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## Analysis of the relationship between religion and forgiveness

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ANALYSIS OF THE RELATIONSHIP BETWEEN RELIGION AND FORGIVENESS

An Abstract of a Dissertation  
Submitted  
in Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education

Approved:

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Dr. Suzanne Freedman, Committee Chair

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## ABSTRACT

Forgiveness has been found important for human social functioning within and across cultures. Empirical findings from the last four decades pointed to the role of forgiveness in improving physical, mental, and spiritual health. As a result, forgiveness practices have been extended into the fields of counseling psychology, education, and peace-making. Other studies suggest that religious commitment increases a person's likelihood to forgive and that practicing forgiveness mediates the effect of religion on health. Schema Theory was used to interpret religious background or lack of religion as factors shaping specific mental structures. These mental structures could lead to different forgiveness schemata, which reflect in different perceptions, encoding, comprehension, and practice of forgiveness.

The purpose of the study was to investigate the relationship among forgiveness, religiosity, and lack of religion. The study compared forgiveness aspects between and within groups: the affect, cognition, and behavior related to forgiveness towards a specific offender, the forgiveness likelihood based on religious background, and the effects of intrinsic versus extrinsic belief orientation on forgiveness likelihood in hypothetical situations.

The research design was causal-comparative with cross-sectional survey methodology and included three measures (i.e., Enright's Forgiveness Inventory, Forgiveness Likelihood Scale, and Religious Orientation Scale) with a number of scales. The survey was distributed to 334 participants (Muslim,  $N = 116$ ; Christian,  $N = 106$ ; Atheist,  $N = 112$ ). The analyses consisted of descriptive statistics, one-way ANOVAs,

one-way MANOVA, multiple regressions, and structural equation modelling. Some of the results suggested that Christian participants reported greater commitment to their beliefs, more advances towards completed forgiveness process, more positive feelings, thoughts, and actions towards a specific offender, and greater forgiveness likelihood. All participants, regardless of religion, who possessed intrinsic belief orientation, were more likely to forgive in presented hypothetical situations.

The findings from this study may help better understand the effect of individuals' forgiveness schema. Also, the findings have practical implications for counseling interventions and education programs. The study advocates for increased sensitivity to religious plurality, including Atheism, in order for successful advances to be made towards improved well-being of diverse populations.

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## CHAPTER 1

### INTRODUCTION

The concept of forgiveness is found in many spiritual traditions, such as Christianity, Islam, Judaism, and Confucianism, which suggests that despite some differences, the act of forgiving holds great importance for human social functioning both culturally and cross-culturally (Enright & The Human Development Study Group, 1991). The spiritual and philosophical tradition of promoting forgiveness is at least 4000 years old; however, clinicians and psychologists have underestimated the therapeutic power of forgiveness due to its complex nature and spiritual origin, and have been hesitant to apply forgiveness techniques in clinical situations (Hope, 1987). Furthermore, only about 110 scholarly works on forgiveness were available until the 1970's, while in the past 45 years over 2000 scholarly works appeared, testifying for the newly sparked interest in examining forgiveness related concepts (Hughes, 2016).

The role of forgiveness in clinical and educational interventions has been recognized, and an array of benefits associated with forgiveness, such as improved physical, mental, and spiritual health, has been identified with various populations. Some examples are studies with parentally love-deprived late adolescents (Al-Mabuk, Enright, & Cardis, 1995), incest survivors (Freedman & Enright, 1996), and psychological-educational interventions with a self-enhancement and an interpersonal forgiveness groups (McCullough & Worthington, 1995). The number of forgiveness education initiatives is also increasing (Enright, Knutson, Holter, Knutson, & Twomey, 2006),

along with school interventions against bullying (Skaar, Freedman, Carlon, & Watson, 2015) informed by the field of interpersonal forgiveness.

Various related concepts, characteristics, and models of forgiveness have been developed based on previously existing philosophical ideas (Enright et al., 1991; Freedman, Enright, & Knutson, 2005; McCullough, 2008). The model of particular interest in this study is the Enright's Process Model (Enright et al., 1991). This model focuses on the changes in affect, cognition, and behaviors towards a specific offender as a result of undertaking forgiveness. Forgiveness is analyzed as a process that follows four different phases- Uncovering, Decision, Work, and Outcome Phase, and twenty units.

During the Uncovering Phase the person faces the negative consequences of the sustained hurt. During the Decision Phase a change of heart instigates the forgiveness journey. The hurt individual engages in different strategies to accomplish forgiveness during the Work Phase. Finally, in the Outcome Phase, an internal emotional release is achieved. This forgiveness process is characterized by a gradual decrease of negative emotions, thought, and actions and an increase of positive ones (Enright et al., 1991). An instrument exists- the Enright Forgiveness Inventory- that is purposefully designed and repeatedly validated to measure the constructs of affect, cognition, and behavior on a continuum. This is one of the instruments used in the current study.

Another line of forgiveness research has shown that both forgiveness and religiosity are strongly associated with physical and psychological well-being (Koenig, McCullough, & Larson, 2001; Lawler-Row, 2010). Forgiveness related values are present in all major religions, including Christianity and Islam, (Rye et al., 2001), thus

individuals who strongly affiliate with spiritual traditions emphasizing forgiveness may forgive more readily. Religious commitment was suggested as an influential factor in one's likelihood to forgive others following a hurtful event (Worthington, Sandage, & Berry, 2000). Religious commitment is defined as the degree to which people adhere to their religious values, beliefs, and practices and uses them in daily life (Worthington, 1988). So highly committed followers are found more likely to forgive. Religious orientation is another factor that has been found to affect the likelihood to forgive. Intrinsic religious orientation is characterized by a personal, spiritual, and meaningful relationship with God, while extrinsic orientation views religion as instrumental for other personal interests (Hills, Francis, Argyle, & Jackson, 2004). Intrinsic religious orientation has been linked to higher rates of forgiveness in comparison to extrinsic religious orientation.

Since religion and forgiveness are philosophically connected and have comparable health effects, it is hypothesized that religiosity is related to increased forgiveness beliefs and practices. What does this mean for people who lack traditional religious beliefs, i.e. Atheists? Although they do not hold a religious belief system, the concept of forgiveness is not foreign to their moral values. Yet, there is a gap in the literature regarding Atheists' relationship with forgiveness. That is why, this study included Atheism in addition to Christianity and Islam when investigating forgiveness practices.

The relationship among religion, lack of religion, and forgiveness was conceptually organized by the underlying assumptions of Schema Theory. Schema was

first defined as "an active organization of past reactions or experiences" (Bartlett, 1932, p.201). Schema Theory suggests that new learning and comprehension of social contexts require, and is influenced by, prior knowledge of the world. In this study, that prior knowledge is provided by religious or Atheist life experiences which may evoke specific and distinct schemata for understanding and practice of forgiveness.

### Significance of the Study

Previous studies on forgiveness likelihood have focused mostly on the circumstances of the offence, such as: intent to harm, severity of consequences, cancellation of consequences, social proximity to the offender, apologies from the offender, and the attitude of others, based on Anderson's (1996) Functional Theory of Cognition (Azar, Mullet, & Vinsonneau, 1999; Azar & Mullet, 2001; Girard & Mullet, 1997). Health benefits have been described linking religiosity and trait forgiveness (i.e., depending on personality) versus state forgiveness (i.e., depending on circumstances) (McCullough & Worthington, 1999). Other ways for conceptualizing the effects of religion on forgiveness have been in terms of religious activity, religious affiliation and teachings, and imitation of God (Escher, 2013).

However, the psychology of interpersonal forgiveness has not been thoroughly examined in relation to different spiritual backgrounds and especially in relation to lack of such (i.e., Atheism). Little empirical work compares forgiveness with Christian and Muslim samples and no studies surfaced with Atheist samples. Most samples have been religiously homogenous or most forgiveness studies were not controlling for religious background. The Atheist population in particular has been severely underrepresented in

empirical research. More articles started to accumulate since 2010; however, they were mostly non-empirical and did not address problems of practice (Brewster, Robinson, Sandil, Esposito, & Geiger, 2014). Yet, the importance of cultural awareness and forgiveness practices is evidenced by the increasing diversity and religious plurality, along with rising social conflicts globally, and nationally in the USA (Ho & Fung, 2011).

This study will contribute to the field of psychology of forgiveness through interdisciplinary approach to investigating the relationship between religion/Atheism and forgiveness. Even though forgiveness has been investigated across different fields, the results have not been pulled together under a coherent theoretical explanation. Here Schema Theory is introduced to provide explanations and make predictions about future findings in the forgiveness literature. Despite existing significant findings in Schema Theory and its explanatory potential, conceptualizations of forgiveness through Schema Theory are lacking. The conceptual frame of this study is unique in that it attempts to use Schema Theory as an umbrella for explaining the cognitive relationship between religion/Atheism and forgiveness. Using Schema Theory affords some causal explanations for the previous forgiveness findings. For example, people with intrinsic religious orientation have been found to have stronger tendencies to forgive. Schema Theory suggests that this may be because they have internalized and organized their experiences in memory more completely and thoroughly; hence, these memories (experiences) have a greater influence on their behavior in other domains.

Additionally, data was compiled comparing the psychological constructs of forgiveness (i.e, affect, cognition, and behavior) among the two religions and Atheism.



This may broaden the knowledge about culturally sensitive aspects of the forgiveness process and may help enhance interventions for improved overall well-being of Muslims, Christians, and Atheists alike.

Also, there are potential educational implications from such research since the cultural and religious diversity in public schools is increasing. A need occurs for curriculum and policy adaptations to accommodate religious plurality (Jackson, 2004) and forgiveness education may provide common grounds for diverse students.

#### Purpose of the Study

The broad purpose of this study was to gather empirical data about the relationship between religiosity/Atheism and forgiveness. More specifically, this study examines the affect, cognition, and behavior related to forgiveness towards a specific offender among Muslim, Christian, and Atheist participants. These three psychological systems, advanced by the Process Model of forgiveness, have been identified as reliable indicators of positive change during the process of forgiving a specific perpetrator. They can assess where on the continuum of forgiveness a person is located at the time of the survey. Additionally, common patterns of emotions, thoughts, and behaviors related to forgiveness can be discovered among the three groups.

Additionally, the literature suggests that the likelihood to forgive may depend on the type of religious orientation. Therefore, the relationship between the groups' specific religious orientation (i.e., intrinsic/ extrinsic) and the likelihood to forgive is accounted for in this study. The participants' responses on the survey are discussed with reference to previous research on religiosity and Atheism, the Process Model of interpersonal

forgiveness (Enright et al., 1991), and Schema Theory (Anderson, Reynolds, Schallert & Goetz, 1977).

### Research Questions

The main research questions for the study are:

**Research Question 1:** What are the differences and similarities among the three group members' forgiveness towards a specific offender?

**Sub-question 1a:** What are the differences and similarities among the three groups' *affect* related to a specific hurt and forgiveness toward the offender?

**Sub-question 1b:** What are the differences and similarities among the three groups' *cognition* related to a specific hurt and forgiveness toward the offender?

**Sub-question 1c:** What are the differences and similarities among the three groups' *behavior* related to a specific hurt and forgiveness toward the offender?

**Research Question 2:** Which group is more likely to undertake the forgiveness process in hypothetical scenarios?

**Research Question 3:** How does the type of religious orientation within the groups (i.e., intrinsic or extrinsic) relate to the likelihood to forgive in hypothetical scenarios?

### Operational Definitions

#### Forgiveness

There is no universal definition of forgiveness due to the complex, subjective nature of the phenomenon. However, some components of forgiveness that are generally agreed upon include: overcoming of deep hurt and negativity and a change of attitude and sometimes behavior toward the offender, while not negating the offender's deed. In

essence, forgiveness is a conscious choice to overcome negative thoughts, feelings, and behaviors which may lead to perceiving the offender in a more positive way (Enright & The Human Development Study Group, 1991; Freedman et al., 2005).

### Religion

Religion can be generally defined as “an organized system of beliefs, practices, and symbols, designed to enable closeness to God” (Matthews, 1996) as well as involvement and personal significance (Baldachino, 2003). Koenig, Smiley, and Gonzales (1988) identified dimensions that can be used to measure religiousness: faith, rituals, experiences, religious knowledge, and community. The major religions in the world in existence today are: Christianity- with about 2 billion adherents, Islam- with between 1.3 billion and 1.6 billion adherents, Hinduism- with about 900 million adherents, and Buddhism- with about 360 million adherents (Association of Statisticians of American Religious Bodies, 2010). This study is interested in the first two largest religions- Christianity and Islam.

### Islam

Muslims are defined as those who call their religion Islam and believe in the One God- Allah, Who created the world. The Arabic word Islam implies the attainment of peace through submission to Allah (The Islamic Bulletin, 2017). Even though different denominations of Islam exist, such as Sunni, Shia, and Kharijites, the sample in this study is considered mostly non-denominational.

### Christianity

Christianity is an Abrahamic, monotheistic religion professing belief in the teachings of Jesus Christ. Christians are the largest religious group in the world. Despite the various denominations, Christians commonly believe that Jesus suffered, died, and resurrected to remit the sins and grant eternal life to the believers who follow his example (Asad, 2009). The Christian group in this study was from mixed denominations. Some participants were Pentecostal, Methodist, Lutheran, Unitarian Universalist, and some were from unidentified denomination.

### Atheism

It has been challenging to produce a precise definition of Atheism, along with a consensus about a (dis)belief system. Generally, Atheists are characterized not by denial of other people's gods, rather by lack of belief in the existence of non-physical agents (Gervais & Najle, 2017; Lanman, 2012). In contrast to the previous two groups, Atheism is not a belief system or a religion; however, the lack of beliefs is legally protected in the same way as the religious beliefs are. Some Atheist groups use names such as: Agnostic, Humanist, Secular, Freethinker, etc. as self-identifiers to avoid negative connotations that are often associated with the term "Atheist". Recent literature locates Atheism on a spectrum ranging from strong Atheism to weak Atheism (Baggini, 2003). Strong Atheism founds the rejection of belief in God as a principled and informed decision, whereas weak Atheism is unsure or agnostic about the existence of God. A further distinction needs to be made between the New Atheism movement- a proponent of a militant style, anti-religion agenda- and the general, intellectual Atheism which remains respectful to

religious pluralism (McGrath, 2013). While the number of Atheists is observed to be rising globally (Pew Research Center, 2011), the empirical research on Atheism is sparse (Brewster et al., 2014) which necessitates the attention given here to this group of participants.

### Schema Theory

Proponents of Schema Theory suggest that all knowledge is organized into conceptual units which represent generalized descriptions of phenomena in the world and serve as a system for memory organization and retrieval, thus, influencing comprehension. Each person's schemata are unique and reflect the experiences and prior structures of knowledge which shape the person's theories about the world. These theories affect the way information is stored and interpreted and they continue to change as new information is received through accommodation (i.e., adjusting the schema to incorporate new information) or assimilation (i.e., interpretation of new experiences in terms of existing schemata) (Kant, 1781/1963; Reynolds, Taylor, Steffensen, Shirey, & Anderson, 1982). One of the major strengths of Schema Theory is its explanatory power for the structure of knowledge and how existing knowledge relates to memory, learning, and comprehension (Anderson & Pearson, 1984; Rumelhart & Ortony, 1977).

## CHAPTER 2

### LITERATURE REVIEW

The literature reviewed in this chapter constructs the conceptual frame of the study drawing on research in three different domains of psychology - psychology of forgiveness, psychology of religion, and cognitive psychology. Hence, the organization of the chapter is centered on these three main topics: forgiveness, religion and atheism, and Schema Theory. The first section on forgiveness reviews the main definitions of forgiveness with a focus on the psychological constructs of affect, cognition, and behavior; then discusses some common misconceptions about what forgiveness is and is not. Next, some of the main models of forgiveness are described followed by application of forgiveness and benefits from practicing forgiveness. The second main section connects the topic of forgiveness with religion and analyzes Christian, Muslim, and Atheists beliefs. Finally, the third section relates the topic of forgiveness to Schema Theory and addresses major research on the structure and functions of mental schemata. Some important empirical examples for the application of schema theory for learning and comprehension are reviewed. The section ends with the rationale behind utilizing Schema Theory as a means for explanation and prediction of forgiveness related behaviors, thoughts, and emotions. This organization attempts to explicate the hypothesis built within the conceptual frame that religion/Atheism creates mental schemata that influences forgiveness understanding and practice.

### Definitions of Forgiveness

Many definitions of forgiveness exist in the theology, philosophy, and psychology literature due to the complex, subjective nature of this phenomenon known for thousands of years. Nevertheless, some common components emerge upon examination of different definitions: overcoming of deep hurt and negativity, change of attitude toward the offender, and not negating the offender's deed.

The definition offered by North (1987) is an example of the philosophical approach to forgiveness: "Forgiveness is the overcoming of negative affect toward the offender, not by denying ourselves the right to such affect and judgment, but by endeavoring to view the offender with compassion, benevolence, and love while recognizing that he or she has abandoned the right to them." (p. 502). North's philosophical view implies that forgiveness is a process which can take time to develop. Forgiveness progresses through the stages of resentment and anger, decision to forgive, and attempts at empathy and love for the offender from a humane and moral standpoint (Baskin & Enright, 2004). This movement follows the changes happening within the individual as they engage in forgiveness.

Enright et al. (1991) expanded this idea of transformation through the psychology lens adding the psychological systems of affect, cognition, and behavior. Thus, forgiveness is viewed as a free, conscious choice to overcome negative thoughts, feelings, and reactions and possibly replace them with more positive ones. Freedman et al. (2005) added that this choice might start as a self-motivated desire to feel better, but during the process of forgiving, the offender might start being considered in a more

positive way. Enright and Fitzgibbons (2000) also focused on transforming negative cognitions, emotions, and behaviors toward the offender into positive ones, but also included aspects of morality:

People, upon rationally determining that they have been unfairly treated, forgive when they willfully abandon resentment and related responses (to which they have a right) and endeavor to respond to the wrongdoer based on the moral principle of beneficence, which may include compassion, unconditional worth, generosity, and moral love (to which the wrongdoer, by the nature of the harmful act or acts, has no right). (p. 29)

A similar emphasis on the moral aspect of forgiveness is highlighted by Colby and Damon (1992), in that forgiveness is underlying moral commitments, self-fulfillment, and positive exemplars. Colby and Damon (1992) maintain that moral development of an individual can be fostered by an experience or a "triggering event" which presents a serious challenge to an individual's value system. The moral exemplar is an individual with a sense of moral integrity who is not only committed to moral ideas and acts, but also inspires others. Such an individual would most likely accept apology and forgive those who have harmed him/her and this act would serve as an example for others to follow. In the context of religion, the moral exemplar could be the spiritual leader who not only teaches about forgiveness but also practices it.

In summary, forgiveness can be defined as a process or the result of a process comprised of changing emotions, attitudes, and behaviors towards an offender based on a deliberate decision to forgive. The forgiver recognizes that they were wrongfully harmed, and the offender is not excused, condoned, or pardoned. However, as a result of forgiving, the hurt individual alleviates negative emotions and desires to retaliate. Some



scholars maintain that forgiveness also necessitates replacement of the negative emotions with positive ones, such as compassion and benevolence (McCullough, Worthington, & Rachal, 1997; North, 1987).

However, if the hurt individual lacks coping strategies for relieving the initial strong negative emotions, there is a greater likelihood that they would resort to unforgiveness. Unforgiveness has been defined as a state characterized by painful, negative emotions with undesirable long-term effects. Some of these negative emotions include seeking retaliation or revenge from the offender, experiencing strong dislike, hostility, anger and resentment, and avoidance of contact with the offender (McCullough et al., 1998; Worthington & Wade, 1999; Wade, Worthington, & Meyer, 2005). Unforgiveness differs from the natural negative emotions experiences right after the offence as it develops later on when the coping is unsuccessful (Worthington & Wade, 1999; Worthington, Berry, & Parrott III, 2001; Wade et al., 2005).

### Misconceptions About Forgiveness

#### True Forgiveness

It might be challenging for laypeople to clearly delineate the aspects of forgiveness such as cognitive, emotional, and behavioral change (Enright et al., 1991) as separate from forgetting, excusing, condoning, and reconciliation. Stating “I forgive you” is often considered equivalent of accomplished forgiveness. It may indicate the decision to undertake forgiveness but the emotional, cognitive, and behavioral transformations may not have taken place yet. The moment of deciding to forgive is viewed as essential, yet, needs to be accompanied by the conscious determination to abandon resentment in

order to achieve true forgiveness (Neblett, 1974). Genuine forgiveness should not be confused with pseudo- forgiveness which acts as a psychological defense per the Uncovering Phase of the Process Model of forgiveness (Enright et al, 1991).

### Reconciliation

Furthermore, stating “I have forgiven you” does not infer that the hurt person is willing to reconcile. Reconciliation is a concept often discussed alongside forgiveness without a proper attention on how they differ. Freedman (1998) highlights the importance of differentiating reconciliation and forgiveness, and suggests guidelines for professionals to avoid confusion. According to Freedman (1998), four scenarios can be illustrated to help distinguish between forgiveness and reconciliation: 1) forgive and reconcile, 2) forgive and not reconcile, 3) not forgive and reconcile, and 4) not forgive and not reconcile.

A source of the confusion between forgiveness and reconciliation may be the misconception that if the parties interact again, the offence must have been forgiven. This false assumption may have originated from focusing solely on the first scenario- forgive and reconcile. However, reconciliation may not happen if there is a lack of trust since this is heavily dependent upon a behavioral change in the injurer. Reconciliation may not happen because the offender is not among the living. True reconciliation most likely needs forgiveness; however, the negative affect can be overcome through forgiveness even without reconciliation.

Another differentiation is that forgiveness facilitates inner healing while reconciliation might be the external representation (i.e. behavior) or could happen

without forgiveness occurring. Reconciliation can be the result of forgiveness, but it is also a mutual desire of both parties to salvage the relationship in hope that the offender changes (Cunningham, 1985). Before reconciliation occurs, the offender has to show signs of remorse, including offering an apology, and a change in behavior. However, forgiveness does not need to involve both parties; rather, it can be an internal experience.

Reconciliation is associated with forgiveness in most spiritual traditions and it is present in the organized value systems of the Muslims and the Christians in this study. Both of these religions emphasize the first scenario described by Freedman (1998) - forgive and reconcile, and emphasize remorse/repentance. Therefore, it is possible that these groups hold misconceptions about the necessity to reconcile if one has forgiven and the conditions needed for forgiveness, such as offering an apology.

### Forgetting

Another popular misconception is illustrated by the saying “Forgive and forget”. Forgiveness does not require the person to forget the hurtful experience. Forgiveness is not a result of passing of time which erases the memory (Smedes, 1984). The intensity of the affect might decrease with time, but the trauma may remain and needs to be consciously tackled. Stating that one simply forgot suggests ignoring of the problem, rather than overcoming it. This confusion of the two concepts causes the misconstrual of forgiveness as a sign of weakness (Smedes, 1984) and can make it less appealing for some to venture into.

### Excusing

Being willing to forgive does not equate excusing, either. Acknowledging that a deep hurt was caused is a necessary forgiveness element and the impact of this hurt cannot be discarded or minimized. Forgiveness is granted despite the hurt and without condoning/excusing the deed. Forgiveness is also given regardless of whether the offender was punished by the law or not, therefore legal pardon should not affect the process of forgiveness. Pardon can be differentiated as a public, behavioral release, whereas forgiveness is an inner personal release (Hunter, 1978).

### Selfish Act

Even though forgiveness is associated with benefits for the forgiver in terms of decreasing anger and anxiety and increasing positive outlook and hope, this is not the sole purpose of forgiveness. Forgiveness can be offered as a gift to others who might also benefit from it. A perpetrator may realize their wrongdoing and may also undergo a transformation in an attempt for personal betterment. This view is consistent with the existential principle of agape professed in the Bible. Agape means holy, unconditional love for everything. In this sense, forgiveness can be viewed as an altruistic act with a positive effect on the forgiver and sometimes on the one being forgiven.

### Anger and Resentment

Nonetheless, forgiveness is related to negative emotions like anger and resentment because the offence needed forgiving could be deeply hurtful. However, Smedes (1984) assured that people have not failed in forgiving simply because they are still angry. It is actually viewed unrealistic to expect to alleviate angry feelings right

away through undertaking forgiveness as they are a natural human reaction to wrongdoing. Instead, the person needs to analyze the true reason for being angry, and productively channel anger energy into a more appropriate expression, so the anger can dissipate (Smedes, 1984). Completing the process of forgiveness can lessen the anger and resentment one might feel for the wrongdoer. However, forgiving the wrongdoer does not change the fact that hurt was caused and cannot undo the consequences. Therefore, forgiveness and anger can “live together in the same heart” (Smedes, 1984, p. 141), or at least until the completed process of forgiveness replaces the angry feelings with more positive ones.

A similar philosophical stance on resentment maintains that resentment is a type of virtue that represents disapproval of the caused moral injury (Haber, 1991). A self-respecting individual who cares about the moral laws and about others, needs to express justified resentment and defend what is right. Failure to do so is viewed as a moral defect. However, a semantic line should be drawn between resentment as a form of disapproval of unjust acts and resentment as anger enforced in immoral ways.

### Pain

An aspect of practicing forgiveness is facing the hurt inflicted by the wrongful deed. Absorbing this pain and finding meaning have been viewed as facilitating factors for accomplishing forgiveness (Frankl, 1987). It is a hard, personal decision to absorb the pain one is feeling; however, it testifies a commitment to others in a social and moral context. It can break the cycle of being hurt, retaliating, and inflicting pain to others. Absorbing the pain is believed to result from accepting the reality that all humans err and

having the desire to find meaning in a painful event (Frankl, 1987). Thus, pain can hold a transformational power to evoke resilience and human potential. Forgiveness is less likely to happen without absorbing pain and finding meaning in an unfortunate event.

For example, if one has been deeply hurt by a failed romantic relationship, that person can choose to blame the other for the shattered feelings, and feel bitter, resentful, and even vindictive, thus perpetuating the pain. Alternatively, this person can choose to absorb the pain from the deep hurt and draw conclusions from this relationship by finding the positives and negatives from the experience that would help build stronger relationships in the future. If a person who was deeply hurt succeeds in absorbing the pain and finding meaning in their suffering, then they may break the cycle of pain and realize that the injury taught them a lesson and made them stronger. This new perspective may give a new purpose in life and a new understanding of the universality of hurt and forgiveness. This person might also find support in others with similar experiences and ultimately may reach emotional release.

The various definitions of forgiveness and differentiations between forgiveness and other concepts represent abundant scholarly work in various fields studying forgiveness. This work has also produced different models of forgiveness in the effort to harness its potential for practical interventions. Some models deemed most relevant to the current study are discussed below.

### Models of Forgiveness

Baskin and Enright (2004) completed a meta-analysis of nine intervention studies on forgiveness reviewing the theoretical frameworks and the results of the studies. Three

intervention models emerged: Enright's Process Model (Enright et al., 1991), a model fostering cognitive and affective empathy (McCullough et al., 1997), and a model designed to evoke forgiveness in a one-hour counseling session through empathically focusing on the transgressor (McCullough & Worthington, 1995). All three models required the participants to think about a person who unfairly hurt them; however, the models differed in philosophical approach. The first two models are based on the process of forgiving (Enright et al., 1991; McCullough et al., 1997), while the third (McCullough & Worthington, 1995) is founded on the decision to forgive. The moment of deciding to forgive is a cognitive milestone as this defines the roles of the parties involved (i.e., forgiver and forgiven) and the future of the relationship (i.e., reconciliation or no relationship).

The interventions in the reviewed studies, derived from the three models, were categorized as decision-based, process-based, and process-based individual interventions (Baskin & Enright, 2004). Compared to control groups on health and forgiveness measures, the decision-based interventions showed no effect, the process-based interventions- significant effect, and the process-based individual interventions- a large effect. These findings suggest that using the Process Model in an individual counseling session centered on interpersonal forgiveness is likely the most effective strategy. It is important to consider not only the greater effectiveness of the Process Model than the decision-based model in forgiveness counseling interventions, but also the utility of forgiveness in general, as a strategy for relieving negative cognitive and emotional responses (Baskin & Enright, 2004).

### Cognitive Development Approach

Before embarking on the Process Model, the Cognitive Development Approach, should be discussed as a foundational attempt at operationalizing the forgiveness stages. The Cognitive Development Approach considers forgiveness to be impossible without a developed sense of justice. This implies that justice and forgiveness unfold simultaneously as early as 4 years of age. With a sense of fairness, a deep moral injury can be experienced and forgiveness can be a coping mechanism. Kohlberg's Cognitive Development Approach (Kohlberg, 1974) sprung from the interest in the moral development of children, and was later expanded over the life span. The approach established three basic levels of moral development and two stages within each of them: 1) pre-moral (i.e., punishment and obedience and instrumental exchange), 2) moral (i.e., interpersonal conformity and law and order), and 3) autonomous (i.e., prior rights and social contracts and universal ethical principles). According to Kohlberg, only about 25% of people reach the last stage of moral development which leads to his assumptions that not everybody is fully morally developed, therefore, understanding of justice may vary.

Based on this model, six motivational styles of forgiveness can be identified as corresponding to the stages of justice during the developmental process (Browning & Reed, 2004). However, Kohlberg analyzes justice solely through the structure of thinking rather than through the synchronism of structure and content of thinking. This approach emphasizes the idea of developmental stages which are nowadays viewed as a continuum of development.



Another criticism of Kohlberg's approach to development is that it represents a male perspective, while overlooking more feminine traits (Gilligan & Attanucci, 1996). For example, overemphasizing the concept of justice aligns closely with the masculine worldview. In contrast, the feminine perspective values the concept of care, which Kohlberg considers indicative of an earlier developmental stage. Gilligan and Attanucci (1996) proposed a solution to this weakness of Kohlberg's Cognitive Development Approach in viewing the principles of care and justice as different, but equally mature moral orientations, instead of characteristic of different moral development levels.

Nevertheless, Kohlberg's model is a valuable theoretical approach which provides the foundations for interpreting the differences in the understanding of forgiveness as related to moral development and the development of the concept of justice. The model is not exhaustive so currently some of the well accepted models in the forgiveness literature include: the Stress and Coping Model (Strelan & Covic, 2006; Worthington, 2013), the Evolutionary Model (McCullough, 2008), and the Process Model (Enright & The Human Development Study Group, 1991).

#### Stress and Coping Model

Worthington et al. (2014) described that the Stress and Coping Model views transgressions as moral and relational injustices that violate people's physical, psychological, or spiritual boundaries. As a coping response, the injured individual can choose either forgiveness or unforgiveness. Unforgiveness is defined as an emotional and motivational state toward an offender characterized by grudges, revenges, resentment, and other negative responses. Unforgiveness is more likely to occur if the injustice is not

dealt with and may evoke psychological stress responses. In this regard, the Stress and Coping Model proposes that victims of transgressions engage in three appraisals. First, evaluating if the transgression is threatening, second, if it is, an adequate coping is assessed. Third, the injustice is examined depending on subsequent events that exacerbate (e.g., no remorse) or mitigate the injustice (e.g., apology) (Strelan & Covic, 2006; Worthington, 2013). This model highlights the victim's prosocial change towards the offender that happens in an interpersonal context. Therefore, the vast individual variables, such as attachments styles, attribution styles, beliefs, values, and personality, which might affect the understanding and practice of forgiveness need to be taken into account.

#### Evolutionary Model

McCullough (2008) developed the Evolutionary Model of forgiveness as a balanced approach to the good and bad in human nature, which views both revenge and forgiveness as natural aspects of the human nature. The model is based on the biological sciences where revenge and forgiveness are considered psychological adaptations solving social problems encountered during human evolution (McCullough, 2008). This approach argues that revenge and forgiveness have complementary biological functions in that revenge deters harm, and forgiveness enables the preservation of valuable relationships despite the suffered harm (McCullough, Kurzban, & Tabak, 2013).

More specifically, forgiveness was analyzed through the prism of functional contextualism which suggested that if one seeks to increase forgiveness, first they need to isolate the variables predicting forgiveness, and then manipulate these variables to increase the probability of forgiveness. In order to increase forgiveness, more social

environments that feed pro-forgiveness behaviors need to be created instead of social environments that encourage revenge. This model considers the environment as a crucial factor in shaping evolutionary stable behavioral strategies. Interventions based on the Evolutionary Model indicated that this approach can be applied both at the individual and at the group level, as well as for intragroup forgiveness and intergroup forgiveness (McCullough et al., 2013).

### Process Model

An alternative to the upper-stated models is Enright's psychological model of interpersonal forgiveness (Enright et al., 1991). The Process Model is used as a conceptual foundation of the current study because it focuses on the developmental patterns of thinking about forgiveness and how people exercise forgiveness (Enright, Gassin, & Wu, 1992). The cognitive, affective, and behavioral changes associated with forgiveness are employed in the Process Model and further developed by adding more stages and concepts to the model (Freedman et al., 2005).

The resulting 20 units of the model are classified into 4 phases: units 1-8 represent the *Uncovering Phase* (i.e., exploration of the hurt); units 9-11 represent the *Decision Phase* (i.e., choosing forgiveness or unforgiveness); units 12-15 represent the *Work Phase* (i.e., exercises that promote forgiveness); and units 16-20 represent the *Outcome Phase* (i.e., consequences of forgiveness) (see Table 1.).

The *Uncovering Phase* encompasses the process of psychological defenses, such as denial, suppression, repression, rationalization, and displacement; and the processes of anger, shame, cathexis, cognitive rehearsal, comparison with the injurer, realization of

changed self, and altered just world. All these processes involve exploration of the emotional pain caused by the injury, prior to forgiving. The *Decision Phase* starts with a “change of heart” and aims at committing to forgive. During this phase, the person decides whether to choose to forgive or an alternative way of coping. The *Work Phase* engages in reframing, or viewing the wrongdoer in context, and develops feelings of empathy, compassion, and eventually absorption of pain. In this phase one may engage in therapeutic or educational exercises that may promote forgiveness. The ways in which the injuries heal through forgiveness are presented in the *Outcome Phase*- finding meaning, purpose, decreased negative affect, increased positive affect, and internal, emotional release (Enright et al., 1991).

The Process Model of forgiveness describes some likely consequences of practicing forgiveness; however, the unique human experience with forgiveness may not always fall within the framework of the Process Model because different personal, genetic, socio-cultural, and other factors may play a role in how forgiveness could be experienced. Nevertheless, the model can be used as a stable foundation for an organized analysis of the forgiveness process, and in this study, as the conceptual framework informing the measures of forgiveness.

Table 1. *Process Model of Forgiveness*

Phases	Units
Uncovering Phase	1. Examination of psychological defenses 2. Confrontation of anger 3. Admittance of shame 4. Awareness of cathexis (energy used to hold on to old feelings) 5. Awareness of cognitive rehearsal of the offense 6. Comparing the victim and the offender 7. Realization that the offense might have permanently changed the victim 8. Insight into the altered “just world” view
Decision Phase	9. Realization that old coping strategies are not working i.e. “change of heart” 10. Willingness to consider forgiveness as a coping strategy 11. Commitment to forgive
Work Phase	12. Reframing the offender by viewing them in context 13. Empathy toward the offender 14. Compassion toward the offender 15. Acceptance and absorption of pain
Outcome Phase	16. Finding meaning for self and others 17. Realization that the victim has also needed forgiveness in the past 18. Realization of social support i.e. the victim doesn’t feel alone 19. Realization of a new purpose because of the injury 20. Awareness of internal emotional release

### Forgiveness Practice Methods and Their Benefits

Most people experience stress related to hurt or unfair treatment at some point in their lifetime. When that happens, physical, emotional, and psychological effects would be triggered and a need for coping strategies would arise to decrease the negative impact on one’s well-being (Lazarus, 1999). Some coping strategies may be seeking justice, re-appraisal of the event, and re-attribution of the motives for the transgression as a part of the forgiveness process. Practicing forgiveness has been found to be a beneficial and

successful technique for coping with deep hurt and the resulting negative emotions (Worthington et al., 2014).

### Forgiveness Promoting Interventions

A series of research studies by the Stanford Forgiveness Project were interested exactly in promoting forgiveness granting behaviors. The projects advanced nine steps to forgiveness which were applied in therapy:

1. Realize and verbalize how you feel about the transgression;
2. Make a commitment to yourself to feel better;
3. Find peace regardless if you can reconcile, excuse, or condone the transgression;
4. Acknowledge that your distress is coming from the hurt feelings, thoughts, and reactions that you are harboring, not from the transgression itself;
5. Practice stress management techniques whenever you feel upset about the transgression;
6. Give up expectations about the offender and focus on your own well-being;
7. Seek out new way to achieve positive goals instead of mentally rehearsing the transgression;
8. Regain personal power but switching the focus away from your hurt feelings which give power to the offender;
9. Re-appraise your grievance story to remind you that you made the choice to forgive (Luskin, 2006).

Based on these principles, The Stanford Forgiveness Project investigated the effectiveness of a group psycho-education forgiveness methodology which included

narrative therapy, cognitive disputation, guided imagery, and stress management. The participants receiving this treatment showed a significant decrease of anger, stress, and hurt and an increase of optimism and of forgiveness for the offender or for difficult situations in general (Luskin, 2006).

Such interventions appear to be focused mostly on the personal desire for well-being as a major motivating factor. Maybe Christians, Muslims, and Atheists have different motivations to forgive which may affect the outcomes of such therapies and give insight to cultural/spiritual sensitivity.

### Counseling

Other examples of the benefits of forgiveness practice are surfacing from marriage counseling interventions. Spouses reported that the ability to give or ask for forgiveness had a crucial effect on marital longevity and marital satisfaction (Fincham, Hall, & Beach, 2005). Additionally, wives' forgiveness predicted husbands' reports of better conflict resolution, while husbands' unforgiveness predicted wives' reports of poorer conflict resolution (Fincham et al., 2005). Forgiving may help the spouses recognize that each of them recalls the transgression in a self-serving way; thus, may have different views or expectations. These realizations may have significant implications for long-term, close relationships, like marriages, but also for short-term interactions.

However, this type of forgiveness is undertaken for the purpose of reconciliation. In other situations, reconciliation may not be desired or possible (i.e., when it is unsafe, the offender is deceased or far away); yet forgiveness may still be beneficial for the

victim. It is also worth pondering how these marital interventions would look like with spouses from different religious background. The Fincham et al. (2005) did not report on the religious affiliations of the participants since that was not the focus of their investigation. Nevertheless, there might be reasons to believe that such counseling practices could be effective for Christians, Muslims, and Atheists alike.

### Forgiveness Education

Another direction of research on forgiveness benefits focuses on the practical application in forgiveness education. Enright et al. (2006) developed a four-phase therapy model for increasing forgiveness which was empirically tested with different vulnerable populations and resulted in curtailment of anxiety and depression and enhancement of hope and self-esteem (Al-Mabuk et al., 1995; Freedman & Enright, 1996). This model was adapted for Forgiveness Education Curriculum and was initially tested with 327 children in Northern Ireland and the US. The participants were first, second, third, and fifth grade students in environments characterized by violence and poverty. Trained teachers delivered the forgiveness curriculum to the students through developmentally appropriate stories. Children who received forgiveness education experienced a statistically significant reduction of anger compared to children who did not. These positive results prompted the forgiveness education program to be expanded to over 100 classrooms around the world.

Therefore, forgiveness interventions can be successfully utilized not only with adults, but also with children when developmentally appropriate strategies are employed.



It is possible that children from various spiritual backgrounds could benefit from acquiring coping strategies for reducing anger and for emotional health.

### Peace-Making

Moreover, forgiveness programs can help social reconstruction and dialogue in post-conflict/ post-war settings thus leading the way to peace. This exemplifies another direction of forgiveness research- forgiveness as a mediator in conflicts. For example, in Rwanda and the Congo a number of forgiveness projects were conducted to promote post-genocide psychological recovery, reconciliation, and development of positive relations between groups (Staub & Anne, 2006; Staub, Pearlman, Barbanel, & Sternberg, 2006). The interventions were facilitated by trained locals who helped community groups progress through four stages: understanding the psychological effects of violence on all parties, understanding the origins of violence between groups, understanding the impact of basic human needs in the origins of violence, and engagement with experience (Staub & Anne, 2006). This approach was used with variety of people: journalists, community leaders, national leaders, and on radio programs. The participants showed fewer trauma symptoms two months after the end of the intervention and developed a more positive attitude toward members of the other group. Additionally, the participants showed readiness to forgive and/or reconcile if members of the other groups expressed regret or acknowledged their wrongdoing.

The impact of forgiveness on intergroup dynamics was also examined in series of studies by Wohl and Branscombe (2005, 2006, 2008, 2009), Wohl, Branscombe, and Klar (2006), and Wohl, Branscombe, and Reysen (2010). They were interested in

intergroup forgiveness in situations when intergroup conflicts can affect subsequent generations belonging to these groups. For instance, North American Jewish communities were studied with a focus on their emotional reactions to the Holocaust and the Palestinian-Israeli conflict (Wohl & Branscombe, 2006). It was hypothesized that historical victimization of the ingroup (i.e. the Jews) would affect perceptions and actions toward outgroups in the present (i.e. Palestinians). Participants in the experimental groups reflected on the Holocaust or on the Cambodian genocide and were compared with participants in the control condition, without the reflective exercise, on a measure assessing ingroup forgiveness. The results showed that intergroup forgiveness (i.e. with the Israeli) for current harms increased along with reduced ingroup responsibility and legitimized ingroup behavior. This suggested that reminders of past victimizations of the ingroup and strong ingroup belonging may increase forgiveness but also excuse or re-appraisal of the transgression. Another valuable insight was that historically victimized groups are more likely to forgive historical perpetrator groups when members of both groups are viewed as belonging to a common, super-ordinate group, like Humankind.

It was observed that intergroup conflicts can often be religion-based, resulting in prosecution of one religious group by another, which can trigger value conflicts with time. In fact, twenty-four recent wars on religious grounds have been identified by Reyhler (1997), such as: Myanmar (Buddhists vs. Christians), Israel/Palestinian (Jews vs. Muslims, Christians), Northern Ireland (Catholic vs. Protestants), Philippines (Muslims vs. Christians), Bangladesh (Buddhists vs. Muslims), Sudan (Muslims vs. Native religions), Iraq (Sunnites vs. Shiites), Bosnia (Christians vs. Muslims), etc. It

becomes evident that religion-based conflicts exist among various religions and within one religion's denominations, between countries or within the same country. Social reconstruction and peace interventions require time, resources, and large-scale involvement to change the moral and political climates; however, studies like Staub and Anne's (2006) and Wohl and Branscombe's (2005, 2006, 2008, 2009, 2010) provide evidence that forgiveness can serve as a mediator in such conflicts.

### Overcoming Trauma

When violent, traumatic events occur, both forgiveness and non-forgiveness are a part of the psychological processes involved in coping. Studies have found that immediately after a tragic event happened, some people reported that they would or had forgiven, while others could not consider forgiveness (Hawkins, McIntosh, Silver, & Holman, 2007; Kline Rhoades et al., 2007). For examples, six weeks after 9/11, 488 college students and 154 early adolescents were surveyed to investigate how being anti-forgiveness, ambivalent about forgiveness, or pro-forgiveness towards the attackers related to successful coping and finding meaning in the event (Kline Rhoades et al., 2007). The participants who were ambivalent about forgiveness reported more psychological distress than those who had forgiven or who were against forgiveness. The ambivalent participants may have been preoccupied with thoughts and emotional reactions to the attacks, this way fostering stress responses. The anti-forgiveness participants reported less religiousness which suggested that religion may prevent one from rejecting forgiveness but may not guarantee true forgiving (Kline Rhoades et al., 2007). So forgiveness may be a beneficial coping response that facilitates emotional

adjustment after a stressful event, even if no future interaction with the perpetrators are expected.

It should be noted that studies like Kline Rhoades et al.'s (2007) should be sensitive to the timing of data collection. When a stressful event such as the attack on 9/11 happens, there is a period of time when people are still processing their experiences. If they are surveyed shortly after the incident, they might not be able to consider forgiveness yet; however, that does not mean they would not in the future. Also, respondents reporting willingness to forgive at that time, may not be able to indicate when and if they would have actually forgiven. It may be more informational if surveys are distributed both shortly after a hurtful event and again after additional passage of time to allow for the forgiveness a process to take its course.

#### Motivation for Forgiveness

The length of the forgiveness process may depend on the motivations behind engaging in forgiveness. Religiosity has been identified as one of six major motives for forgiveness. Rourke (2006) looked at forgiveness from the perspective of the perpetrator and identified six major motives for the perpetrator to seek forgiveness: damaged self-worth, justice, impression management, the victim and others (i.e., friends and family), the relationship with the victim, and God. These motivations may vary depending on the time frame, the personality of the perpetrator, and if the severity of the situation is low, moderate, or high. When the severity is high, both introverts and extraverts followed similar forgiveness-seeking steps: reflection and intrapersonal forgiveness (i.e., self-forgiveness), then seeking interpersonal forgiveness (i.e., being forgiven by the victim).

Moreover, four categories of forgiveness seeking behaviors have been established: approach behaviors, avoidance behaviors, denying and hiding behaviors, and groveling behaviors (e.g. ready to do anything) (Rourke, 2006).

This study advocated for the importance of not only interpersonal, but also intrapersonal forgiveness and forgiveness-seeking. This switch of perspective is valuable because knowing what motivates an offender to seek forgiveness may help promote positive behaviors facilitating greater seeking and granting of forgiveness. It is interesting to consider if Christians, Muslims, and Atheists would have similar motivations and forgiveness-seeking behaviors as the participants in this study.

The examples of the current finding in the field of forgiveness reviewed above are consistent with the summary of benefits identified by the American Psychological Association (2006). These benefits can be organized into the following categories: 1. Forgiveness promotes psychological healing through positive changes in affect; 2. Forgiveness improves physical and mental health; 3. Forgiveness restores a victim's sense of personal power; 4. Forgiveness restored the offender's sense of worth and humanity; 5. Forgiveness can result in reconciliation between the offended and the offender; 6. Forgiveness gives hope for the resolution of real-world intergroup conflicts (APA, 2006).

### Forgiveness and Religion

#### Health Outcomes

Lawler-Row (2010) proposed that forgiveness plays an important role in mediating the effects of religion on health. It was hypothesized that people who are

committed to a religious belief system with forgiveness at the core will benefit from religion most when they perceive themselves as behaving consistently within the forgiveness values. Three studies were conducted with older adults ( $N = 605$  and  $N = 253$ ) and middle-aged adults ( $N = 80$ ) who completed forgiveness, religiosity, and health assessments (Lawler-Row, 2010). The results showed that the mediating effect of forgiveness occurs when religiosity affected forgiveness, and when religiosity affected health. Specifically, in Study 1 feeling forgiven by God fully mediated associations between frequency of attendance, prayer, and belief in God with healthy aging. In Study 2, trait forgiveness (i.e., possessing a forgiving personality) mediated the associations between traditional religious practices, such as attendance, prayer and intrinsic religiosity, and psychological health. On the other hand, state forgiveness (i.e., the effect of a specific transgression on the likelihood to forgive) mediated the relationship between spirituality and physical health outcomes in Study 3. In these studies the participants were not selected based on certain religions; however, religious involvement was demonstrated to predict psychological and physical health for all, and forgiveness consistently mediated the religion- health associations. These findings suggest that individuals actively involved in a spiritual tradition and practicing forgiveness are likely to experience positive psychological and physical outcomes related to successful aging.

Such findings contribute to the body of literature linking the psychological science with the effects of spirituality. Sutton (2014) reviewed the concept of forgiveness along with studies related to forgiveness interventions and health outcomes to support the argument that psychologists should study how people understand and respond to

perceptions of God's forgiveness, intrapersonal, and interpersonal forgiveness. Sutton (2014) concluded that the literature consistently supports the notion that the process of forgiveness reduces emotional distress and aids healthy relationships. Therefore, overall personal well-being is dependent upon effective forgiveness strategies.

Intrapersonal forgiveness or self-forgiving was found challenging because the person needs to be able to view themselves as both a victim and an offender. Worthington (2013) was cited as providing the most recent model of intrapersonal forgiveness. The process consists of six steps that an individual is advised to accomplish:

1. Receiving God's forgiveness- realizing you are only human;
2. Repairing relationships- even if not possible to restore previous status, try to help;
3. Rethinking ruminations- unrealistic assumptions of what life should be can enhance regret and remorse;
4. Applying the REACH steps to emotional self-forgiveness– R= recall the hurt; E= empathize; A= altruistic gift of forgiveness; C= commit; H= hold onto forgiveness;
5. Re-building self-acceptance- valuing your flaws and strengths;
6. Resolving to live virtuously- not making the same mistakes.

Interpersonal forgiveness, on the other hand, was analyzed by Sutton (2014) as prompting the field of peace psychology where the effects of forgiveness and reconciliation have been assessed with various populations in conflicts/wars. The findings suggest that forgiveness between groups is a crucial component of lasting peace efforts. It was concluded that, especially for Christians, forgiveness is important in terms

of both accepting God's forgiveness (i.e. enabling intrapersonal forgiveness) and granting forgiveness to maintain loving relationships (i.e. promoting interpersonal forgiveness).

### Religious Commitment

Other researchers have also supported the findings that religious commitment may significantly influence the person's likelihood to forgive and their forgiveness process (McCullough & Worthington, 1999). Additionally, it has been suggested that this likelihood to forgive may not be influenced by a specific religion as much as by the specific commitment to any religious teachings that include forgiveness at their core (Worthington, Kurusu, McCullough, & Sandage, 1996).

Kidwell (2009) used the upper-stated theoretical foundation to investigate how an individual's religious commitment may affect their ability to extend forgiveness to wrongdoers. The assumptions aligned with the proposition by Worthington (1988) that strong religiosity may be related to forgiving more easily due to people living in accordance with the religious teachings including forgiveness at their core. Two studies were conducted by Kidwell (2009): 1) a qualitative study exploring the ways religious people make use of their religious commitment in the forgiveness process; 2) a quantitative study examining associations between forgiveness and religious commitment with individuals who participated in treatments promoting forgiveness.

The qualitative study consisted of in-depth semi-structured interviews with ten participants with moderate to high religious commitment. The Grounded Theory approach to analyzing the themes emerging from the data revealed that the most common type of offence was abuse/neglect by the parents ( $N = 6$ ), followed by betrayal by friend



( $N = 2$ ) and infidelity ( $N = 2$ ). The common reasons why the participants decided to forgive were: religious (i.e., Be closer to/ like God ( $N = 8$ ), Because God forgives us ( $N = 4$ ) and secular (i.e., To be forgiven by others ( $N = 8$ ), Achieve peace ( $N = 6$ ), Decrease bitterness ( $N = 6$ ), For community as a whole ( $N = 5$ ), etc.). The strategies used to forgive were also divided into religious and secular and the most common ones were: Looked to God for strength ( $N = 6$ ) and Prayer ( $N = 6$ ) versus Empathy for offender ( $N = 8$ ) and Focusing on positive qualities of offender ( $N = 8$ ) (Kidwell, 2009). This qualitative analysis exposed some common motivations and ways for practicing forgiveness. The findings suggested that participants may forgive in a way that is uniquely theirs (i.e., by picking and choosing methods) but also implement some common strategies.

The quantitative study included 298 participants from three existing data sets in three therapy conditions: a REACH Model-based therapy (Worthington, 1998), a group therapy, and a stress reduction therapy. The measures distributed to the participants were the Religious Commitment Inventory (RCI-10; Worthington et al., 2003), the Trait Forgivingness Scale (Berry, Worthington, O'Connor, Parrott, & Wade, 2005), The Transgression-Related Interpersonal Motivations inventory (TRIM) (McCullough et al., 1998), Batson's Empathy Adjectives (Batson, Bolen, Cross, & Neuringer-Benfiel, 1986), and the Brief Symptom Inventory (Derogatis, 1993). The data analysis did not find that religious commitment is associated with forgiveness as previously observed in the literature.

Additionally, religious commitment may not be related to improvement in psychological distress from pre to post treatment since all participants experienced

significant decrease of psychological distress. However, trait forgivingness mediated the relationship between religious commitment and revenge at pretreatment but not between religious commitment and avoidance or empathy (Kidwell, 2009).

Some limitations in Kidwell's (2009) studies were the sample size in Study 1 (i.e., 10 participants) and the sample type in Study 2 (i.e., pre-existing data sets collected over six years). In addition to the size, various religions were included but unequally represented in the samples which may have influenced the results. Out of the 236 participants in Study 2 who completed the RCI, only 52 reported religious commitment at or above one standard deviation above the mean. This suggests that maybe there were not enough highly religious participants included to significantly influence the results.

In view of such findings, the current study is interested in investigating the specific differences in forgiveness practices among the three groups of participants affiliated with different beliefs. It may be that the more religiously committed individuals, regardless of religion, would be more forgiving than the less committed individuals and the Atheists. Consideration is given that there is no treatment condition in the current study as opposed to Kidwell's (2009) where the interventions may have diminished the effect of religion by fostering positive outcomes for all participants.

### Religious Orientation

Religion may differently affect the likelihood to forgive based on the level of religious commitment, but also based on the religious orientation. Two types of religious orientation are described in the literature- *intrinsic* and *extrinsic*. Intrinsic religious orientation is a personal, spiritual development characterized by a deeper, more

meaningful relationship with God. People who hold such orientation internalize the religious beliefs and find harmony in following their prescriptions. Extrinsic religious orientation, on the other hand, can be a tool for social support, comfort, and self-esteem, which makes it self-serving motivation (Hills et al., 2004). Extrinsically oriented people bear interest in religion because it may be instrumental for other personal interests- “the extrinsic type turns to God, but without turning away from self” (Allport & Ross, 1967). Therefore, intrinsic orientation is viewed as a mature form of religious feeling which drives the individual’s values and way of life (Tiliopoulos, Bikker, Coxon, & Hawkin, 2007).

If intrinsically oriented people lead their lives according to particular religious teachings, then they would have developed a cognitive representation in terms of a schema. This schema would serve as a knowledge base through which life experiences would be filtered. For instance, if the religion favors practicing forgiveness, then in a situation when hurt is experienced, this schema would be triggered to prompt the individual that forgiving is the right thing to do. In that sense, intrinsic religious orientation would be related to greater likelihood to forgive. Schemata are formed on the basis of perceived experiences; hence, two people might have the same experience and perceive it much differently. The different perception would make their memories of the experience different. Also, they might perceive a similar new experience much differently based on their interpretations of the previous experience.

A recent study by Seedall, Butler, & Elledge (2014) addressed the gap in the research related to understanding how religious orientation relates to attitudes

towards forgiveness. The findings suggested that intrinsic religious orientation was associated with acceptability of forgiveness as a spiritual act, whereas extrinsic religious orientation was not associated with acceptance of forgiveness. Even though the personal religious orientation was related to greater acceptability of forgiveness, it was also related to the misconception of forgiveness as relationship reconciliation.

Furthermore, it is important to consider if intrinsically oriented religious people are accepting of forgiveness in a hypothetical or in real-life situation of hurt by a specific perpetrator. This was exactly the distinction addressed by Gordon et al. (2008) in their study with Christian adults. They examined the differences in the forgiveness practices based on in the dichotomous religious orientation approach and confirmed that intrinsically oriented Christians reported themselves as more forgiving in an actual betrayal instance than extrinsically oriented participants. The extrinsically oriented Christians scored higher on a vengefulness measure and were more likely to be clouted by social pressures to forgive. These findings build on and are consisted with the foundational literature identifying that people who score high in church attendance, self-rated religiousness, and are intrinsically religious placed forgiveness high in their values (Rokeach, 1973).

Such studies suggest that religious orientation may be an influential factor not only for people's understanding of forgiveness, but also for their reasons and circumstances under which they practice forgiveness. In the current study, intrinsic or extrinsic religious orientation will serve as a within group comparison as there might be a greater within group variability than between group variability in likelihood to forgive

based on the religious motivation style. Additionally, two different forgiveness measures were distributed to both intrinsically and extrinsically oriented religious participants to investigate if they report differently when prompted to think of an actual hurt they experiences or a hypothetical hurt. The Enright Forgiveness Inventory was used to investigate forgiveness towards an actual offender in a past hurtful experience, while the Forgiveness Likelihood Scale was used to estimate how likely participants are to forgive in hypothetical scenarios.

### Propensity to Forgive

The relationship between religion and forgiveness has been hypothesized as both a spiritual and a socio-psychological phenomenon. To this end, empirical studies have attempted to unearth a link between personality traits and the propensity to forgive (Azar & Mullet, 2001; McCullough, Bono, & Root 2005; McCullough & Worthington, 1999). McCullough and Worthington (1999) attest that the fields of forgiveness and personality would gain from research revisiting the religious roots of the forgiveness concept. Forgiveness could be assessed through measures that refer to a general personality disposition or even to a response tendency within a given situation or relationship. This means that certain personality characteristics may be linked to a greater likelihood to forgive (i.e. trait forgiveness) and personal behavior tendency may be linked to forgiveness in different hypothetical situations or a single transgression (i.e., state forgiveness).

Studies have examined different situational factors contributing to greater propensity, likelihood, and willingness to forgive. Girard and Mullet (2012) studied the

development of willingness to forgive in 159 adolescents in relation to the following conditions: possibility of revenge, cancellation of harmful consequences, encouragement to forgive, social proximity with the offender, intent to harm, and presence of apologies. Sixteen stories were created to encompass these conditions and distributed to the participants to rank on a continuous scale their willingness to forgive in each scenario. Seven three way ANOVAs were computed with Participant's age x Participant's Gender x Factor of interest (e.g., revenge, consequence, apology, etc.).

The analysis showed that the strongest effect on the willingness to forgive was that of cancellation of consequences followed by intent (to hurt). The effect of the encouragement depended whether the encouragement was given by a friend (moderate effect) or by parents (small effect). Interestingly, the effects of apology, revenge, and social proximity were weak. A critical consideration should be given whether the results reflected strongly the developmental processes in adolescence or they could be representative for a wider population. The study did not focus on religious backgrounds so it is not clear if there would be a greater effect of apology and encouragement when comparing a religious and an Atheist sample.

Another interesting study examining the willingness to forgive a severe offence compared findings with six Lebanese groups- three Islamic communities (Druze, Shiite, and Sunni) and three Christian communities (Catholics, Maronites, and Orthodox) (Azar & Mullet, 2001). The situational factors associated with the willingness to forgive were similar to Girard and Mullet's (2012) but adjusted to religiosity: intent to harm, cancellation of consequences, religious and social similarity to the offender, and

apologies from the offender. Twenty-four stories were created to include levels of the four circumstances and the participants rated their willingness to forgive in all scenarios.

The results indicated that the overall level of forgiveness willingness equivalent in each of the six religious subgroups. The effect of apology was consistently significant while the effect of the religious similarity factor (Christian vs. Islamic) was weak in every group. These findings suggest that religious people may exhibit similar levels of willingness to forgive, especially if granted an apology, regardless if they are forgiving someone from the same religion or from another. It would be interesting to investigate if this trend remains when the offender is Atheist or if these conditions would be important for Atheists at all.

Other factors involved in the propensity to forgive as related to religion have been summarized as emerging from the literature (McCullough, Bono, & Root, 2005). Taking personal responsibility for forgiveness and reparative behaviors has been associated with intrinsic religious orientation. However, in real-life transgressions, religiosity has not been consistently shown to influence forgiveness seeking. Moreover, forgiveness seeking may be encouraged by religion if people's forgiveness schema includes expectations to repent, apologize, and ask for forgiveness, essentially focusing on reconciliation. On the other hand, forgiveness seeking may be discouraged if people believe that they should focus exclusively on their relationship with God (McCullough, Bono, & Root, 2005).

Some of the conditions influencing forgiveness practices were investigated in the current study by the Forgiveness Likelihood scale offering hypothetical scenarios with

situational conditions to measure how likely Christians, Muslims, and Atheists are to forgive.

### Religions in the U.S.

Figure 1 illustrates the distribution of religions in the US. The predominant denomination is Protestant, followed by Roman Catholic, and Atheist or no religion. The number of Atheists is rising globally despite the controversy in the US about their actual percentage. About 11% of the Protestant numbers below are Pentecostal and Pentecostals keep growing worldwide, in contrast to Evangelical and other denominations. Pentecostals represent about 13% of all Christians in the world and about 11% of American Christians (Pew Research Center, 2011). Even though Muslims represent 0.6% of all beliefs, recently more attention has been directed to Muslims because of the violent acts of some extremist organizations that associate themselves with the Islamic religion. This has been a source of religious and social tensions and misconceptions about the beliefs and values that Muslims uphold to.

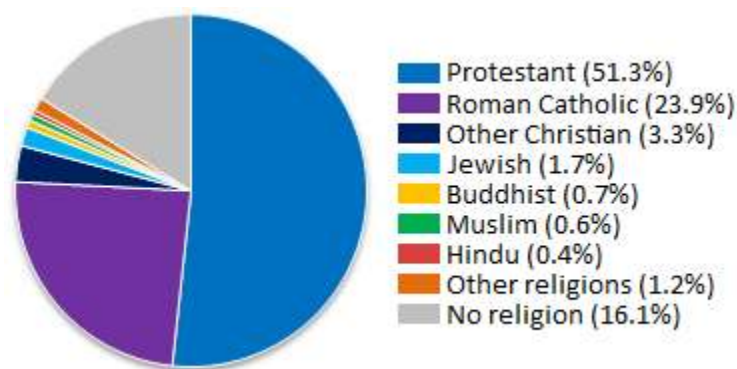


Figure 1. *Religious Denominations in the US*



Recent terrorist acts have triggered research interest in possible means for overcoming distress caused by these acts. For example, there have been studies showing the positive effect of forgiveness when coping with trauma after terrorist attacks. Weinberg, Gil, and Gilbar (2014) demonstrated that the tendency to forgive is positively associated with problem-focused coping and negatively associated with avoidance coping. Additionally, the tendency to forgive and problem-focused coping are associated with decreased PTSD symptom severity after terrorist attacks. These findings speak to the ability of forgiveness to transcend above religious differences and offer a coping system for dealing with hurt.

#### Forgiveness in Christianity

Religion is viewed as being related to forgiveness by various scholars. For instance, in his clinical practice, Hope (1987) references philosophy as well as theology and promotes forgiveness as a therapeutic technique while making an analogy with the Christian doctrine, among others. The foundations of the Christian view hold similarities with the Process Model of forgiveness, since theologians also describe stages in forgiving: acknowledging the hurt, deciding to forgive, being aware that forgiveness is not easy, forgiving yourself, and considering the consequences of not forgiving (Hope, 1987).

Enright and the Human Development Study Group (1991) also discuss forgiveness within the context of the New Testament. They observe the semantic connotations of the four most commonly used Greek words related to forgiveness: *aphiemi* (sending away sins), *charizomai* (to bestow a favor unconditionally), *apولو* (to

release negativity), and *agape* (unconditional, benevolent love). Thus, the Christian meaning of forgiveness refers to both God washing away the sin upon repentance and feeling love regardless of repentance (Enright et al., 1991).

Additionally, expectation exists that since the person has been forgiven, they must extend forgiveness to others in return, following Christ's example (Rye et al., 2000). There are no limitations how often or how many times to offer forgiveness as this act restores the sense of peace within the forgiver but also for the forgiven. A unique characteristic of Christianity is the view on repentance. Repentance, unlike in Judaism and Islam to a certain extent, is not a precondition for being forgiven. God forgives people through Christ and repentance is a step towards God's Kingdom (L. G. Jones, 1995). The emphasis in Christianity is on interpersonal forgiveness, i.e. person-to-person, whereas in other religions intrapersonal forgiveness may also surface (i.e., Judaism, Hinduism).

These characteristics are considered universal for the Christian religion based on the basic value principles promoted. However, there are many Christian denominations within the US which may vary in some of their beliefs and practices. Browning and Reed (2004) maintain that the concepts of forgiveness and reconciliation are necessary in today's social context and that the Church should take the lead in facilitation and promotion. Forgiveness and reconciliation were viewed as crucial for both congregational life and for the broader society. Browning and Reed (2004) analyze the traditional practice of forgiveness and reconciliation as expressed in Church services. For example, the Catholic Mass opens with thoughts about one's own sinfulness and need for

forgiveness, then the Lord's Prayer for forgiveness follows, before receiving Communion, people embrace each other as a symbol of reconciliation, and conclude with a plea for mercy. Browning and Reed (2004) considered this public form of forgiveness and reconciliation as ineffective and refer to the work of Enright et al. (1991) as evidence for the need of forgiveness education and interventions. Furthermore, such religious practices may have a role in confusing forgiveness with reconciliation in the expectation that one forgives and reconciles simultaneously.

Church practices alone may not be sufficient in helping people accomplish forgiveness, but may make people more likely to consider forgiveness. Survey results show that Pentecostals and Southern Baptists are mostly interested (over 50%) in educational efforts to increase forgiveness, while Roman Catholics and United Methodists showed significantly less interest (Browning & Reed, 2004). Also, most denominations include some units on the importance of forgiveness in their Christian curriculum; yet, little attention is provided to specific strategies enabling forgiveness. Consequently, Christianity may create the norm that forgiving a good thing to do but may not actually provide resources for people to help them practice forgiveness in real-life situations.

#### Forgiveness in Islam

Muslims also believe strongly in forgiveness which is demonstrated in that they refer to Allah as "ever Oft-forgiving, Most Merciful" in the Quran (004:106 Khan). Forgiving of all sins is fundamental for Islam as much as it is for Christianity due to the belief that humans have prevailing sinful tendencies (Ayoub, 1997). There are two kinds

of forgiveness in Islam: Allah's forgiveness and human forgiveness. It is believed that people are in need of both since they make mistakes in their relations to Allah, as well as their relations to each other (Rye et al., 2000). If a person recognizes that they have committed a sin, they can ask Allah directly for forgiveness, no intermediary is needed.

On the other hand, if a person has hurt another person, they need to amend the mistake before asking the victim for forgiveness. The intent is that the mistakes should not be repeated; yet, if it happens, the person needs to ask for forgiveness again. Similar to the Christian view, there is no limit as to how many times forgiveness is given because people should forgive to the same extent they would like to be forgiven by others. Islam encourages people to be forgiving especially if someone sincerely asks for their forgiveness. However, a reward is offered for such a deed that is beyond the social contract of "I forgive you so you can forgive me later". It is promised in the Quran that God will raise the status of the forgiver to a higher degree and remove one of his sins (Rye et al., 2000). In that sense, forgiveness is more virtuous than seeking justice and retaliation. Also, it is evident that emphasis is placed on apology and repentance as a vital factor in the decision to forgive (Ayoub, 1997; Worthington et al., 2000).

A comparison table is provided below to illustrate the similarities and differences between the characteristics of Christianity and Islam. Both religions agree that God is an all-powerful, all-knowing, all-holy, eternal, spiritual being who has created the universe. However, Islam rejects the Christian concept of God as the Trinity because God is incomparable and cannot have a Son. Thus, the Quran denounces anyone who holds that God has a Son as an unbeliever who will be prohibited to enter paradise. Also, God's

word is to be followed unconditionally as written in the Quran, and His love needs to be earned, while the Christian view is that God is love (Craig, 2015). Islam requires that the transgressor needs to apologize (i.e., ask for forgiveness) in order to be worthy of forgiveness. The New Testament Christian views are that a person should be able to forgive regardless if the offender repents and apologizes or not. In doing so, Christians become worthy of being forgiven themselves (Hunter, 2007). Moreover, the post-Christian cultural environment values forgiveness not only as a moral virtue, but also as a tool for enhancing own well-being.

Many similarities become evident between the two religions in terms of the foundations of the religion. However, some differences exist, specifically in the role of reconciliation and repentance (Macaskill, 2005), that can potentially reflect in the forgiveness understanding of the people practicing these spiritual traditions. Moreover, individuals' mental structures would reflect specific concepts promoted by the religion. For example, if the Islam emphasizes apology as a prerequisite for forgiving, then an intrinsically oriented Muslim would exhibit a mental structure allowing for forgiveness only if the offender extends an apology. By the same token, a Christian may not seek an apology because their religious schema would not incorporate a mental structure corresponding to apology as a precondition to forgiveness. Therefore, the likelihood to forgive may also depend on specific conditions (i.e., extending apology, the offender being a family member or a stranger, etc.) related to the mental structures already formed by the religious belief system.

Current findings in belief acquisition suggest that humans do not automatically acquire intuitive religious beliefs; instead they develop intuitive ontologies early in life that influence what concepts they find easy to learn and remember (Boyer & Ramble, 2001). This notion holds a striking resemblance to the Schema Theory idea that environmental factors, experiences, and background knowledge guide the construction of mental representations of the world which can influence comprehension and learning (Anderson et al., 1977).

Table 2. *Christianity and Islam Comparison*

Characteristic	Christianity	Islam
Adherents worldwide today	2 billion	1.3 billion
Adherents in USA	159 million	1.1 million
Major branches	Catholic, Orthodox, Protestant	Sunni, Shiite
Sacred text	Bible- inspired human accounts	Quran- literal Word of God
God	Monotheism; God as Trinity	Monotheism; God as Unity
Jesus	Son of God; resurrection affirmed	Prophet of God; resurrection denied
Human nature	“Original sin”, tendency for evil	Equal ability for good and evil
Means of salvation	Correct belief, faith, good deeds, sacraments	Correct belief, good deeds, Five Pillars
Afterlife	Eternal heaven or hell	Eternal paradise or hell
View of the other religion	Islam is respected as a fellow monotheistic religion, but Muhammad is not seen as a true prophet	Christians are respected as "People of the Book," but they have mistaken beliefs and only partial revelation
Major sacred rituals	Baptism, communion	Five Pillars: prayer, pilgrimage, charity, fasting, confession of faith
Role of Repentance	Forgiveness can take place with or without an apology	Not necessary for forgiveness between humans but needed for Allah to grant forgiveness
Role of Reconciliation	Forgiveness happen with or without reconciling with the offender	Important part of forgiveness but forgiveness may take place without it among humans.

(Compare Christianity and Islam, 2017)

## Forgiveness in Atheism

### Understanding Atheism

Theories of religion have been successful in interpreting and predicting human behaviors and beliefs. However, in order to include patterns of disbelief, these theories need to take into account Atheism or the lack of belief in God (Gervais & Najle, 2017). The topic of Atheism is controversial because the arguments are often times constructed around an oppositional relationship of Theism vs Atheism. At its core, Atheism is not an opposition to or a denial of other people's God, rather it is characterized by the lack of a structured, religious belief system. Some of the controversy surrounding Atheism may stem from extreme views associated with religious relativism and what is called New Atheism.

Religious relativists posit that if one religion is true for one person but not for another, then no single religious belief can be universal and objectively true. In its extreme version, religious relativism implies that neither Jesus, nor Mohammed could be preeminently divine because they are not such for all people (Padgett, 2007). The argument of religious relativism also alludes to the role of religious pluralism; i.e., no religion can be most true as long as there is religious plurality. However, religious pluralism is a sociological fact related to diversity and Atheists in general are not against such diversity and are not disrespectful to religious pluralism (Padgett, 2007).

It is further argued that the scientism movement, which has been advancing since the Enlightenment, may be associated with Atheism but is not a natural consequence of Atheism. In fact, Atheism has existed for as long as humans believed in deities, on one



hand, and had the mental capacity to challenge belief systems, on the other hand (Tackett-Cox, 2013). From Socrates, through Enlightenment thinkers, to nowadays scientists, they all have challenged the idea of a divine creator using compelling logical or scientific arguments. For example, Stephen Hawking (2011), when explaining the scientific thinking about mysteries of the universe, stated in his book *The Grand Design* that there was no need for intelligent, divine intervention for the universe to construct and destruct itself. Such scientific claims are being amplified by some aggressive Atheists to serve a confrontational narrative failing to recognize that religions' truthfulness is not judged the same way scientific truth is (Amarasingam, 2010).

This issue brings about the second factor, after religious relativism, contributing to the controversy of Atheism- the New Atheism movement. The term was coined in 2006 and the movement was characterized by low tolerance towards any religion and a focus on reason, science, and intellectualism to support its own ideology (McGrath, 2013). The New Atheism has gained popularity largely through the best-selling writings of Richard Dawkins, Daniel Dennett, Sam Harris, and Christopher Hitchens; however, it has also attracted stern critics. For instance, Amarasingam (2010) put under a critical lens the arguments of these four authors in his book *Religion and The New Atheism: A Critical Appraisal*. He employed an organized, interdisciplinary approach to relate New Atheism to religion, science, sociology, and ethics philosophy. As a result, controversial comparisons were drawn between New Atheism and Religious Fundamentalism suggesting that, although philosophical in nature, this movement is unfolding into a religion of its own with devout followers.

Even though New Atheism is the popular face of atheism, not all atheists share these extreme views. In fact, most of the Atheists have distanced themselves from this movement and its negative rhetoric (McGrath, 2013). That is why when discussing Atheism, one ought to be careful not to generalize judgements about the New Atheism over to the wider intellectual community of non-believers.

Some of the controversy and misconceptions regarding Atheism may also be due to the lack of representation of Atheism in scientific research. A recent study conducted a content analysis of the academic scholarship in the social sciences regarding atheism during 2001 and 2012 (Brewster et al., 2014). A 100 articles were identified across psychology, sociology, religious studies, and political science with 58% of them being non-empirical. The results showed that the number of articles was increasing in recent years but the discussed topics possessed narrow scope, mostly discussing bias against Atheists and comparing religious beliefs to Atheism. Additionally, Atheism was mostly viewed through cognitive and social-psychology perspective with just a few articles addressing counseling and other practical applications.

The authors concluded that Atheists are underserved and understudied and suggested some possible reasons why that may be the case. One reason was the distraction caused by what they called “pop-atheism”, or the New Atheism, emerging as a backlash against the perceived rise of religious fundamentalism. Another reason was that psychology had a historically complicated relationship with religion and purposeful barriers had been placed between the clinical/counseling practice and studying religious beliefs (Bergin, 1980).

### Psychological Foundations of Atheism

However, some empirical findings exist that point to Atheism arising from multiple interacting mechanisms such as cognitive, motivational, and cultural learning (Norenzayan & Gervais, 2013). Cognitive mechanisms intensifying religious beliefs and behaviors include Theory of Mind (i.e., inferring the mental state of God), Mind-body dualism (i.e., the spirit is a separate entity from the body), and teleology (i.e., naturally occurring events exist for God's reasons). The motivational reasons for religiosity are employed to combat insecurity and are characterized by awareness of morality, lack of control, and social isolation. Social learning mechanisms promoting religious belief are conformity and prestige bias (i.e., adhering to the most common behaviors to secure ingroup belonging), credibility-enhancing displays (CREDs) (i.e., witnessing extravagant displays that reflect credible belief), and social surveillance (i.e., strengthening cooperation due to being monitored) (Norenzayan & Gervais, 2013).

Atheism requires the person to exercise great cognitive effort in rejecting these pathways to the traditional religious belief systems. Thus, four distinct forms of atheism have been identified: mindblind atheism, apatheism, inCREDulous atheism, and analytic atheism. The mindblind atheism is characterized by intuitive difficulties in understanding religious agents such as God and spirits. Apatheism is indifference to the stable and controlled religious agents and practices. InCREDulous atheism is closely related to apatheism but the indifference to the religious agents and practices is fostered by a lack of credible displays of faith, like rituals and service attendance. Lastly, analytic atheism arises from explicit and implicit rejection of religious beliefs due to analytic thinking that

overrides religious intuitions and encourages religious skepticism (Norenzayan & Gervais, 2013).

It is interesting to consider that some of the most Atheist societies (e.g., Scandinavian) have existential security, stable, socially-oriented governments, lack of public displays of religiosity, and strong secular institutions that encourage science education and analytic thinking (Norenzayan & Gervais, 2013; Zuckerman, 2008).

### Anti-Atheism Bias

However, religious disbelief is often heavily stigmatized, potentially leading many to refrain from identifying themselves as Atheists. This may be because most Americans view religiosity as a primary means for instilling moral values. A non-religious person may be then perceived as less moral, mistrusting, and threatening and negative attitudes begin to develop (Brewster et al., 2014). As a result, Atheists may feel marginalized which could make them reluctant to self-disclose as an Atheist or be defensive and more strongly Atheist.

The literature agrees that prejudice against Atheists is pervasive in American society in both social and political settings (Cragun, Kosmin, Keysar, Hammer, & Nielson, 2012; J. M. Jones, 2012). Distrust has been identified as a core factor for prejudiced attitudes (Gervais, Shariff, & Norenzayan, 2011) which makes them a unique group amongst other marginalized populations, such as gays and African-Americans. In view of such findings, a recent study tested the political implications of anti-atheism in comparison to anti-Black and anti-gay prejudice (Franks & Scherr, 2014). Two-hundred participants, predominately young adults ( $M = 31.5$ ), male (66%), White (79%),

heterosexual (92%), and relatively equally Christians (47%) and nonreligious (42%), filled out a survey to indicate how likely they are to vote for one of four possible presidential candidates. The randomly assigned options were: White heterosexual Christian, Black heterosexual Christian, White gay Christian, or White heterosexual atheist.

The results showed that the Christian participants were most likely to vote for a White heterosexual Christian, followed by a Black heterosexual Christian and a White gay Christian, leaving the White heterosexual atheist as the least likeable candidate. The non-religious participants were more likely to vote for atheist candidates over Christian candidates, while the ethnicity and sexual orientation of the Christian candidate was not important. An implication from such findings is that White heterosexual Christians are likely to marginalize Atheists before other historically disadvantaged groups, leading to perpetuation of Atheist underrepresentation in key social roles.

It is also implied that association with like-minded people in terms of religious/non-religious affiliations holds a great social significance underlined by complex psychological and cognitive processes. If specific schemata are constructed by internalizing religious or atheist values, then these schemata may influence various decision-making processes (whether related to voting or forgiving) that may look different for religious and non-religious people.

Another implication substantiated by research is the reluctance of Atheist to self-identify in some cases due to social pressures and prejudices. Gervais and Najle (2017) demonstrated that representative, national telephone polls require participants to verbalize

their Atheism, thus implying pro-religious social pressures. Such polls gauged only 3% of self-identified Atheist Americans (Smith & Cooperman, 2015) and 11% denied believing in God when given yes/no response options (Gallup, 2015).

Gervais and Najle (2017) developed an alternative instrument to indirectly measure Atheism rates using techniques designed to negate social desirability pressures. They used the unmatched count technique (Dalton, Wimbush, & Daily, 1994) to infer base rates of socially sensitive outcomes and Bayesian estimation (McElreath, 2016) to infer plausible parameter values for Atheism in the USA on two samples of 2000 people each (total  $N = 4000$ ). Both samples yielded Atheism rates much higher than previous polls - 32% for the first sample and 20% for the second. Subsequent aggregate analysis showed an indirect atheism prevalence rate of 26% across the two samples. These results suggested that when accounting for socially desirable responding, 26% of Americans may actually be atheists in comparison to 3%-11% range in representative polls. Despite this discrepancy between directly and indirectly measured Atheism rates in the US, the number of Atheists is increasing globally (Inglehart & Norris, 2004) and it is important to consider their unique perspective on phenomena such as forgiveness.

Unlike Christians and Muslims, Atheists cannot rely on a structured belief system to influence their understanding of forgiveness and to guide their forgiveness practices. However, this does not mean that forgiveness would be a foreign concept to them; they might have been exposed to some type of spiritual tradition in the past or to notions about forgiveness benefits. Furthermore, the development of the forgiveness concept has been related to the process of moral development in general, regardless of spiritual affiliations

(Kohlberg, 1974) and there has been a long tradition on the part of philosophers to consider morality as independent of religion (Kainz, 1979). So even if Atheists' schema is not heavily influenced by mental structures directly mapped to religious concepts, their morality may still include the concept of forgiveness. Their life experiences may have offered opportunities for practicing forgiving; yet, they might have engaged in those opportunities for reasons different than Christians' and Muslims' reasons. These past experiences might have formed a unique forgiveness schema that would guide their forgiveness understanding and practices.

Religious disbelief has not received enough scientific attention despite its social significance and increase worldwide (Johnson, 2012). Specifically, no empirical research was found that addressed forgiveness practices controlling for Atheist background. Hence, this study is interested in the Atheist perspective of forgiveness, specifically regarding likelihood to forgive in hypothetical situations and the emotional, cognitive, and behavioral psychological aspects of forgiveness towards a specific offender, in comparison to non-denominational Christianity and Islam.

### Schema Theory in Relation to Forgiveness

#### Schema Background

The social context and individuals' schemata are intertwined factors in how people interpret and experience social discourse. The person's background is a powerful factor in cognitive processing and has been analyzed by linguists, psychologists, and educational researchers through the concept of schema. The origin of schema can be traced as far back as Kant (1781/1963) and his philosophical idea that a procedural rule

exists to enable the association of a concept with a sense. This procedural rule is a (transcendental) schema and it gives sense and meaning to three types of concepts: empirical (i.e., abstract thought), mathematical (i.e., sense of space and time), and categories (i.e., attributes of objects). The term schema re-emerged in psychology proposed by Bartlett (1932) who built on the work of Gestalt psychology. It was an attempt to account for the mechanisms in which information from stories and events is processed in the memory system in an organized way, allowing for later retrieval. Bartlett (1932) advanced the notion that comprehension and recall depend on referencing past experiences with relevant information already stored in the memory. These past experiences were organized into a system he called schema. However, the structures within this system were not explicated until later findings in computer science and modeling of human cognition made that possible (Minsky, 1975).

In the decades since, Schema Theory has been adopted in different fields but has been especially fertile in cognitive psychology where it interprets various cognitive processes. Some of these cognitive processes are: attention allocation, inferencing, encoding and retrieval of information, comprehension, and learning. Some of the seminal work in the cognitive sciences is discussed below, as well as some more recent applications of Schema Theory. The argument in this paper is that Schema Theory can be appropriated to contextualize the relationship between religion/Atheism and forgiveness.

#### Schema and Cognitive Possessing

The main underlying assumption of Schema Theory is that people's knowledge does not comprise of scattered, disconnected pieces of information, rather is organized



into coherent domains of related concepts (Mandler, 2014). These conceptual units represent generalized descriptions of phenomena in the world and facilitate the efficiency of memory and comprehension. Every time new information needs to be processed, it is filtered through the existing schemata which can either expand to include new concepts, or the new knowledge may be rejected as inconsistent. Each person's schemata are unique and reflect the experiences and prior structures of knowledge which shape the person's theories about the world. They are the building blocks of cognition upon which all information processing depends (Rumelhart & Ortony, 1977; Rumelhart, 2017).

Another issue of interest is how exactly knowledge is represented in the mind. The schema-theoretic view of knowledge representation identifies the processes of selection, abstraction, interpretation, integration, and reconstruction. This explains that only part of the information and its semantic components that are related to the evoked schema is selected for encoding in mental representations. Then, when new information is interpreted, it depends on the congruency with the activated schema because individual items of information cannot exist on their own (Alba & Hasher, 1983).

Anderson and Pearson (1984) summarized the schema-theoretic account of cognitive processing and highlight that one of the crucial processes is inferencing. Inferences can take place either during the encoding of information into working memory or during the retrieval of that information from long-term memory. Four kinds of inferences can be distinguished:

1. Deciding, based on subtle cues, which schema should be activated to comprehend a text;

2. Instantiating slots within a schema, i.e. deciding that a particular item from the given information is intended to fit the schema;
3. Assigning default values in the absence of any, which relies on shared knowledge between the sender and receiver of information;
4. Drawing a conclusion when there is a lack of knowledge.

It is important to consider the inferencing process not only within the context of analyzing comprehension of specific information within a text but also when investigating the schema effect on forgiveness. People from different religious backgrounds may employ different inferencing corresponding to their knowledge constructs. Anderson and Pearson's (1984) four types of inferencing are revisited below and applied to forgiveness and religion.

1. Deciding, based on subtle cues, if religious/forgiveness schema should be activated to comprehend a situation in which hurt was caused;
2. Deciding if an aspect of the experience, such as offering apology, fits the schema so forgiveness would be granted;
3. In the absence of a requirement to forgive, defaulting to forgiveness as a shared expectation based on religious beliefs;
4. Drawing a conclusion that God or others would like you to forgive or that forgiveness will help you restore relationships.

These are some hypothetical examples of how people's schemata influenced by religion may lead to different types of inferencing. These inferences demonstrate how the unique mental structures can influence perceptions and practices of forgiveness. The assumption

is that a person who has been introduced into certain religious beliefs with forgiveness at the core, may develop a way of feeling, thinking, and behaving corresponding to what the religion encourages and what type of schema has been constructed. In an effort to evoke such possible schemata, the current study employed forgiveness scenarios in the Forgiveness Likelihood Scale through which it may be investigated if participants' prior experiences guided their forgiveness decision making.

### Schema and Comprehension

Schema theory presupposes three conditions for knowledge to be utilized in comprehension: (1) schemata are pre-existing knowledge structures stored in memory; (2) information maps onto schemata to enable comprehension; (3) knowledge-based processes are predictive and driven by the person (Nassaji, 2007). Some have problematized these assumptions as inflexible and overlooking the dynamic nature of knowledge. Therefore, they can create a misleading notion of comprehension and learning as a linear data-driven and reader-driven process (Nassaji, 2007). Nevertheless, many studies have produced significant findings exploring the effects of schemata on comprehension.

An example of such seminal work is Anderson et al. (1977) study, where three levels of effects of schema on comprehension are defined. One is that the reader's perception of whether they comprehend a message depends on the connections they make back to their schemata. Another is that schemata enables filling in the gaps of information when texts do not provide clarity. The third is that high-level schemata adjust people's perceptions to seeing messages in a certain way. In other words, schemata tune people's

predispositions to certain information and sift the information to allow concepts consistent with previous experiences and knowledge structures. In the current study, it is hypothesized that participants' understanding and practice of forgiveness are filtered through their schema allowing for consistency with their previous (religious/ non-religious) knowledge and experiences.

These effects were demonstrated in well-known schema studies. For example, Anderson et al. (1977) distributed to 30 female educational psychology students and 30 male weight-lifting students two texts which can be interpreted in two distinct ways aligned with the participants' background: Prison/Wrestler passage and Card/Music passage. The procedure included reading of the texts, completion of interpolated vocabulary test, free recall, and then a 10-question multiple choice tests for both texts. The results on the multiple-choice tests showed a significant interaction between passage and subjects' background ( $\alpha = .01$ ), a significant effect for passage ( $F(1, 58) = 19.27$ ), and a main effect for passage ( $F(1, 58) = 7.34$ ) on the main idea units.

These findings suggested a strong relationship between the distinctive interpretations and recall of each passage and the background of the participants. The study supported the hypothesis that meanings depend on people's knowledge of the world and their analysis of the context and the characteristics of the message. People from different backgrounds would comprehend different meanings in the same text passage in a way that their background influenced the type of information or the perceptions of meanings.

### Cultural Schema

Another direction of exploring Schema Theory leads to the cultural specifics within the person's background which would have constructed *cultural schemata*. It is maintained that "culture influences knowledge, beliefs, and values; and that knowledge, beliefs, and values influence comprehension processes" (Reynolds et al., 1982). Cultural schemata can be investigated through different subcultures of the same country who may not apply common schemata. For example, Reynolds et al. (1982) collected a sample of 105 eight-grade students- approximately half from Black working class background and half from White agricultural background.

The participants read an ambiguous text that could be interpreted either as a verbal fight or as "sounding" (i.e., a verbal dual between usually Black males involving comic remarks and insults). Then the participants wrote a recollection of the text and answered a questionnaire about their attitudes and understanding. The results showed that 30% of Black students interpreted the text as a "sounding" and none of them interpreted it as a fight. On the contrary, 10% of White students interpreted the text as a verbal interplay and 22% as a fight. The interaction between culture and type of interpretation was found significant which supported the idea that cultural schemata may influence comprehension.

With the growing ethnic, cultural, and religious diversity in American society, a concern exists whether significant differences in cultural schemata are at play. Such differences can also interfere with various cognitive processes among religious and ethnic subcultures in the United States, thus influencing social interactions. Interpretation of

forgiveness based on the schema approach may vary among different groups which may determine the affective, cognitive, and behavioral aspects of forgiveness, as well as the likelihood to forgive in hypothetical situations. That is why this study is focused on comparing three samples with different religious/non-religious background and investigating their unique experiences with forgiveness as influenced by their schema.

### Schema and Reading

In the last few decades, schema theory has also provided an impetus for advances in the field of second language reading. It provided a framework for explaining the role of preexisting knowledge in organizing a context within which comprehension in a second language can take place. The attention was shifted onto the constructive nature of the reading process which includes readers' interaction with their background (Nassaji, 2007). According to the schema-theoretic view, second language learners have a comprehension advantage when they possess higher-level strategies to understand top-level features of a text, such as main idea or more interesting and important information. Such understanding triggers relevant schema that would help interpreted further levels of the text and the information they convey (Nassaji, 2007). The prediction is that better comprehension of a passage would depend on whether it appears within a specific context. In that sense, it may be important to consider, especially for second language learners, that background context knowledge may need to be acquired within which new texts can be positioned with expectations for good comprehension.

Differences in the schemata of the sender and receiver of information are viewed as one of the major obstacles to comprehension. This factor is especially powerful when

the communicating parties have different cultural and linguistic backgrounds. Xie (2017) offered a text excerpt as an example of incomprehensible information for second language readers:

The cutter selects the shape that is most advantageous to his stone—the cut that will create the greatest play of light, that will best show the colors we call fire. It is the simple design that gives the most brilliant play of light. (p. 71)

Even though the vocabulary and the grammar are familiar, the difficulties of comprehension rise from the lack of language hint or schema knowledge. In other words, the known words do not map onto a familiar context so there are too many uncertainties to be able to predict the theme of the text. However, if a title is given- *Precious Stone Making*- the text becomes meaningful by evoking a schema and enabling inferencing.

According to Xie (2017), two major implications for foreign language educators can be deduced. First, consideration that meaning is not attached to the surface of language, instead it depends on the reader's ability to use schema knowledge for predictions. Second, the cultural schema may be as important as the language skills themselves in creating efficient readers. Schemata are related to attention allocation; thus, influencing learning and comprehension of specific information indirectly as well as directly.

An (2013) concludes that schema has three primary functions for reading comprehension in a second language. The first one is anticipating function- schema helps the reader guess the type of text, the topic, and the latter content with the help of the former content of the text. The second function is supplementary- when information is

insufficient, a corresponding schema may help supplement the gaps of meaning. Lastly, the third function is selective- when a schema is activated, information is being selected out of the text to best correspond to that schema.

Reading comprehension in general, and second language reading comprehension in particular, have benefited from Schema Theory insights on the importance of background knowledge as it is viewed as a function of multiple sources of knowledge (Nassaji, 2007). Knowledge about schematic inferencing has also contributed to the understanding of speed of comprehension when reading in a second language (Xie, 2017). It may also prove fruitful to select texts with cues to shared (cultural) schema in the attempt to increase comprehension.

#### Applying Schema Theory to Religion/Atheism and Forgiveness

Schema theory can be utilized to explain another example of the relationship between religious beliefs and behaviors, offered by Worthington (1988). He studied religious commitment and how religious beliefs can influence actions. The findings suggest that highly religious individuals constructed world views strongly reflecting their religious beliefs. These people would appraise events and approach life in congruence with the teachings of their religion. It is argued that their religion created mental structures that guided their behaviors and responses to others, including in situations requiring decisions to forgive. A later study by Worthington et al. (1996) also suggest that strong religious commitment may prompt the person to forgive more readily. Then it may be possible that the decisions of less committed people or those with external religious motivation may not be as strongly influenced by the religion. For them,



similarly to the Atheists, religious concepts about forgiveness may not be deeply rooted in their schema.

It is justified to adopt schema theory in the theoretical framework of the current study because over the years it has been proven as a sound scientific theory. The characteristics of a science-based theory have been summarized as: rigorous, precise, well-reasoned, founded on existing empirical research, predictive, and explanatory (Reynolds & Stoycheva, 2018). In this sense, schema theory is assessed as a good science-based theory which: (1) Identifies the structure and function of schema in human cognition; (2) Produces predictions about the effects on learning and comprehension; (3) Builds on existing empirical data related to cognitive development; (4) Is precise so can be falsified in future studies; (5) Is intelligible and clearly defines the structure of knowledge; and (6) Extends to conceptual, empirical, and practical domains (Reynolds & Stoycheva, 2018).

This study channels the explanatory power of Schema Theory to illustrate cognitive connections between religion/atheism and forgiveness. After reviewing literature on religious orientation, comparisons between Christianity and Islam, and Atheism, connections were drawn between some findings and Schema Theory. Some hypothesis were related to different factors identified in the literature as influential for forgiveness practices. Such factors were: religious commitment, religious orientation, presence of apology, and situational influences, such as possibility of revenge, cancellation of harmful consequences, encouragement to forgive, social proximity with the offender, and intent to harm. Schema Theory was employed to explain that such

factors are embedded in people's schematic knowledge systems as mental structures of concepts acquired through prior experiences.

For example, intrinsically oriented and very committed religious people may have internalized the specific religion's values more strongly into their schema, guiding them to act or interpret situations a certain way when that schema is activated. So if the religion promotes forgiveness (as in the case with Christianity and Islam), hurtful situations may evoke forgiveness response at a higher rate. It is important to investigate these hypotheses with Atheists, not only because such studies are virtually non-existing, but also because their schemata are expected to differ from those of religious people. Additionally, the conditions under which forgiveness is advised are also related concepts within the schema. If the condition exists, the schema is activated and forgiveness is practiced. In that sense, Schema Theory also capacitates predictions about behaviors, including likelihood to forgive.

Nevertheless, it should be noted that forgiveness processes are heavily influenced by social and cultural underpinnings (Sandage, Hill, & Vang, 2003) in that forgiveness correlates with socio-cultural context. Thinking patterns, emotional expressions, ideas of the self and the community, and social interactions are all constructs of the particular culture's values (Vygotsky, 1986). Culture also includes religious affiliations or lack of such and those, in turn, can impact the forgiveness schema. Therefore, in order to fully understand how individuals from a specific culture feel, think, and act in relation to deep hurt and forgiveness of a wrongdoer, the religious aspect of the culture needs to be considered. The foundations of this view can be traced as far back as Vygotsky's Socio-

Cultural Theory (Vygotsky, 1986) which posits that it is not the study of the individuals alone, but rather the study of individuals and their external social environment that help understand human development. In the current study, exploring three groups of individuals in their social contexts, characterized by affiliation with Islam, Christianity, and Atheism, gave insights into the specific expressions of their forgiveness schema.

In conclusion, a brief summary of some of the main findings from the literature is offered below. Regarding forgiveness interventions, different models of forgiveness have been successfully utilized in counseling, education, and peace-making with positive mental and health outcomes (Enright et al., 1991; McCullough et al., 1997; Enright et al., 2006; Staub & Anne, 2006). High religious commitment and intrinsic religious orientation have been linked to greater likelihood to practice forgiveness (McCullough & Worthington, 1999; Seedall et al., 2014). The likelihood to forgive depends on situational factors such as apology, negative consequences, social pressures, etc. (Azar & Mullet, 2001; Girard & Mullet, 2012). Empirical research with Atheist groups is severely lacking and virtually no results surfaced from the literature search on Atheism and forgiveness. Most of the research on Atheism is not empirical and focuses on anti-Atheism prejudice and types of Atheism (Brewster et al., 2014). There are emerging findings that Atheism requires great cognitive effort in rejecting traditional religious belief systems that combat insecurity (Norenzayan & Gervais, 2013). On the contrary, Schema Theory has a long and robust record of empirical research during the last 50 years testifying for the schema effects on learning, memory, and (reading) comprehension (Rumelhart & Ortony, 1977; Anderson et al., 1977; Anderson & Pearson, 1984; Nassaji, 2007).

This chapter tackled the challenging task to incorporate findings from three different domains - psychology of forgiveness, psychology of religion, and cognitive science as related to literacy. This interdisciplinary approach was designed because none of the fields had individually researched the topic enough, while comparing these particular groups of people - Christians, Muslims, and especially Atheists. It was argued that there is a conceptual connection among the three fields of psychology and the findings from the literature review. This relationship is represented in the following logical progression: If religious/Atheist beliefs are rooted in prior experiences and knowledge, then they construct unique cognitive schemata consisting of related concepts about forgiveness, which ultimately guide forgiveness understanding and practice (see Figure 1).

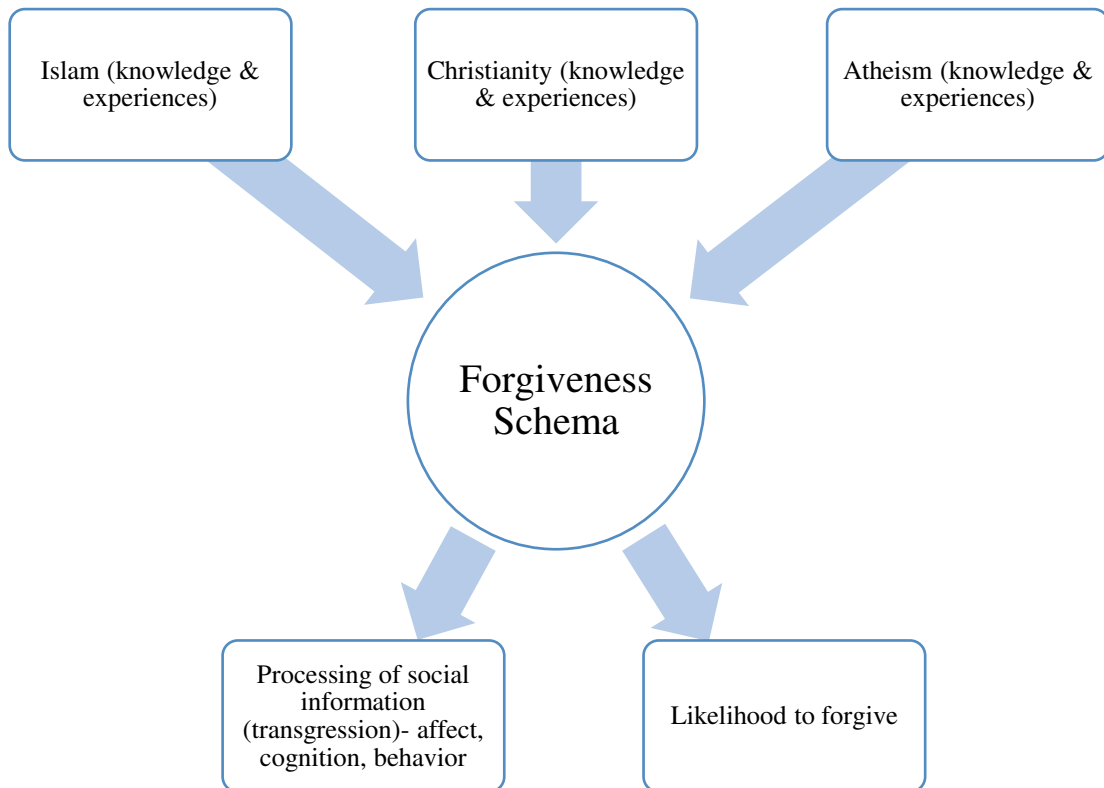


Figure 2. *Conceptualization of Schema for Forgiveness*

## CHAPTER 3

### METHOD

This chapter details the method used to conduct the study and some specific reasons behind the researcher's decisions. The chapter is organized around key aspects related to the recruitment of participants, the measures used to structure the survey instrument, the specific procedures of the study, and data analysis addressing the research questions. The research design was causal-comparative, utilizing cross-sectional survey methodology and included a number of survey scales. The purpose of the design was to correlate the participants' scores on a religious orientation scale with their scores on forgiveness-related scales.

#### Participants

A purposive sample of participants was drawn from multiple sites in a Midwestern metropolitan area, as well as from the Qualtrics online pool of survey participants. This was a kind of non-probability sampling that identified as primary participants those who have experiences related to the phenomenon of interest, based on the researcher's judgment and goal (Welman & Kruger, 1999). The participant inclusion criteria were: at least 18 years of age and practicing Islam, Christianity, or Atheism. The sample was divided into three subsets based on the religious or atheist affiliation indicated. An initial power analysis estimated sufficient sample sizes based on the number of followers of the groups' Facebook pages (Muslim,  $N = 167$ ; Christian,  $N = 195$ ; Atheist,  $N = 193$ ) (see Table 3).

Table 3. *Preliminary Sample Power Analysis*

<b>Sample</b>	<b>Population Size</b>	<b>Confidence Level</b>	<b>Margin of Error</b>	<b>Response Distribution</b>	<b>Recommended Sample Size</b>
<i>Islamic Center</i>	292 Facebook members	95%	5%	50%	167
<i>Non-denominational Church</i>	393 Facebook members	95%	5%	50%	195
<i>Atheists Group</i>	386 Facebook members	95%	5%	50%	193

However, an accurate depiction of group membership was obtained once the data collection began and the population sizes from which the samples were drawn in person turned out smaller than predicted. The actual total number of participants in the study was 334 (Muslim,  $N = 116$ ; Christian,  $N = 106$ ; Atheist,  $N = 112$ ). Their demographic characteristics included **gender** (Male,  $N = 117$ ; Female,  $N = 212$ ; Transgender,  $N = 2$ ; Other,  $N = 1$ , No answer,  $N = 1$ ); **age** ( $\bar{x} = 37.99$ ;  $SD = 15.179$ ); and **ethnicity** (Caucasian- 68.3%; Asian-American- 11.7%; African-American- 6.3%; Hispanic- 3.9%; two or more races- 3.9%; Middle Eastern-American- 2.4%; other- 2.1%; Pacific islander- 0.6%; no answer- 0.9%). The Muslim group had most equally matched number of male and females participants and most ethnic diversity (see Figure 3; Table 4, 5).

Table 4. *Religious Affiliation and Gender Cross-Tabulation*

<b>What is your religious affiliation?</b>	<b>Male</b>	<b>Female</b>	<b>Transgender</b>	<b>Other</b>	<b>Prefer not to answer</b>	<b>Total</b>
Muslim	51	62	2	0	1	116
Christian	29	75	0	0	0	104
Atheist	37	74	0	1	0	112
<b>Total</b>	<b>117</b>	<b>211</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>332</b>

Table 5. *Religious Affiliation and Race/Ethnicity Cross-Tabulation*

<b>What is your ethnicity?</b>	<b>Muslim</b>	<b>Christian</b>	<b>Atheist</b>	<b>Total</b>
Asian/ Asian American	32	1	6	39
Black/ African-American	16	4	1	21
Caucasian/ White	42	94	92	228
Hawaiian/ Pacific Islander	2	0	0	2
Hispanic/ Latino/a	8	0	5	13
Middle Eastern/ Middle Eastern-American	8	0	0	8
Two or more races	2	5	5	12
Other	4	0	3	7
Prefer not answer	2	1	0	3
<b>Total</b>	<b>116</b>	<b>105</b>	<b>112</b>	<b>333</b>



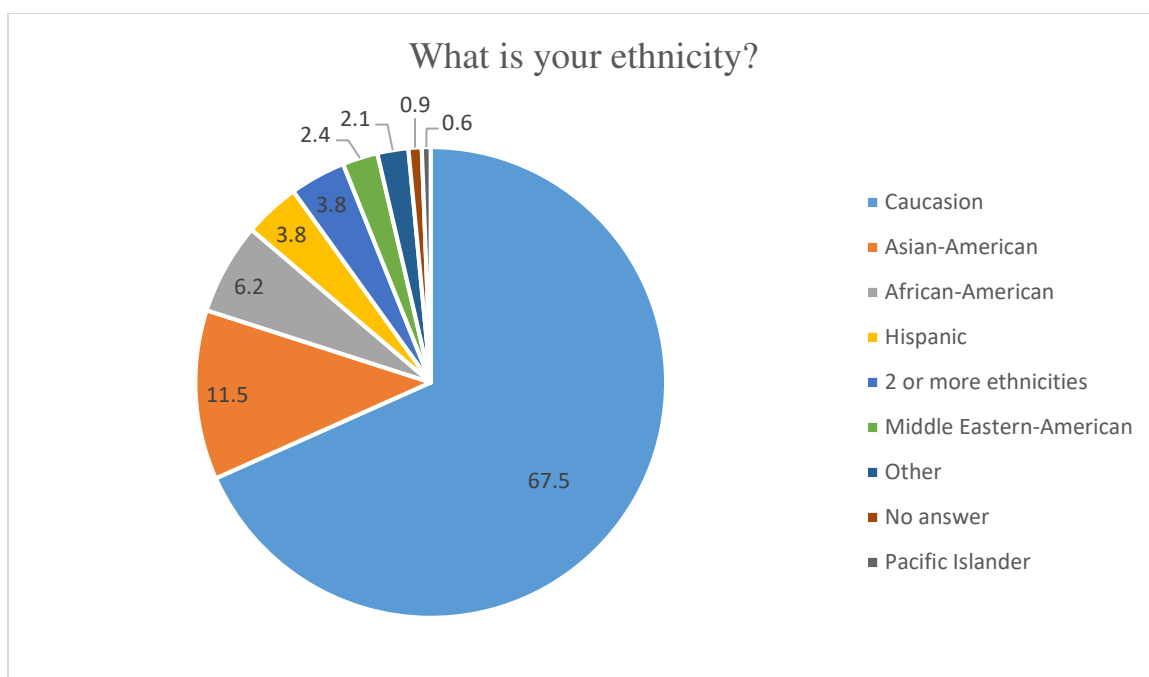


Figure 3. *Ethnic Make-up of All Participants*

### Measures

The survey was comprised of three different measures aligning with the three main research questions: 1) the Enright Forgiveness Inventory (EFI) (Enright, 2004) assessed the forgiveness constructs of affect, cognition, and behavior towards a real offender; 2) the Forgiveness Likelihood Scale (FLS) (Rye et al., 2001) measured the likelihood to forgive in hypothetical hurtful scenarios; 3) the Intrinsic/Extrinsic Religious Orientation Scale (ROS) (Maltby & Lewis, 1996) identified the religious (belief) orientation of the participants (see APPENDIX A, B, C for the instruments). These measures were adopted into the survey without any changes to the questions. In addition to these existing instruments, basic demographic information was requested in the survey.

### The EFI

The Enright Forgiveness Inventory (Enright, 2004) measures the degree to which a person forgives another person, group, or entity when thinking about the specific instance of hurt. Previous validation studies have indicated that the EFI had a high degree of internal consistency with substantial correlations for the subscales of affect, cognition, and behavior ( $r = .80- .87$ ) and strong test-retest reliability coefficients (Subkoviak, Enright, Wu, & Gassin, 1995).

The EFI consists of sixty items around three subscales that assess the domains of affect, behavior, and cognition on a six-point, Likert-type scale. The subscales are based on the psychological responses forgiveness evokes: absence of negative judgement, affect, and behavior towards the perpetrator and presence of positive affect, judgement, and behavior towards the perpetrator (Subkoviak et al., 1995). Six additional questions exist at the beginning of the scale to clarify how long ago the hurt occurred, how deep it was, who inflicted it, and if it was forgiven (Orathinkal, Vansteenwegen, Enright, & Stroobants, 2007). Five questions at the end of the cognition scale rate the hurtful event to find out if it caused a deep psychological injury.

The first five questions prompt the participants to recall the most recent situation where they were wrongfully hurt and to consider who hurt them, how much, and when.

**E.g.** Who hurt you?

How long ago did this painful event occur?

The subscale of affect follows, listing twenty questions related to how the participants feel about the offender when thinking about the injury.

**E.g.** I'm angry with him/her [the offender].

I've got caring feelings for him/her [the offender].

Next, the behavior scale has twenty questions about the possible reactions towards that offender.

**E.g.** I avoid him/her [the offender].

I show him/her [the offender] friendship.

The twenty questions of the cognitive scale at the end assess how the participants think about the offender.

**E.g.** I think that he/she [the offender] is \_\_\_\_\_

Immoral                      a bad person

Nice                              a good person

The last six questions request more information as to how the participants think about the offence and whether they have forgiven or justified the transgression.

**E.g.** There was not a real problem when I recalled it.

My feelings were never hurt.

The current study operationalizes forgiveness as a decrease of negative affect, cognition, and behavior and an increase of positive affect, cognition, and behavior (Enright et al., 1991). The Enright Forgiveness Inventory is structured around the same three constructs, therefore, it is considered most appropriate, aligning with the conceptual frame and the first research question with its three sub-questions: *What are the differences and similarities among the three group members' forgiveness toward a specific offender, including their affect, cognition, and behavior?*

### The FLS

The Forgiveness Likelihood Scale was developed to measure answers based on personal viewpoints of forgiveness in hypothetical situations (Kumar & Ryan, 2009). It was selected to address the second research question: *Which group is more likely to forgive?* The structure of the FLS has been previously evaluated through principal component analysis and Guttman's smallest space analysis as an alternative to the traditional factor analysis. The results from the principal component analysis confirmed that one general factor was reasonable for the FLS while the Guttman's test indicated that the items measuring the same construct differ on the facet "ease of forgiving". A mapping sentence was developed to summarize the validation findings, that accounted for combinations of forgiveness-related factors: **Forgiveness of transgressor** (e.g., family, friend, distant) **is a function of type of transgression** (e.g., betrayal, lack of reciprocation) **and type of seriousness of loss** (e.g., respect, bodily harm, death) **and causal attribution** (e.g., intentional, accidental) (Kumar & Ryan, 2009).

The FLS consists of ten items aligned with ten hypothetical scenarios of wrongdoing involving situations where the offender is a family member, a significant other, a friend, an acquaintance, or a stranger. The scenarios are rated on a five-point Likert-type scale. The scale is in descending order (i.e., from 5 "Extremely likely" to 1 "Not at all likely"). For the purposes of the current study, the scale was converted into an ascending order, six-point, Likert-type scale so it would be consistent with the other two instruments in the survey.

**E.g.** You share something embarrassing about yourself to a friend who promises to keep the information confidential. However, the friend breaks his/her promise and proceeds to tell several people. What is the likelihood that you would choose to forgive your friend?

### The ROS

The Intrinsic/Extrinsic Religious Orientation Scale was deemed appropriate in answering the third research question: *How does the type of belief orientation within the groups relate to the likelihood to forgive?* This measure was chosen instead of other instruments focused on religious commitment and depth of religiosity. The commitment and depth of religiosity instruments have not been tested with Atheists and the concepts underlying those instruments were not of main interest for the current study. The literature suggests that along with personal factors (e.g., trait forgiveness), situational factors exists (e.g., state forgiveness) which can influence forgiveness (Girard & Mullet, 2012; McCullough & Worthington, 1999; Rourke, 2006). The ROS addresses some of these factors by assessing the belief orientation as intrinsic or extrinsic. An updated version of the original measure was utilized as it was shown to increase the response rate, improve the reliability estimate, provide clearer component structure, and appropriateness to administer to non-religious as well as religious samples (Maltby & Lewis, 1996).

The ROS measure was validated with different samples of participants and demonstrated high Cronbach's Alpha (Intrinsic Scale,  $\alpha = .81$  to  $.88$ ; Extrinsic Scale,  $\alpha = .80$  to  $.89$ ), which is improvement from the original scale ( $\alpha < .7$ ). Additionally, Person correlation coefficient indicated a significant negative correlation between the Intrinsic

and Extrinsic scales with different samples (between  $r = -.35$  and  $r = -.51$ ;  $p > .01$ ) (Maltby & Lewis, 1996).

This instrument consists of two scales and twenty questions- eight questions for the intrinsic and twelve questions for the extrinsic orientation scale. The questions of the two scales are not delineated into separate sections as in the EFI.

**E.g.** I enjoy reading about my religion. (Intrinsic scale)

I go to church because it helps me to make friends. (Extrinsic scale)

The ROS includes a five-point Likert-type scale in ascending order and versions exist on a three-point scale. However, for consistency reasons, it was adapted here into a six-point, Likert-type scale. Neither one of the scales was given a mid-point (i.e., “not sure” answer option), thus prompting the participants to make a decision along the two ends of the spectrum *strongly agree- strongly disagree*.

Different validation studies have supported the viability of the EFI, the FLS, and the ROS in both basic and applied research (Kumar & Ryan, 2009; Subkoviak et al., 1995; Tiliopoulos et al., 2007). Hence, selecting these instruments was justified by their validity and reliability, but also by the alignment with the operationalized definition of forgiveness and the research questions of interest in this study.

### Procedure

First, the Institutional Review Board approval of the study was obtained. Then contact persons for the three groups of interest were approached to help distribute the survey. The researcher attended various gatherings organized by Muslim Associations, Churches, and Atheist groups in a Midwestern metropolitan area- masses, interfaith

events, luncheons, etc. The groups' organizers helped the researcher reach out to participants through social media and allowed the researcher to introduce the study in person at meetings. The members who volunteered to participate filled out a consent form attached to the survey and were made aware that no personal identifiers were recorded (i.e., names, e-mails, IP addresses, sites of participation, etc.) so their identity remained undisclosed.

The paper survey distributed at events was counterbalanced to include the three instruments (i.e., EFI, FLS, ROS, and demographic information) by systematic variation, to prevent order effects. An online version of the survey was offered along with the paper-and-pencil option to satisfy participants' preferences. The face-to-face recruitment of participants was maintained over the course of three months. It yielded a high response rate; however, the number of participants was insufficient for statistical power. Then the researcher utilized the Qualtrics pool of survey participants to complete the sampling. One-hundred and thirty Qualtrics participants were matched with the participation inclusion criteria and completed the survey online within three days. All survey responses, on paper and online, were compiled in Qualtrics and when the data collection concluded, the data was exported into SPSS software for analysis.

#### Data Analysis

The three measures (i.e., EFI, FLS and ROS) included in the survey instrument were validated with the study's sample by conducting Cronbach's Alpha for survey items reliability. Next, descriptive statistics were obtained for scale scores, means, and standard

deviation distributions. The main research questions were addressed by multilevel regression models as a hierarchical system of regression equations.

The first research question with its respective sub-questions (i.e., *What are the differences and similarities among the three samples' forgiveness toward a specific offender, including scales of affect, cognition, and behavior?*) was answered by a one-way multivariate analysis of variance (i.e., one-way MANOVA). The MANOVA determined whether there were any differences among the three independent groups on more than one continuous dependent variable (Urdu, 2011). A meaningful pattern of correlations was expected amongst most of the dependent variables, therefore, MANOVA was deemed appropriate. It was performed before post hoc tests to prevent inflating the Type I error rate (Huberty & Petoskey, 2000). The independent variables for the first research question were Christianity, Islam, and Atheism, while the dependent variables were affect, cognition, and behavior. Next, the Tukey post hoc test was conducted to help determine where exactly on the range distribution the differences lay and which of these groups differed from each other (Keppel & Wickens, 2004). The differences were determined by measuring statistical significance ( $p$ -value) and effect size which showed the size of the difference, rather than confounding this with sample size. The data was collected through the EFI measure.

The second research question (i.e., *Which group is more likely to forgive?*) was tested by a one-way analysis of variance (ANOVA) for between-group variance. The purpose of this test was to determine the magnitude of difference among the three groups' means by indicating the overall mean effect of religious/non-religious background on the



likelihood to forgive (Urdu, 2011). The independent variables were Christianity, Islam, and Atheism; the dependent variable was the likelihood to forgive. The data was obtained through the FLS measure.

The third research question (i.e., *How does the type of belief orientation relate to the likelihood to forgive?*) was measured by a linear model multiple regression. This statistical technique, related to correlations, yielded more information than the Pearson correlation and allowed for examining the relationship between the two continuous variables in terms of predicted values (Urdu, 2011). The predictor variable was religious orientation (i.e., internal or external), drawn from the ROS measure, while the outcome variable was the likelihood to forgive, drawn from the FLS measure.

Finally, structural equation modelling (i.e., path analysis) was computed based on four initial, exploratory path diagram models. This approach was selected to extend the multiple regression tests by providing estimates of significance of hypothesized causal connections between the sets of variables examined in all research questions. Path analysis is an often used method for representing dependency relationships in multivariate data in the form of composite hypothesis (McDonald & Ho, 2002). The amount of data in this study was sufficient for computing a path analysis based on the general rule of having 5-10 as many observations as estimated parameters (Bentler & Chou, 1987) (see Table 6 for summarized study design).

Table 6. *Study Design Matrix*

	<b>1. Differences/ similarities in forgiveness (affect, cognition &amp; behavior)</b>	<b>2. Which group is more likely to forgive?</b>	<b>3. How does belief orientation relate to forgiveness likelihood?</b>
<b>Sites</b>	Mosque, Churches, Atheist Gathering, online		
<b>Sample</b>	Purposive		
<b>Data Collection</b>	Pen-and-paper survey, Qualtrics survey		
<b>Instruments</b>	EFI, FLS, ROS		
<b>Validation</b>	Cronbach's Alpha		
<b>Analyses</b>	MANOVA, Tukey post hoc	One-way ANOVA	Multiple regression; path analysis
<b>Results</b>	Descriptive statistics, <i>p</i> - value, effect size Tables, Figures, Discussion of limitations		

## CHAPTER 4

### RESULTS

This chapter reports the results from the statistical tests that were computed to answer the specific research questions in the study. The data employed for this purpose was collected through a survey method, in person and online, to explore the relationships between religious/non-religious affiliations and forgiveness. The findings from the demographic questions, the instrument validation tests, and the outcomes of the three research questions are listed in order.

#### Instrument Validation

The three measures used to construct the survey instrument for this study were previously tested for internal validity, reliability, and factor analysis. However, they were further validated by calculating Chronbach's Alpha with the current sample. The results showed high internal consistency indexes: for the EFI,  $\alpha = .925$  based on 60 items; for the FLS,  $\alpha = .931$  based on 10 items; for the ROS,  $\alpha = .908$  based on 20 items.

#### Results from Probing Questions

The opening questions of the EFI measure were designed to gather background information about the type and severity of the hurtful incident and who committed it. On the question, *How deeply were you hurt?*, the Atheist group reported greatest hurt (33.6%), while most Christians (33.3%) experienced *much hurt*, and most Muslims (28.4%)- *some hurt*. On the question, *How unfairly were you treated?*, the Christian participants indicated the most unfair treatment (31.4%) while Atheists (26.4%) and Muslims (27.6%) reported similar levels of *much unfair* treatment. On the question, *Who*

*hurt you?*, most Christians reported this person to be a friend of the same gender (29.8%), for most Muslims this person was a relative (20%), and for most Atheists- it was other (not a friend, relative, or employer) (22.7%), followed by a spouse (21.8%) (see Figures 4, 5, 6). The overwhelming majority of the participants reported this perpetrator as still living (87.9 % of Muslims, 94.2 % of Christians, 92.7 % of Atheists).

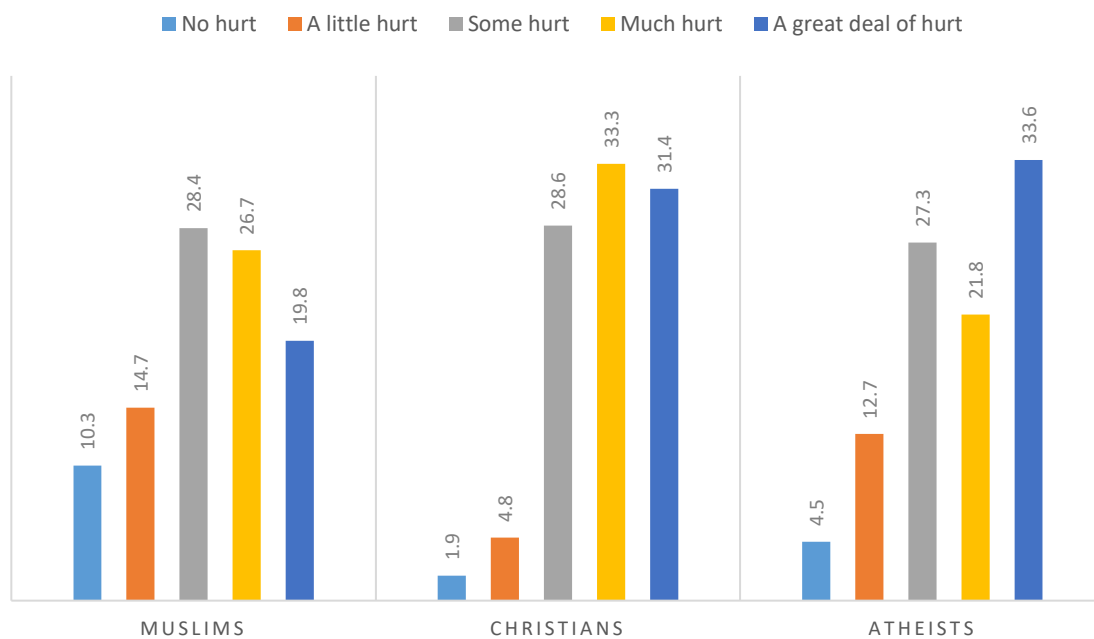


Figure 4. *How deeply were you hurt?*

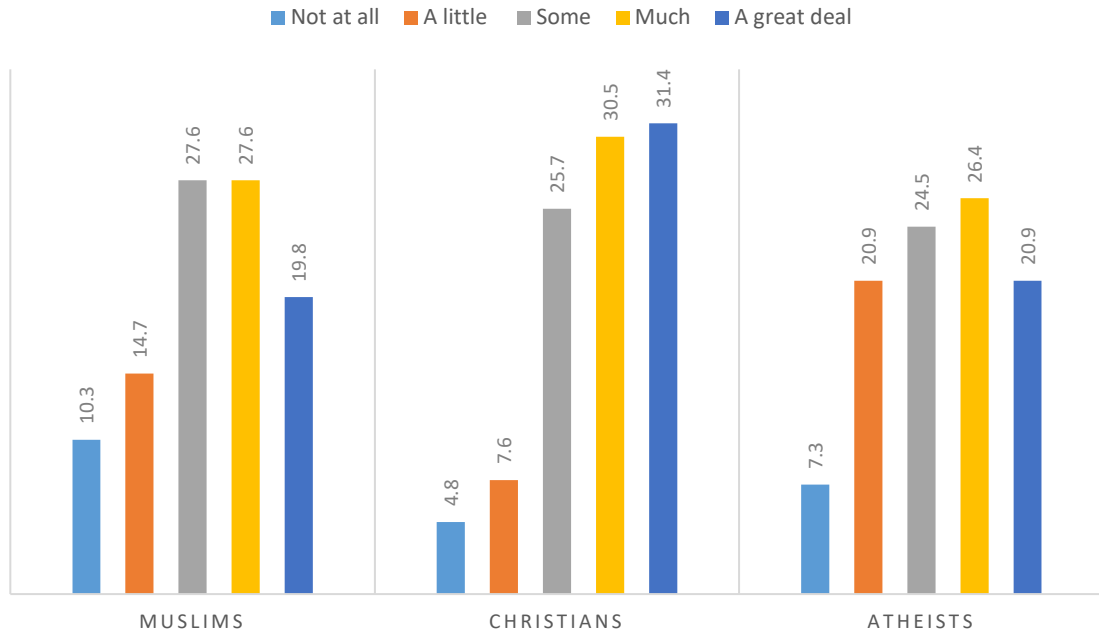


Figure 5. *How unfairly were you treated?*

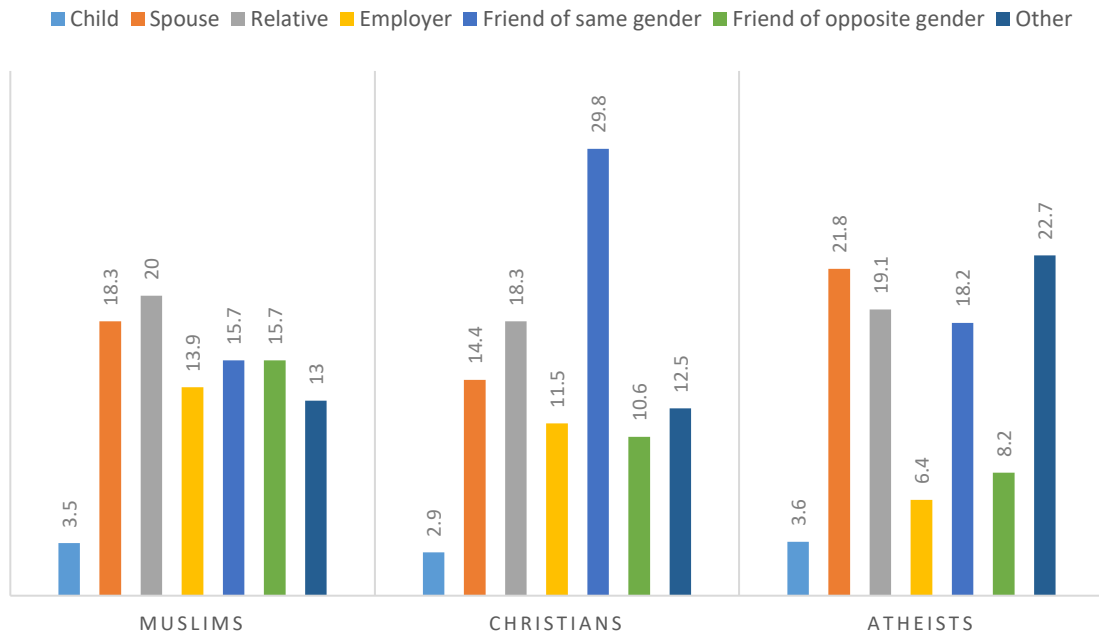


Figure 6. *Who hurt you?*

Participants' self-reported general level of commitment to their beliefs was probed by a six-point, ascending, Likert-type question, with answers ranging from *not at all* to *extremely committed*. The mean score for all participants was  $\mu = 4.4$  ( $SD = 1.452$ ) - between *fairly committed* and *very committed*. A one-way ANOVA was performed to compare the Muslim, Christian, and Atheist groups' average commitment to their beliefs. Between-group significant difference was found ( $F(2, 330) = 14.373$ ;  $p = .0005$ ) with Christians ( $\bar{x} = 4.99$ ;  $SD = 1.019$ ) being significantly different than both Muslims ( $\bar{x} = 4.04$ ;  $SD = 1.603$ ) and Atheists ( $\bar{x} = 4.2$ ;  $SD = 1.482$ ) per Tukey Post Hoc Test. Muslims' and Atheists' mean scores were not significantly different.

Participants' extent to which they have forgiven a specific offender was gauged by a five-point, ascending, Likert-type question, with answers ranging from *not at all* to *complete forgiveness*. The mean score for all participants was  $\mu = 3.38$  ( $SD = 1.452$ ) - between *in progress* and *almost*. A one-way ANOVA was performed to compare the Muslim, Christian, and Atheist groups' self-reported average degree of reported forgiveness. Between-group significant difference was found ( $F(2, 325) = 11.531$ ;  $p = .0005$ ) with Christians ( $\bar{x} = 3.84$ ;  $SD = 1.158$ ) being significantly different than both Muslims ( $\bar{x} = 3.31$ ;  $SD = 1.287$ ) and Atheists ( $\bar{x} = 3.01$ ;  $SD = 1.351$ ) per Tukey Post Hoc Test. Muslims' and Atheists' mean scores were not significantly different (see Table 5).

Table 7. Summary of Sample Characteristics

<b>Religious/ Non-religious Affiliation</b>	<b>Participants <i>N</i> (valid %)</b>	<b>Age <math>\bar{x}</math> (<i>SD</i>)</b>	<b>Belief Commitment <math>\bar{x}</math> (<i>SD</i>)</b>	<b>Degree of forgiveness <math>\bar{x}</math> (<i>SD</i>)</b>
<i>Islam</i>	116 (34.7)	32.8 (11.857)	4.04 (1.603)	3.31 (1.287)
<i>Christianity</i>	106 (31.7)	43.63 (18.402)	4.99 (1.019)	3.84 (1.158)
<i>Atheism</i>	112 (33.5)	37.79 (13.018)	4.2 (1.482)	3.01 (1.351)
<b>Totals/ Mean</b>	334	37.95 (15.182)	4.4 (1.452)	3.38 (1.310)

### Research Question 1

The first research question of interest for the current study was: *What are the differences and similarities among the three group members' forgiveness toward a specific offender?* The sub-questions were used to investigate the affect, cognition, and behavior scales of forgiveness. A MANOVA was performed which suggested that scoring on the three forgiveness scales significantly depended on the religious background ( $F = 10.91$ ;  $p < .0005$ ; Wilk's  $\Lambda = 0.804$ , partial  $\eta^2 = .103$ ). Specifically, religious background had a statistically significant effect on all forgiveness scales within the EFI: affect ( $F(2, 286) = 8.48$ ;  $p < .0005$ ; partial  $\eta^2 = .056$ ), behavior ( $F(2, 286) = 16.51$ ;  $p < .0005$ ; partial  $\eta^2 = .943$ ), and cognition ( $F(2, 286) = 26.79$ ;  $p < .0005$ ; partial  $\eta^2 = .158$ ).

Tukey Post Hoc test showed that on the cognition scale there was a statistically significant difference between all three groups (Muslim and Christian  $p < .0005$ ; Muslim and Atheist  $p < .03$ ; Christian and Atheist  $p < .0005$ ). Christians had the highest mean ( $\bar{x} = 4.94$ ;  $SD = .869$ ; Total scale score = 98.8), followed by Atheists ( $\bar{x} = 4.22$ ;  $SD = 1.326$ ; Total scale score = 84.4) and Muslims with the lowest mean ( $\bar{x} = 3.85$ ;  $SD = .838$ ; Total

scale score = 77). On the behavior scale, there was a statistically significant difference between Muslims and Christians ( $p < .0005$ ) and Christians and Atheists ( $p < .0005$ ) but not between Muslims and Atheists. The Christian mean was higher ( $\bar{x} = 4.59$ ;  $SD = .838$ ; Total scale score = 91.8) than the Atheist ( $\bar{x} = 3.93$ ;  $SD = 1.232$ ; Total scale score = 78.6) and the Muslim ( $\bar{x} = 3.77$ ;  $SD = .788$ ; Total scale score = 75.4) mean. On the affect scale, there was again a statistically significant difference between Muslim and Christian ( $p < .003$ ) and Christian and Atheist scores ( $p < .0005$ ) but not between Muslim and Atheist scores. The Christian mean was higher ( $\bar{x} = 3.95$ ;  $SD = 1.118$ ; Total scale score = 79) than the Muslim ( $\bar{x} = 3.43$ ;  $SD = .781$ ; Total scale score = 68.6) and the Atheist ( $\bar{x} = 3.34$ ;  $SD = 1.267$ ; Total Scale Score = 66.8) (see Figure 7).

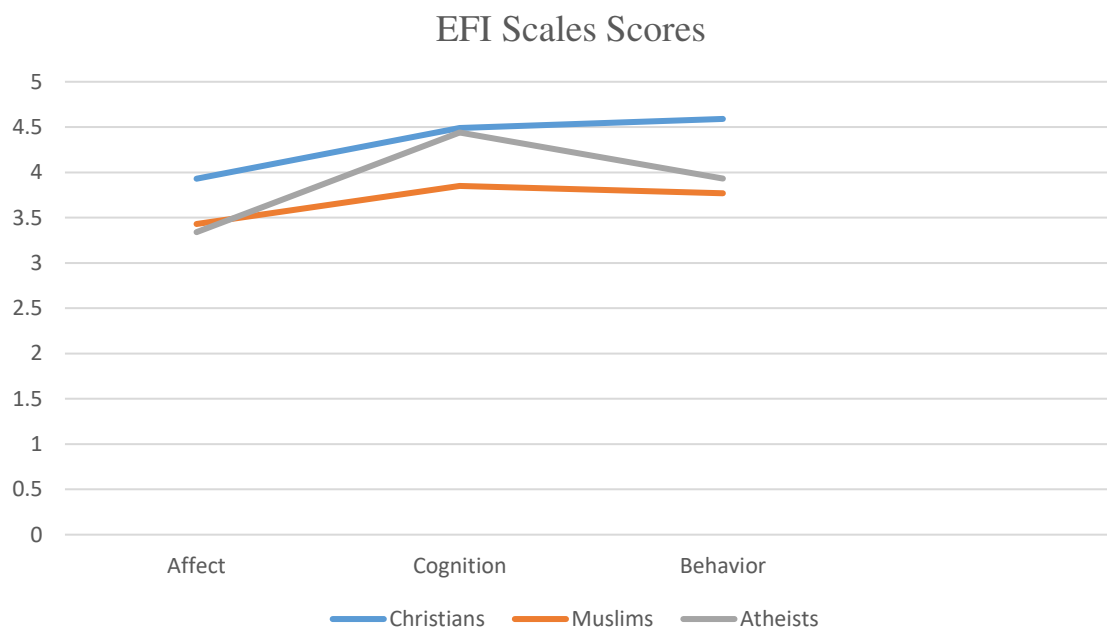


Figure 7. *Samples' Scores on the EFI Scales*



### Research Question 2

The second research question of the study was: *Which group is more likely to undertake the forgiveness process in hypothetical situations?* A one-way ANOVA was performed on the data collected from the FLS and a statistically significant between-group difference was found ( $F(2, 325) = 4.467, p = .0005$ ). A Tukey post hoc test revealed that Atheists ( $\bar{x} = 2.81; SD = 1.122$ ) were statistically significantly less likely to forgive than Christians ( $\bar{x} = 3.77; SD = 1.187; p = .0005$ ) and Muslims ( $\bar{x} = 3.55; SD = 1.27; p = .0005$ ). There was no significant difference between the Christians and Muslims likelihood to forgive ( $p = .362$ ).

### Research Question 3

The last research question investigated in the study was: *How does the type of belief orientation within the groups (i.e., intrinsic or extrinsic) relate to the likelihood to forgive?* A linear model multiple regression was calculated to predict the likelihood to forgive based on the intrinsic and extrinsic religious orientation scales. A significant regression equation was found ( $F(2, 296) = 46.01, p = .0005$ ), with a medium effect size ( $R^2 = .237$ ). Participants predicted Likelihood to Forgive is equal to  $1.405 + .061$  (Extrinsic RO) +  $.439$  (Intrinsic RO). Participants' Likelihood to Forgive increased more for Intrinsic RO. Only Intrinsic RO was a significant predictor of Forgiveness Likelihood ( $p = .0005$ ).

### Confounding Variables Check

The initial descriptive statistics indicated a significant age difference between the three groups of participants (Muslims  $\bar{x} = 32.8, SD = 11.857$ ; Christians  $\bar{x} = 43.63, SD =$

18.402; Atheists  $\bar{x} = 37.79$ ,  $SD = 13.018$ ). Therefore, a one-way MANCOVA was calculated with age as a covariate to observe the influence of religious affiliation on the forgiveness scales (i.e., EFI and FLS) when removing the effect of age. The results indicated that age did not have a significant effect on the outcomes on the EFI and the FLS scales (see Table 8).

The same procedure was followed to establish the effect of ethnicity on the outcomes on the EFI and FLS scales. The initial analysis of the samples showed that the Muslims were most ethnically diverse, followed by the Atheists and the Christians least ethnically diverse. This finding rendered the need to compute a second one-way MANCOVA to check if the results on the forgiveness scales were confounded by the ethnical background of the participants. Again, the MANCOVA did not show a significant effect of ethnicity on the EFI and the FLS scales (see Table 8).

Table 8. *Multivariate Analysis of Covariance Summary*

<b>Covariate</b>	<b>Dependent Variable</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F (p)</b>	<b>Partial Eta Squared</b>
Age	Cognition Scale	.304	1	.304	.280 (.597)	.001
	Behavior Scale	1.173	1	1.174	1.117 (.292)	.004
	Affect Scale	.063	1	.063	.056 (.814)	.000
	Forgvns Likelihood Scale	.117	1	.117	.081 (.777)	.000
Ethnicity	Cognitive Scale	.324	1	.324	.299 (.585)	.001
	Behavior Scale	.009	1	.009	.009 (.926)	.000
	Affect Scale	.793	1	.793	.702 (.403)	.003
	Forgvns Likelihood Scale	5.657	1	5.657	3.850 (.051)	.014

#### Resulting Structural Equation Model

Additionally, a path analysis series of regressions were calculated to isolate possible predictors of forgiveness likelihood. Four path analysis models were tested based on the theoretical foundation and the purpose of the study. The model with the best fit to the data is illustrated in Figure 5. The results indicated that religious affiliation was a significant predictor of intrinsic ( $\beta = -.560$ ;  $p = .0005$ ;  $R^2 = .313$ ;  $SE = 1.099$ ) and extrinsic religious orientation ( $\beta = -.532$ ;  $p = .0005$ ;  $R^2 = .293$ ;  $SE = .868$ ) and that intrinsic religious orientation was a significant predictor of forgiveness likelihood ( $\beta = .456$ ;  $p = .0005$ ;  $R^2 = .237$ ;  $SE = 1.115$ ). Also, intrinsic religious orientation was a significant predictor of scores on the cognition ( $\beta = .334$ ;  $p = .0005$ ;  $R^2 = .106$ ;  $SE =$

1.059) and behavior ( $\beta = .320$ ;  $p = .0005$ ;  $R^2 = .075$ ;  $SE = .1.037$ ) subscales and extrinsic religious orientation was a significant predictor of scores on the cognition scale ( $\beta = -.387$ ;  $p = .0005$ ;  $R^2 = .106$ ;  $SE = 1.059$ ) (see Table 8).

Table 9. *Path Analysis Model Summary*

<b>Regression Model Predictors</b>	<b>Regression Model Outcome</b>	<b>Effect size (<math>R^2</math>)</b>	<b>Std. Error of Estimate (<math>SE</math>)</b>	<b>Sig. <math>F</math> Change</b>
Religious Association	Intrinsic Religious Orientation	.313	1.099	.0005
Religious Association	Extrinsic Religious Orientation	.283	.868	.0005
Intrinsic + Extrinsic Religious Orientation	Forgiveness Likelihood	.237	1.115	.0005
Intrinsic + Extrinsic Religious Orientation	Cognition	.106	1.059	.0005
Intrinsic + Extrinsic Religious Orientation	Affect	.040	1.052	.003
Intrinsic + Extrinsic Religious Orientation	Behavior	.075	1.37	.0005
Cognition + Affect + Behavior	Forgiveness Likelihood	.064	1.255	.0005

However, the scales of affect, cognition, and behavior were not predictors for forgiveness likelihood due to insignificant standard coefficient beta and, hence, were not mediators between religious orientation type and forgiveness likelihood. A mapping sentence was developed to refine the correlational findings into a path of factor

combinations leading to forgiveness likelihood: *Forgiveness likelihood is the direct result of religious affiliation and intrinsic religious orientation* (see Figure 11).

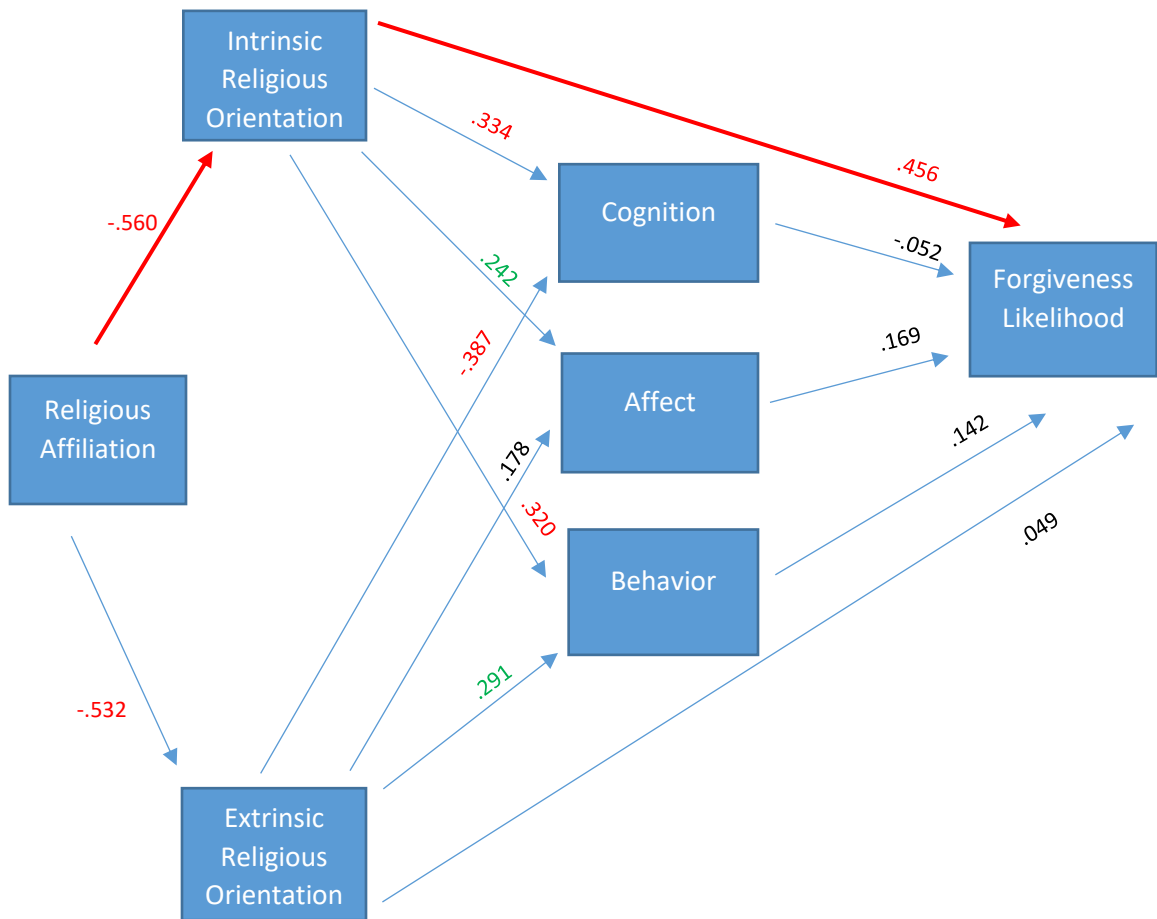


Figure 8. Path Analysis Results

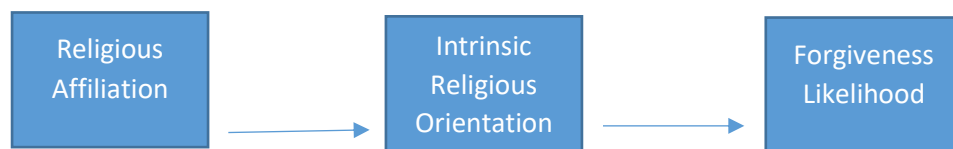


Figure 9. Mapping Sentence for Forgiveness Likelihood

## CHAPTER 5

### DISCUSSION

In recent years, more interest has been sparked in the psychology of forgiveness, propelling the field to venture into new directions of research. Previous studies on forgiveness have investigated: the meaning, philosophical and spiritual roots of the concept of forgiveness, offering definitions and characteristics (Haber, 1991; Escher, 2013); the psychological constructs of forgiveness affect, cognition, and behavior towards a specific offender (Enright et al., 1991), the effects of situational circumstances of the offence on forgiveness (Azar & Mullet, 2001), and health benefits of practicing forgiveness, including both psychological and physical health (McCullough & Worthington, 1999). Studies followed that were interested in the applications of forgiveness findings, offering strategies for forgiveness counseling interventions and education programs (Luskin, 2006; Al-Mabuk et al., 1995; Freedman & Enright, 1996). Moreover, recent studies have linked forgiveness to evolutionary processes related to ensuring survival, genes, and personality traits (Luebbert, 1999; Kang, Namkoong, & Kim, 2008; Worthington et al., 2014), all testifying for the anthropological significance of forgiveness.

However, most of the existing empirical data has been homogenous or has not examined specifically religious backgrounds in relationship to forgiveness practices. The Atheist population in particular has been severely underrepresented in empirical research and virtually no psychology studies were discovered that investigate how Atheists understand and practice forgiveness. Additionally, limited amount of research references

forgiveness schema and it does not focus on schema formation in view of the cognitive Schema Theory.

Therefore, the purpose of the current study was to fill this gap by gathering more empirical data about the relationship between religiosity/Atheism and forgiveness. The psychological constructs of affect, cognition, and behavior related to forgiveness towards a specific offender were measured to establish patterns across the Muslim, Christian, and Atheist sample. The three groups' likelihood to forgive in hypothetical situations was tested to see if one's likelihood to forgive was influenced by the type of religion and belief orientation (i.e., intrinsic or extrinsic).

The specific results from the study are interpreted in this chapter, referencing prior research, and a discussion is offered on possible explanations, implication, and applications of the findings. Some limitations of the method are acknowledged and future directions of research are suggested.

### Findings and Implications

#### Demographics

The analysis of the participants concluded that the number of participants in the three groups was not identical but was closely matched. The participants across the three groups were mostly Caucasian but there was ethnic diversity accounting for 32.5% of the total sample with the Muslim group being most diverse. The sample was predominantly female with approximating 2:1 female to male ratio. The Muslim group had the most equal number of males and females, the females in the Atheist group were almost double the number of males, and the Christian group was mostly female. A possible explanation

why more women self-selected to participate could be that there were overall more female members in the various belief groups. More females were present at the events and meetings that the researcher attended to recruit participants in person. Additionally, the Muslim group was on average the youngest, followed by the Atheist group, and the Christian group was the oldest.

However, the data possessed enough statistical power to produce results that were valid for these diverse participants. Additional statistical analyses were computed to establish if the participants' age and ethnicity were confounding factors in the results. Two one-way MANCOVAs were performed with ethnicity and age as a covariate, respectively. Both tests indicated that the covariates did not have statistical significance; hence, ethnicity and age did not affect the outcomes of the research questions addressing the EFI and the FLS measures.

The initial descriptive statistics performed on the probing question *How committed are you to your beliefs?* indicated that the participants were *fairly to very committed* to their beliefs, with a mean score above the mid-point of the Likert-type scale. A further break-down of the sample through the ANOVA test showed that Christians were significantly more committed to their beliefs than both Muslims and Atheists. This may suggest that, since Christians were more committed to their beliefs, they may hold values characteristic of their religion more strongly, which could influence their views on forgiveness.

Atheists scored second- higher than Muslims on the commitment question, even though this difference was not significant, suggesting that Atheist beliefs may require



more cognitive effort than religious beliefs, as previously researched by Norenzayan and Gervais (2013). Atheists may need to commit to the decision to be non-believers so they could form an identity around rejecting the traditional religious belief systems; however, they might still be questioning this decision. The literature suggests that Atheism can be placed on a continuum from strong to weak (Baggini, 2003). It is possible that most representatives of Atheism in this sample were not of the strong Atheist type so they were not as committed to their beliefs as Christians were. However, without more specific details, it cannot be stated for certain why the difference exists.

Muslims scored lowest on the commitment scale, even though not significantly different than Atheists. This suggests that they may be least committed to their beliefs among the current sample, while still scoring above the mid-point of the scale, labelled as *fairly committed*. This outcome cannot be completely explained by the fact that the Muslim group was the youngest and the most ethnically diverse since the MANCOVAs showed no effect of age and ethnicity on the results. However, prior literature suggests that forgiveness processes may be influenced by social and cultural contexts (Sandage et al., 2003) and that thinking patterns, emotional expressions, self -concepts, and social interactions are all constructs of the particular culture's values (Vygotsky, 1986).

Another finding related to the participants' progress in the forgiveness process. All answers on the second probing question, *To what extent have you forgiven the person you rated?*, were averaged between *in progress* and *almost completed*, scoring above the mid-point of the Likert-type scale. These findings suggest that all three groups have started and are working on the forgiveness process. However, the Christians in this

sample emerged significantly further in their forgiveness process towards a specific offender than both the Muslim and the Atheist samples. The Atheists in this sample, even though not significantly different from the Muslims, were not as far along in the forgiveness process compared to the two religious groups. This finding may relate to Norenzayan and Gervais' (2013) suggestion that the cognitive effort Atheists exert could make them question if and when forgiveness is acceptable. This may have influenced Atheists in this sample to be behind the religious groups in the progress towards complete forgiveness. These findings also reference the idea in Enright et al.'s (1991) Process Model of forgiveness that individuals have their own forgiveness timeline that may be different than someone else's and that the forgiveness process can take various amounts of time to be completed, if at all. The fact that the Atheists reported experiencing the greatest amount of hurt may have influenced their progress in forgiving. Research illustrates that forgiving deeper hurts may take longer to forgive than minor hurts (Enright et al., 1991).

#### Research Question 1

After computing some general trends among the participants, the analysis dove deeper into the specific research questions posed within the scope of the study. The first question was interested in the differences and similarities among the three groups' forgiveness towards a specific offender as measured by the affect, cognition, and behavior scales of the EFI. The results showed that these three psychological constructs of forgiveness significantly depended on the religious background, i.e. there was a direct

relationship between the three groups' (non-)religion and their scores on affect, cognition, and behavior scales of the forgiveness measure.

Christians scored consistently highest on all three subscales of the EFI with statistically significant margins. This suggests that they exhibit more positive and less negative emotions, thoughts, and actions towards their offender, as measured by the EFI, compared to the other two groups. The Christians indicated that they were most unfairly treated out of the three groups in this hurtful situation they were recalling. They also scored second regarding how deeply they were hurt. For most Christians the perpetrator was a living friend of the same gender.

The Process Model of forgiveness defines forgiving as a change in the state of these three psychological constructs- an increase of positive affect, cognition, and behavior; and a decrease of negative affect, cognition, and behavior (Enright et al., 1991). In this sense, Christians' scores on the three scales align with the Process Model assumption that as people progress along the forgiveness process, their thoughts, emotions, and behaviors towards the offender undergo changes.

Atheists scored second highest on the scales of cognition and behavior and lowest on the affect scale, although the difference between Atheists and Muslims on the affect and behavior scales was not significant. The lower affect score may be triggered by the fact that the Atheist group reported to be most deeply hurt by the offender they were recalling and they scored second on being unfairly treated. For most Atheists this perpetrator was somebody other than a friend, a relative, or a coworker (i.e., they chose

the “other” answer option) who is still living. This deep hurt and unfair treatment may have made it difficult for Atheists to show more positive affect at the time of the survey.

Another possible interpretation of this finding may be that Atheists might have more control over the aspects of forgiveness that require conscious cognitive effort, namely thoughts and behaviors (Norenzayan & Gervais, 2013). Emotions, on the other hand, are more likely to be processed on the unconscious track of the mind and be less controlled and more instinctual (Barclay, 2008).

Some social psychologists have argued that the instinctual reaction to injury is revenge as a conflict resolution strategy, while forgiveness has evolved beyond the emotional instincts to enable cooperation (Barclay, 2008; McCullough, 2008). It might be that for Atheists, the instinctual emotions were more challenging to address, due to rejection of some religious teachings. These assumptions can also be strengthened by earlier findings claiming that more cognitive effort and cognitive dissonance is present within Atheists (Norenzayan & Gervais, 2013), so they may be more involved in the psychological aspects of forgiveness, susceptible to conscious control. Measuring this phenomena is beyond the scope of the current study; however, these ideas could be researched in more depth in the future.

Another finding related to the first research question was that the Muslims in this sample scored significantly lower on forgiveness toward a specific offender than the Christians on all three subscales of affect, cognition, and behavior. They had the lowest cognition and behavior scores and the second ranked affect score. This suggests that they may still hold more negative and less positive emotions, thoughts, and actions towards

their specific offender than the other groups in this study. For the majority of the Muslims the offender was a living relative or a spouse who caused them *some* or *much* hurt and treated them *some* or *much* unfairly. This may make forgiving more challenging since it may also require reconciliation with this family member.

Another reason for their lower score on the forgiveness measure might be related to the specific social and cultural beliefs surrounding forgiveness and the offence (Anderson, 1996). For example, the literature indicates that apology and amending the injury are important in Islam in order for forgiveness to be granted through Allah (Rye et al., 2000). These might be influential beliefs shaping Muslim's schema of forgiveness as different from Christians' schema. Apology and attempt to compensate the injury might serve as situational inferences, evoking the specific schema of forgiveness held by Muslims (Rumelhart & Ortony, 1977). The absence of these schema structures may have impeded the Muslim sample's forgiveness toward an offender.

### Research Question 2

The second research question examined which group of participants was more likely to forgive as assessed in hypothetical situations. The Forgiveness Likelihood (FLS) measure was used to present hypothetical scenarios in which forgiveness may be chosen, in contrast to the first research question, where the EFI measured one's forgiveness of an actual offender for a real hurt. However, the findings repeated some trends from the EFI measure- not only did Christian participants exhibit greater forgiveness towards a specific offender compared to Muslims and Atheists, they were also significantly more likely than Atheists to forgive in hypothetical situations.

Another interesting finding was that there was no significant difference between Christians' and Muslims' forgiveness likelihood, as both groups were found likely to forgive in the given hypothetical situations. Despite the differences between Christianity and Islam, both religions profess forgiveness as a value so this may be why they were more likely than Atheists to follow the religious teachings and choose to forgive in hypothetical situations. Atheists, on the other hand, may associate forgiveness with religion, which they have rejected, or may question under what circumstances forgiveness is acceptable, which may make them less likely to forgive in hypothetical situations.

Building on the notions of schema theory, the likelihood to forgive may be viewed as a process filtered through the specific forgiveness schema of the individual (Rumelhart & Ortony, 1977). This schema would be constructed by knowledge systems, influenced by religion, experiences, and the circumstances around the hurtful event. Therefore, both Christians and Muslims may have internalized forgiveness as a desired religious value. If they are provided the proper circumstances (e.g., presence of apology, repentance, attempt for reconciliation, fixing the damage, purposefulness of the insult, etc.) and consideration for who the offender is (e.g., close friend, family, spouse, stranger, etc.), they may instantiate their forgiveness schema at a higher rate than the Atheists.

For Muslims, forgiveness may be a desired goal- it may be occurring at a slower rate compared to Christians; however, Muslims were found to be in the midst of forgiveness as measured by the EFI. Furthermore, Muslims scored higher when presented

hypothetical situations for forgiveness than when actual forgiveness toward an offender was measured. Prior literature suggests that in real-life transgressions, religiosity has not been consistently shown to influence forgiveness seeking (McCullough, Bono, & Root, 2005). Therefore, religious beliefs may influence real-life forgiveness differently but may have similar effect on hypothetical forgiveness.

### Research Question 3

Religious affiliation (i.e., Muslim, Christian, or Atheist) was strongly correlated with the type of religious (belief) orientation, both intrinsic and extrinsic. This type of orientation was applicable for the religious and Atheist samples alike, which confirms Maltby and Lewis' (1996) modification of the measure as appropriate for both religious and non-religious participants.

Only intrinsic religious orientation within the participants, regardless of religious affiliation, was a strong predictor of forgiveness likelihood in hypothetical situations. This finding is consistent with prior literature (Seedall et al., 2014) and suggests that being governed by beliefs for internal, personal reasons, rather than for external, social benefits may be related to the person being more likely to consider forgiveness. People who are intrinsically oriented and committed to their beliefs may have internalized more strongly into their schema the specific values encouraged by their belief system, guiding them to interpret situations a certain way when that schema is activated. If the belief system promotes forgiveness, as in Christianity and Islam, hurtful situations may evoke a forgiveness response at a higher rate. Prior literature supports the notion that high

religious commitment and intrinsic religious orientation propends greater likelihood to practice forgiveness (McCullough & Worthington, 1999; Seedall et al., 2014).

### Structural Equation Modelling

The findings from the three research questions discussed above motivated the decision to conduct a structural equation modelling in search of the strongest predictors for one's likelihood to forgive. The model of correlations was hypothesized based on the conceptual foundation of the study and the finding from the data analyses. The correlation between religious affiliation and religious orientation was tested, along with the EFI scales of affect, cognition, and behavior in relationship to forgiveness likelihood.

When the type of religious orientation, intrinsic (IRO) and extrinsic (ERO) was grouped with the EFI scales of affect, cognition, and behavior, they did not collectively predict the results on the forgiveness likelihood scale (FLS). However, when the type of religious orientation was tested individually, IRO, regardless of religion, emerged as a direct predictor of FLS. This finding was consistent with research utilizing another measure for forgiveness in hypothetical scenarios- the Willingness to Forgive scale (WFS) (Hebl & Enright, 1993) - where Muslims and Christians exhibited similar patterns in their willingness to forgive (Azar et al., 1999; Azar & Mullet, 2001).

Additionally, both IRO and ERO were strongly correlated with the cognition scale of the EFI but cognition was not found to correlate with the FLS. Therefore, it was concluded that the cognition scale, along with the affect and behavior scales, did not have a mediating effect between the type of religious orientation and forgiveness likelihood. This suggests that the EFI and the FLS scales were not correlated, meaning that specific



previous experiences with hurt and forgiveness, as measured by the EFI, did not predict forgiveness in hypothetical situations, as measured by the FLS.

This finding is significant because it suggests two possible explanations. First, it might be that recollections of a specific injury and the state of the forgiveness process for that event may not guide decision making in hypothetical scenarios that are different from that specific injury. Second, one's thinking about forgiveness in hypothetical situations might not be comparable to one's forgiveness process toward an actual offender. Hence, the EFI and the FLS simply measure different aspects of forgiveness that are not immediately comparable and compatible.

In that respect, Yousof (2010) demonstrated that the EFI could be correlated with an alternative measure for hypothetical scenarios- the Willingness to Forgive Scale (WFS). The WFS and the EFI were distributed to Lebanese ( $N = 200$ ) and American ( $N = 141$ ) college students and no significant effect of religion was found on the EFI, or on the WFS. However, there were significant differences between both male and female participants from the two cultures and the American sample scored consistently higher on both measures. This study suggests a relationship between willingness to forgive and actual forgiveness, as measured by the EFI and the WFS, which was not the case in the current study when the EFI was correlated with the FLS.

In the end, in order to summarize the outcome of the path analysis, the strongest correlations were identified. The type of religious orientation depended on the religious affiliation of the participants and the intrinsic religious orientation was the strongest predictor of the likelihood to forgive. This path confirms prior findings that intrinsically

belief oriented individuals may be more accepting of forgiveness in hypothetical situation of hurt (Gordon et al., 2008).

### Applications

It is important to translate the findings from the current study into practical applications. An opportunity arises from this study to develop measures of forgiveness schema. The novelty of this study's approach lies namely in the attempt to isolate predictors of forgiveness that may be incorporated into a schema of forgiveness. Knowing what the likely forgiveness schema is for Christians, Muslims, and Atheists may guide the development of more effective forgiveness interventions.

Counseling approaches advocating forgiveness may take into serious consideration the religious background of clients as it may impact their understanding of forgiveness and likelihood to forgive. Peace-making initiatives may be customized to be more sensitive to the effects of religious beliefs on perpetrators and victims and how likely they would be to forgive one another. Forgiveness education programs can adapt their curriculum content according to the belief backgrounds of the students (religious or non-religious). Given the increase of religious plurality in the schools, diverse books and curriculum materials should be selected to introduce forgiveness concepts more effectively to a wider range of students. Forgiveness education should also be sensitive to the rising number of Atheists and how instructional materials and activities can be designed to make forgiveness appealing to them as well. A body of knowledge about forgiveness has already been accumulating; however, most of the research does not

examine the relationship between forgiveness and religion and especially lacks a focus on Atheism.

Overall, considering that there might be differences in individuals' forgiveness schema allows for greater competence in delivering forgiveness education and forgiveness therapy and for gathering deeper knowledge of the diverse population that is being served. Measuring forgiveness schema can serve as a diagnostic tool at the onset of interventions that can help analyze the state of forgiveness understanding and possible forgiveness misconceptions that may need to be combatted. Such misconceptions may be related to confusing forgiveness with reconciliation, excuse, justice, absence of hurt, etc. Forgiveness schema also has the potential to predict likely attitudes and behaviors that may need to be addressed through forgiveness interventions.

For example, the study's findings illustrate that possible concepts constructing mental representations of forgiveness-related events were organized around: religious affiliation, type of belief orientation, and likelihood to forgive under certain circumstances. Characteristically, Christians' forgiveness schema may be influenced by commitment to Christian beliefs, further progress on completing of the forgiveness process, more positive and less negative affect, cognition, and behavior towards a specific offender, and high likelihood to forgive in different hypothetical scenarios. On the other hand, Atheists' forgiveness schema may be influenced by moderate belief commitment, less progress on completing of the forgiveness process, more negative and less positive affect, cognition, and behavior towards a specific offender, lower likelihood to forgive in hypothetical situations, and possibly associating forgiveness with religion.

As far as Muslims, this study suggested that their schema might be influenced by less commitment to religious beliefs, less progress towards complete forgiveness, more negative and less positive affect, cognition, and behavior towards a specific offender, and greater forgiveness likelihood in hypothetical situations.

Possible explanation why Muslims', Christians', and Atheists' forgiveness schemata may differ could be provided by the way attention is allocated in the formation of perceptions. Attention is the part of the memory system that enables information to be shifted from sensory memory into working memory where it is encoded into long-term memory. When individuals experience various stimuli, their attention is distributed onto what appears to be the most important information with the "highest value" that needs to be encoded (Kanarick & Petersen, 1969). The attention allocation of the three groups in this study may vary, predisposing people from different backgrounds, with different experiences to encode different aspects of the experience and form unique perceptions of forgiveness.

One of the influential factors determining which information is relevant is the individual's schema, i.e. the knowledge structure created from previously encountered stimuli that provides a goal-directed information processing (Thorndyke & Hayes-Roth, 1979). "High value" information is such that can confirm existing schema or such that is not represented in the schema and cannot be inferred. Moreover, schemata create expectancies based on prior experiences that may influence the attention allocation in a way that frees cognitive load to observe other aspects of the social context that cannot be inferred (White & Carlston, 1983). In this regard, the less attention is allocated to an

individual or social situation, the more reliance is placed on the existing schema to form impressions. Therefore, Muslims, Christians, and Atheists may have allocated their attention differently when considering hurtful situations, relying on prior knowledge structures to infer if forgiveness is desirable in hypothetical situations or to make judgements about a specific perpetrator.

Awareness of these trends can enable personalized approach and effective strategies for teaching forgiveness. For instance, a practical approach to addressing forgiveness with Atheists could first investigate what conceptions are rooted in their beliefs that may prevent them from readily considering forgiveness. Atheists might be associating forgiveness with religious values and, in the attempt to separate themselves from religion, they may question forgiveness or even reject the idea of forgiveness. In such cases, those leading forgiveness interventions may consider explaining that forgiveness can be independent of religion and discussing it as a psychological construct. Moreover, other misconceptions about forgiveness may also need to be exposed, such as the fact that forgiving does not excuse the act and does not need to lead to reconciliation. Atheists may be focusing on whether the perpetrator deserves forgiveness, rather than considering the mental and health benefits one may experience through forgiving.

Second, forgiveness interventions with Atheists may explain the positive psychological changes triggered by the forgiveness process, such as increased positive affect, cognition, and behavior towards an offender, which could lead to an emotional release within the forgiving individual, including improved psychological and physical well-being. Once Atheists develop a greater understanding of the specific personal

benefits related to forgiving, they may be more likely to consider forgiveness as a coping strategy in future situations of deep hurt.

Third, Atheists' likelihood to forgive in hypothetical scenarios may also be increased by a specific intervention. Some Atheists may be more critical and effortful thinkers which may make them question the appropriateness of forgiveness in various situations. If forgiveness interventions provide specific educational information about the benefits of forgiveness, regardless of religion, Atheists may be more likely to forgive in future, hypothetical situations.

Atheists present an opportunity for interesting research because they exemplify how people can change their beliefs over time. Atheists may have been raised with specific religious belief systems that have been later rejected which required them to undergo the process of conceptual change. The idea of conceptual change was developed during the cognitive revolution four to five decades ago and has been explored in developmental psychology and education since. It describes how people bring to different social contexts their preconceived notions about the world that can either facilitate or deter new learning. If those preconceived notions represent misconceptions that are barriers to learning, both external factors (i.e., social and situational, pedagogical strategies, refutation texts) and internal psychological processes (i.e., cognitive dissonance, motivation, engagement, affect, metacognition) are found to work together to make conceptual change possible (Sinatra & Pintrich, 2003).

The foundational ideas advocated by conceptual change researchers could explain some of the underlying processes in becoming an Atheist. At some point of their lives, Atheists have decided to cognitively engage in this type of new learning about the world independent of religion, where they not only constructed their own knowledge, but also monitored and regulated their learning according to specific beliefs about the self, motives, goals, and emotions. This way Atheists may have undergone conceptual change in order to become Atheists and to form a specific schema of forgiveness.

#### Delimitations

It is important to be aware of the boundaries set for this study before attempting to apply the findings too broadly. One of the purposeful choices made when planning the methods was to utilize a purposive sample. This approach can have some limitations in comparison to a random sample; however, it allowed for controlling the size of the three participating groups and ensuring equal representation of each group. However, as stated earlier, more females were included in both the Christian and Atheist groups and the Muslim group had a younger mean age compared to the Christians and Atheists.

Another decision affecting the study methodology was to employ both a paper and online version of the survey. No significant systematic differences were found in the responses of the participants who took the paper versus the online survey. This was a decision to prevent the dominance of certain type of self-selected participants. For instance, some of the participants who filled out the paper survey would not have been reached through the online survey and vice versa. The participation inclusion criteria was broad and targeted the general population- a wider range of adult-aged groups and

ethnicities, identified as Christian, Muslim, or Atheist. As a result of these sampling decisions, the participants were not as homogeneous as in prior studies.

The last delimitation of the current study was the use of existing measures to collect the data. Even though a new instrument could have been created, it was deemed appropriate to utilize already tested measures for the concepts of interest. The three measures (i.e., EFI, ROS, and FLS) were adopted into the survey without any changes. The validation tests with the current sample indicated that the measures kept their internal validity and reliability demonstrated in prior studies (Maltby & Lewis, 1996; Rye et al., 2001) and supported the decision to use the particular measures.

#### Limitations

It is important to consider the limitations of the study as there were characteristics of the methodology that were outside of the researcher's control. One such factor is the use of survey methodology. The nature of this approach limits any causal conclusions because those could only be reached through an experimental design. The current survey drew reliable correlational relationships; however, did not have the capacity to generalize the findings because some confounding variables could not be controlled for. For example, the study illustrated that intrinsic religious orientation was a strong predictor of forgiveness likelihood but could not claim that intrinsic religious orientation would cause greater forgiveness across the broad population.

Another factor that might have impacted the findings was the uneven number of male and female participants. There could be a difference in male and female perceptions, even though a prior study looking at religious background found men and



women from the same background to perform consistently and significantly different from individuals from other backgrounds on different measures (Yousof, 2010). The scope of this study was limited to the effects of religion or lack of religion on forgiveness concepts and was not designed to investigate gender differences. The same argument applies to age as a limitation of the study. The analyses did not focus on a specific age or developmental groups, rather any age over 18 was included. Age was isolated as a covariate in this study and did not show a significant impact on the results. However, age in general could be related to specific findings in other situations.

The study did not delve into specific denominations within the religions of interest. Furthermore, various Christian sites were randomly recruited for inclusion purposes: non-denominational churches, Methodist and Lutheran Youth ministries, a Unitarian Universalist church, and online participants, not affiliated with a specific church. Similar procedure was followed when recruiting Muslim participants from non-denominational, a diverse nationality Mosque and online participants, not affiliated with a specific Mosque. Neither site presented significantly greater number of participants to skew the data, nor was a survey question present to differentiate among denominations. Therefore, the study did not draw conclusion about given denominations, rather identified broad trends about the religions in general.

#### Future Directions

Some of the limitations of the study method can be addressed in future research. For example, the effects of gender, age group/developmental level, and specific cultural background and religious denomination can be investigated in the future to observe the

forgiveness outcomes (i.e., specific differences in affect, cognition, behavior, forgiveness likelihood, etc.). The current data lacks denomination information but provides age, gender, and cultural background of participants. Therefore, additional analysis of the current sample may target these variables to answer more questions. In the future, a larger and more equally matched sample should be recruited to eliminate some confounds that may have influenced the results.

Another future direction of research that interests the researcher is exploring in more depth the idea of forgiveness schema and constructing an instrument measuring the effects of forgiveness schema on forgiveness practices. More importantly, the specific differences in the forgiveness schema among the three groups should be further investigated. Similarly to Anderson et al. (1977) and Reynolds et al. (1982), text passages followed by multiple choice questions can be created to allow for different interpretations based on participants' religious background. This would measure the interaction between passage and subjects' background to see if their knowledge about forgiveness and their analysis of the context and the message influences the interpretation and recall of the information. The interpretation and recall, in turn, would give clues into the forgiveness schema being instantiated and may predict if the participants would interpret the event as worthy of forgiveness.

Further research is needed on the situational factors influencing forgiveness. The likelihood to forgive has been found to be dependent upon factors such as apology, negative consequences, social pressures, type of relationship with the offender, and misconceptions of what it means to forgive (Azar & Mullet, 2001; Girard & Mullet,

2012). In the future, the specific situational factors experienced by sample participants should be investigated to uncover if they have influenced the likelihood and/or willingness to forgive. Approximately one-third of the participants provided short answers describing the hurtful event they recalled when completing the EFI. The analysis of these short answers may identify some factors (e.g., type of relationship with the offender) that may help correlate the EFI and the FLS instrument. More knowledge about participants' definition and understanding of forgiveness may also provide additional information about participants' schema related to forgiveness and one's likelihood to forgive a specific offender and in hypothetical situations.

The researcher is also interested in further investigating the specific instruments measuring religiosity and forgiveness. If the relationship between actual forgiveness and forgiveness in hypothetical situations is further studied, the most appropriate measures need to be determined among the already existing instruments in the literature. For example, the EFI and the FLS, though sound measures on their own, may not be able to correlate or combine into a single measure. However, the WFS could be more appropriate to use together with the EFI because of the similar constructs within the measures.

Ultimately, a new measure could be designed to account for individuals with (non-)religious backgrounds in relation to forgiveness practice, that could serve as a predictor for one's propensity towards forgiveness. Such a measure may be useful because currently existing measures are not religiously themed. Since psychology has provided ample evidence for the benefits of forgiveness for one's overall mental and

physical wellbeing, such a predictor instrument can serve as a diagnostic tool if forgiveness interventions need to be focused on religion/Atheism.

### Conclusion

The purpose of the study was to explore the relationship among individuals with different religious or atheistic backgrounds and forgiveness. The significance of this study lies in the fact that empirical data was gathered to address a gap in the literature. Specifically, there is lack of studies in psychology comparing the effects of different religious belief systems and Atheism on forgiveness concepts and practices. Atheism is severely underrepresented in empirical studies in general and virtually no data was found on atheist individuals and their forgiveness practices. The study was able to empirically analyze data from Atheist participants and compare their responses regarding forgiveness practices to the responses of religious participants.

Another strength of the current study is the attempt to incorporate findings from three different fields- psychology of forgiveness, psychology of religion, and cognitive science. Researchers from each of these fields have individually examined the topic of forgiveness but often their findings remained disconnected. A better understanding can be gained of the entirety of the forgiveness phenomenon, if these findings are bridged by an interdisciplinary approach to research.

In the current study, this approach was materialized by a correlational design, survey methodology analyzing between group differences in forgiveness towards a specific offender and forgiveness in hypothetical scenarios, as well as within group differences on the type of religious orientation and its effects on forgiveness likelihood.

Christian participants reported greater commitment to their beliefs, further progress in their forgiveness process, as evidenced by less negative and more positive feelings, thoughts, and actions towards a specific offender, and greater likelihood to forgive in hypothetical scenarios compared to the Muslim and Atheist participants. All participants, regardless of religion, who possessed intrinsic religious orientation were more likely to forgive in presented hypothetical situations. Therefore, it might be worthwhile for forgiveness interventions, if appropriate, to tap into that intrinsic religious orientation, including intrinsic orientation towards Atheism, in order to achieve greater likelihood for people to forgive.

Another important insight from the study was that applying forgiveness schema can help accumulate more knowledge about why, how, and when people forgive. The study raises awareness for the effects of religious plurality on deeply rooted values, such as forgiveness, and advocates for more consideration for atheism in future research and practical interventions.

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## APPENDIX A

## FORGIVENESS LIKELIHOOD SCALE

Imagine the scenarios below happened to you. Based on the information provided, consider the likelihood that you would choose to forgive the person. Then, circle the response that is **most true** for you.

1. You share something embarrassing about yourself to a friend who promises to keep the information confidential. However, the friend breaks his/her promise and proceeds to tell several people. What is the likelihood that you would choose to forgive your friend?

Not at all Likely	Slightly Likely	Somewhat Likely	Fairly Likely	Very Likely	Extremely Likely
1	2	3	4	5	6

2. One of your friends starts a nasty rumor about you that is not true. As a result, people begin treating you worse than they have in the past. What is the likelihood that you would choose to forgive your friend?

Not at all Likely	Slightly Likely	Somewhat Likely	Fairly Likely	Very Likely	Extremely Likely
1	2	3	4	5	6

3. Your significant other has just broken up with you, leaving you hurt and confused. You learn that the reason for the break up is that your significant other started dating a good friend of yours. What is the likelihood that you would choose to forgive your significant other?

Not at all Likely	Slightly Likely	Somewhat Likely	Fairly Likely	Very Likely	Extremely Likely
1	2	3	4	5	6

4. A family member humiliates you in front of others by sharing a story about you that you did not want anyone to know. What is the likelihood that you would choose to forgive the family member?

Not at all Likely	Slightly Likely	Somewhat Likely	Fairly Likely	Very Likely	Extremely Likely
1	2	3	4	5	6

5. Your significant other has a "one-night stand" and becomes sexually involved with someone else. What is the likelihood that you would choose to forgive your significant other?

Not at all Likely	Slightly Likely	Somewhat Likely	Fairly Likely	Very Likely	Extremely Likely
1	2	3	4	5	6

6. Your friend has been talking about you behind your back. When you confront this person, he/she denies it, even though you know that he/she is lying. What is the likelihood that you would choose to forgive your friend?

Not at all Likely	Slightly Likely	Somewhat Likely	Fairly Likely	Very Likely	Extremely Likely
1	2	3	4	5	6

7. A friend borrows your most valued possession, and then loses it. The friend refuses to replace it. What is the likelihood that you would choose to forgive your friend?

Not at all Likely	Slightly Likely	Somewhat Likely	Fairly Likely	Very Likely	Extremely Likely
1	2	3	4	5	6

8. You tell an acquaintance about a job that you hope to be hired for. Without telling you, the acquaintance applies and gets the job for him/herself. What is the likelihood that you would choose to forgive your acquaintance?

Not at all Likely	Slightly Likely	Somewhat Likely	Fairly Likely	Very Likely	Extremely Likely
1	2	3	4	5	6

9. A stranger breaks into your house and steals a substantial sum of money from you. What is the likelihood that you would choose to forgive the stranger?

Not at all Likely	Slightly Likely	Somewhat Likely	Fairly Likely	Very Likely	Extremely Likely
1	2	3	4	5	6

10. You accept someone's offer to attend a formal dance. However, this person breaks their commitment to take you and goes to the event with someone who they find more attractive. What is the likelihood that you would choose to forgive this person?

Not at all Likely	Slightly Likely	Somewhat Likely	Fairly Likely	Very Likely	Extremely Likely
1	2	3	4	5	6

## APPENDIX B

## INTRINSIC/EXTRINSIC RELIGIOUS ORIENTATION SCALE

Please think about each item carefully. Does the attitude or behavior described in the statement apply to you?

	<b>1) I totally disagree</b>	<b>2) I disagree</b>	<b>3) I disagree a bit</b>				
	<b>4) I agree a bit</b>	<b>5) I agree</b>	<b>6) I totally agree</b>				
1. I enjoy reading about my religion. (I)	1	2	3	4	5	6	
2. I go to church because it helps me to make friends. (E)	1	2	3	4	5	6	
3. It doesn't matter what I believe in as long as I'm good. (E)	1	2	3	4	5	6	
4. Sometimes I have to ignore my religious beliefs because of what other people might think of me. (E)	1	2	3	4	5	6	
5. It is important for me to spend time in private thought and prayer. (I)	1	2	3	4	5	6	
6. I would prefer to go to church: (I)	1	2	3	4	5	6	
(1) Never							
(2) a few times a year							
(3) once every month or two							
(4) two or three times a month							
(5) once a week							
(6) more than once a week							
7. I have often had a strong sense of God's presence. (E)	1	2	3	4	5	6	
8. I pray mainly to gain relief and protection. (E)	1	2	3	4	5	6	
9. I try to live all my life according to my religious beliefs. (I)	1	2	3	4	5	6	
10. What religion offers me most is comfort in times of trouble and sorrow. (E)	1	2	3	4	5	6	
11. My religion is important to me because it answers many questions about the meaning of life. (I)	1	2	3	4	5	6	
12. I would rather join a Bible study group than a church social group. (I)	1	2	3	4	5	6	
13. Prayer is for peace and happiness. (E)	1	2	3	4	5	6	

14. Although I am religious, I don't let it affect my daily life. (E)	1	2	3	4	5	6
15. I go to church mostly to spend time with my friends. (E)	1	2	3	4	5	6
16. My whole approach to life is based on my religion. (I)	1	2	3	4	5	6
17. I go to Church/ Mosque mainly because I enjoy seeing people I know there. (E)	1	2	3	4	5	6
18. I pray mainly because I have been taught to pray. (E)	1	2	3	4	5	6
19. Prayers I say when I am alone are as important to me as those I say in church. (I)	1	2	3	4	5	6
20. Although I believe in my religion, many other things are more important in life. (E)	1	2	3	4	5	6