice whether or not to be in this research study. You may decide to not begin or to stop participating at any time. If you choose not to be in this study or stop being in the study, there will be no effect to you whatsoever.

By completing the survey, you are giving permission for the investigator to use your answers for research purposes.

Thank you.

Kaeleigh MacDonald

C.4: Second Contact E-Mail to Participants:

Dear Survey Participant,

Thank you so much for participating in my survey! I am writing you today to inform you of a problem I have run into. A crucial portion of my original survey was not included in the link you followed and as a result I am missing part of my data. Unfortunately, the implications of this oversight are severe as I will be unable to answer my hypothesis without the complete data set. While I realize that this problem does not affect you personally I am hopeful that you will take pity on me and agree to complete the missing 12 questions. This portion should take less than 5 min to complete and would make the continuation of my research possible. As this is very inconvenient I have decided to up the amount of money that will be raffled off at the end of this project. Once you take the following portion of the survey please enter your email address again and you will be eligible to win the elevated prize of 1 of 3 **200.00 dollar** visa gift cards. I appreciate you taking the time to complete this survey more than you can imagine and thank you from the bottom of my heart.

Please follow this link to the last 12 questions:

Sincerely,
Kaeleigh MacDonald
Texas A&M University
Department of Anthropology

APPENDIX D

RAW DATA SCORES

D.1: NEO FFI-3 Openness-IMGH Dataset

nQ1_1	nQ1_2	nQ1_3	nQ1_4	nQ1_5	nQ1_6	nQ1_7	nQ1_8	nQ1_9	nQ1_10	nQ1_11	nQ1_12	NEO FFI A
I enjoy con	I think it's	I am intrig	I believe le	Poetry has	I would hav	I seldom n	I experienc	Sometimes	I have littl	I have a lo	I often enj	out of 48
3	4	3	4	2	4	3	3	3	3	4	3	39
2	4	2	4	3	0	4	3	1	4	4	1	32
1	3	3	4	3	1	3	4	2	3	4	3	34
1	3	3	4	2	1	3	4	2	4	4	4	35
1	4	3	4	4	4	2	3	3	4	4	2	38
1	4	4	4	2	3	3	3	3	4	4	3	38
2	3	4	4	3	3	3	3	3	3	3	3	37
1	3	3	4	2	3	4	2	2	1	3	3	31
2	3	3	3	4	2	3	3	3	4	3	2	35
3	3	4	4	4	4	4	4	3	4	4	3	44
0	4	3	4	1	1	2	2	0	2	4	1	24
2	3	3	3	2	3	1	3	3	4	3	2	32
4	3	4	4	3	4	4	3	4	4	4	4	45
3	3	4	4	2	3	4	4	3	1	4	4	39
3	3	3	3	4	3	3	4	3	4	3	3	39
2	3	2	3	3	3	3	3	3	3	3	3	34
4	4	4	3	4	4	4	4	4	4	4	3	46
2	3	4	4	3	1	4	3	2	3	3	1	33
0	3	2	4	1	1	3	3	1	3	3	1	25
2	4	4	3	4	3	3	3	4	4	4	3	41
4	3	4	4	4	4	4	4	4	4	4	3	46
1	3	4	4	3	2	4	3	4	4	4	4	40
1	3	2	3	1	1	3	1	1	2	3	1	22
2	2	3	4	3	4	3	3	3	3	2	-1	31
3	2	3	3	3	3	3	3	2	4	3	3	35
2	3	3	2	3	3	3	2	4	4	3	2	34
3	4	3	4	2	3	4	4	3	4	4	3	41
4	4	4	3	2	3	3	3	3	4	3	3	39
4	4	4	3	3	4	4	4	4	4	4	4	46
1	4	4	4	4	4	4	3	4	4	4	2	42
0	4	2	4	3	3	3	2	3	3	4	3	34
1	4	4	3	4	2	3	3	3	3	4	3	37
1	3	3	4	2	3	2	3	1	1	3	3	29
1	3	4	4	3	2	3	3	3	4	4	3	37
0	3	4	4	1	3	3	3	4	3	4	3	35
											Mean=	36.25714
											St.Dev.=	5.972205
											Range=	24

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D.2: Santa Clara Religiosity Questionnaire-IMGH Dataset

Start First	Q6_2	Q6_3	Q6_4	Q6_5	SANTA CLA
I pray daily	I look to m	I consider	I enjoy bei	My faith in	Out of 20
2	3	2	3	3	13
2	2	2	2	2	10
1	2	2	3	2	10
2	3	3	2	3	13
3	3	3	3	3	15
3	4	4	4	4	19
4	4	4	4	4	20
3	3	4	3	3	16
2	4	4	4	4	18
1	1	1	3	1	7
3	4	3	3	3	16
4	4	2	2	4	16
3	3	3	2	3	14
3	3	3	3	3	15
4	4	4	4	4	20
4	4	4	3	4	19
2	3	3	3	3	14
4	4	4	4	4	20
2	3	4	3	3	15
2	2	2	3	2	11
3	4	4	4	4	19
4	4	4	4	4	20
3	3	3	3	3	15
4	4	4	4	4	20
3	3	4	3	3	16
3	3	3	3	3	15
4	4	4	4	4	20
2	4	4	4	4	18
3	3	3	3	3	15
1	2	3	4	2	12
1	3	3	3	3	13
1	2	4	3	3	13
				Mean=	15.53125
				St.Dev.=	3.445281
				Range=	13

D3: Fundamentalism Survey-IMGH Dataset

new6-1	new 6-2	new6-3	new6-4	new6-5	new6-6	new 6-7	new6-8	nw 6-9	new6-10	new6-11	new 6-12	IMGH Surveys	
God has gi	No single t	The basic	It is more	There is a	When you	Scriptures	To lead th	"Satan" is	Whenever	The funda	All of the religions of the world h		
2	1	4	3	3	2	2	2	2	5	4	2	32	2.66667
1	1	1	1	1	1	1	1	1	5	1	1	16	1.33333
2	1	1	2	1	2	1	1	1	1	1	2	16	1.33333
5	1	6	1	1	1	1	1	7	6	2	1	33	2.75
4	6	2	3	2	3	2	1	3	2	2	2	32	2.66667
2	3	2	5	3	2	1	1	3	2	2	1	27	2.25
2	8	6	8	8	8	8	1	7	8	8	8	80	6.66667
5	8	1	2	1	1	4	2	2	5	2	5	38	3.16667
6	6	2	5	2	2	2	8	5	7	7	7	59	4.91667
1	8	1	1	1	1	1	1	1	1	1	1	19	1.58333
8	8	4	8	1	1	2	7	4	2	5	4	54	4.5
1	1	1	1	1	1	1	1	1	2	1	1	13	1.08333
4	2	1	1	2	2	2	1	6	4	5	4	34	2.83333
3	2	4	3	4	3	3	3	4	4	3	2	38	3.16667
6	7	1	7	8	2	8	7	1	3	6	8	64	5.33333
6	2	1	1	3	1	2	1	2	2	2	4	27	2.25
1	1	1	2	1	1	1	1	1	6	2	3	21	1.75
6	4	3	7	6	6	2	3	6	3	2	3	51	4.25
1	1	1	1	1	1	1	1	1	3	1	1	14	1.16667
3	6	2	1	3	1	2	2	1	2	3	3	29	2.41667
8	8	8	8	8	8	8	8	8	8	8	8	96	8
8	2	2	2	2	4	6	2	2	4	5	5	44	3.66667
5	4	6	5	6	3	2	3	0	5	5	3	47	3.91667
6	7	2	5	3	1	6	1	3	7	2	6	49	4.08333
5	1	4	1	7	2	2	1	1	3	5	0	32	2.66667
4	4	2	4	3	3	3	2	6	4	3	3	41	3.41667
8	8	1	3	8	1	8	8	8	8	3	8	72	6
3	3	1	2	0	1	1	2	2	2	2	2	21	1.75
6	1	6	1	7	1	1	1	6	4	7	2	43	3.58333
1	2	1	1	1	1	8	1	2	8	1	7	34	2.83333
1	1	1	1	1	1	7	1	2	6	1	8	31	2.58333
1	2	1	1	2	5	8	1	1	8	1	7	38	3.16667

D.4: Gough Tolerance Survey-IMGH Dataset

Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	Q33	Q34	Q35	Q36	Q37	Q38	GOUGH SC
Once a we	I like poet	I think mo	These day	Much of th	Most peop	Most peop	I commonl	Sometime	I feel that	It makes n	I do not ha	I frequentl	I like scier	I don't blan	Most peop	In school I	I refuse to	The man w	Most peop	I have had	I have cert	I have str	I feel sure	The future	I have ofte	It makes n	Usually I w	It is all rig	I have ofte	When a m	Several tin	Out of 38
		reversed																														
1	1	0	1	0	0	0	0	0	0	0	0	0	1		0	0	1	0	0	1	1	1	0	0	1	0	0	0	0	0	0	9
0	0	0	0	0	1	0	0	0	0	1	0	0	1	1	0	1	0	0	1	0	1	0	0	1	1	0	0	0	0	0	0	9
1	0	0	1	0	0	0	0	0	0	1	1	0	1	1	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	9
0	0	1	0	0	0	1	0	0	0	1	0	0	1	1	0	1	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	9
0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	5
0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	1	0	0	0	0	6
0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0	1	0	0	7
0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	1	1	0	1	0	1	0	0	0	0	0	1	0	11
0	0	1	0	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	8
0	1	0	0	0	1	1	0	0		0	1	0	1	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	7
0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	7
1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	6
0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1	0	1	1	0	0	0	0	8
0	0	0	0	2	0	0	0	0	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6
0	0	0	0	0	0	0	0	0	1	1	1	0	1	1	0	1	0	1	0	1	1	0	0	0	1	0	0	1	1	1	1	14
0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4
0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	1	1	0	0	0	0	1	0	0	1	0	8
0	0	1	0	0	0	1	0	0	0	1	1	0	1	0	0	0	0	1	0	1	0	0	0	1	1	0	0	0	1	0	0	10
0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	0	1	0	7
	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	8
0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4
1	1	1	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	9
0	0	0	0	0	1	0	1	0	1	1	0	0	0	1	1	0	1	0	1	0	1	1	0	1	1	0	0	0	1	1	0	14
0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1	0	0		0	0	0	0	1	0	0	1	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	8
0	0	0	1	0	0	0	0	0	0	1	1	0	1	1	0	1	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0	7
0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	1	1	0	1	0	1	0	0	1	0	0	0	9
0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3
0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	3
0	-1	0	1	0	0	0	0	0	0	1	1	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0	1	0	1	0		8
0	-1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	3
0	-1	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	1	0	0	0	0	0	0	1	0	1	0		7

																														Mean=	7.40625
																													St.Dev.=	2.722183
																													Range=	11

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D.5: External Measure Survey-IMGH Dataset

Q43_1	Q43_2	Q43_3	Q43_4	Q43_5	IMGH Surv
Because of	I try to hid	If I acted p	I attempt t	I try to act	non-preju
external	external	external	exteral	external	
5	2	2	2	2	13
5	1	5	1	1	13
4	6	7	3	3	23
9	9	9	9	7	43
8	5	8	1	1	23
4	6	6	4	3	23
9	5	5	5	5	29
7	7	5	7	6	32
3	2	7	2	1	15
2	2	2	2	2	10
2	2	2	2	2	10
6	6	1	1	1	15
5	5	7	5	1	23
5	5	5	3	3	21
9	8	5	5	5	32
1	1	1	1	1	5
5	3	1	1	1	11
4	5	5	2	2	18
9	2	1	1	1	14
2	2	2	2	2	10
7	4	8	8	4	31
2	2	5	3	2	14
7	7	8	7	7	36
3	7	7	5	5	27
7	4	4	4	2	21
6	5	5	5	4	25
8	2	2	2	2	16
6	6	7	2	2	23
1	1	5	1	1	9
3	3	6	3	3	18
1	1	6	1	1	10
1	1	8	1	1	12
				Mean=	19.53125
				Mean/5=	3.90625
				Std dev=	9.023212

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D.6: Internal Measure-IMGH Dataset

Q43_6	Q43_7	Q43_8	Q43_9	IMGH Surv
I attempt t	According	Because of	Being non-prejudiced	
internal	internal	internal	internal	
8	5	8	8	29
9	5	9	9	32
8	2	8	5	23
9	5	9	9	32
9	1	9	8	27
9	9	9	9	36
9	9	9	9	36
7	5	8	8	28
9	2	8	9	28
8	5	8	8	29
8	5	8	5	26
9	1	9	7	26
9	2	8	8	27
9	3	9	9	30
9	2	9	8	28
9	1	9	9	28
9	1	9	9	28
9	2	9	9	29
9	1	2	9	21
8	5	9	9	31
8	4	8	8	28
8	5	8	8	29
8	5	6	7	26
8	7	8	8	31
9	3	9	7	28
7	2	7	7	23
9	8	2	8	27
9	5	9	9	32
1	1	9	5	16
8	3	8	8	27
9	2	9	7	27
9	1	9	9	28
			Mean=	28
			Mean/4=	7
			St.Dev.=	3.86047
			Range=	29

D.6: Demographic Information-IMGH Dataset

Q45	Q46_1
How long H	Your involv
years incre	1 being hig
3	1
5	1
2	4
2	2
4	1
3	2
3	3
4	3
1	2
4	4
2	1
3	3
3	3
3	2
3	3
4	2
3	1
3	1
3	1
3	3
2	2
2	4
3	
3	2
4	
2	2
2	2
3	2
2	3
2	
2	2
5	2