

RELIGIOUS VALUE TRANSMISSION:
AN EXPLORATION OF THE INTERNALIZATION OF CATHOLIC VALUES
IN ADOLESCENCE, YOUNG ADULTHOOD, AND PARENTHOOD

by

JOY LOUISA OTT

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Oakland University
Rochester, Michigan

Doctoral Advisory Committee:

Jennifer Vonk, Ph.D., Chair
Todd Shackelford, Ph.D.
Kanao Taku, Ph.D.

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For my family and my love

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Joy Louisa Ott

ABSTRACT

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JOY LOUISA OTT

Adviser: Jennifer Vonk, Ph.D.

Despite increasingly secular pressures, more Catholics continue to practice the faith in which they were brought up, as compared to members of other Christian denominations. It is of interest to understand what factors contribute to the maintenance of childhood beliefs into adulthood and into one's own childrearing practices, thereby passing those beliefs to the next generation. This dissertation explored religious value transmission through the lens of internalization across three notable life stages in Catholic individuals: young adolescence (Study One), young adulthood (Study Two), and parenthood (Study Three). Across these three stages, the pattern was mostly consistent: parental influence was positively associated with religiosity, and this relationship was generally mediated by identified, but not introjected, internalization.

Study One found that adolescents' perceptions of their parents' religiosity were associated with both introjected and identified internalization. Study Two showed that, while current factors (e.g., peer experience and school affiliation) changed the ways in which parental influence was associated with internalization and religiosity, they did not entirely replace parental influence. Study Three showed that people tend to raise their

children similarly to how they were raised with regards to religion, thereby continuing the cycle of religious value transmission. Apart from two notable deviations (wherein introjection was also a significant mediator), identified, but not introjected, internalization was associated with the religious outcomes throughout the three life stages, highlighting the importance of this fuller form of internalization in religiosity and the continuation of the value transmission cycle.

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LIST OF ABBREVIATIONS

ACM	Autonomous and Controlled Motivations for Agreement with Parental Values
CFPS	Christian Faith Practices Scale
CREI:PC	Childhood Religious Experience Inventory: Primary Caregiver
CREPI	Childhood Religious Experience with Peers Inventory
CRIS	Christian Religious Internalization Scale
GCR	God Conditional Regard
OU	Oakland University (non-religiously affiliated university)
PCA	Principal Component Analysis
PCR	Parental Conditional Regard
SCSRFQ	Santa Clara Strength of Religious Faith Questionnaire
SHU	Sacred Heart University (Catholic affiliated university)

CHAPTER ONE

INTRODUCTION

Recent times have seen a marked decline in religiosity, with each generation less religious than the previous (Francis & Casson, 2019). This trend is evident not only in a decrease in people identifying with the religion of their parents, but also in declining attendance at religious services (Francis & Casson, 2019). Christianity, as a whole, has notably declined in the United States within the past few decades—the percentage of US adults who identify as Christian decreased from 78% in 2007 to 63% in 2021—however, a closer examination reveals that this decline is almost exclusively due to Protestants leaving the faith, not Catholics (Smith, 2021). Protestant identification decreased from 52% to 40%, whereas there was only a 3% decrease for Catholicism (Smith, 2021). Catholicism, therefore, presents a unique case study through which to explore the factors that contribute to the persistence of religious values and the transmission of those values to subsequent generations.

Religion in the Modern World

There have been a variety of hypotheses presented to explain the trend towards secularity in Western society. The *uncertainty hypothesis* suggests that people who are likely to attribute outcomes to uncontrollable forces are more likely to affirm a superstitious or supernatural belief system (e.g., religion; Barber, 2011). Thus, as civilization advances and we learn more about the “uncontrollable” forces of the world and how to control them, the tendency to turn to religion will decrease. This hypothesis is complimented by the *existential security hypothesis*, which suggests that the decrease in

religiosity is tied to advances in technology, which allow for greater control over the natural environment (Barber, 2011). The decline in religiosity is in response to the increased ability of humans to overcome such existential threats as hunger, weather, and diseases (Barber, 2011). These hypotheses do not necessarily imply a causal relationship but, rather, provide a useful framework for understanding the impact of third variables, such as technological and economic advances, on the historic decline in religiosity. This supposition is supported by the observed relationship between religiosity and income. Economic growth and national development are often associated with decreased insecurity for food and shelter, thereby mitigating many existential concerns. On a national level, increased Gross Domestic Product is related to a decline in religiosity (Herzer & Strulik, 2017).

Other researchers have identified increases in education as a factor in the decline in Western religiosity. The relationship between education and technological advances, in conjunction with the seemingly antithetical nature of religious and academic teachings, are often pointed to as evidence of this relationship. However, whereas researchers have claimed that it is a bygone conclusion that education causes a decline in religiosity (Casanova, 1994; Hunter, 1983; Johnson, 1997), recent studies have called this assumption into question. A Canadian study found that higher levels of education were associated with decreased affiliation in non-Catholic Christians later in life; however, they found no evidence of such a decrease in Catholic individuals, which may be attributable to federal subsidization of Catholic-affiliated institutions (Hungerman, 2014). These results were partially echoed by Schwadel (2016) who found within-person decreases in religiosity after graduating from college. Further examination of the results,

however, suggested that this relationship is more nuanced than previously understood. Individuals who attended elite universities showed decreases in religiosity after graduating. A similar post-graduation decline was also observed in those who attended non-elite universities; however, despite this decline, these students still exhibited higher levels of religiosity than individuals who did not pursue any higher education. Moreover, college-educated people, across all religions, are more likely to attend religious services than are non-college educated individuals (Schwadel, 2016). It was suggested that individuals who are more likely to attend college may have traits that align with religious attendance, alongside decreased religious belief (e.g., increased drive for organized social interactions, emphasis on extracurricular pursuits, the search for answers, etc., Schwadel, 2016).

Another possible interpretation is that higher education is linked to greater questioning of religious teachings, rather than the outright disaffiliation from a religion. Higher education facilitates exposure to novel ideas and diverse perspectives, which can provide the impetus for students to reflect on their beliefs (Desmond et al., 2010). This may encourage college students to question and reevaluate long-held beliefs. Moreover, society's secularization and its increasing foothold in higher education may contribute to questioning of religious teachings during the college years.

Modernity is often framed as incompatible with many religious teachings (Assor et al., 2005). This perceived incompatibility may lead parents to feel conflicted about wanting their children to adopt important religious beliefs and wanting them to be acquainted with and assimilated into a secular, modern society. Proponents of secularization often question the value of religion in society. Despite technological

advances and increased security against environmental threats, there remain many uncertainties and unknowns, and religion may provide comfort for the faithful (Maton & Well, 1995). Researchers have linked religious value internalization with increased psychological well-being (Cohen et al., 2009) and greater life satisfaction (Steger & Frazier, 2005). Physical health has also been positively associated with religiosity/spirituality (Lawler-Row, 2010).

Internalization

Internalization is a socialization process whereby individuals learn, evaluate, and acquire the beliefs and behaviors exhibited by those with whom they socialize (e.g., parents, peers, etc.; Flor & Knapp, 2001). This process is not age-specific, nor is it confined to any particular relationship; however, this dissertation focused on parent-child relationships. Whereas the socialization of children is often perceived as a unidirectional process, wherein the parent is the active socializing agent and the child is a passive participant, the process of internalization is better understood as having both parent and child actively participating (Ryan & Powelson, 1991). Grolnick and colleagues (1997) suggested that children are driven to internalize the values of important people in their lives, notably parents. Moreover, Deci and Ryan (2000) suggested that people are motivated to internalize the value of important behaviors (such as attending Mass), even if the behaviors are considered boring. This could be explained by the understanding that, internalization of a value, regardless of the extent to which is it internalized, is necessary for the voluntary performance of a behavior (Assor et al., 2004).

According to Self-Determination Theory, human behavior is motivated by three fundamental needs: the need for autonomy (i.e., the sense that one is in control of one's

choices and actions), the need for competence (i.e., the feeling that one is able to successfully perform desired, autonomous actions), and the need for relatedness (i.e., the desire to feel connected with others, Deci & Ryan, 2000). These three needs are central to understanding how and why people internalize certain values. There are four loci of regulation along a continuum of increasing internalization (Deci & Ryan, 2000). Each type of internalization differs with regard to the behavioral regulation and demonstrated values. Moreover, the internalization can vary based on the perceived autonomy and personal volition associated with each behavior (Assor et al., 2004, Brambilla et al., 2015). Each of the four types of internalization can be explained based on three processes: behavioral regulation, associated value, and perceived autonomy.

External Regulation

The least internalized type of regulation is external regulation (Deci & Ryan, 2000). This form of regulation technically occurs outside the context of internalization. Behaviors that are controlled through external regulation are performed because of the presence of some external contingency or authority figure (Ryan & Connell, 1989). For example, a child may pray before a meal *only* when their parents are present to ensure that the behavior is enacted. Behaviors that are externally regulated are entirely controlled, as they are demonstrated only in the presence of the contingency dictating the performance of the behavior (Assor et al., 2005; Grolnick & Ryan, 1989; Ryan & Connell, 1989).

Introjected Internalization

Introjection is the least effective type of internalization (Assor et al., 2004). It is characterized by the superficial internalization and regulation of a value. Although a

person takes on the value, they do so rigidly and without accepting the value as their own. Instead of facing external pressures to comply, these compulsions are moved inwards (thus, the internal nature of this regulation). Instead of a parent compelling the child to pray, the pressure to do so is reliant upon internal contingencies of worth, self-esteem, self-acceptance, and guilt (Assor et al., 2004; 2005; Brambilla et al., 2015; Roth, 2008). People behave in certain ways because they feel that they ought to, or they would feel guilty otherwise (Assor et al., 2005). Whereas introjection is not reliant upon external contingencies to maintain desired behaviors—as is true with external regulation—it is still a highly controlled form of internalization, because it is reliant upon internal compulsions to maintain behaviors (Assor et al., 2004).

Because of the rigidity with which values are introjected, they may be susceptible to external influences and contradictory ideas and, thus, are less robust in the long-term (Assor et al., 2005). Alternatively, because of the strong emotional contingencies linking feelings of self-worth and guilt to certain behaviors, people may be more motivated to maintain rather than abandon their values (Assor et al., 2005). Despite the seeming efficacy of introjected regulation—that behaviors are maintained and performed—there are adverse consequences associated with this type of internalization. Ryan and colleagues (1993) found a negative correlation between introjected internalization and indicators of well-being. Researchers have pointed to the negative consequences of shame and guilt as evidence of the problematic nature of introjection (Assor et al., 2004). In a study examining internalization and academic performance, Cohen and colleagues (2009) found that introjection was strongly associated with increased school and test

anxiety, suggesting that the inner compulsions characteristic of this type of regulation can lead to negative affective consequences (Assor et al., 2004).

Identified Internalization

A type of internalization associated with more positive affective outcomes than introjection is identified internalization (Deci & Ryan, 2000). Behaviors regulated by identification are performed because the person understands and maintains the value associated with the behavior (Assor et al., 2004; 2005). A child may pray because they value the “connection with God” that they believe the behavior affords them. Moreover, they understand and accept the perceived moral goodness associated with the behavior (Knafo & Assor, 2007). The understanding and acceptance of the values associated with the behaviors allows for abstract and flexible thoughts, resulting in a more cohesive and stronger internalization of the value than the rigidly held values that introjection may provide (Soenens et al., 2012). Identification results in greater feelings of autonomy in comparison to introjected internalization, the latter of which is accompanied by feelings of coercion, control, and guilt (Brambilla et al., 2015, Cohen et al., 2009; Deci & Ryan, 2000). For these reasons, identified internalization is often considered to be a more desirable form of internalization.

Whereas introjection is associated with negative affective outcomes, identified internalization is positively associated with indicators of well-being and negatively associated with depression and anxiety (Neyrinck et al., 2006; Ryan et al., 1993). In the same study that examined the impact of internalization on academic performance, Cohen and colleagues (2009) found the opposite pattern for identified internalization: individuals showed greater school enjoyment and lower test anxiety. Whereas these are

all important metrics of the benefits of identified internalization, researchers have also highlighted a possible downside of identification: people may experience a sense of tension when identified values conflict with one another (reviewed in Assor et al., 2005). For example, a person's adherence to religious doctrine can conflict with other established values, such as personal autonomy. Although holding conflicting beliefs is not uncommon, researchers have suggested that the cognitive framework necessary to maintain these conflicting views is beyond that of identified internalization (Assor et al., 2005; Deci & Ryan, 2000). Grolnick and colleagues (1997) used the term "mutual assimilation" to describe the process of prioritizing and modifying values and behaviors in a way that accentuates the most important values, while also maintaining an authentic sense of autonomy.

Integrated Internalization

Integrated regulation is the strongest form of internalization, and allows people to resolve inconsistencies and assimilate disparate values (Assor et al., 2005). Integration allows for the consistent holding of potentially contradictory identified values, as they are integrated with other aspects of the self, including prior lived experiences and personality, leading to a more complete internalization and appreciation of the value (Assor et al., 2004; 2005; Knafo & Assor, 2007; Roth, 2008). Similar to identified regulation, integrated regulation is autonomous and self-determined (Assor et al., 2004; 2005; Grolnick et al., 1997). Integrated internalization represents the fullest form of internalization, with the values that are integrated residing at the top of a person's self-defined value hierarchy (Brambilla et al., 2015).

Religious Value Transmission

Religious value transmission is a process by which individuals impart their religious beliefs and behaviors to others (Bader & Desmond, 2006; Knafo & Galansky, 2008). Individual faith development involves the discernment of one's own morals, ethics, and identity (Fowler, 1981). Both of these processes are central to understanding how values persist from generation to generation.

There is some contention as to the relative contribution of shared genes versus shared experiences/environments on value transmission, particularly as it relates to religion (Bradshaw & Ellison, 2008; Waller et al., 1990). A major critique of the value transmission literature is that few studies incorporate genetic controls to parse out the influence of shared genes. Studies often draw causal conclusions between parent actions and child responses without considering the alternative explanation that children are like their parents because they share genes (Bradshaw & Ellison, 2008). Behavioral genetic controls are accomplished by analyzing data from two or more individuals with varying degrees of genetic relatedness (e.g., identical versus fraternal twins; Bradshaw & Ellison, 2008). Such an approach allows researchers to determine the amount of variance in a trait that is accounted for by shared environment, nonshared environment, and genetic influences. Shared environmental influences are nongenetic social influences common to a family unit, such as parenting practices and styles (Alford et al., 2005). Nonshared environmental influences are unique to an individual and may lead to trait dissimilarities between individuals, such as friendships (Alford et al., 2005).

Based on results from studies with proper behavioral genetic controls, the relative influence of genetics and shared environment appears to change throughout life (Eaves et

al., 2008; Koenig et al., 2005; 2009). During childhood and adolescence, shared environmental influence accounts for most of the variation in religiosity (Eaves et al., 2008; Koenig et al., 2005), with some studies even finding no evidence for genetic influence during this period (Abrahamson et al., 2002; Hatemi et al., 2009). In adulthood, on the other hand, genetic and nonshared influences account for a far larger proportion of variation in religiosity than does shared environmental influence (Abrahamson et al., 2002; Bradshaw & Ellison, 2008; Hatemi et al., 2009). Although there seems to be a consensus as to the trajectory that genetic influence takes from childhood to adulthood, estimates of heritability on adult religiosity vary extensively from study to study. Estimates range from a modest 19% to a sizeable 65% (Bradshaw & Ellison, 2008; Harden, 2010; Koenig et al., 2005; Polderman et al., 2015), thereby leaving anywhere from 35 to 81% of the variability in religiosity to be attributed to other factors, such as shared and nonshared environments (Bradshaw & Ellison, 2008; Harden, 2010). Therefore, while it is important to recognize that genetics play a significant (and often overlooked) role in religiosity and its transmission, it is prudent to explore other possible explanations for intergenerational similarities.

This dissertation focused on internalization as a possible explanation for intergenerational similarities and value transmission. Understanding the relative associations between parental influence, an individual's level of internalization, and their religiosity can indicate factors that may contribute to value transmission across generations. Identified internalization is often heralded as a more efficacious form of internalization, compared to introjection, because behaviors regulated under this fuller form of internalization are performed with a greater sense of autonomy (Ryan & Deci,

2000). People for whom their religious values are more fully internalized tend to demonstrate stronger adherences to religious tenets and engage in religious behaviors more frequently (Neyrinck et al., 2006). Despite it being a more controlled and superficial form of internalization, introjection is also frequently implicated in behavioral outcomes. Despite the feelings of control inherent to this form of internalization, internal compulsions can also be strong motivators of behavior (Assor et al., 2005).

To facilitate the identification and integration of values, fostering a sense of choice and supporting children's autonomy may provide important requisites for these forms of regulation to develop (Assor et al., 2004, Brambilla et al., 2015; Roth, 2008). Autonomy-supportive parenting involves a variety of child-oriented practices, such as providing a rationale for established rules, taking the child's perspective, and allowing for criticisms and independent thought (Cohen et al., 2009; Deci et al., 1994; Grolnick et al., 1997; Roth, 2008; Soenens et al., 2012). Instead of relying on blind compliance with rules, autonomy-supportive parenting is associated with children internally regulating desired behaviors, thus fostering autonomous rather than controlled loci of regulation (Cohen et al., 2009). Researchers found a positive association between parents acting in accord with this practice and their children demonstrating identified and integrated regulation, whereas more controlling practices were associated with the development of more external or introjected loci of regulation in children (Assor et al., 2004; 2005; Grolnick & Ryan, 1989).

Despite the correlation between parental autonomy provision and the identification/integration of values, there is evidence to support the need for some level of parental control. Bader and Desmond (2006) found a tendency for children to attend

church less and place less importance on religiosity when they were subject to fewer rules growing up. It is possible that allowing children full autonomy in choosing their behaviors may be associated with a decline in religiosity and internalization.

“Affectionate constraint” is a parenting practice characterized by a mixture of care and control, and it is associated with high levels of enthusiastic church attendance among adolescents (Dudley & Wisbey, 2000). Humans are motivated by the need for autonomy, competence, and relatedness (Deci & Ryan, 2000). Affectionate constraint may strike a balance between encouraging autonomy and providing sufficient structure to aid in the development of competency, all without sacrificing feelings of relatedness within the parent-child relationship.

There are three distinct parenting styles—permissive, authoritarian, and authoritative—that can be described along two dimensions: warmth and control (Baumrind, 1968; 1991). Drawing on Deci and Ryan’s (2000) fundamental needs, warmth closely parallels the need for relatedness, and the need for autonomy is inversely related to parental control. Authoritarian parenting is characterized by high control and low warmth, whereas permissive parenting is the opposite, with low control and high warmth. Authoritative parenting can be seen as the middle ground, with high warmth and moderate, but meaningful control. The combination of high warmth and structure, characteristic of authoritative parenting, has been associated with value development and internalization in children (Dudley & Wisbey, 2000; Luft & Sorell, 1987; Martinez et al., 2020; Williams & Ciarrochi, 2019). Recent studies have found a positive association between internalization and permissive parenting, not just authoritative parenting (Martinez et al., 2020; Williams & Ciarrochi, 2019). This suggests that children’s need

for relatedness may play a larger role in their value internalization than the structure and control imposed by parents.

As it relates to religion, it is critical to understand how parenting styles and practices are associated with internalization and religious value development, as they may be associated with the ways in which children perceive and interact with God, who is regarded as a father figure by the Catholic Church. Research has shown a link between children's perceptions of their parents and their perceptions of God (Assor et al., 2005; Horwath et al., 2008). If children perceive their parents as controlling, they also perceive God as controlling. This latter perception could interfere with the child's perceived relationship with God and, by extension, their faith.

Catholicism is understudied as a unique sect of Christianity as it is often not differentiated in studies of Christianity (Agoncillo, 2015). There are, however, several dogmatic differences that distinguish Catholicism from Protestantism and other denominations. Although Christians share a common set of beliefs, the denominations approach salvation in slightly different ways (Del Rosario, 2014). Protestants believe salvation is a point in time when God declares a person to be righteous based on their faith alone. In contrast, Catholics believe salvation is an ongoing process, whereby faith alone is not sufficient, but is dependent on participation in church and the sacraments (Del Rosario, 2014). One such sacrament is reconciliation, wherein people confess their sins to a priest. Priests, who are referred to as "father," are considered authority figures in the church, and are part of a larger hierarchy headed by the pope, the ultimate authority in the Catholic church. In contrast, non-Catholic denominations do not have the sacrament of reconciliation and instead confess their sins either to one another or directly to God,

not to an ordained authority figure (Del Rosario, 204). Another notable distinction, especially when discussing the role parents may play in their children's religiosity, is the importance the Catholic church places on Mary, the mother of Jesus. Whereas Protestants recognize her role as mother of Jesus, she is not venerated in the same way as she is among Catholics. Not only is she raised to the status of "Queen of Heaven, Mother of God" in the Catholic church, but she also is considered to be the mother of the Church (and by extension the mother to all the faithful; Del Rosario, 2014). One of the most widespread prayers used by Catholics is the Hail Mary, which calls on Mary to intercede on one's behalf to God, her son (Roten, n.d.).

These dogmatic differences between Catholicism and other Christian denominations support the suggestion that additional research might investigate Catholicism separately, as there may be notable differences in religious transmission. Moreover, there are different rates of disaffiliation between Catholics and Protestants (Smith, 2021). Thus, there may be consequential differences in how the different denominations transmit beliefs to the next generation, supporting the need for more focused attention to Catholicism in the research literature.

This dissertation explored the development, internalization, and transmission of religious values during three major life stages in three separate studies of Catholic individuals. Study One focused on adolescents at the end of their formal religious education who were about to be "confirmed" (i.e., formally accepted) into the Church. Study Two focused on young adults, particularly college students, as a decline in religiosity is often observed during this period. This period is also marked by a decrease in parental oversight and an increase in peer influence, self-exploration, and value

reevaluation (Desmond et al., 2010). The final study, Study Three, investigated parents, the purported agents of religious transmission and socialization. In combination, these studies provide a unique and more complete understanding of how parental influence may be associated with religiosity and with value transmission across different life stages in Catholic individuals. Moreover, these studies explored the mediating role of internalization in this association, presenting a plausible construct underlying value transmission.

CHAPTER TWO

STUDY ONE: EARLY ADOLESCENCE

Researchers have argued that parents play an important role in transmitting values to their children (Bader & Desmond, 2006; Dudley & Dudley, 1986; Francis & Casson, 2019; Hardy et al., 2011; Myers, 1996). The family unit is often the first context in which values are perceived and experienced (Myers, 1996). The Catholic church has asserted the importance of parents and has placed the faith formation of the youth and, by extension, the support of parents at the forefront of their core missions. Many of the important documents regarding religious education of young people in the Catholic Church have focused on the collaboration of parents, affiliated schools, and the church in effective faith formation (Francis & Casson, 2019). Vatican Two referred to the family unit as the “domestic church,” in that parents and primary caregivers are meant to be the primary educators of the faith for their children (Francis & Casson, 2019). Failing this, it is the responsibility of the Church to supplement what the family cannot provide (Francis & Casson, 2019). However, in baptizing their children, parents make a promise to God to raise and educate their children in the Catholic faith, indicating that the onus is primarily on the parents.

Most socialization models consider religious transmission to be unidirectional, in that parents transmit values to their children, who passively internalize the values (Flor & Knapp, 2001). Apart from the notable lack of genetic controls in the development of these models (Bradshaw & Ellison, 2008; Waller et al., 1990), the main issue is that, based on our understanding of the internalization process, active participation seems

necessary for the higher, more autonomous forms of internalization. Grolnick and colleagues (1997) summarized this distinction, suggesting that although parents can teach their children the beliefs that they value, it is up to the children to accept those values as their own. Parents should be seen as supporting, rather than actively driving, the process of internalization. They may introduce and encourage important values to their children, but the onus is on the child to elaborate on and accept the values as their own. In a retrospective study, it was found that, whereas there was a high level of conformity to parental beliefs for general moral standards, religious beliefs, in particular, were unrelated to parental authority or expectations and may be adopted independently of parental beliefs (Vonk et al., 2019). The internalization of religious beliefs, as compared to other values, thus may be more complex.

The role that parents play in the religious socialization of their children has been investigated for several decades, although without proper behavioral genetic controls this research cannot address the causal role of parental socialization on children's religious beliefs. Nevertheless, researchers often point to high congruence of specific values between parent and child as evidence of successful value transmission (Bader & Desmond, 2006). There are, however, many questions as to the process of value transmission and the efficacy of different practices. Assor and colleagues (2005) outlined three autonomy-supportive practices that may aid in effective socialization: providing a rationale, encouraging critical thought, and demonstrating the intrinsic values of religious practices. These can be simplified into two main practices: engaging in religious discussions and modeling religious behaviors with their children (Assor et al., 2005; reviewed in Tratner et al., 2020).

Whereas introjected internalization is dependent on internal contingencies and feelings of coercion in directing behaviors, identified and integrated regulation each require a deeper understanding of the values manifested in the specific behaviors (Assor et al., 2004; 2005). Thus, in the absence of meaningful discussions and rationale supporting specific practices, it is unlikely that a fuller form of internalization will occur. Fisher (1988) found that intergenerational similarity of specific attitudes was related to the frequency with which parents and children communicated. Pinquart and Sibereisen (2004) suggested that topics must be relevant and salient to both the children and parents for effective discussions to occur. Moreover, Flor and Knapp (2001) found that children's religious behaviors and the associated values expressed in these behaviors both positively correlated with the frequency and bidirectionality of parent-child religious discussions. These results suggest that, not only should parents provide meaningful rationales for religious practices, but they should also work to meaningfully incorporate their children in the discussions. Instead of lecturing, they should converse.

Conversations about religion, while important, are only one piece of the socialization puzzle, as modeling of behaviors is also important. Many researchers have found an association between children's internalization of religious values and their parents' performance of religious behaviors (Assor et al., 2005; Francis & Brown, 1991; King et al., 2002; Pasternak, 2014). From a social learning perspective, people learn much of their behaviors through observation and modeling (Pasternak, 2014). This is especially true if the modeled behavior is rewarded and perceived positively (Bandura, 2007). However, without proper behavioral genetic controls, it is possible that such outcomes are more attributable to genetic overlap, than parental modeling.

In a 2019 review of Catholic youth behaviors, adolescents who attended church frequently indicated they did so because their parents were also church goers (Francis & Casson, 2019). It is, however, not simply the performance of a behavior that supports enhanced transmissibility. The parent must simultaneously demonstrate the intrinsic value of performing the behavior (Assor et al., 2005). If it is a boring behavior, simply performing it is unlikely to encourage fuller internalization of the relevant value. It is instead when parents demonstrate satisfaction with and enjoyment of participating in the behavior that it is more likely to result in the children sharing in that feeling (Bader & Desmond, 2006; Brambilla et al., 2015). Previous research has also shown that children tend to replicate their parents' beliefs and behaviors more when they are consistent (e.g., "practicing what they preach") rather than inconsistent (e.g., "do as I say, not as I do"; Bader & Desmond, 2006).

The present study built on Bader and Desmond's (2006) findings in Catholic parent-child dyads, by assessing adolescent perceptions of their parent's religious beliefs and behaviors, and how those perceptions were associated with internalization and religiosity. It was hypothesized that perceptions of parental beliefs would be associated with adolescent beliefs, as well as with their anticipated future religious behaviors (i.e., when they start high school). Internalization was hypothesized to mediate these associations; however, there were no *a priori* predictions as to how the forms of internalization (i.e., introjection and identification) would differ in their respective mediations. To assess the importance of parents practicing what they preach, perceptions of parental public and private behaviors were included as moderators. It was hypothesized that the associations between perceived parental beliefs, the mediators (i.e.,

internalization), and outcomes (i.e., adolescent beliefs and anticipated future behaviors) would depend on perceived parental behavior, such that they were significant only when parental behavior was reported to be high. The model assessed in this study is illustrated in Figure 1. Parents' self-reported beliefs and behaviors were collected to assess the accuracy of their children's perceptions. Studies on value transmission often rely on participants' perceptions of other people's beliefs without regard for the accuracy of such perceptions (Dudley & Wisbey, 2000). The current study had the strength of including both parents' reports of their own beliefs and behaviors, and children's reported perceptions of their parents' beliefs and behaviors. It was hypothesized that children's perceptions of their parent's beliefs and behaviors would positively and strongly correlate with their parents' self-reports. These perceptions then formed the basis for predicting levels of internalization and subsequent beliefs and anticipated future behaviors.

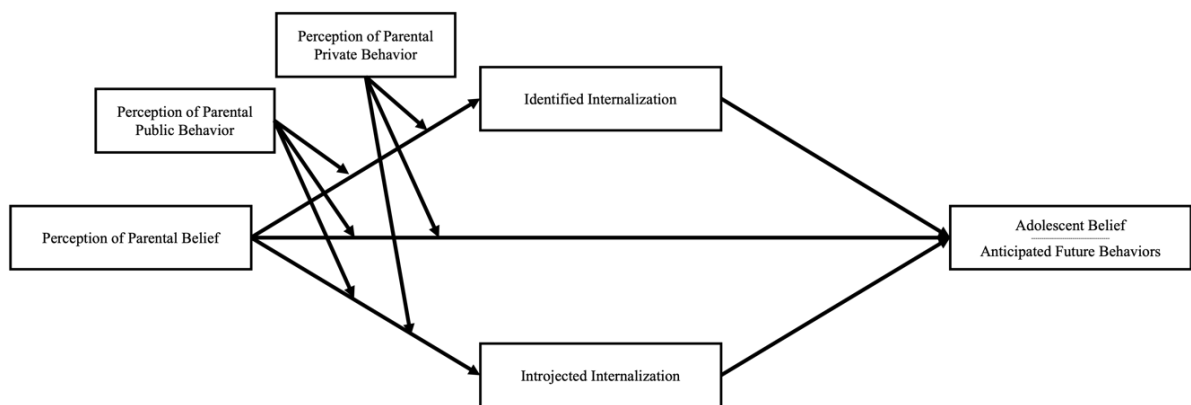


Figure 1. Moderated Mediation Model for Study One: Adolescence

Method

Participants and Procedure

A total of 41 parents and 33 young adolescents were recruited for this study. For parents' responses to be included in the analyses, their child also needed to have completed their survey. For this reason, eight parent responses were excluded from the analyses. Responses from three adolescents and their respective parents were excluded because the adolescent either did not pass the attention checks (two participants) or did not provide responses on the scales used in the analyses (one participant). This resulted in data from 30 parent-child dyads that were included in analyses. The adolescent sample was composed of 15 males and 15 females, with an average age of 13.65 years ($SD = 0.37$). All 30 participants reported that they were white, with three participants also indicating mixed ethnicity (American Indian/Alaska Native = 1; Black = 1; Asian = 1). The parent sample included 24 females and 6 males, with an average age of 44.72 years ($SD = 4.71$). Similar to the adolescent sample, all 30 participants indicated that they were white, with two participants indicating mixed ethnicity (American Indian/Alaska Native = 1; Asian = 1).

Participants were recruited from the Family of Parishes Faith Formation Group encompassing four parishes in the Detroit Archdiocese of the Catholic Church. This community sample was relatively small, which limited the overall sample size for this study. The focus of this study was eighth grade children who were at the end of their formal religious education and were about to be confirmed into the Catholic church. Most participants (26 parent-child dyads) were recruited during a religious education "family night." Eighth graders and their parents were asked to voluntarily complete a short

survey. They were then given a QR code to scan, directing them to the online survey. One primary caregiver per child was asked to provide consent/assent for both them and their child to complete the survey. In conjunction with providing consent/assent, parents were given a unique connection code that matched the code given to their child; this allowed parent and child responses to be paired. Parents and children completed their respective surveys in separate locations to ensure that there was no undue influence from either participant. Participants completed the survey either on their personal smart phones or on computers provided via a secure website (Qualtrics). The survey for the parents included questions relating to their own and their child's demographic information and measures examining their own religious beliefs and practices. The survey for the eighth graders contained questions relating to their perceptions of their parents' beliefs and behaviors, along with their own religious value internalization, beliefs, and behaviors. The remaining four parent-child dyads were recruited via email prior to the in-person recruitment. The general procedure was the same; however, a researcher was not present to ensure that the parent and child completed the surveys in separate locations. Moreover, the Santa Clara Strength of Religious Faith Questionnaire was not included in this initial survey. Participants' scores on this scale were used as the outcome for the belief moderated mediation model. Therefore, data from these four participants were included in only the anticipated future behaviors model.

Measures (completed by the parent)

Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ). This 10-item scale (Plante & Boccaccini, 1997) was used to measure strength of religious beliefs ($\alpha = .96$). The items on this scale focus on how religious faith is interwoven into a

person's identity, rather than on beliefs in specific dogma of the church. These self-reports were compared to simplified responses from the child (e.g., "How important do you think religion is to your primary caregiver?") to determine the accuracy of children's perceptions of their parents' beliefs. As the questions asked of the children are broad, and not focused on specific beliefs, this scale allowed for a comparison between parents' self-reports and children's perceptions. Moreover, a focus on religion as a component of a parent's identity aligned with the aim of this study to examine value internalization. Illustrative items include, "I look to my faith as a source of comfort" and "my faith is an important part of who I am as a person." Each item was rated on a Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*).

Christian Faith Practices Scale (CFPS). This modified 12-item scale (Sherr et al., 2009) measures the frequency with which participants engage in a variety of activities associated with Christian values ($\alpha = .77$). Minor modifications were made to reflect specifically Catholic practices (e.g., "I attend Mass each week" modified from "I attend weekly worship services"). In addition to traditionally religious behaviors, this scale incorporates behaviors that are often associated with being a "good Christian," but not considered to be specifically religious, such as, "I encourage others, especially when they fail" and "I volunteer time to help those less fortunate." Participants rated each item based on how frequently they currently participated in each practice, ranging from 1 (*never*) to 7 (*always*).

Demographic Information. Participants completed questions about their demographic information including gender, age, ethnicity, and some other questions not discussed in further detail here.

Additional Measures. Adult participants completed the Parental Conditional Regard Questionnaire (PCR; Itzhaki et al., 2018), and the Childhood Religious Experience Inventory (CREI:PC; Tratner et al., 2017a); however, data from these measures were not analyzed here in the interest of parsimony.

Measures (completed by the child)

In addition to the following validated scales, adolescent participants were asked a series of questions about their perceptions of their parent's beliefs and behaviors. They were asked to rate how important religion is to their parent on a scale of 1 (*not at all important*) to 5 (*very important*). They were also asked to indicate the frequency with which their parent attends Mass (as a measure of public religious behavior), and how often their parent discusses religion outside of church (as a measure of private religious behavior). They were asked to reflect on their own beliefs and behaviors, indicating the importance they place on religion and the frequency with which they attend Mass and pray individually outside church. Finally, they were asked to indicate how often they anticipate they will attend Mass in high school on a scale of 1 (*a lot less than I do now*) to 5 (*a lot more than I do now*).

Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ). The same 10-item scale (Plante & Boccaccini, 1997) was used to measure strength of religious beliefs for the eighth graders ($\alpha = .86$). The items on this scale focus on how religious faith is interwoven into a person's identity, rather than beliefs in specific dogma of the church. A focus on religion as a component of an adolescent's identity aligned with the aim of this study to examine value internalization. Illustrative items include, "I look to my faith as a source of comfort" and "my faith is an important part of who I am as a

person.” Each item was rated on a Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*).

Autonomous and Controlled Motivations for Agreement with Parental Values (ACM). Participants’ justification for adherence to, and agreement with their parents’ values while growing up was measured using a 12-item scale, developed by Knafo and Assor (2007). This scale differentiates between controlled (6 items; $\alpha = .82$) and autonomous motivations (6 items; $\alpha = .87$). Although the authors developed items to reflect the four loci of regulation, they found only two factors when conducting an exploratory factor analysis (external and introjected were operationalized as “controlled motivations,” identified and integrated were operationalized as “autonomous motivations”). Illustrative items for controlled motivations include: “so that my parents would give me what I wanted” and “because otherwise I would feel bad about myself.” Illustrative items for autonomous motivations include: “because I thought my parents’ values were just,” and “because my parents’ values matched my natural tendencies.” Each item was rated on a Likert-type scale, ranging from 1 (*do not agree at all*) to 7 (*completely agree*).

Christian Religious Internalization Scale (CRIS). This 12-item scale (Ryan et al., 1993) consists of two subscales for measuring introjected (6 items; $\alpha = .81$) and identified (6 items; $\alpha = .86$) regulation of behaviors relating specifically to Christian religious beliefs. An illustrative item for introjected regulation is, “I think praying by myself is important because if I don’t, God will disapprove of me” and an illustrative item for identified regulation is, “when I turn to God, I most often do it because I enjoy

spending time with Him.” Each item was rated on Likert-type scale, ranging from 1 (*not at all true*) to 7 (*very true*).

Additional Measures. Participants completed a series of scales, the data from which were not analyzed here in the interest of parsimony. These included the Childhood Religious Experiences Inventory: Primary Caregiver (CREI:PC; Tratner et al., 2017a), the Parental Conditional Regard Questionnaire (PCR; Itzhaki et al., 2018), and the God Conditional Regard Questionnaire (GCR; modified from Itzhaki et al., 2018).

General Analytic Approach

Correlation analyses were completed to determine the level of agreement between the measures completed by the parent and the child.

Data Reduction. Because two scales (ACM and CRIS) were used to capture two constructs—identified and introjected internalization—a principal components analysis (PCA) was conducted with all 24 items from both measures with a promax rotation restricting the outcome to two components and including items with eigenvalues greater than 1.0. All factor loadings were greater than the minimum cut-off, which was set at .4. The first extracted component included items reflecting autonomous motivations (on the ACM) and identified internalization (on the CRIS). The second extracted component included items reflecting controlled motivations (on the ACM) and introjected internalization (on the CRIS). Only item 10 on the CRIS (“one reason I think it is important to actively share my faith with others is because if I don’t, God will disapprove of me.”) loaded on both factors. The choice was made to include this item in the introjected composite measure, in alignment with the source material (Ryan et al., 1993). The results of the PCA supported the decision to create two composite scores, one for

identified internalization and one for introjected internalization. These standardized composite scores served as mediators in the following models.

Tests of Mediation and Moderated Mediation. Two primary outcomes were explored in this study: children's self-reported current beliefs, as measured by the SCSRFQ, and children's anticipated religious attendance as they enter high school. Perceptions of parental beliefs served as the predictor in separate mediation analyses for each outcome. Identified and introjected internalization were treated as mediators in each model using model four of the PROCESS macro developed by Hayes (2012), which uses a bootstrap resampling procedure that was repeated 5,000 times to generate 95% confidence intervals (CIs). Indirect effects were considered significant if the CIs did not contain zero.

Additionally, two moderated mediation analyses were conducted using model 10 of the same PROCESS macro (Hayes, 2012) to determine whether the strength of the indirect (mediation) and direct effects would differ in accordance with children's perceptions of parental public religious behaviors and private religious behaviors. That is, perceptions of public and private behaviors were tested as moderators of the associations between perceptions of parental beliefs and children's levels of introjected internalization and identified internalization, and the predictors.

Results

Descriptive Statistics and Correlations

The means, standard deviations (*SDs*), and zero-order correlations for the variables are displayed in Table 1. Self-reported belief scores for both parent and child were calculated using the SCSRFQ and self-reported parental religious behavior was

measured using the CFPS. Children's responses to the following questions: "how important is religion to your primary caregiver?," "how frequently does your primary caregiver attend Mass?," and "how frequently does your primary caregiver discuss religion outside of church?," were used as measures of their perceptions of parental beliefs, parental public behaviors, and parental private behaviors, respectively. Whereas children were asked separately about their perceptions of parental public and private religious behaviors, the CFPS does not differentiate between these types of behaviors; instead, it provides a single measure of religious behaviors. A visual examination of the histograms and Q-Q plots, as well as assessments for skew and kurtosis, showed that the data met the assumption of normality.

An inspection of the correlation matrix reveals that children's perceptions of their parents' beliefs and behaviors were not significantly correlated with their parents' self-reported beliefs ($r = .04, p = .858$), public behaviors ($r = .27, p = .210$), or private behaviors ($r = -.08, p = .702$). Children's perceptions of parental beliefs were significantly correlated with their perceptions of parental public behaviors ($r = .55, p = .001$), which, in turn, were positively correlated with perceptions of parental private behaviors ($r = .49, p = .006$). Similarly, parents' perceptions of their own beliefs and behaviors were also positively correlated ($r = .56, p = .003$). Lastly, children's own self-reported beliefs were significantly positively correlated with their perceptions of parental beliefs ($r = .40, p = .040$) and their level of identified internalization ($r = .54, p = .004$).

Table 1. Zero order correlations and descriptive statistics for Study One: Adolescence
 $*p < .05$. $**p < .01$. $***p < .001$.

	1	2	3	4	5	6	7	8	9
<u>Perceptions of Parental...</u>									
1. ...Belief	---								
2. ...Public Behavior	.54**	---							
3. ...Private Behavior	.34	.49**	---						
<u>Internalization</u>									
4. Identified	.26	.20	.20	---					
5. Introjected	.17	.09	.04	-.10	---				
<u>Child Self-Reported</u>									
6. Belief	.40*	.26	-.01	.54**	.15	---			
7. Anticipated Future Behavior	.02	.17	.38*	.02	.02	.26	---		
<u>Parent Self-Reported</u>									
8. Belief	.04	.37	.07	-.01	-.06	.31	.08	---	
9. Behavior	.05	.27	-.08	-.17	.07	.09	-.21	.56**	---
Mean	4.71	4.90	2.06	5.05	3.98	3.01	3.16	3.38	3.52
Standard Deviation	0.53	1.17	1.03	0.97	1.13	0.39	0.82	0.62	0.84
Minimum	3	2	1	2.4	1.1	2.4	1	1	2
Maximum	5	6	4	6.9	5.9	4	5	4	5.1

Tests of Mediation and Moderated Mediation

Belief.

Mediation. The results were not consistent with an indirect effects model. The results of this analysis show that perceptions of parental belief were not significantly associated with identified ($a_1 = 0.292$, $t(24) = 1.490$, $p = .149$) or introjected internalization ($a_2 = 0.193$, $t(24) = 0.901$, $p = .377$). Identified internalization was, however, significantly positively associated with child beliefs ($b_1 = 0.626$, $t(22) = 3.284$,

$p = .003$). The association between introjected internalization and child belief was not significant ($b_2 = 0.197$, $t(22) = 1.132$, $p = .270$). The association between perception of parental belief and child belief was significant when the mediators were not included in the model ($c = 0.513$, $t(24) = 2.446$, $p = .022$), but not when they were ($c' = 0.292$, $t(22) = 1.518$, $p = .143$). Tests of mediation suggest that perceptions of parental beliefs did not have a significant association with child beliefs through either identified internalization ($a_1b_1 = 0.183$, $p = .191$, 95% CI: [-0.037, 0.534]) or introjected internalization ($a_2b_2 = 0.066$, $p = .562$, 95% CI: [-0.051, 0.216]).

Moderated Mediation. Neither perceptions of parental beliefs ($a_1 = 0.024$, $t(20) = 0.076$, $p = .940$), perceptions of parental public behaviors ($\beta = 0.078$, $t(20) = 0.321$, $p = .751$), nor perceptions of parental private behaviors ($\beta = 0.257$, $t(20) = 1.187$, $p = .249$) predicted identified internalization. Moreover, neither the interaction between perceptions of parental beliefs and public behaviors ($\beta = -0.005$, $t(20) = -0.228$, $p = .985$), nor the interaction between perceptions of parental beliefs and private behavior ($\beta = -0.313$, $t(20) = -1.137$, $p = .269$) predicted identified internalization.

Similar results were found for introjected internalization, in that neither perceptions of parental beliefs ($a_2 = 0.341$, $t(20) = 1.019$, $p = .320$), perceptions of parental public behaviors ($\beta = -0.132$, $t(20) = -0.559$, $p = .582$), nor perceptions of parental private behaviors ($\beta = -0.145$, $t(20) = -0.624$, $p = .540$) predicted introjected internalization. Moreover, neither the interaction between perceptions of parental beliefs and public behaviors ($\beta = -0.263$, $t(20) = -1.074$, $p = .296$), nor the interaction between perceptions of parental beliefs and private behaviors ($\beta = 0.441$, $t(20) = 1.493$, $p = .151$), predicted introjected internalization.

Whereas perceptions of parental beliefs ($\beta = 0.540, t(18) = 1.955, p = .066$) and perceptions of parental private behaviors ($\beta = -0.396, t(18) = -2.038, p = .057$) were marginally significant in their associations with child beliefs, perceptions of parental public behaviors ($\beta = 0.056, t(18) = 0.291, p = .774$) was not significantly associated with child beliefs. Neither the interaction between perceptions of parental beliefs and public behaviors ($\beta = 0.009, t(18) = 0.046, p = .964$) nor the interaction between perceptions of parental beliefs and private behaviors ($\beta = 0.380, t(18) = 1.484, p = .155$) predicted child beliefs. Moreover, identified internalization ($\beta = 0.746, t(18) = 3.838, p = .001$), but not introjected internalization ($\beta = 0.108, t(18) = 0.595, p = .559$) was positively associated with child beliefs.

The index of moderated mediation was not significant for identified internalization (perceptions of public behaviors: $\beta = -0.003, 95\% \text{ CI } [-0.665, 0.401]$; perceptions of private behaviors: $\beta = -0.234, 95\% \text{ CI } [-1.128, 0.034]$) nor introjected internalization (perceptions of public behaviors: $\beta = -0.028, 95\% \text{ CI } [-0.323, 0.184]$; perceptions of private behaviors: $\beta = 0.048, 95\% \text{ CI } [-0.236, 0.333]$).

Anticipated Future Religious Behavior.

Mediation. The results were not consistent with an indirect effects model. Perception of parental beliefs was positively associated with both identified ($a_1 = 0.476, t(28) = 2.908, p = .007$) and introjected internalization ($a_2 = 0.427, t(28) = 2.536, p = .017$). However, neither identified ($b_1 = 0.073, t(26) = 0.368, p = .716$) nor introjected internalization ($b_2 = 0.051, t(26) = 0.240, p = .812$) were significantly associated with anticipated future religious behaviors. Moreover, the association between perceptions of parental beliefs and anticipated future religious behaviors was not significant when the

mediators were controlled for ($c' = 0.052$, $t(26) = 0.240$, $p = .812$) nor when the mediators were excluded from the model ($c = 0.085$, $t(28) = 0.518$, $p = .609$). Tests of mediation suggest that perceptions of parental beliefs did not have a significant association with anticipated future religious behaviors through either identified internalization ($a_1b_1 = 0.035$, $p = .730$, 95% CI: [-0.189, 0.184]), or introjected internalization ($a_2b_2 = -0.0003$, $p = .997$, 95% CI: [-0.157, 0.144]).

Moderated Mediation. Whereas perceptions of parental beliefs ($a_1 = 0.394$, $t(24) = 1.940$, $p = .064$) had a marginally significant positive association with identified internalization, neither perceptions of parental public behaviors ($\beta = -0.003$, $t(24) = -0.011$, $p = .991$) nor perceptions of parental private behaviors ($\beta = 0.107$, $t(24) = 0.518$, $p = .610$) predicted identified internalization. Neither the interaction between perceptions of parental beliefs and public behaviors ($\beta = 0.224$, $t(24) = 1.192$, $p = .245$) nor the interaction between perceptions of parental beliefs and private behaviors ($\beta = -0.259$, $t(24) = -0.932$, $p = .361$) were significant.

Similarly, whereas perception of parental beliefs ($a_2 = 0.663$, $t(24) = 3.361$, $p = .003$) was significantly positively associated with introjected internalization, neither perceptions of parental public behaviors ($\beta = -0.190$, $t(24) = -0.858$, $p = .400$) nor perceptions of parental private behaviors ($\beta = -0.149$, $t(24) = -0.743$, $p = .465$) predicted introjected internalization. Moreover, the interaction between perceptions of parental beliefs and perceptions of parental public behaviors ($\beta = -0.085$, $t(24) = -0.468$, $p = .644$) was not significant. The interaction between perceptions of parental beliefs and perceptions of parental private behaviors was significant in predicting participants' introjected internalization ($\beta = 0.568$, $t(24) = 2.105$, $p = .046$). Simple slopes tests at

values that were 1 *SD* above and 1 *SD* below the mean value of perceptions of parental private behaviors indicated that the association between perceptions of parental beliefs and introjected internalization was significant at high levels of perceived private behaviors (low perceived public behaviors: $\beta = 0.1.318$, $t(24) = 2.363$, $p = .027$; high perceived public behaviors: $\beta = 1.098$, $t(24) = 3.112$, $p = .005$), but not at low levels of perceived private behaviors (low perceived public behaviors: $\beta = 0.215$, $t(24) = 0.609$, $p = .548$; high perceived public behaviors: $\beta = -0.004$, $t(24) = -0.013$, $p = .990$).

Whereas perceptions of parental private behaviors was positively associated with anticipated future religious behaviors ($\beta = 0.456$, $t(22) = 2.233$, $p = .036$), neither the perceptions of parental beliefs ($\beta = -0.157$, $t(22) = -0.621$, $p = .541$) nor perceptions of parental public behaviors ($\beta = -0.029$, $t(22) = -0.225$, $p = .899$) predicted anticipated future religious behaviors. Neither the interaction between perceptions of parental beliefs and public behaviors ($\beta = -0.051$, $t(22) = -0.267$, $p = .792$) nor the interaction between perceptions of parental beliefs and private behaviors ($\beta = -0.221$, $t(22) = -0.738$, $p = .468$) were significant. Moreover, neither identified internalization ($\beta = 0.050$, $t(22) = 0.253$, $p = .613$) nor introjected internalization ($\beta = 0.105$, $t(22) = 0.253$, $p = .802$) was associated with anticipated future religious behavior.

The index of moderated mediation was not significant for identified internalization (perceptions of public behaviors: $\beta = 0.011$, 95% CI [-0.117, 0.192]; perceptions of private behaviors: $\beta = -0.013$, 95% CI [-0.265, 0.232]) or introjected internalization (perceptions of public behaviors: $\beta = -0.009$, 95% CI [-0.144, 0.120]; perceptions of private behaviors: $\beta = 0.060$, 95% CI [-0.311, 0.311]).

Discussion

This study set out to explore how young adolescents (eighth grade children) perceive their parents' religiosity and, in turn, how those perceptions are associated with their internalization and expression of religious values. It was hypothesized that perceptions of parental beliefs would be directly associated with adolescent religiosity, as prior research has identified general agreement between parent and child religiosity (Dudley & Dudley, 1986; King et al., 2002). Moreover, it was expected that perceptions of parental beliefs and behaviors would interact and manifest in higher levels of internalization, as the apparent importance of consistency in parents' beliefs and behaviors in religious transmission has been demonstrated (Bader & Desmond, 2006). These hypotheses were partly supported by the results of this study, which showed that the ways in which children perceive their parents' religiosity has some association with their internalization and personal religiosity. Prior to exploring the results of this study further, it is critical to note that the analyses are underpowered due to the relatively small sample size, so the results should be considered cautiously. Further research (including proper behavioral genetic controls) is needed to make any definitive conclusions.

A preliminary question that this study sought to answer was: how accurate are children's assessments of their parents' beliefs and behaviors? The results indicated that children were not accurate in their perceptions. Although this result mirrors previous findings showing inaccuracies between parents' responses and children's perceptions (reviewed in Hoge et al., 1982), the lack of correlation was somewhat unexpected. Studies on socialization and value transmission often rely on participants' reports about other notable figures in their lives, and the presumption is that those responses are

reasonably accurate representations (Dudley & Wisbey, 2000). The lack of agreement between parent and child responses casts doubts on this presumption.

One possible explanation for the disagreement in parent and child responses could be biased reporting on the parents' part. Although participants were informed that their responses were anonymous, the context in which they were recruited—from a religious education program offered through their church—may have unintentionally encouraged parents to respond in a way that is aligned with what they perceive as being socially desirable by the church, rather than providing accurate reports of their religiosity.

Another possible explanation is that, when adolescents perceive others' values, they tend to project their own values, often resulting in inaccurate perceptions (Stattin & Kim, 2017). The results from this study lend credence to this possibility, as there was a positive correlation between adolescents' perceptions of their parents' beliefs and their own, self-reported beliefs. It is reasonable that the disagreement in parent responses and adolescent perceptions was due to a combination of reporting bias on the part of the parents and projection on the part of the adolescents.

Regardless of the cause of the lack of agreement between parents' self-reports and children's perceptions of parents' beliefs and behaviors, the decision was made to use the children's perceptions of their parents' religiosity in the analyses. The way a person perceives the world is their reality (Dudley & Wisbey, 2000; Nurmi, 2004); therefore, it matters less how religious a parent is, and more how religious the child perceives them to be. It is the child's perceptions of their parents that may be the driving forces of parental influence.

As was expected, perception of parental beliefs (henceforth, parental beliefs) was positively associated with children's self-reported beliefs (henceforth, adolescent beliefs). Many studies have found similar results, showing similarities between parent and adolescent religiosity (Dudley & Dudley, 1986, Goodman & Dyer, 2020; Nurmi, 2004; Tam & Lee, 2010). What was less expected, however, was that this relationship was unaffected by the perceptions of parental public or private religious behaviors. Perceptions of parental public behaviors (henceforth, parental public behaviors) was operationalized as frequency of Mass attendance, and perceptions of parental private behaviors (henceforth, parental private behaviors) was operationalized as frequency of religious discussion outside the confines of Church. In alignment with the null results for parental public behaviors, Livingston (2020) found that frequency of church attendance had no impact on beliefs. In contrast, Desmond and Kraus (2014) found that church attendance influenced moral beliefs, but only when participants reported religion to be highly important to them. These results, however, were based on reports provided by an adult sample, which have presumably progressed further in their moral and faith development than the adolescents in this study (Fowler & Dell, 2006). The lack of association between parental public behaviors and adolescent beliefs may simply reflect the developmental stage of the participants in this study. It is less simple to explain the non-significant results for parental private behaviors, as there is more of a consensus in the literature about the positive association between private religious practices (e.g., family prayer, family discussions about religion, family Bible study, etc.) and adolescent religious beliefs (Abel, 2011; Brown et al., 2011; Erickson, 1992; Goodman & Dyer, 2020; Livingston, 2020). Given the small sample size, speculation about this unexpected

result is gratuitous at this juncture, but it justifies the need for further, more powerful studies.

It was similarly unexpected that neither parental beliefs nor parental public behaviors were associated with anticipated future behavior. Anticipated future behaviors referred to adolescents' expectations for how their church attendance will change (if at all) once they enter high school. It is important to stress that scores for this variable came from responses to a single question, so the results should be considered cautiously. A more inclusive and reliable measure would be necessary to draw more general conclusions about the relationships discussed. Additionally, the question was concerned with future intentions, the accuracy of which is unknown. Research on the accuracy of future intentions has focused on determining how to close the gap between intentions and behaviors (Fink et al., 2021; Janis & Nock, 2008; Sheeran & Webb, 2016; Wang & Mangmeechai, 2021). The underlying presumption, therefore, is that future intentions are inaccurate representations of behavioral fulfillment. Poon and colleagues (2023) suggested that people tend to be highly optimistic when predicting their future behaviors and often overlook situational barriers that may impede behavioral fulfillment. This may be the case for the adolescents in this study. It is easy to say that they plan to attend Mass at a similar rate when they enter high school, but when they are faced with increased schoolwork, extracurriculars, and social engagements, they may falter in their attendance. This is not to say that their responses are biased, but rather that it may represent a more optimistic rather than realistic view of their religiosity. Examining anticipated future behaviors through this lens may explain why it was not associated with the more "realistic" parental beliefs and parental public behavior measures. It would be interesting

to examine this possibility by longitudinally measuring both anticipated and actual future behaviors to determine the accuracy of participants' future intentions, and whether any of the predictors examined herein are associated with actual future behaviors.

Whereas neither parental beliefs nor parental public behaviors were associated with anticipated future behaviors, parental private behaviors were, suggesting that actions conducted outside the confines of "mandated" religious practices may be more salient to adolescents in their evaluation of and development in their faith. The importance of at-home practices on religious transmission has been recognized for decades (Brown et al., 2011; Erickson, 1992; Goodman & Dyer, 2020) and, more recently, parent-child discussion about religion has been highlighted as an important component of at-home family ministry (Abel, 2011; Dollahite & Thatcher, 2008; Flor & Kanpp, 2001). These studies focus on the impact of private religious behaviors on religious transmission, in general, without a distinct focus on specific outcomes, such as anticipated future behavior. Because this study is not longitudinal, the accuracy of participants' anticipated future behaviors could not be measured; however, their responses still provide some insight into the relative importance they place on Mass attendance.

In addition to exploring the role that perceived parental beliefs and behaviors had on adolescent beliefs and future behaviors, this study set out to explore the role that internalization plays in religious transmission and development. The conclusions that can be drawn regarding these associations are unfortunately limited by the low power available to detect effects due to small sample size, and the lack of proper behavioral genetic controls. These issues are evident with the observation that the associations between parental belief and both identified and introjected internalization were not

significant in the belief-outcome model with a sample size of 26; however, the same associations were significant when the sample size increased to 30 in the anticipated future behavior-outcome model. The difference in sample size was because the SCSFRQ (the scale that generated the outcome scores for the belief model) was not initially included in the eighth-grade survey. Four participants completed the survey prior to the scale's inclusion. Given the small sample size, the decision was made to include as much usable data as possible, which resulted in this imbalance between the two models. The discrepancy in results between the two models, however, highlights how cautiously the results of this study should be considered.

Although parental belief was positively associated with identified internalization, neither public nor private behavior was associated (directly or indirectly) with identified internalization. It was hypothesized that consistency in parental belief and behavior (i.e., practicing what they preach) would be an important component in the development of identified internalization. This fuller form of internalization is characterized by an individual coming to truly appreciate and understand the values being internalized (Assor et al., 2004; 2005; Grolnick et al., 1997; Walker & Rhoades, 2022). Bader and Desmond (2006) found that children were more likely to replicate their parents' beliefs and behaviors when they were consistent, rather than inconsistent. Thus, it is reasonable to suggest that adolescents would be more likely to understand and accept their parents' values as their own when their parents actively demonstrate the importance of the values by "practicing what they preach." Although the lack of an interaction in predicting identified internalization could be attributable to the small sample size, there was enough

power to detect an interaction between parental beliefs and private behaviors in predicting introjected internalization.

It is possible that the more autonomous nature of identified, compared to introjected, internalization could explain why it was not predicted by an interaction between parental beliefs and behaviors. Introjected internalization is characterized by internal compulsions and feelings of guilt that result when external pressures are shifted inwards (Assor et al., 2004; 2005; Brambilla et al., 2015; Roth, 2008). Identified internalization, on the other hand, occurs when a person independently and of their own volition accepts values as their own (Brambilla et al., 2015; Cohen et al., 2009; Deci & Ryan, 2000). The sensitivity to external forces inherent to introjection may explain why it was predicted by the more complex interaction of external influences (i.e., parental belief and behavior), whereas identified internalization was not as beholden to the same factors.

Perceptions of parental beliefs and private behaviors interacted to predict introjected internalization, such that the association between parental beliefs and introjected internalization was significant only when parental private behaviors were also high. This suggests that parents practicing what they preach may be an important component in the development of, at least, introjected internalization. Although there were no *a priori* hypotheses for differences in results based on parental public versus private behaviors, it was interesting that only private behaviors interacted with parental beliefs to predict introjected internalization. Although prior studies have shown that at-home religious practices are more consequential for faith transmission and religious development than church attendance (Brown et al., 2011; Goodman & Dyer, 2020; Livingston, 2020), it is surprising that parental public behaviors were not a prominent

component in the development of specifically introjected internalization, as church attendance is such a socially motivated component of one's faith.

Introjected internalization is largely guided by one's social environment (Ryan & Deci, 2002), and social pressures are frequently cited as a driving force behind church attendance (Desmond & Kraus, 2014; Wadsworth & Walker, 2017; Walker & Rhoades, 2022). Given the centrality of social pressures in encouraging both church attendance and introjected internalization, it would be reasonable to expect that parental public behaviors would have some association, whether directly or indirectly, with this lower form of internalization. Further research is needed to determine whether this unexpected result is due to the study's small sample size or some unconsidered factor.

Finally, identified but not introjected internalization was associated with adolescent belief. Neither form of internalization was associated with anticipated future behavior. These results are partially as expected, as high levels of internalization have frequently been associated with high levels of beliefs (Desmond & Kraus, 2014; Neyrinck et al., 2006). Neyrinck and colleagues (2006) found that internalization was associated with stronger adherence to Christian beliefs and increased levels of perceived personal significance of one's beliefs. They also found that higher levels of belief were associated with increased religious behaviors. This pattern of results was not observed in the current study, as neither form of internalization was associated with anticipated future behaviors, nor was adolescent belief correlated with anticipated future behavior.

Limitations and Future Directions

This study suffered from the same limitations that most survey studies experience. Self-reported results are likely to introduce some bias into the data, as people may

respond in ways that they feel are socially desirable (Grimm, 2010). The topic of questions, in conjunction with the recruiting context of this study may have further contributed to this social-desirability bias. Participants were recruited from a religious education program, during a family event. By virtue of this context, it is likely that a more religious group of individuals was selected for this study. Moreover, participants may have felt an urge to present themselves as more religious, thereby skewing the results. Additionally, upon completing their survey, some adolescent participants indicated that they had difficulty with comprehending some of the items. Although the scales implemented in this study were designed to be at a fourth-grade reading level, such difficulties may have led to inaccuracy in responses above and beyond any biased responding.

This study was conducted exclusively with participants from a suburb of Detroit, Michigan, so generalizations beyond this geographic region cannot be made. Although the sex composition for eighth grade participants was equal, the parent sample was biased towards females, as 80 percent of respondents were female. Additionally, the ethnic composition of this sample was predominantly White/Caucasian; however, this is consistent with Catholics in the United States, as a majority are White/Caucasian (Lipka, 2015).

Additionally, this study lacked controls for genetic influence. Genetic factors have been found to explain upwards of 65% of variability in religiosity; however, such extreme numbers are most commonly observed in adult populations (Bradshaw & Ellison, 2008). During young adolescence, that number is lower (Eaves et al., 2008) with some researchers finding no evidence for a genetic component (Abrahamson et al., 2002;

Eaves et al., 2008; Hatemi et al., 2009; Koenig et al., 2009). This is not to say that the possibility of heritability explaining the results observed in this study should be overlooked, but rather that shared environment (i.e., parental influence) at this stage in development may be a stronger influence. Moreover, the direct influence of parents on adolescent beliefs and anticipated future behaviors (i.e., the relationship that could be attributed to genetic similarities) was not the focus of this study. The importance of perceived consistency in parents' beliefs and behaviors in predicting introjected versus identified internalization and, in turn, how participants' level of internalization differentially predicted the two outcomes were the primary questions. Genetic overlap does not entirely explain why introjected internalization, but not identified internalization was predicted by the interaction of parental beliefs and private behaviors. It also does not explain the tendency for identified internalization to predict adolescent belief more strongly than introjected internalization, as was found in this study.

As noted above, this study had a relatively small sample and, therefore, was underpowered. To gain a better understanding of the relationships and variables explored herein, the study should be replicated with more participants. This study would also benefit from more in-depth questions about specific private behaviors and parent-child religious interactions. The current study broadly defined private religious behaviors, and did not inquire about specifics. Adolescents were asked to indicate how frequently their parents discuss religion outside of church, but they were not asked to provide additional detail about the types of discussions or the content. Dollahite and Thatcher (2008) found that bidirectional, child-centric conversations were more enjoyable and led to increased internalization relative to parent-oriented, "preachy" discussions.

There are also a number of other characteristics that have been implicated in religiosity that would be interesting to study in a young population. There is conflicting literature about the role mothers and fathers play in the religiosity of their children, with some suggesting that mothers are more important (Acock & Bengtson, 1978; Barry et al., 2012), others suggesting that fathers are more influential (Bader & Desmond, 2006), and others suggesting that the sex of the parent has no influence and it is more about the specific relationship that the child has with their parents (Desrosiers et al., 2011; Hoge et al., 1982; Nurmi, 2004). Additionally, during this stage of development, other socialization agents, such as peers, are becoming more prominent and influential (Desrosiers et al., 2011; Nurmi, 2004; Schwartz, 2006). Whereas this study focused on the impact of parents and how children perceive their parents' beliefs and behaviors, as peers become a more central feature of adolescents' social environment, peer influence on religiosity should not be overlooked. Desrosiers and colleagues (2011) highlighted the importance of both peers and parents on early spiritual development.

In addition to exploring more about how specific relations and socialization agents influence religiosity, a longitudinal study that examines how accurate young people are in predicting their anticipated future behaviors would be particularly interesting. The ability to follow a cohort of individuals through religious education, into high school and eventually into their young adult years would yield a vast amount of information about the impacts and longevity of different social and environmental influences. Moreover, a cross sequential design would be ideal as it would allow for more concrete conclusions about possible causality to be drawn (Nurmi, 2004). With the current correlational design, any conclusions about causality would be ill-advised.

Conclusion

Overall, despite its limitations, this study generated a number of interesting results. Although children may not be accurate in their perceptions of their parents' beliefs and behaviors, their perceptions may play some role in their internalization and subsequent religiosity. Consistency in parental beliefs and behaviors, particularly their private religious behaviors, is important in the development of introjected internalization. Whereas this form of internalization was not associated with either religiosity outcome, identified internalization, which was initially predicted by parental beliefs, was associated with adolescent beliefs. Although more questions were generated than answers, it is a promising start that seems to suggest that parents may play some role in their children's early internalization and religiosity.

CHAPTER THREE

STUDY TWO: YOUNG ADULTHOOD – THE COLLEGE YEARS

Parents have often been heralded as the primary socialization agents in young people's lives, playing a crucial role in the early development of religious identity (Myers, 1996). This makes sense as the family is often the first context in which people are exposed to religious ideas, but peers have also been highlighted as notable contributors to the development of religious beliefs and attitudes. Despite the recognition that both parents and peers contribute to the internalization of religious values, there are relatively few studies that have concurrently studied their joint associations with internalization (Willits & Crider, 1989). Understandably, the studies that have attempted to examine the combined influence of both socialization agents have focused on the period of adolescence, wherein parents and peers have comparable influences on individuals' internalization. The pattern that has emerged from these studies is that peers play a complementary role to parents, encouraging further development and cultivation of religious values (Tratner et al., 2020). This pattern, however, may be due to a proclivity to examine the influence of peers on religiosity in religious contexts (e.g., youth groups and religious camps), wherein peers are more likely to be religious, themselves. In an increasingly secular world, however, such religious contexts are becoming less common, (Assor et al., 2005), making it important to gain a better understanding of the role peers play in the internalization of religious values in more diverse contexts.

The college years are transitional years from adolescence into adulthood, characterized by increased independence, self-exploration, exposure to novel ideas, and

questioning of established morals and values (Desmond et al., 2010). During this time, young adults can explore new opportunities without parental oversight. This means that they can form new social ties that may have been frowned upon or behave in ways contrary to the values espoused by their parents while growing up (Kelley et al., 2022). These are some of the more prevalent explanations for why there is an observed decline in religiosity during the college years (Desmond et al., 2010). Yet these explanations are somewhat superficial and inconsistent. The trajectory of religiosity in college may be better explained as resulting from a complex interplay of past experiences and present influences. In particular, values that were more thoroughly internalized (i.e., identified) during childhood and adolescence, may be less susceptible to the changing external forces experienced during this transitional period, than those that were more superficial (i.e., introjected).

It is often presumed that individuals scoring high in identified internalization will show high levels of belief and religious attendance; however, these internalized values may not translate into action. This may be especially true for college students who may not have the same immediate access to churches and other religious areas (Cohen-Malayev et al., 2014). This may be due, in part, to lack of transportation or perceived lack of time to commit to religious activities. In other words, it may not be that internalized values diminish during college, but rather that resources may not be as accessible, resulting in the observed decline in religious behaviors. It is notable that religious practice, not religious belief, seems to be the most impacted during the young adult years (Uecker et al., 2007). Two related hypotheses for the driving force underlying this interesting behavioral pattern have been suggested: 1) the increased responsibilities and

independence of young adulthood simply supersede religious participation in priority; 2) young adults may feel out of place in religious communities that seem to cater to every demographic apart from themselves (e.g., religious education for children, parenting groups, and bible studies that are often geared towards retired parishioners; Uecker et al., 2007).

Religious cognitive dissonance could be a helpful lens through which to understand the tendency for college students to practice their religion less, while maintaining their beliefs. According to cognitive dissonance theory, maintaining two conflicting, or dissonant, cognitions leads to an unpleasant affective state that people are motivated to alleviate (Festinger, 1957). Festinger (1957) suggested several resolution strategies, including a cessation of the dissonant behavior, adding or changing cognitions, or removing oneself from the environment causing the dissonance. The likelihood of using each resolution strategy appears to be dependent on a variety of factors, including the timing of the dissonant behavior in relation to the internalization of the church's teachings. For example, a study examining cognitive dissonance in lesbian Christians found that the dissonance was far greater for those who espoused their religious identities prior to coming out, compared to those who came out prior to internalizing their religious values (Mahaffy, 1996). Those who came out earlier in their lives, while they were still solidifying their religious identities, were better equipped to alter their cognitions and reinterpret different teachings of the church to better align with their behaviors. The least common resolution strategy was disaffiliation (Mahaffy, 1996). This may be due to an internal evaluation that the benefits afforded from religion outweigh the affective consequences that result from maintaining discordant beliefs and behaviors. Van

Tongeren and colleagues (2021) found that individuals with integrated internalization of religious values experienced less religious cognitive dissonance (e.g., asking, “why does God allow bad things to happen”) when exposed to existentially threatening stimuli (e.g., footage from 9/11) than those whose religious values were more superficially internalized. The authors suggested that individuals with deeper internalization may be better equipped to bring together their beliefs and life experiences to resolve such dissonances than those for whom religion is less centrally important, because religion is so integral and interwoven with their identities. They additionally proposed that individuals with integrated internalization may have previously encountered dissonance-inducing challenges to their religion, which served to jointly deepen their integration while also providing them with ways to combat such threats in the future (Van Tongeren et al., 2021). Deeper internalization (i.e., identification and integration) may allow individuals to better rationalize and combat threats to their established belief systems, compared to individuals with a more superficial internalization of religious values.

The role internalization plays in the resolution of religious cognitive dissonance may help to explain the pattern of behaviors observed in college students. The ways in which their religious experiences with their parents in their youth shaped their internalization prior to college may be critical in how they navigate their faith. Those who have a stronger faith foundation may be better prepared to cope with the dissonance that results from a combined increase in secular activities and responsibilities and decrease in religious attendance. Conversely, those with a more superficial internalization of religious values may either be able to better reevaluate and reinterpret dissonant teachings as with the study of lesbian Christians (Mahaffy, 1996), or they may struggle to

rationalize threats to their faith as in the existential threat study (Van Tongeren et al., 2021), resulting in an erosion of their beliefs. These disparate possibilities underscore the importance of understanding more about religious beliefs and behaviors during the college years and, more importantly, the role that different socialization agents play on the internalization of religious values at different points in a person's life.

The different trends in religiosity at Catholic, compared to non-religiously affiliated, universities may also provide some insight into how college attendance may contribute to declines in religiosity. It may seem counterintuitive, but the decline in religiosity during college is more rapid and widespread at Catholic affiliated, compared to non-religiously affiliated universities. The annual decline in religious service attendance at Catholic affiliated institutions is two and a half times that of secular institutions (Hill, 2009).

Pluralism (i.e., a diversity of religious values) has historically been pointed to as a facet of secular college life that undermines religious belief, because it introduces disparate and competing ideas (reviewed in Hill, 2009). More recent studies, however, have suggested that the pluralistic nature of secular campuses may serve to encourage religious growth, through the creation of religious subcultures. Initially proposed by Smith (1998), the *subculture identity hypothesis* suggests that religiously committed students may thrive on nonreligious campuses because exposure to competing ideas requires them to engage with their beliefs and values more deeply. Moreover, they may seek out like-minded peers, thereby encouraging deeper faith formation through social facilitation (Clements & Bullivant, 2022). The pluralism inherent to non-religiously

affiliated universities may, therefore, serve as a net positive on college students who have more deeply internalized their religious values while growing up.

The religious monism of Catholic affiliated schools may conversely contribute to the tendency for students to be less religiously committed. In part this is because it does not generate the impetus for the formation of subgroups (Hill, 2009). More importantly, it does not allow for the same level of flexibility afforded by secular institutions. Because of their affiliation with the Catholic church, such institutions are held to high moral standards, and often fall short, acting in ways that appear contrary to the Church's teachings (Brown & Choong, 2003; Reilly, 2003). Many researchers have suggested that Catholic colleges, while retaining their religious affiliations, have moved away from the associated values and teachings, falling more in line with secular values (Hill, 2009; Reilly, 2003). This can be perceived as hypocrisy and may signal to students that the values espoused by the university are not important and, therefore, do not need to be followed (Hill, 2009; Reilly, 2003). Such mixed signals may contribute to the rapid declines in religiosity among students at Catholic universities (Reilly, 2003; Small & Bowman, 2011). Combined with the positive effects of pluralism at secular institutions, it makes sense why there may be observed differences in the trajectories of religiosity among students at these different types of schools.

This unique pattern of religiosity at Catholic-affiliated and non-religiously affiliated universities is why students from both types of institutions were recruited for this study. This allowed me to explore the relative impact of parents and peers on the internalization of values, while also examining how school affiliation interacts with parent and peer influences, when predicting internalization and religiosity. This study

contributes to our theoretical understanding of how values are transmitted both familially and socially during this pivotal part of young people's lives.

This study assessed how past experiences with parents, current experiences with peers, and school affiliation are related to young adults' internalization, and how these factors contribute to religious beliefs and behaviors during the college years. Participants were asked to identify the one primary caregiver and one peer in their lives that had the greatest influence on their values. It was hypothesized that participants' experiences with their parents would be associated with their religious beliefs and behaviors, and that this association would be mediated through their level of internalization. There were no *a priori* hypotheses about how introjected internalization and identified internalization would differ in their respective mediations. Moreover, it was hypothesized that these associations would be affected by their experiences with their peer as well as their school affiliation. The model assessed in this study is illustrated in Figure 2.

There are conflicting results regarding the association between sex and religiosity, with some research suggesting that mothers play a central role in the religious development of their children (Acock & Bengtson, 1978; Barry et al., 2012); however, other studies have highlighted the important role that fathers play in the religious development of their children (Bader & Desmond, 2006). Moreover, the sex of the participant may also play a role, as some studies suggest that boys, in general, are more susceptible to parental influence than girls (Flor & Knapp, 2001), whereas others suggest that children are more susceptible to the influence of their same-sex parent compared to their opposite sex parent (Campbell & Golmroe, 2007). To control for these possible effects, the genders of the participant, their primary caregiver, and their peer (as well as

the participant x primary caregiver gender and participant x peer gender interactions) were included as covariates.

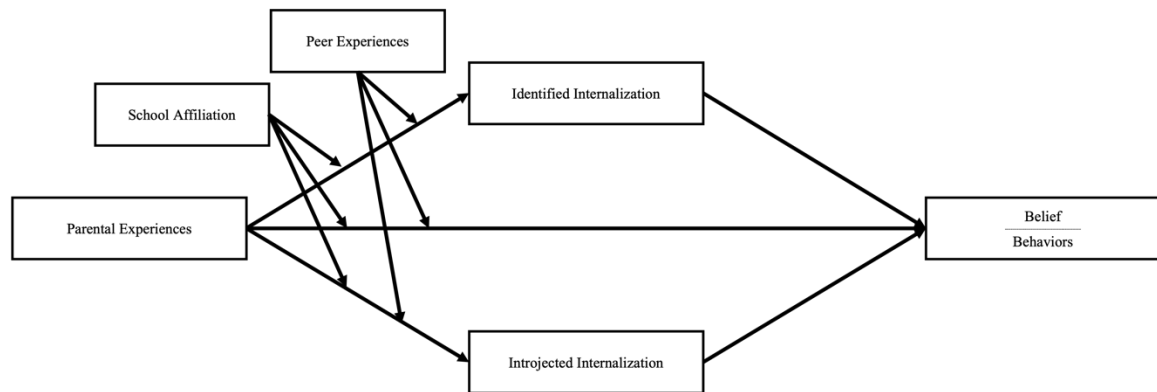


Figure 2. Moderated Mediation Model for Study Two: Young Adulthood

Method

Participants and Procedure

A total of 315 participants were recruited for this survey; 163 participants were recruited from Oakland University (OU), a secular public university in a norther suburb of Detroit, Michigan. The remaining 152 participants were recruited from Sacred Heart University (SHU), a small, Catholic-affiliated private university, located in Fairfield, Connecticut. From the OU sample, eight responses were excluded for failing to pass the attention checks and one was excluded for being an outlier. From SHU, 27 responses were excluded due to failed attention checks, and one was excluded for being an outlier. Because gender was included as a covariate, responses that fell outside the traditional

binary for participant, parent, and peer gender were excluded. The gender criteria removed an additional six OU responses and two SHU responses from the analyses.

The resulting 270 responses (OU = 148; SHU = 122) were included in the analyses. The OU sample was composed of 28 male and 120 female participants, with an average age of 19.70 years ($SD = 2.17$). The following is a breakdown of ethnicity among the OU sample: 72.30% White/Caucasian, 12.84% Black/African American, 6.76% Asian, 0.68% American Indian/Alaska Native, 0.68% Native Hawaiian/Pacific Islander, and 8.78% chose not to answer. Ethnicity was not exclusive; participants could select all ethnicities that applied to them. The SHU sample was composed of 18 male and 104 female participants, with an average age of 18.56 years ($SD = 0.94$). The following is a breakdown of ethnicity among the SHU sample: 92.37% White/Caucasian, 2.54% Black/African American, 1.69% Asian, and 3.39% chose not to answer.

Students at both schools were recruited to complete the survey via their respective psychology department subject pools. Only Catholic individuals were eligible to complete the survey. At the start of the survey, they were asked to identify the one primary caregiver who was the most influential on their lives while growing up, and one peer who was asserting the most influence in their lives at the time of taking the survey. They were asked to refer to these specific individuals when completing the remainder of the survey. Participants were asked to complete questions relating to their demographic information, their religious beliefs and behaviors, past and present religious experiences with their primary caregiver and peer, and their religious value internalization. The survey was completed online via a secure website (Qualtrics).

Measures

Participants were first asked to identify the primary caregiver that had the greatest influence on their development and identity while growing up. They were also asked to indicate the peer who was the most influence on their identity and life, at the time of completing the survey. In addition to demographic information about themselves, they were asked to provide demographic information about their primary caregiver and peer, including gender, age, ethnicity, and some other questions not discussed in further detail here. They were asked about the college that they attend and whether they were aware of Catholic resources available to them on campus. If so, they were asked whether they were involved in or take advantage of any of the on-campus activities and resources.

Childhood Religious Experience Inventory: Primary Caregiver (CREI:PC).

This 13-item inventory (Tratner et al., 2017a) is designed to have participants reflect on the Christian experiences a child may have with their primary caregiver while growing up. This scale includes four subscales: assurance (e.g., “I told my child that God has blessed our family”), disapproval and punishment (e.g., “I told my child that they would suffer in the afterlife if they misbehaved”), social involvement (e.g., “I have signed up my child for a religious activity”), and encouraged skepticism (e.g., “I have allowed my child to choose their own religious beliefs”). Although separate component scores can be calculated, a single composite score was used for this analysis ($\alpha = .81$). Each item was rated on a 7-point Likert-type scale, ranging from 0 (*never*) to 6 (*always*).

Childhood Religious Experience with Peers Inventory (CREPI). This 27-item inventory (Tratner et al., 2017b) explores a variety of Christian experiences shared with a specific peer. I modified each item in the scale to be in the present tense, rather than past

tense, as the original scale was designed to be completed as a reflection on experiences shared in childhood. This scale includes three subscales: peer proselytization (e.g., “my peer has encouraged me to attend a place of worship”), shared activities (e.g., “my peer and I read a religious text together”), and peer dialogue (e.g., “my peer and I talked about our similar religious beliefs”). Although separate component scores can be calculated, a single composite score was used for this analysis ($\alpha = .98$). Each item was rated on a 7-point Likert-type scale, ranging from 0 (*never*) to 6 (*always*).

Measures used in Study One. This study made use of the Santa Clara Strength of Religious Faith Questionnaire (SCSFRQ, Plante & Boccaccini, 1997; $\alpha = .96$) and the Christian Faith Practices Scale (CFPS, Sherr et al., 2009; $\alpha = .91$) that were used in Study One. Participants in this study were also asked to complete the Autonomous and Controlled Motivations for Agreement with Parental Values (ACM, Knafo & Assor, 2007; controlled: $\alpha = .83$; autonomous: $\alpha = .88$), and the Christian Religious Internalization Scale (CRIS, Ryan et al., 1993; introjected: $\alpha = .82$; identified: $\alpha = .93$).

Additional Measures. In addition to the above scales, the participants were asked to indicate how important religion is to their primary caregiver, as well as the frequency with which they attend Mass and discuss religion outside church as in Study One. They were also asked these same questions in reference to their peer. Participants also completed a series of scales that were not used in the analyzed models. These include the Parental Conditional Regard Questionnaire (PCR; Itzhaki et al., 2018), the God Conditional Regard Questionnaire (GCR; modified from Itzhaki et al., 2018), the Peer Conditional Regard Questionnaire (modified from Itzhaki et al., 2018), and the Socialization and Emotional Based Religiosity Scales (Granqvist & Hagekull, 1999).

General Analytic Approach

Data Reduction. Because two scales (ACM and CRIS) were used to capture two constructs—identified and introjected internalization—a principal components analysis (PCA) was conducted with all 24 items from both measures with a promax rotation restricting the outcome to two components and including items with eigenvalues greater than 1.0. All factor loadings were greater than the minimum cut-off, which was set at .4. The first extracted component included items reflecting autonomous motivations (on the ACM) and identified internalization (on the CRIS). The second extracted component included items reflecting controlled motivations (on the ACM) and introjected internalization (on the CRIS). Only item 10 on the CRIS (“one reason I think it is important to actively share my faith with others is because if I don’t, God will disapprove of me.”) loaded on both factors. The choice was made to include this item in the introjected composite measure, in alignment with the source material (Ryan et al., 1993). The results of the PCA supported the decision to create two composite scores, one for identified internalization and one for introjected internalization. These standardized composite scores served as mediators in the following models.

Tests of Mediation and Moderated Mediation. Two primary outcomes were explored in this study: belief, as measured by the SCSRFQ, and behavior, as measured by the CFPS. Parent experience served as the predictor in separate mediation analyses. Identified and introjected internalization were treated as mediators in each model using model four of the PROCESS macro developed by Hayes (2012), which uses a bootstrap resampling procedure that was repeated 5,000 times to generate 95% confidence intervals (CIs). Indirect effects were considered significant if the CIs did not contain zero.

Additionally, two moderated mediation analyses were conducted using model ten of the same PROCESS macro (Hayes, 2012) to determine whether the strength of the indirect (the mediation) and direct effects would differ in accordance with peer experience and school type (Catholic-affiliated or non-Catholic affiliated). That is, peer experience and school were tested as moderators of the associations between parent experience and participants' levels of introjected internalization, identified internalization, and the outcomes of participant belief and behavior.

Gender of the participant, parent, and peer, as well as their interactions were included as covariates.

Results

Descriptive Statistics and Correlations

The means, standard deviations (*SDs*), and zero-order correlations for the variables are displayed in Table 2. The CREI:PC was used to measure the religious experiences participants had with their parents while growing up (henceforth parent experience), and the CREPI was used to measure the current religious experiences participants have with their most influential peer (henceforth peer experience). Although these two measures are composed of four and three subscales respectively, only the total scores for each measure were included in analyses as general measures for experience with the two socialization agents. Individual scores for identified and introjected internalization were calculated from the ACM and CRIS (see the data reduction section above). Belief scores were calculated using the SCSRFQ and behavior scores were measured using the CFPS. The type of school that participants attended was coded as non-Catholic affiliation = 0 and Catholic-affiliated = 1. A visual examination of the

histograms and Q-Q plots, as well as assessments for skew and kurtosis, showed that the data met the assumption of normality.

An inspection of the correlation matrix (Table 2) reveals that parent experience was significantly correlated with all other measures in this study. In particular, there were strong positive correlations between parent experience and peer experience ($r = .56, p < .001$) as well as with self-reported religious behaviors ($r = .51, p < .001$). Other notable correlations include those between peer experience and religious belief ($r = .56, p < .001$), religious behavior ($r = .59, p < .001$), and identified internalization ($r = .51, p < .001$). Identified internalization, but not introjected internalization, was correlated significantly with both religious belief ($r = .71, p < .001$) and religious behavior ($r = .59, p < .001$). Additionally, participants' religious beliefs strongly correlated with their religious behaviors ($r = .65, p < .001$).

Table 2. Zero order correlations and descriptive statistics for Study 2: College Students
* $p < .05$. ** $p < .01$. *** $p < .001$.

	1	2	3	4	5	6	7
1. Parental Experience	---						
2. Peer Experience	.56***	---					
3. School Affiliation	-.23***	-.32***	---				
4. Identified Int.	.37***	.51***	-.04	---			
5. Introjected Int.	.25***	.09	-.04	.09	---		
6. Belief	.37***	.56***	-.12*	.71***	.06	---	
7. Behavior	.51***	.59***	-.15***	.59***	.07	.65***	---
Mean	3.08	2.34	0.45	4.79	3.23	2.91	3.10
Standard Deviation	1.04	1.74	0.50	1.12	1.10	0.74	1.42
Minimum	0	0	0	1.33	1	1	0
Maximum	6	6	1	7	6.36	4	7

Tests of Mediation and Moderated Mediation

None of the covariates (i.e., gender of the participant, parent, and peer, as well as their interactions) had a significant impact on any of the four models.

Belief.

Mediation. The results were consistent with an indirect effects model, such that the relationship between parent experience and participants' belief was mediated by participants' level of identified internalization. The results of this analysis show that parent experience was positively associated with identified internalization ($a_1 = 0.360$, $t(262) = 6.323$, $p < .001$), which in turn was positively associated with belief ($b_1 = 0.673$, $t(260) = 14.376$, $p < .001$). Moreover, parent experience was significantly positively associated with introjected internalization ($a_2 = 0.255$, $t(262) = 4.268$, $p < .001$); however, the association between introjected internalization and belief was not significant ($b_2 = -0.031$, $t(260) = -0.705$, $p = .481$). The total effect of parent experience on belief (i.e., when the mediators were not included in the model) was significant ($c = 0.367$, $t(260) = 6.381$, $p < .001$). The effect of this association was reduced when the mediators were included but it still reached conventional significance levels ($c' = 0.133$, $t(260) = 2.795$, $p = .006$). Tests of mediation suggest that parent experience had a significant positive association with belief through identified internalization ($a_1b_1 = 0.242$, $p < .001$, 95% CI: [0.174, 0.314]), but not through introjected internalization ($a_2b_2 = -0.008$, $p = .498$, 95% CI: [-0.037, 0.019]). The nonzero direct and indirect associations between the predictor and outcome suggest that there is at least partial mediation of parent experience and belief through identified internalization.

Moderated Mediation. Whereas parent experience was not significantly associated with identified internalization ($a_1 = 0.141$, $t(258) = 1.803$, $p = .073$), both peer experience ($\beta = 0.466$, $t(258) = 7.270$, $p < .001$) and school ($\beta = 0.279$, $t(258) = 2.545$, $p = .012$) significantly predicted identified internalization. Neither the interaction between parent experience and peer experience ($\beta = -0.023$, $t(258) = -0.483$, $p = .630$) nor the interaction between parent experience and school ($\beta = -0.015$, $t(258) = -0.016$, $p = .892$) significantly predicted identified internalization.

Unlike the results found for identified internalization, parent experience ($a_2 = 0.341$, $t(258) = 3.863$, $p < .001$) significantly predicted introjected internalization; however, peer experience ($\beta = -0.101$, $t(258) = -1.393$, $p = .165$) and school ($\beta = 0.028$, $t(258) = 0.225$, $p = .822$) did not. The interaction between parent experience and peer experience significantly predicted introjection ($\beta = 0.173$, $t(258) = 3.195$, $p = .002$). Simple slopes tests at values that were 1 *SD* above and 1 *SD* below the mean value of peer experiences indicated that the association between parent experience and introjected internalization was significant at moderate and high levels of peer religious experiences, but not at low levels. Whereas this pattern was true across both school types, the effect appeared to be consistently greater for students at the non-Catholic affiliated school (moderate peer experience: $\beta = 0.325$, $t(258) = 3.65$, $p < .001$; high peer experience: $\beta = 0.532$, $t(258) = 5.342$, $p < .001$) compared to those at the Catholic affiliated school (moderate peer experience: $\beta = 0.221$, $t(258) = 2.186$, $p = .030$; high peer experience: $\beta = 0.428$, $t(258) = 3.363$, $p = .001$). The interaction between parent experience and school did not significantly predict introjected internalization ($\beta = -0.104$, $t(258) = -0.823$, $p = .411$).

Whereas belief was not significantly predicted by parent experience ($\beta = 0.045$, $t(256) = 0.707$, $p = .480$) nor school ($\beta = -0.020$, $t(256) = -0.087$, $p = .821$), it was significantly predicted by peer experience ($\beta = 0.277$, $t(256) = 4.988$, $p < .001$). Whereas the interaction between parent experience and school did not significantly predict belief ($\beta = -0.080$, $t(256) = -0.909$, $p = .365$), the interaction between parent experience and peer experience significantly predicted belief ($\beta = -0.118$, $t(256) = -3.073$, $p = .002$). Additionally, there was a three-way interaction between parent experience, peer experience, and school ($F(2, 258) = 4.744$, $p = .010$). Simple slopes tests indicated that parent experience was significantly associated with belief at low levels of peer experience ($\beta = 0.182$, $t(256) = 2.250$, $p = .025$), but not at moderate or high levels of peer experience. This pattern was apparent only for those who attended the non-Catholic affiliated school. Moreover, identified internalization ($\beta = 0.580$, $t(256) = 11.857$, $p < .001$), but not introjected internalization ($\beta = 0.006$, $t(256) = 0.144$, $p = .886$), was significantly associated with belief.

The index of moderated mediation for the outcome of belief was not significant for identified internalization (peer experience: $\beta = -0.013$, 95% CI [-0.061, 0.038]; school: $\beta = -0.009$, 95% CI [-0.128, 0.123]) nor for introjected internalization (peer experience: $\beta = 0.001$, 95% CI [-0.020, 0.018]; school: $\beta = -0.001$, 95% CI [-0.022, 0.015]).

Behavior.

Mediation. The results were consistent with an indirect effects model, such that the relationship between parent experience and behavior was mediated by participants' level of identified internalization. The results of this analysis show that parent experience

was positively associated with identified internalization ($a_1 = 0.360$, $t(262) = 6.323$, $p < .001$), which in turn was positively associated with behavior ($b_1 = 0.479$, $t(260) = 9.638$, $p < .001$). Moreover, parent experience was significantly positively associated with introjected internalization ($a_2 = 0.255$, $t(262) = 4.268$, $p < .001$); however, the association between introjected internalization and behavior was not significant ($b_2 = -0.058$, $t(260) = -1.225$, $p = .222$). When the mediators were not included in the model, the association between parent experience and behavior was significant ($c = 0.503$, $t(260) = 9.464$, $p < .001$). This association was reduced when the mediators were included in the model, but still reached conventional significance levels ($c' = 0.346$, $t(260) = 6.842$, $p < .001$). Tests of mediation suggest that parent experience had a significant positive association with behavior through identified internalization ($a_1b_1 = 0.172$, $p < .001$, 95% CI: [0.119, 0.230]), but not through introjected internalization ($a_2b_2 = -0.015$, $p = .251$, 95% CI: [-0.047, 0.014]). The nonzero direct and indirect associations between the predictor and outcome suggest that there is at least partial mediation of parent experience and participant behavior through identified internalization.

Moderated Mediation. Whereas parent experience ($\beta = 0.189$, $t(256) = 2.761$, $p = .006$) and peer experience ($\beta = 0.263$, $t(256) = 4.417$, $p < .001$) both significantly predicted behavior, school did not ($\beta = -0.009$, $t(256) = -0.091$, $p = .928$). Neither the interaction between parent experience and peer experience ($\beta = 0.039$, $t(256) = 0.934$, $p = .351$) nor the interaction between parent experience and school ($\beta = 0.082$, $t(256) = 0.904$, $p = .367$) significantly predicted behavior. Moreover, identified internalization ($\beta = 0.383$, $t(256) = 7.286$, $p < .001$), but not introjected internalization ($\beta = -0.050$, $t(256) = -1.064$, $p = .288$), was significantly associated with behavior.

The index of moderated mediation for the outcome of behavior was not significant for identified internalization (peer experience: $\beta = -0.009$, 95% CI [-0.042, 0.025]; school: $\beta = -0.006$, 95% CI [-0.084, 0.081]) nor introjected internalization (peer experience: $\beta = -0.009$, 95% CI [-0.031, 0.012]; school: $\beta = 0.005$, 95% CI [-0.018, 0.031]).

Discussion

College is often a period of personal change and increased autonomy; outside the confines of parental control, students are able to explore new opportunities and develop in their personal identities (Desmond et al., 2010; Nurmi, 2004; Small & Bowman, 2011; Walker & Rhoades, 2022). There is a marked decline in religiosity during the college years (Desmond et al., 2010; Hill, 2011; Reilly, 2003). It is also during this period that peer influence is of central importance to young adults (Desrosiers et al., 2011; Nurmi, 2004). This study set out to explore the relative influence of the past experiences that students had with their parents (parental experiences) on their internalization and religiosity (i.e., their beliefs and religious behaviors). Of even greater relevance was the question of how religious experiences shared with peers (peer experience) and school affiliation, interact with parental experiences to predict internalization and religiosity in college students.

The results of this study supported the hypothesis that the influence of recalled parental experience would be affected by current factors. Less expected was the incredible variation in the ways that current factors were associated with the different outcomes. For example, peer and parental experiences were additive in their interaction predicting introjection. In contrast, peer influences and school affiliation overshadowed

parental experience when predicting identified internalization. Differences were similarly observed for the religiosity outcomes of belief and behavior. Whereas the latter could be described with simple, complimentary main effects of peer and parental experiences, the former highlighted the incredible complexities of the issue at hand, being predicted by a complex three-way interaction of parental experience, peer experience, and school affiliation.

As expected, parental experience was directly and positively associated with both forms of internalization, as well as with belief and behavior. Parents are often heralded as key socializers in their children's lives, with their influence persisting into adulthood (Clements & Bullivant, 2022; Nurmi, 2004). It is important to note that the associations found between parental experience and students' beliefs and behaviors may be reflective of an underlying genetic influence. That is, adult children may share beliefs and behaviors with their biological parents because of genetic inheritance rather than the influence of parental behaviors during their childhood. Although this study did not incorporate any genetic controls, behavior geneticists have pointed to young adulthood as a key stage in which genetic factors begin to outweigh shared environmental factors (Abrahamson et al., 2002; Bradshaw & Ellison, 2008; Hatemi et al., 2009; Waller et al., 1990). During childhood, evidence for the heritability of religiosity is relatively limited; however, when young adults leave the home and have their own experiences, those shared environmental factors that were prominent in childhood rapidly wane and genetic influences increase (Abrahamson et al., 2002; Eaves et al., 2008; Hatemi et al., 2009; Koenig et al., 2005). Therefore, it is critical to recognize the possibility that the influence of parental experiences explored in this study may be attributable to genetic, rather than

experiential factors. Further research with genetic controls would be necessary to disentangle this possibility.

Notably, however, genetic influences are unlikely to explain the tendency for children to internalize their parents' beliefs through introjected or identified internalization specifically. Furthermore, genetic inheritance cannot explain the tendency for identified internalization to more strongly predict religious beliefs and behaviors compared to introjected internalization, as was found here. Identified internalization is characterized by a greater sense of appreciation and ownership of internalized values (Assor et al., 2004; 2005; Deci & Ryan, 2000; Neyrinck et al., 2006). It is associated with increased levels of self-regulation, and manifests in more frequent engagement in religious practices and a more open-minded and flexible approach to Catholic beliefs compared to introjected internalization (Neyrinck et al., 2006). Deci and Ryan (2000) argued that the more fully internalized a value is, the more likely the associated behavior will be autonomously performed. In contrast, introjected internalization is a more superficial form of internalization, characterized by external pressures and contingencies shifting inwards, manifesting as feelings of guilt (Assor et al., 2004; 2005; Brambilla et al., 2015; Roth, 2008). Although introjected internalization has been shown to be a strong motivator for action, researchers have suggested that its longevity, especially in the absence of external pressures, is limited (Ryan et al., 1991; Vansteenkiste & Deci, 2003; Vansteenkiste et al., 2004). Introjected internalization is oriented towards social rewards (Koole et al., 2010; Walker & Rhoades, 2022), so in the absence of previously present social pressures, the motivation to adhere to introjected values may rapidly dissipate. The pattern of results found in this study are in line with our current understanding of

internalization. As students go off to college, external pressures to maintain introjected values (i.e., parents) decrease drastically, resulting in a possible disconnect between introjected internalization and religiosity (Walker et al., 2021; Walker & Rhoades, 2022). On the other hand, identified internalization, which is less beholden to social pressures, was positively associated with both belief and behavior.

As adolescence transitions into young adulthood, peers become a more important source of social feedback and support. Young people often seek out friendships with individuals who share similar goals and characteristics (reviewed in Nurmi, 2004). When peer experience and school affiliation were included in the models, the association between parental experience and identified internalization was rendered non-significant. Although parents may have some underlying association with identified internalization, current influences seem to be far more impactful. As young adults enter college and forge new peer groups, they may be predisposed to seek out others who share common aspirations and interests. Abar and Turrissi (2008) suggested that, while parents may have a minor, direct impact on their child's religiosity during college, it is the indirect influence they have over the friendships their child seeks out that is far more impactful. Early encouragement of religion may embolden children to seek out friends who match their level of devotion. It is also for this reason that the directionality of the association between peer experience and identified internalization may be called into question. It is likely that the influence is reciprocal, in that students who enter college with high levels of identified internalization may be motivated to seek out peers who share their faith (Nurmi, 2004); in turn, such relationships may then encourage further development of their faith, resulting in higher levels of internalization.

School affiliation was also significantly associated with identified internalization. Reilly (2003) emphasized the importance that colleges play in students' spiritual development. Although declines in religiosity are observed on most college campuses, regardless of religious affiliation, the declines appear to be steeper at Catholic and Protestant institutions compared to evangelical and non-affiliated institutions (Hill, 2009). The current study was not longitudinal, so conclusions about trends in religiosity over the course of the college years cannot be discussed; however, the results generally align with prior literature. The significant negative correlations observed between school affiliation and religiosity outcomes demonstrate that religiosity, demonstrated through both belief and behavior, is greater at the non-affiliated university, compared to the Catholic-affiliated university. The pluralism of a non-affiliated institution may allow for increased critical thought, thereby resulting in a greater appreciation for and understanding of one's religion (Hill, 2009, Walker & Rhoades, 2022). It may also encourage a subculture identity, whereby close-knit communities of like-minded individuals are formed to insulate themselves from the broader community that does not share their common beliefs (Magolda & Gross, 2009; Smith, 1998). These groups are more likely to voluntarily organize and participate in religious activities and discussions (Clements & Bullivant, 2022; Hill, 2009). At Catholic universities, the fighting spirit that comes with perceived threats against one's religion, thereby facilitating strong-held group identities, is not present. Another plausible explanation for the observed negative correlations is that students at the two schools have different frames of reference. Student religiosity at a Catholic university may be less variable and lean more religious, on average, than at a secular institution. This perception of classmates as being

comparatively more religious may have contributed to SHU students reporting lower levels of religiosity compared to OU students, who may feel more religious relative to their non-Catholic peers. It is possible that the religiosity of SHU students may be objectively comparable to that of OU students; however, their subjective reports may be skewed based on their self-comparisons to a potentially more religious reference group.

Catholic institutions are also grappling with the conflicting desires to maintain their traditional identity while also embracing a progressing society, which can result in the perception of hypocrisy. The *moral communities hypothesis* suggests that religion only works when the community upholds the standards and justifications for conforming to prescribed social norms (Stark, 1996). In other words, when Catholic schools act in a way contrary to church teachings (i.e., accepting inappropriate student conduct, encouraging activities and classes that discuss antithetical ideals, etc.), it undermines their authority and can result in a student body that is, at best, apathetic to religious teachings or, at worst, openly hostile to the faith (Brown & Choong, 2003; Reilly, 2003; Small & Bowman, 2011). Many religious institutions, not just Catholic ones, struggle with this complex balancing act as they navigate a rapidly progressing society (Hill, 2009, Reilly, 2003).

Whereas school affiliation and peer influence both overshadowed parental influence in their association with identified internalization, peer influence interacted with parental influence to predict introjected internalization. The association between parental influence and introjection was significant only when the student also reported high levels of peer experience, suggesting that peer experience plays an additive role in its association with introjected internalization. As introjection is such a socially motivated

form of internalization, it is logical that high levels of one social pressure (i.e., peers) would facilitate the impact of the other social pressure (i.e., parents). Peers are the logical socialization successor to parents as young adults go off to college, potentially building on what was developed in childhood and adolescence (reviewed in Abar & Turrissi, 2008; Nurmi, 2004). Desrosiers and colleagues (2011) also outlined the reciprocal influence of parents and peers on spirituality.

The complimentary socialization roles of parents and peers was also observed in their positive associations with behavior. Along with identified internalization, both parent and peer experiences were directly associated with behavior. Unlike introjected internalization, parental and peer experiences did not interact in an additive way, but rather uniquely predicted behavior. It has been suggested that the decline in religiosity observed during the college years is attributable more to declines in religious attendance, rather than declines in religious belief (Uecker et al., 2007), so it is notable when religious behaviors persist during this life stage. Childhood habits, such as eating patterns and work ethic, are frequently observed among college students (Branen & Fletcher, 2008; De Backer, 2013; Simpkins et al., 2020), suggesting that behaviors established early in life can persist into the college years, despite the decreased influence of parents. It is possible that the lack of notable interactions predicting behavior may be because high levels of behavior are the result of childhood habituation. This is reflected in the direct association with parental experience. Moreover, young adults tend to seek out peers who share their same goals and characteristics (Nurmi, 2004), which may explain the association between peer experience and behavior. People for whom religious practice is important may be more likely to affiliate with like-minded people, thereby

contributing to the observed association. Due to the correlational nature of this study, it is impossible to determine the directionality of this relationship.

Similar to behavior, identified internalization was directly associated with belief; however, unlike behavior, there was a three-way interaction between parental experience, peer experience, and school affiliation. Parental experience was significantly associated with belief only for students at the non-affiliated school, who reported low levels of peer experience. In other words, the only avenue through which parental experience persisted in influencing belief was when there was no competition from the religious values espoused by their child's school or their child's peers. As children grow up and leave the house, peers gain in their influence and become the primary source of social feedback (Nurmi, 2004; Ryan, 2001). Other prominent adults, such as professors, may also serve as socialization agents for young adults progressing through university (Nurmi, 2004; Walker & Rhoades, 2022). The importance of parents in their child's faith development is reduced as additional socialization agents gain prominence in their child's life.

Although a socialization "monopoly" is required for there to be a significant association between parental experience and belief, parents may still indirectly impact their child's beliefs by helping to shape their child's social environment. Parents may encourage their children to seek out friendships with like-minded individuals. Such parental meddling and the tangible outcomes of such indirect influence have been repeatedly observed (Abar & Turrisi, 2008; Desrosiers et al., 2011; Nurmi, 2004). The indirect influence parents may have on their child's peer selection may actually be more meaningful and result in longer-term religious implications than any of the direct associations observed.

Limitations and Future Directions

This study yielded interesting results about the relative influence of past parental experience and current peer and school influences. However, as with all survey-based studies, it has a number of notable limitations. Self-reported results are likely to introduce some bias into the data, as people may respond in ways that they feel are socially desirable (Grimm, 2010). Participants for this study were recruited based on their self-identified faith. Given this recruitment condition, they may have responded in ways that portray themselves as more devout than they truly are. Additionally, participants were recruited from lower-level psychology courses at the two universities studied, which limits the generalizability of the results. Schleifer and colleagues (2018) found a number of notable differences in religiosity of college students based on their major, with non-belief being the highest among natural science students, non-affiliation being the highest among humanities students, and those with an education degree showing the highest levels of religiosity. It would therefore be prudent for future studies to ensure a diverse sample with participants from a wide variety of majors. Additionally, the sample from both universities was biased towards females, with approximately 80 percent of both samples identifying as females. Moreover, the ethnic composition of this sample was predominantly White/Caucasian; however, this is consistent with Catholics in the United States, as a majority are White/Caucasian (Lipka, 2015).

A central question in this study was whether school affiliation differentially impacted internalization and religiosity. While the results generally align with prior findings, the conclusions drawn herein are based on results from two geographically distinct universities. Various factors, apart from the religious affiliation of each

university, could explain the differences observed in this study. The non-affiliated school in this study, for example, is a public commuter school that primarily draws on students from southeastern Michigan. The Catholic-affiliated school is a private liberal arts college in Connecticut that requires students to live on campus for their first two years. There were no noticeable differences in the demographics of each sample (e.g., race, sex, age); however, this does not preclude the possibility that there may be other factors that differentiate the schools apart from their religious affiliation. Ideally, further research would be conducted with more schools that are both geographically diverse and similar; diverse to increase the generalizability, and similar to allow for more direct comparisons. Factors attributable to the different locations of each school may also provide an explanation for the observed differences. Examining schools from the same geographic area would allow for those possible confounding variables to be controlled.

Additionally, the differences in the living situation for the two universities could have important implications for the assessment of the findings. Participants were not asked whether they lived at home or on campus, but this would be an important question to incorporate in future studies. The primary question was concerned with the relative influence of parents, peers, and school on college student religiosity. College is often marked by decreased parental oversight, but if students are still living at home, their parents may continue to be a much larger influence on their religiosity than that of their counterparts that no longer live at home. Hatemi and colleagues (2009) found that the onset of genetic influence for various attitudes was around 21 to 25 years of age; however, this onset was observed only in individuals who left their childhood home. Individuals of the same age who were still living with their parents did not show the same

shift away from shared environmental influence and towards genetic influence. The fact that the non-Catholic school was a commuter college may explain why beliefs and behavior were lower for participants attending the Catholic school. Parent influence may simply be greater for those still living at home.

The tendency for genetic influence to become more predominant in explaining attitudes and religiosity in young adulthood compared to childhood is well documented (Bradshaw & Ellison, 2008; Hatemi et al., 2009; Koenig et al., 2005; Willoughby et al., 2021). That this study did not control for genetic influences is a notable limitation, as causal conclusions about the impact parents have on their children's religiosity cannot be drawn. Such conclusions are also precluded by the lack of experimental manipulations and control. In addition to genetic controls, causality could be partially established by conducting a cross sequential study, which would allow for variables to be explored across one's entire college experience, while also being compared across cohorts (Nurmi, 2004). The current study was a snapshot of a single point in time during one's college experience. Although it draws on recollections of past experiences, it cannot provide an accurate picture of the trajectory students take throughout their college experience.

Conclusion

The results of this study provide important insight to the complexity of the factors that may contribute to internalization and religiosity. Although it was expected that peer experience and school would impact the associations between parental experience and internalization and religiosity, the complexity and variety of their impact was unexpected. While peer experience interacted with parental experience in an additive way to predict introjected internalization, the same peer experience and school affiliation completely

overshadowed parental experience in their associations with identified internalization. Moreover, peer and parental experience were both directly associated with behavior. Interestingly, for belief, parental experience was significantly associated with belief only when it experienced no competition from peer experience and school; that is, when parents were the primary or sole source of religious influence considered. When peer and school were included into the model, the initial associations between parental experience and the other variables were altered. As individuals' social environments evolve, the role that parents play in religious transmission likely changes. This could manifest as a diminished direct influence or an indirect influence on factors such as friend selection. Based on these results, future studies should explore how other socialization agents interact with parental influence to impact religious value transmission and internalization throughout one's life, not just in the college years.

CHAPTER FOUR

STUDY THREE: PARENTHOOD

The first two studies focused on respondent's reflections of their own upbringing and how those experiences were associated with their current religious beliefs and behaviors. This final study asked parents to reflect on their own upbringing as well as their current childrearing strategies, thus spanning reflections on two generations of value transmission. Despite the relatively low level of religious attendance during the young adult/college years, there is a distinct uptick in Christian religiosity as individuals enter into marriage and begin forming their own families. There are two main hypotheses for this relationship between religiosity and family formation (Blekesaune & Skirbekk, 2022). Some scholars suggest that individuals who are already religious are predisposed to marrying and having children, aligning with Biblical teachings (Berghammer, 2009; Dilmaghani, 2019; Mahoney, 2010). Others have suggested that the act of entering into the sacrament of marriage and having children may lead individuals to experience increases in their religiosity (Karry et al., 2022; Petts, 2007).

These hypotheses are not independent of one another, as even those who have strong pre-marital religious beliefs experience increased religiosity, notably after the birth of their first child (Blekesaune & Skirbekk, 2022; Crowther & Hall, 2015; Petts, 2007). Religion is often seen as a source of comfort during stressful times, such as during early parenthood (Assor et al., 2005; Vansteenkiste & Deci, 2003, Vansteenkiste et al., 2004; Walker & Rhoades, 2022). In addition to providing spiritual support, religious communities can serve an important social support function to new parents (Petts, 2007).

Within the Catholic church, new parents must attend classes leading up to the baptism of their children. These classes provide parents with information regarding their role as religious stewards for their children and introduce them to other parents at similar life stages. Moreover, when having their child baptized, parents swear an oath to raise their children within the Catholic church, which includes bringing them to Mass and exposing them to a religious education. Although this oath is not always adhered to, the promise is made to their child, their spouse, their families, and to God. This brings up an interesting question as to the impetus for the resurgence in religiosity during parenthood: is it that parents fully internalize these religious values (e.g., identification and integration), or are they simply conducting themselves in a way that they believe they ought to, or in alignment with the promises they made when baptizing their children (e.g., introjected internalization)?

While the mechanisms underlying the increase in parental religiosity following childbirth are reasonably well-understood, there are still many outstanding questions regarding the process of intergenerational religious value transmission. The ways in which parenting practices employed by older generations are either maintained or pruned from generation to generation is still unclear, especially as it relates to religion. The majority of what is known about how parenting practices evolve from generation to generation is based on research in attachment theory, parenting styles, and abuse cycles (Campbell & Gilmore, 2007; Dixon et al., 2009; Martin et al., 1991; Yaban & Sayil, 2021). For example, two of the protective factors against intergenerational continuity of abuse are financial independence and social support (Dixon et al., 2009), suggesting that having the ability to think for oneself and remove problematic influences may contribute

to the discontinuity of problematic parenting practices. Although there are other studies describing parenting practices and how they change from generation to generation, there are few studies that examine the specific underlying mechanisms (Neppel et al., 2009; reviewed in Van Ijzendoorn, 1992).

Observational learning has been suggested as a possible mechanism for intergenerational similarities, as people may emulate interactions they had with their own parents during childhood (Neppel et al., 2009; Van Ijzendoorn, 1992). Yet, this yields an incomplete understanding of the phenomenon, as generational differences are also observed (Snarey, 1993). There is some evidence for a genetic influence on adult religiosity (Bradshaw & Ellison, 2008; Hatemi et al., 2009; Waller et al., 1990); however, this is also an incomplete explanation (Neppel et al., 2009). While the consensus is that the relative influence of genes increases in adulthood, shared environment still accounts for some of the variability in religiosity. Estimates of heritability on adult religiosity vary extensively from study to study, ranging from a modest 19% to a sizeable 65% (Bradshaw & Ellison, 2008; Harden, 2010; Koenig et al., 2005; Polderman et al., 2015), thereby leaving anywhere from 35 to 81% of the variability in religiosity to be attributed to other factors, such as shared and unique environments (Bradshaw & Ellison, 2008; Harden, 2010). Therefore, while it is important to recognize that genetics play a significant role in religiosity and its transmission, it would be prudent to explore other possible explanations for intergenerational similarities. This study addressed some of these gaps in the literature by examining a possible mechanism (internalization) for intergenerational continuity of religious value transmission.

An interesting component of religious value transmission is that parents can simultaneously maintain two sets of sometimes incompatible values. A parent's values—those values that parents have internalized—can be differentiated from their 'socialization values'—those values that they would like their children to internalize (Knafo & Galansky, 2008). Although these values may overlap, one study reported that the correlation of the two values is as low as 0.51, and up to 0.85, suggesting that, even with the highest concordance of the values, there was still some lack of agreement (Whitbeck & Gecas, 1988). This may be one of the best explanations for why religiosity changes from generation to generation; parents may be trying to transmit values that differ from their own. The incongruence of parents' values with their socialization values may be due to a desire for their children to assimilate better with the modern, secular society that is moving away from what are perceived to be more archaic beliefs, or a desire for their children to adhere to the church's teachings better than they did. The simultaneous holding of two value systems (one for the self and the other for their children) makes for an interesting discussion about how value transmission may change from generation to generation.

Each generation wanting something slightly different for their children from what they, themselves, internalized may, in part, lead to decreased similarities in parental practices across generations. Interestingly, Snarey (1993) found that men maintained and replicated positive aspects of their own fathers' parenting, while concurrently revising or omitting less satisfactory practices. Although these results seem to suggest that parents prune the negative practices of prior generations, thus leading to progressively better parenting, this is not always the case. Campbell and Gilmore (2007) found that

intergenerational continuity of adverse and poor parenting practices was common, whereas the revision and removal of such practices from parents' repertoire was uncommon. Other researchers have found similar results with the continuity of harsh practices (reviewed in Campbell & Gilmore, 2007). Pasternak (2014) found that mothers tended to replicate the parenting style of their own mothers, regardless of the specific style.

The use of conditional regard, for example, is frequently observed from generation to generation (Assor et al., 2004). Assor and colleagues (2004) conceptualized parental conditional regard by drawing on components of Rogers' (1959) theory of conditional and unconditional regard. The main premise of this socialization practice is that parents make their love and affection contingent on their children's behaviors (Assor et al., 2004). There is some debate as to the efficacy of this practice (reviewed in Assor et al., 2004). Proponents of its use suggest that it can be a powerful tool in shaping children's behaviors (Assor et al., 2004; Haines & Schutte, 2022; Roth et al., 2009). From an operant perspective, it is a prototype of positive reinforcement, in that the provision of love and affection will increase the likelihood of the child behaving similarly in the future (Assor et al., 2004; McDowell, 1988; Roth et al., 2009). This form of conditioning will theoretically result in the desired behavioral outcome as the child learns to discriminate between desired and undesired behaviors. There is evidence to support the view that conditional regard is an effective socialization practice, in that long-term behaviors established through this practice have persisted; however, there is a growing body of research that opposes the use of conditional regard, citing serious psychological and emotional consequences (Assor et al., 2004).

The affective concerns surrounding the use of conditional regard have been present since Rogers argued that conditional regard undermines both self-regulation and self-development by placing important self-concepts, such as self-esteem and self-worth under contingencies (Rogers 1951; 1959). Since the 1950s, researchers have pointed to a concerning relationship between conditional regard and poor well-being (Assor et al., 2004, 2014). Moreover, any positive affective outcomes associated with conditional regard are often fleeting (Roth, 2008). Yet, despite the tangible evidence suggesting that the use of conditional regard in socializing children may lead to maladaptive outcomes, its use has continued and seems to persist from generation to generation (Assor et al., 2004). Assor and colleagues (2004) found that, despite reporting negative consequences of experiencing conditional regard in their own childhood, parents would often still use conditional regard with their own children. This unexpected pattern of intergenerational continuity of conditional regard in the face of undesirable outcomes makes the examination of intergenerational continuity of religious transmission an interesting avenue for exploration, as many of the premises that seem logically determined may be more complex than would be expected on the surface.

A popular suggestion for the continuation of adverse parenting practices and styles is that they may be products of intergenerational modeling. In a focus group study aimed at understanding parental motivations and practices, some participants suggested that they often referred to their prior experiences with their own parents while growing up to better understand and dispense the ‘best’ practices for raising their own children (Horwath et al., 2008). It is also conceivable that people may have a bias to reflect more positively on their parents’ practices, as a negative valuation may reflect poorly on them.

Another option is that the continuation of certain practices may not be intentional, but rather attributable to a lack of appropriate alternative models and other necessary resources (Dixon et al., 2009). A further possibility is that, based on the strength of their internalizations, they may feel compelled to continue the cycle that instilled in them their values (Assor et al., 2005). Conditional regard, for example, has frequently been implicated with introjected internalization (Assor et al., 2004; 2005; Brambilla et al., 2015; Grolnick et al., 1997). This link makes sense as they are both characterized by feelings of guilt and compulsion sourcing from either an external contingency, as with conditional regard, or internal contingencies, as with introjection (Assor et al., 2004; Haines & Schutte, 2022).

This study primarily focused on assessing how the modeling of behaviors and a person's level of internalization are implicated in the intergenerational continuity of religious value transmission. There were four specific religious experiences assessed: assurance (i.e., presenting God as benevolent and loving), disapproval and punishment (i.e., presenting God as strict and vengeful), social involvement (i.e., encouraging their child to participate in religious activities), and encouraged skepticism (i.e., allowing their child to question their own religion; Tratner et al., 2017a). It was hypothesized that intergenerational continuity would be evidenced in positive associations between past and current religious experiences. It was further hypothesized that the associations between past and current experiences would be mediated by internalization; however, there were no a priori hypotheses about how introjected internalization and identified internalization would differ in their respective mediations of the different experiences. Additionally, I examined whether the associations between past religious experiences and level of

internalization was dependent on the level of conditional regard participants perceived from their own parents while they were growing up (henceforth PCR). It was hypothesized that PCR would moderate the relationship between past religious experiences and internalization, particularly introjection. The model assessed in this study is illustrated in Figure 3. Moreover, it was anticipated that people's perception of God as exhibiting conditional regard would positively correlate with their reported levels of PCR.

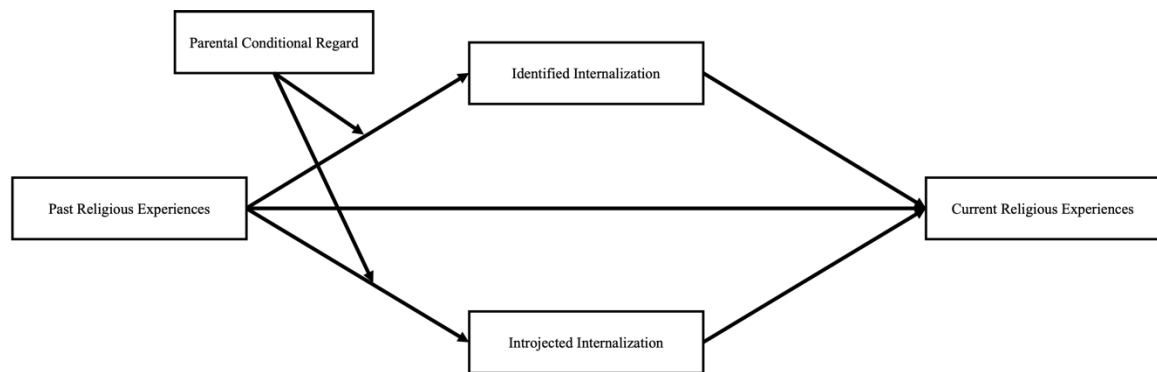


Figure 3. Moderated Mediation Model for Study Three: Parenthood

Method

Participants and Procedure

A total of 305 participants were recruited for this study. Responses from 12 participants were excluded from the model because they failed to pass the attention checks. There was one outlier that was excluded from the analyses. Because gender was

included as a covariate, responses that fell outside the traditional binary for participant and primary caregiver were excluded. The gender criteria removed an additional 13 responses from the analyses. Responses from 279 participants (112 male, 167 female) were analyzed. The average age for the sample was 40.83 years ($SD = 8.61$), and the ethnic breakdown was as follows: 74.91% white/Caucasian, 15.05% Hispanic, 11.83% black/African American, 3.58% Asian, and 1.08% American Indian/Alaska Native. Ethnicity was not exclusive; participants could select all that applied to them. Participants were recruited from Connect by Cloud Research, an online research participant recruitment platform with highly specific demographic targeting. Specifically, this study recruited participants over the age of 18 years who identified as Catholic and were the parent to at least one school-aged child (i.e., between the ages of 5 and 18 years, inclusive). Participants were paid four dollars for completing the survey, which took approximately 20 minutes to complete. Participants were recruited using a financially-based stopping rule; that is, they were recruited until the available funds expired. Participants completed questions relating to demographic information and measures examining their value internalization, similarity of value transmission to their parents, and perceived conditional regard via a secure website (Qualtrics).

Measures

Participants were asked to identify the primary caregiver who had the greatest influence on their development and identity formation in their childhood and to refer to that individual throughout the survey. They were then asked to provide demographic information about themselves and their primary caregiver, including gender, age, ethnicity, and some other questions not discussed in further detail here.

Parental Conditional Regard Questionnaire (PCR). This modified 10-item scale, developed by Itzhaki and colleagues (2018), measured the level of conditional regard participants experienced from their parents while growing up ($\alpha = .93$). The scale was designed to examine conditional regard in the Jewish community, so references to Jewish practices (e.g., “keeping Jewish commandments”) were replaced with practices reflecting the Catholic faith (e.g., “following the Church’s teachings”). Illustrative items include, “I give my child warm regard when they work hard to follow the church’s teachings” and “I am disappointed when my child does not immerse themselves in their studies.” Each item was rated on a Likert-type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

God Conditional Regard Questionnaire (GCR). To examine participants’ perception of God’s conditional regard in their lives, the Parental Conditional Regard Questionnaire (Itzhaki et al., 2018) was modified to focus on God, rather than parents as the socializing agent. Illustrative items for this questionnaire included, “when I don’t encourage my family to follow Christ, I feel that God is unsatisfied with me” and “if I bring my family to Mass, I feel that God loves me more.” Items were rated on the same 5-point Likert-type scale from the Parental Conditional Regard Questionnaire ($\alpha = .90$).

Measures used in Prior Studies. This study made use of a variety of scales that were also included in Studies One and Two. Participants completed the Childhood Religious Experience Inventory: Primary Caregiver (CREI:PC; Tratner et al., 2017a) twice, once reflecting on their experiences while they were a child (assurance subscale: $\alpha = .92$; disapproval and punishment subscale: $\alpha = .86$; social involvement subscale: $\alpha = .82$; encouraged skepticism subscale: $\alpha = .85$) and a second time evaluating the current

experiences they have with their children (assurance subscale: $\alpha = .90$; disapproval and punishment subscale: $\alpha = .88$; social involvement subscale: $\alpha = .90$; encouraged skepticism subscale: $\alpha = .83$). Unlike Study Two, which assessed the CREI:PC as a single score, the subscales were assessed individually in this study's analyses.

Participants also completed the Autonomous and Controlled Motivations for Agreement with Parental Values scale (ACM: autonomous subscale: $\alpha = .83$; controlled subscale: $\alpha = .84$; Knafo & Assor, 2007) and the Christian Religious Internalization Scale (CRIS; identified subscale: $\alpha = .87$; introjected subscale: $\alpha = .85$; Ryan et al., 1993).

Additional Measures. Participants completed the Santa Clara Strength of Religious Faith Questionnaire (Plante & Boccaccini, 1997), the Christian Faith Practices Scale (Sherr et al., 2009), and the Socialization and Emotional Based Religiosity Scales (Granqvist & Hagekull, 1999); however, data from these measures were not analyzed here in the interest of parsimony.

General Analytic Approach

Data Reduction. Because two scales (ACM and CRIS) were used to capture two constructs—identified and introjected internalization—a principal components analysis (PCA) was conducted with all 24 items from both measures with a promax rotation restricting the outcome to two components and including items with eigenvalues greater than 1.0. All factor loadings were greater than the minimum cut-off, which was set at .4. The first extracted component included items reflecting autonomous motivations (on the ACM) and identified internalization (on the CRIS). The second extracted component included items reflecting controlled motivations (on the ACM) and introjected internalization (on the CRIS). The results of the PCA supported the decision to create two

composite scores, one for identified internalization and one for introjected internalization. These standardized composite scores served as mediators in the following models.

Tests of Mediation and Moderated Mediation. The four subscales of the CREI:PC (assurance, disapproval/punishment, social involvement, and encouraged skepticism) were treated as both past and present measures of religious behaviors. The responses to the CREI:PC that concerned how the respondents' parents had behaved with them during their childhood served as predictors and the responses to the same CREI:PC subscales that reflected the respondents' own current behavior toward their own children served as outcomes in separate mediation analyses. Identified and Introjected Internalization were treated as mediators in each model using model four of the PROCESS macro developed by Hayes (2012), which uses a bootstrap resampling procedure that was repeated 5,000 times to generate 95% confidence intervals (CIs). Indirect effects were considered significant if the CIs did not contain zero.

Additionally, a series of four moderated mediation analyses were conducted using model seven of the same PROCESS macro (Hayes, 2012) to determine whether the associations between past religious experiences and the different levels of internalization were moderated by their experiences with receiving parental conditional regard in their youth (PCR). That is, parental conditional regard was tested as a moderator of the association between participants' past religious experiences and their own levels of introjected internalization and identified internalization.

Moreover, covariates of the gender of the participants and their identified primary caregivers, and the interaction of these genders (i.e., whether they were the same or different) were included in each of the models outlined above to control for known

effects of gender in religious value transmission (Acock & Bengtson, 1978; Barry et al., 2012; Campbell & Gilmore, 2007; Flor & Knapp, 2001).

Results

Descriptive Statistics and Correlations

The means, *SDs*, and zero-order correlations for the variables are displayed in Table 3. Participants were asked to complete the CREI:PC twice. The first time they were instructed to reflect on their own childhood; these responses were the basis for past religious experience. The second time, they were asked to reflect on how they are currently raising their child/children; these responses were used to indicate their current religious experiences. The CREI:PC is composed of four constituent subscales, each relating to a different type of religious experience: assurance, disapproval and punishment, social involvement, and encouraged skepticism. Each of the four subscales were considered individually to examine the differential effects of each type of experience. Individual scores for identified and introjected internalization were calculated from the ACM and CRIS (see the data reduction section above). A visual examination of the histograms and Q-Q plots, as well as assessments for skew and kurtosis, showed that the data met the assumption of normality.

An inspection of the correlation matrix (Table 3) reveals that past religious experiences were significantly correlated with current religious experiences (assurance: $r = .57, p < .001$; disapproval/punishment: $r = .72, p < .001$; social involvement: $r = .59, p < .001$; encouraged skepticism: $r = .49, p < .001$). Whereas disapproval/punishment and social involvement were significantly correlated with both forms of internalization, they were more strongly correlated with introjection (past disapproval/punishment: $r = .59, p$

$< .001$; current disapproval/punishment: $r = .59, p < .001$; past social involvement: $r = .50, p < .001$; current social involvement: $r = .52, p < .001$) than with identified internalization (past disapproval/punishment: $r = .22, p < .001$; current disapproval/punishment: $r = .29, p < .001$; past social involvement: $r = .29, p < .001$; current social involvement: $r = .36, p < .001$). The opposite pattern was observed for assurance, which was more strongly correlated with identified internalization (past assurance: $r = .52, p < .001$; current assurance: $r = .69, p < .001$) than introjection (past assurance: $r = .14, p = .017$; current assurance: $r = .18, p = .003$). The most notable correlation observed with encouraged skepticism was that identified internalization was negatively correlated with current encouraged skepticism ($r = -.14, p = .024$). Other notable correlations centered around participants' experiences with receiving parental conditional regard (PCR) when they were growing up. PCR was significantly correlated with participants' perceptions of God as exhibiting conditional regard (GCR; $r = .66, p < .001$). PCR was also positively correlated with disapproval/punishment (past: $r = .67, p < .001$; current: $r = .58, p < .001$). Finally, PCR and introjected internalization were significantly positively correlated ($r = .74, p < .001$).

Table 3. Zero order correlations and descriptive statistics for Study Three: Parenthood
 $*p < .05$. $**p < .01$. $***p < .001$.

	1	2	3	4	5	6	7	8	9	10	11	12
<u>Past</u>												
1. Assurance	---											
2. Disapproval/Punishment	.32***	---										
3. Social Involvement	.39***	.53***	---									
4. Encouraged Skepticism	.11	.24***	.10	---								
<u>Conditional Regard</u>												
5. Parental	.19**	.67***	.51***	.17**	---							
6. God	.16**	.55***	.38***	.25***	.66***	---						
<u>Internalization</u>												
7. Identified	.52***	.22***	.29***	.15*	.14*	.30***	---					
8. Introjected	.14*	.59***	.50***	.21***	.74***	.67***	.20***	---				
<u>Current</u>												
9. Assurance	.57***	.23***	.31***	.22***	.14*	.30***	.69***	.18**	---			
10. Disapproval/Punishment	.21***	.72***	.44***	.46***	.58***	.63***	.29***	.59***	.31***	---		
11. Social Involvement	.22***	.50***	.59***	.25***	.45***	.46***	.36***	.52***	.38***	.64***	---	
12. Encouraged Skepticism	.11	.22***	.10	.49***	.16**	.11	-.14*	.12	-.06	.16**	.05	---
Mean	4.44	2.34	3.21	2.63	2.76	2.93	5.40	3.67	4.33	1.75	2.78	3.11
Standard Deviation	1.45	1.82	1.70	1.92	1.01	0.86	0.93	1.37	1.41	1.86	1.94	1.88
Minimum	0	0	0	0	1	1	2.58	1	0	0	0	0
Maximum	6	6	6	6	5	5	7	7	6	6	6	6

Tests of Mediation and Moderated Mediation

None of the covariates (i.e., gender of the participant, parent, and their interaction) had a significant impact on any of the four models.

Assurance.

Mediation. The results were consistent with an indirect effects model, such that the relationships between past and current assurance behaviors were mediated by participants' level of identified internalization. Past assurance behavior was positively associated with identified internalization ($a_1 = 0.270$, $t(270) = 9.836$, $p < .001$), which in turn, was positively associated with current assurance behaviors ($b_1 = 0.957$, $t(268) = 10.294$, $p < .001$). Moreover, past assurance behavior was significantly positively associated with introjected internalization ($a_2 = 0.088$, $t(270) = 2.337$, $p = .020$); however, the association between introjected internalization and current assurance behavior was not significant ($b_2 = 0.069$, $t(268) = 1.018$, $p = .310$). The association between past and current assurance behavior was reduced when the mediators were included in the model, but still reached conventional significance levels ($c' = 0.292$, $t(270) = 6.052$, $p < .001$). Tests of mediation suggest that past assurance behavior had a significant positive association with current assurance behavior through identified internalization ($a_1b_1 = 0.26$, $p < .001$, 95% CI: [.182, .337]), but not through introjected internalization ($a_2b_2 = 0.01$, $p = .38$, 95% CI: [-.006, .020]). The nonzero direct and indirect associations between the predictor and outcome suggest that there is at least partial mediation of past and current assurance behaviors through identified internalization.

Moderated Mediation. Whereas neither past assurance ($a_1 = 0.124$, $t(268) = 1.694$, $p = .091$) nor PCR ($\beta = -0.251$, $t(268) = -1.844$, $p = .066$) significantly predicted identified internalization, the interaction between past assurance behavior and PCR significantly predicted identified internalization ($\beta = 0.058$, $t(268) = 2.116$, $p = .035$). Simple slopes tests at values that were 1 *SD* above and 1 *SD* below the mean value of PCR, representing individuals who experienced high levels of PCR and low levels of PCR, respectively, indicated that the association between past assurance behavior and identified internalization was significant at both low levels of PCR ($\beta = 0.222$, $t(268) = 6.410$, $p < .001$) and high levels of PCR ($\beta = 0.350$, $t(268) = 7.255$, $p < .001$), but the association was greatest at high levels.

Past assurance behavior ($a_2 = -0.161$, $t(268) = -2.365$, $p = .019$) and PCR ($\beta = 0.330$, $t(268) = 2.592$, $p = .010$) significantly predicted introjected internalization. Additionally, the interaction between past assurance and PCR significantly predicted participants' introjected internalization ($\beta = 0.068$, $t(268) = 2.649$, $p = .009$). Simple slopes tests indicated that the association between past assurance behavior and introjected internalization was significant at high levels of PCR ($\beta = 0.103$, $t(268) = 2.299$, $p = .022$), but not at low levels of PCR ($\beta = -0.046$, $t(268) = -1.413$, $p = .159$).

The index of moderated mediation was not significant for either mediator (identified: $\beta = 0.056$, 95% CI [-.014, .137]; introjected: $\beta = 0.005$, 95% CI [-.004, .019]), which suggests that the effect of the moderator is confined to the relationship between the predictor and mediators.

Disapproval and Punishment.

Mediation. The results were consistent with an indirect effects model, such that the relationships between past and current disapproval/punishment (D & P) behaviors were mediated by participants' level of both identified and introjected internalization. The results of this analysis show that past D & P behavior was positively associated with identified internalization ($a_1 = 0.083$, $t(271) = 3.314$, $p = .001$), which in turn, was positively associated with current D & P behaviors ($b_1 = 0.263$, $t(269) = 2.615$, $p = .009$). Moreover, past D & P behavior was significantly positively associated with introjected internalization ($a_2 = 0.296$, $t(271) = 12.083$, $p < .001$), which in turn, was positively associated with current D & P behaviors ($b_2 = 0.512$, $t(269) = 4.973$, $p < .001$). The association between past and current D & P behaviors was reduced when the mediators were included in the model, but still reached conventional significance levels ($c' = 0.551$, $t(271) = 10.690$, $p < .001$). Tests of mediation suggest that past D & P behavior had a significant positive association with current D & P behavior through both identified internalization ($a_1b_1 = 0.022$, $p = .046$, 95% CI: [.004, .044]) and introjected internalization ($a_2b_2 = 0.152$, $p < .001$, 95% CI: [.077, .236]). The nonzero direct and indirect associations between the predictor and outcome suggest that there is at least partial mediation of past and current D & P behaviors through both identified and introjected internalization.

Moderated Mediation. Neither past D & B behavior ($a_1 = -0.048$, $t(269) = -0.544$, $p = .587$) nor PCR ($\beta = -0.130$, $t(269) = -1.408$, $p = .160$) significantly predicted

identified internalization. Additionally, the interaction between these two variables was not significant ($\beta = 0.045$, $t(269) = 1.672$, $p = .096$). The index of moderated mediation for the indirect effect of past D & P behavior on current D & P behavior through identified internalization was also non-significant ($\beta = 0.012$, 95% CI: [-.003, .033]).

Whereas PCR ($\beta = 0.392$, $t(269) = 5.333$, $p < .001$) significantly predicted introjected internalization, past D & P behavior did not ($a_2 = -0.086$, $t(269) = -1.227$, $p = .221$). The interaction between these two variables was significant in predicting participants' introjected internalization ($\beta = 0.059$, $t(269) = 2.744$, $p = .007$). Simple slopes tests indicated that the association between past D & P behavior and introjected internalization was significant at high levels of PCR ($\beta = 0.146$, $t(269) = 4.375$, $p < .001$), but not at low levels of PCR ($\beta = 0.015$, $t(269) = 0.386$, $p = .694$). The index of moderated mediation for the indirect effect of past D & P behavior on current D & P behavior through introjected internalization was significant ($\beta = 0.030$, 95% CI [.009, .060]). The indirect link of past D & P with current D & P through introjected internalization was significant at high levels of PCR ($\beta = 0.075$, 95% CI [.030, .135]), but not at low levels of PCR ($\beta = 0.008$, 95% CI [-.023, .042]).

Social Involvement.

Mediation. The results were consistent with an indirect effects model, such that the relationships between past and current social involvement behaviors were mediated by participants' level of both identified and introjected internalization. The results of this analysis show that past social involvement behavior was positively associated with identified internalization ($a_1 = 0.128$, $t(271) = 4.916$, $p < .001$), which in turn, was

positively associated with current social involvement behavior ($b_1 = 0.423$, $t(269) = 3.465$, $p < .001$). Moreover, past social involvement behavior was significantly positively associated with introjected internalization ($a_2 = 0.260$, $t(271) = 9.242$, $p < .001$), which in turn, was positively associated with current social involvement behavior ($b_2 = 0.625$, $t(269) = 5.517$, $p < .001$). The association between past and current social involvement behavior was reduced when the mediators were included in the model, but still reached conventional significance levels ($c' = 0.464$, $t(271) = 7.557$, $p < .001$). Tests of mediation suggest that past social involvement behavior had a significant positive association with current social involvement behavior through both identified internalization ($a_1b_1 = 0.054$, $p = .005$, 95% CI: [.020, .097]) and introjected internalization ($a_2b_2 = 0.162$, $p < .001$, 95% CI: [.098, .239]). The nonzero direct and indirect associations between the predictor and outcome suggest that there is at least partial mediation of past and current social involvement behaviors through both identified and introjected internalization.

Moderated Mediation. Neither past social involvement behavior ($a_1 = 0.022$, $t(269) = 0.290$, $p = .772$) nor PCR ($\beta = -0.175$, $t(269) = -1.631$, $p = .104$) significantly predicted identified internalization. Additionally, the interaction between these two variables was not significant ($\beta = 0.042$, $t(269) = 1.618$, $p = .107$). The index of moderated mediation for the indirect effect of past social involvement behavior on current social involvement behavior through identified internalization was also non-significant ($\beta = 0.018$, 95% CI: [-.004, .050]).

Past social involvement behavior ($a_2 = -0.121$, $t(269) = -1.976$, $p = .049$) and PCR ($\beta = 0.305$, $t(269) = 3.538$, $p < .001$) significantly predicted introjected internalization.

Additionally, the interaction between these two variables was significant in predicting participants' introjected internalization ($\beta = 0.077$, $t(269) = 3.659$, $p < .001$). Simple slopes tests indicated that the association between past social involvement behavior and introjected internalization was significant at high levels of PCR ($\beta = 0.179$, $t(269) = 5.050$, $p < .001$), but not at low levels of PCR ($\beta = 0.010$, $t(269) = 0.310$, $p = .757$). The index of moderated mediation for the indirect effect of past social involvement behavior on current social involvement behavior through introjected internalization was significant ($\beta = 0.048$, 95% CI [.018, .088]). The indirect link of past social involvement with current social involvement through introjected internalization was significant at high levels of PCR ($\beta = 0.112$, 95% CI [.055, .184]), but not at low levels of PCR ($\beta = 0.006$, 95% CI [-.042, .047]).

Encouraged Skepticism.

Mediation. The results were consistent with an indirect effects model, such that the relationships between past and current encouraged skepticism behaviors were mediated by participants' level of identified internalization. The results of this analysis show that past encouraged skepticism behavior was positively associated with identified internalization ($a_1 = 0.054$, $t(271) = 2.596$, $p = .025$), which in turn was significantly negatively associated with current encouraged skepticism behavior ($b_1 = -0.528$, $t(269) = -3.995$, $p < .001$). Moreover, past encouraged skepticism behavior was significantly positively associated with introjected internalization ($a_2 = 0.098$, $t(271) = 3.518$, $p < .001$); however, the association between introjected internalization and current encouraged skepticism behavior was not significant ($b_2 = 0.118$, $t(269) = 1.046$, $p =$

.297). The association between past and current encouraged skepticism increased when the mediators were included in the model ($c' = 0.503$, $t(271) = 9.635$, $p < .001$). Tests of mediation suggest that past encouraged skepticism behavior had a marginally significant negative association with current encouraged skepticism behavior through identified internalization ($a_1b_1 = -0.028$, $p = .055$, 95% CI: [-.062, -.001]), but not through introjected internalization ($a_2b_2 = 0.012$, $p = .333$, 95% CI: [-.012, .040]). The nonzero direct and indirect associations between the predictor and outcome suggest that there is at least partial mediation of past and current encouraged skepticism behaviors through identified internalization.

Moderated Mediation. Whereas encouraged skepticism behavior ($a_1 = -0.148$, $t(269) = -2.164$, $p = .031$) significantly predicted identified internalization, PCR did not ($\beta = -0.127$, $t(269) = -1.572$, $p = .117$). The interaction between these two variables was significant in predicting participants' identified internalization ($\beta = 0.068$, $t(269) = 3.035$, $p = .003$). Simple slopes tests indicated that the association between past encouraged skepticism behavior and identified internalization was significant at high levels of PCR ($\beta = 0.118$, $t(269) = 3.545$, $p < .001$), but not at low levels of PCR ($\beta = -0.032$, $t(269) = -0.916$, $p = .361$). The index of moderated mediation for the indirect effect of past encouraged skepticism behavior on current encouraged skepticism behavior through identified internalization was significant ($\beta = -0.036$, 95% CI [-.074, -.008]). The indirect link of past encouraged skepticism with current encouraged skepticism through identified internalization was significant at high levels of PCR ($\beta = -0.062$, 95% CI [-.109, -.023]), but not at low levels of PCR ($\beta = 0.017$, 95% CI [-.026, .073]).

Past encouraged skepticism behavior ($a_2 = -0.172$, $t(269) = -3.159$, $p = .002$) and PCR ($\beta = 0.417$, $t(269) = 6.476$, $p < .001$) significantly predicted introjected internalization. Additionally, the interaction between these two variables was significant in predicting participants' introjected internalization ($\beta = 0.075$, $t(269) = 4.180$, $p < .001$). Simple slopes tests indicated that the association between past encouraged skepticism behavior and introjected internalization was significant at high levels of PCR ($\beta = 0.119$, $t(269) = 4.511$, $p < .001$), but not at low levels of PCR ($\beta = -0.045$, $t(269) = -1.611$, $p = .108$). The index of moderated mediation for the indirect effect of past encouraged skepticism behavior on current encouraged skepticism behavior through introjected internalization was non-significant ($\beta = 0.009$, 95% CI [-.009, .029]).

Discussion

This study aimed to examine how parents' level of internalization mediates the relationship between the religious experiences they had in their own childhood (henceforth past religious experiences) and the ways in which they are currently exposing their children to religion (henceforth current religious experiences) now that they, themselves, are parents. I also examined whether the association between past religious experiences and internalization was moderated by the level of conditional regard participants perceived from their own parents while they were growing up (henceforth PCR). Four specific religious experiences were assessed: assurance, disapproval and punishment, social involvement, and encouraged skepticism (Tratner et al., 2017a).

Intergenerational continuity of religious value transmission was evident in the significant, positive associations between past and current religious experiences. These

results add to a growing literature outlining the similarities in parenting practices and styles from generation to generation (Assor et al., 2004; Neppl et al., 2009; Otterpohl et al., 2020; Pasternak, 2014; Van Ijzendoorn, 1992). Parents often refer to their own childhood experiences in determining the ‘best’ practices for raising their own children (Horwath et al., 2008). It is also suggested that parents maintain two separate sets of values: one for their personal values, and the other for their socialization values (i.e., the values that they want to instill in their children; Knafo & Galansky, 2008; Whitbeck & Grecas, 1988). Whereas intergenerational continuity is observed in the overlap between these two sets of values, generational progression and value realignment is evidenced in their disagreement (Knafo & Galansky, 2008). The imperfect correlations between past and current experiences found in this study support the notion that parents evaluate and revise the values that they pass along to their children, passing along the values perceived to be the most important and pruning practices they find unfavorable.

In addition to examining the overall concordance of past and current religious experiences, this study assessed the mediating role of internalization in each of the four experiences. Overall, the results of this study support the hypothesis that past and current religious behaviors are mediated by internalization; however, there were interesting differences in the specific religious experiences that were mediated by both identified and introjected internalization and those that were exclusively mediated by identified internalization. Notably, both identified and introjected internalization mediated the relationships between past and current disapproval/punishment behaviors and social involvement behaviors. Assurance and encouraged skepticism behaviors were mediated

only by identified internalization. There were no a priori hypotheses about how the two forms of internalization would differently mediate the relationships between the four religious experiences. However, thoughtful reflection on the items that generated the disapproval/punishment and social involvement scores yielded a potential explanation for the differences observed.

Introjected internalization is a superficial form of internalization, wherein external contingencies are shifted inwards, resulting in feelings of guilt and shame (Assor et al., 2004; 2005; Brambilla et al., 2015; Roth, 2008). Introjection can be a strong predictor of behavioral enactment in the right circumstances. Although this form of internalization is not strictly reliant upon external pressures to regulate behaviors, it is highly susceptible to external influences and may falter in the long-term in the absence of such contingencies (Assor et al., 2005; Vansteenkiste & Deci, 2003, Vansteenkiste et al., 2004). The notion that values and behaviors regulated by introjected internalization may not persist long term if there is no external pressure motivating its continued enactment may explain the interesting differences observed in this study. At this stage in the participants' lives, the overall influence and pressures extolled by their own parents is likely far weaker than at other stages in their lives (i.e., during their childhood). It may, therefore, be reasonable to suggest that, in the absence of parental pressures, values and behaviors regulated by introjected internalization are less likely to be enacted, as was observed with assurance and encouraged skepticism.

Both disapproval/punishment and social involvement, however, can be said to have an underlying external pressure that is separate from parental pressures. Social

involvement, as assessed by the CREI:PC (Tratner et al., 2017a), was conceptualized as the parent encouraging their child to participate in religious activities (e.g., “I have encouraged my child to join a religious youth group”). The encouragement of such public devotion is highly motivated by social pressures, as people are acutely aware of which values are perceived to be important in one’s community. It is through this awareness that parents are motivated to instill values in their children that are, not just personally but, societally important (Tam & Lee, 2010). Within the Catholic church, parents are held in high regard as the primary agents through which their children are supposed to receive religious education (Francis & Casson, 2019). *Reference group theory* suggests that the more people engage in the activities of a group, the more the group’s values will be reinforced, thereby leading to an increased adherence to those values (Desmond & Kraus, 2014). Within the context of the church, parents who are active parishioners may be more likely to encourage their children to be involved because it aligns with their group norms and would reflect positively on them for acting in accord with the church’s doctrine. It is, therefore, unsurprising that past and current social involvement was mediated through introjected internalization, not just through identified internalization. Encouraging one’s child to be involved in the church can serve as a public display of faith that can be evaluated and critiqued by other parishioners. The social pressure inherent to social involvement may explain why introjected internalization was positively associated, specifically, with current social involvement.

Unlike social involvement, disapproval/punishment does not have the same conceptual link to social pressures. It is implicated with a different external pressure:

God. Disapproval/punishment was conceptualized as the parent presenting God as strict, emphasizing the harsh repercussions for failing to behave in accordance with His will (e.g., “your actions have made God upset,” “you will suffer in the afterlife if you misbehave”). People have a tendency to incorporate their prior experiences with their parents into their religious devotion and depictions of God (Granqvist et al., 2010; Kirkpatrick, 1998). This often results in people viewing God similarly to how they view their parents (Assor et al, 2005; Horwath et al., 2008). God, therefore, serves as a pseudo-parental figure whose presence persists into adulthood. The perception of God as a strict disciplinarian may act as an external pressure to facilitate the continued enactment of behaviors regulated by introjected internalization, thereby providing an explanation for the association between introjection and current disapproval/punishment.

Why, then, does introjected internalization mediate the association between past and current disapproval/punishment, but not past and current assurance? Although both religious experiences are related to the ways in which parents encultured their children to God, the messages are drastically different. Contrasting with disapproval/punishment, assurance was conceptualized as the parent expressing positive and warm sentiments about God and His relationship with their child and family (e.g., “God has blessed our family,” “believing in God will help you through difficult times,” “God loves you”). Although past assurance and disapproval/punishment were both associated with introjected and identified internalization, the presentation of God as benevolent and forgiving may diminish the external pressures felt by God. In other words, the perception of God as controlling and conditional in his love (i.e., disapproval/punishment) may serve

as an external pressure, encouraging people to act on their introjected internalizations; in contrast, presenting God as loving and forgiving (i.e., assurance) may not evoke the same pressures, resulting in a discontinuance of those behaviors.

The aforementioned idea that people view their parents and God similarly (Assor et al., 2005; Horwath et al., 2008) was supported by the results of this study. There was a significant positive correlation between PCR and participants' perceptions of God exhibiting conditional regard (GCR), suggesting that participants perceive their parents and God as exhibiting similar levels of conditional regard. Because they were so strongly correlated, only PCR was included in the analyses. The results of the moderated mediation models supported the hypothesis that the association between past religious experiences and internalization, particularly introjection, would depend on the level of PCR participants perceived in their youth. PCR moderated the associations between all four past religious experiences and introjected internalization; the associations were all significant at high levels of PCR, but not at low levels. This interaction of past religious experiences with PCR in predicting introjected internalization builds on prior observations of direct positive associations between PCR and introjected internalization (Assor et al., 2004; 2005; Brambilla et al., 2015; Grolnick et al., 1997).

Of note were the unanticipated results that the moderating effect of PCR was not limited exclusively to introjection, as was initially hypothesized. The associations between past assurance and encouraged skepticism and identified internalization were each moderated by PCR. Research on the relationship between PCR and internalization has focused primarily on introjected internalization, with little emphasis on identified

internalization. This is because the underlying logic of PCR and introjection are incredibly similar: people behave in a certain way because of some perceived consequence, whether that be a parent withholding love and affection, or an internal sense of guilt and shame (Assor et al., 2004; 2005; Brambilla et al., 2015; Roth, 2008). They both work in ways that threaten a person's self-esteem and self-worth should they fail to meet expectations (Assor et al., 2004; Haines & Schutte, 2022). At this juncture, there are no compelling hypotheses to explain PCR's association with identified internalization or why it moderated associations only between assurance and encouraged skepticism and identification. Further research would be needed to better extrapolate and understand this interesting result.

Beyond its unexplained interaction with PCR in predicting identified internalization, encouraged skepticism yielded another intriguing and unanticipated result: it was the only religious experience wherein the intergenerational "cycle" was broken. All other significant associations were positive, in that there was agreement between past and current religious experiences, and between internalization and current religious experiences, which suggests that there is some level of continuity in parenting practices as they relate to religious experiences. Although there was a positive association for the direct path from past to current encouraged skepticism, and past encouraged skepticism was positively associated with identified internalization, identified internalization was, in turn, negatively associated with current encouraged skepticism. This result could be attributed to the social-desirability bias, in that participants may have reported lower levels of current encouraged skepticism, because they perceived such

practices as being less “socially acceptable (Grimm, 2010; Krumpal, 2013).” This explanation, while valid, seems insufficient, as if this were the driving force, one would expect to see a similar negative association in the direct pathway of past to current encouraged skepticism, not just in the pathway from identified internalization to current encouraged skepticism.

The negative association could, alternatively, be explained through the lens of the parent’s past experiences. The term, encouraged skepticism, may be slightly misleading, as it is not referring to parents actively encouraging their child to question their faith, but rather that parents have allowed their children to make their own choices and critically consider their faith and its underlying tenets (e.g., “I have allowed my child to choose their own religious beliefs,” “I have allowed my child to choose whether or not he/she attended Mass”). According to the self-determination theory, human behavior is motivated by three fundamental needs: competence, relatedness, and autonomy (Deci & Ryan, 2000). As it relates to identified internalization, individuals who were exposed to autonomy-supporting conditions tended to internalize values more fully, as compared to when they were raised under more controlling conditions (Grolnick et al., 1997). Encouraged skepticism can be seen as the parent providing an autonomy-supporting environment in which their children can question and independently come to conclusions about their own faith.

It can seem counterintuitive to suggest that increased challenges to one’s faith would lead to fuller internalization of the associated values, but this pattern mirrors findings in the cognitive dissonance literature that individuals, following a difficult

choice, tend to subjectively enhance that which they choose and denigrate the options they did not select (Brehm, 1956; Lyubomisky & Ross, 1999). After a period of religious doubt or questioning, individuals who persist in their beliefs may show a greater affinity for their beliefs to assuage any cognitive dissonance surrounding their chosen path. Nearly all religious individuals, at some point in their spiritual journey, will doubt God's existence or question important tenets of the Church (Pojman, 1986). It is through these doubts that a more profound appreciation and understanding of the faith develops. Faith in the absence of evidence often forms the backbone of religious beliefs and teachings. A philosopher, Pojman (1986), suggested that "the suffering of doubt may be the cross that a disciple must learn to bear (pg. 160)," adding that doubt encourages the faithful to reevaluate and contemplate difficult religious teachings, thereby leading to a deeper understanding and appreciation of their beliefs. Further, it provides the impetus to be able to justify one's beliefs in the face of scrutiny (Pojman, 1986).

Parents who experienced high levels of encouraged skepticism, and eventually came to identify with their religious values, may have experienced a distressing period of doubt and internal conflict before rectifying such disparate cognitions. Therefore, the negative association between identified internalization and current encouraged skepticism may be attributable to a subconscious shielding of their children from having to experience such struggles. Similarly, parents who have successfully navigated their religious doubts and now identify with their religious values may feel that they know best and may embolden such beliefs in their children without regard for their children's own internalization process. Parents may perceive this as a kindness (i.e., protecting their

children from uncomfortable truths and the stress of doubt), but it may actually detract from the child's own internalization, as they are not afforded the same autonomy to question and, subsequently, learn to justify and own their faith. The negative association between identified internalization and current encouraged skepticism certainly presents a multitude of interesting avenues for future research, notably examining the specific motivations parents have for enacting different religious experiences and enforcing different levels of control with their children.

Limitations and Future Directions

Although this study yielded a number of interesting results that merit further investigation, it suffers from some notable limitations. Most critically, the data are self-report and correlational, so they do not allow for causal attributions. The results of this study were also based, in part, on recollections. Such remembrances may be inaccurate or biased. People may be biased to reflect more positively on their past experiences, as negative recollections may be perceived as a slight on their self-worth and self-image. This is a limitation that consistently plagues the literature on religiosity and internalization, as a majority of studies are based primarily on remembrances (Dudley & Wisbey, 2000). To alleviate such concerns, longitudinal or cross sequential studies should be conducted to better control for cohort effects and combat biases in recollections. These limitations do not diminish the significance of the findings but underscore the need for these results to be considered carefully.

Although an association between past and present parental behaviors was found, it is difficult to disentangle the contribution of the parents' behaviors from genetic

similarities between the parent and their grown child (the participant). Behavior genetic controls were not incorporated into this study; however, it would be prudent for future studies to incorporate such measures to extrapolate genetic influences from those of shared experiences. This is particularly important for studies that focus on adults. Although there is no consensus about the contribution of genetics to religiousness (Balbona et al., 2022; D’Onofrio et al., 1999; Koenig et al., 2005; Lewis & Bates, 2013; Vance et al., 2010), it is generally agreed that, in adulthood, the influence of heritability increases and the relative contribution of shared environment decreases (Bradshaw & Ellison, 2008; Eaves et al., 2008; Koenig et al., 2009). The similarity of parenting practices from generation to generation observed in this study may be explained through genetic similarities. However, genetic overlap does not explain why some aspects of behavior were associated with greater introjected internalization whereas others led to greater identified internalization, or, further, why different forms of internalization predicted unique aspects of the participants’ own parenting techniques.

This study was conducted exclusively with American participants, so generalizations beyond the United States cannot be made. There was a reasonably balanced sex composition, as 60 percent of respondents were female and 40 percent male. Additionally, the ethnic distribution of this sample was reasonably representative of Catholics in the United States, which is predominantly Caucasian (59%) and Hispanic (34%; Lipka, 2015). The composition of this study’s sample, however, precludes any comparisons across different religions or denominations. Moreover, as the sample in this study are self-identified adult Catholics, it does not allow for comparisons with or

generalizations to those that strayed away from their faith. This study was designed to focus on Catholic individuals, in part because trends in religiosity seem to suggest that they are more resilient to current secularization trends than other Christian denominations (Smith, 2021), making them an interesting population in which to study value transmission and internalization. Unfortunately, because this was not a comparative study, conclusions cannot be drawn about what, if any, practices set Catholics apart from their Protestant brethren or, more broadly, from the faithful of other religions.

This study did present a possible explanation for why Catholicism may not be facing such a notable decline in numbers. Although identified internalization may be more likely to lead to stronger beliefs, given its association with religious belief and attendance (Desmond & Kraus, 2014; Neyrinck et al., 2006), it may be introjected internalization that differentiates Catholicism from other Christian denominations. Catholicism places a large emphasis on hierarchy and the authority of different figures in the church; this emphasis may create the external pressures needed to facilitate the enactment of introjected values and behaviors. This may be similar to how social pressures and fear of God may have helped to facilitate the enactment of current social involvement and disapproval/punishment through introjected internalization. It stands to reason that, in the absence of external pressures, religious behaviors may be enacted almost exclusively through identified internalization. Therefore, it may be that other religions, which do not have the same rigid structure and hierarchy of the Catholic church, provide their followers with less of an impetus to enact behaviors regulated by introjection. This may leave them more susceptible than Catholicism to progressive

declines and secularization influences. At this juncture, this hypothesis is purely speculative and requires more in-depth and cross-cultural research.

In addition to cross-cultural research to determine differences between Catholicism and other religions, there should be deeper investigations into the role external pressures may play in encouraging the enactment of behaviors regulated under introjected internalization. Additionally, the link between autonomy-supportive parenting and identified internalization has been repeatedly demonstrated in a variety of domains (Assor et al., 2004; 2005; Brambilla et al., 2015; Grolnick et al., 1997; Grolnick & Ryan, 1989), but it has been explored to a lesser degree within the religious domain. It is common for people of all religions to question their faith and struggle with doubt, making religion an attractive domain through which to study the factors enabling people to persist in their internalization of values. Moreover, it would be fruitful to explore the motivations behind parents' decisions to encourage skepticism within their children, as well as what factors might diminish this parenting practice over time.

Conclusion

This study explored how the “cycle” of religiosity continues from one generation to the next. Overall, the results demonstrated that past religious experiences were associated with current religious experiences, providing support for the conclusion that there is intergenerational continuity in religious value transmission. The inclusion of the different levels of internalization in the models added to the intrigue of these associations between past and current religious experiences. As expected, the associations between all past and current religious experiences were mediated through identified internalization,

but only the associations between past and current social involvement and disapproval/punishment were also mediated through introjected internalization. A notable difference between these two experiences and the others (assurance and encouraged skepticism) is that both social involvement and disapproval/punishment have underlying external pressures that may be driving the enactment of behaviors regulated by introjected internalization. This possibility provides a possible explanation for why Catholic affiliation may not be declining as rapidly as other Protestant denominations that place less emphasis on the authority and hierarchy of the church.

CHAPTER FIVE

GENERAL DISCUSSION

Despite increasingly secular pressures, more Catholics continue to practice the faith in which they were brought up, as compared to members of other Christian denominations. It is of interest to understand what factors contribute to the maintenance of childhood beliefs into adulthood and into one's own childrearing practices, thereby passing those beliefs onto the next generation. Religious value transmission is a complex process by which individuals impart their religious beliefs and behaviors onto others (Bader & Desmond, 2006; Knafo & Galansky, 2008). I set out to examine a singular component of value transmission and religiosity: internalization. Internalization is a socialization process wherein individuals learn, evaluate, and acquire beliefs exhibited by those with whom they socialize (e.g., parents, peers, etc., Flor & Knapp, 2001; Ryan et al., 1992). People are often driven to internalize values that are shared by important people in their lives, notably their parents (Grolnick et al., 1997). The overarching goal of this dissertation was to explore how parents influence children's level of internalization and, in turn, how internalization is associated with religiosity across three major life stages in Catholic individuals: early adolescence (Study One), young adulthood (Study Two), and parenthood (Study Three). In combination, these studies provided a unique and more complete understanding of how parental influence is associated with religiosity across different life stages in a relatively understudied demographic. To study Catholicism, this dissertation employed in-person and online community samples, as well

as student samples from two universities. This approach allowed for a diverse examination of internalization and the cycle of religious value transmission from young adolescence into parenthood, and onto subsequent generations.

Each of the three studies explored the overall association parental influence (through their beliefs, behaviors, and activities they engage in with their children) has with their children's internalization and religiosity. The operationalization of parental influence and religiosity varied across the three studies. In Study One, parental influence took the form of participants' perceptions of their parent's beliefs and behaviors. In Study Two, the religious experiences that participants had with their parents, as measured with the CREI:PC while growing up formed the basis for this construct. Parental influence was measured with the four subscales (assurance, disapproval/punishment, social involvement, and encouraged skepticism) rather than the overall score from the CREI:PC in Study Three. Religiosity refers to people's tendency to commit themselves to religious beliefs and practices (Ellis et al., 2019). Study One and Study Two used the same scale to measure the outcome of belief. For religious practices, Study One asked participants to indicate their anticipated future behavior, whereas Study Two asked about participants' current religious practices. Study Three asked about current religious experiences that participants were sharing with their own children. Although current religious experiences are not necessarily direct reflections of religiosity, they are representative of how religious values are transmitted from generation to generation. Altogether, the results of this dissertation paint a cohesive narrative of how parental influences predict children's internalization and religiosity. Across the three life stages, the pattern was mostly

consistent: parental influence was positively associated with participants' religiosity, and this relationship was generally mediated by identified, but not introjected, internalization.

There has been some contention about the role that shared genes play in the intergenerational transmission of religious values. The presumption is that people may act and think like their parents simply because they share genes that predict similar behaviors and beliefs. While there is some disagreement as to exact contribution of genetics to religiousness (Balbona et al., 2022; D'Onofrio et al., 1999; Koenig et al., 2005; Lewis & Bates, 2013; Vance et al., 2010), it is generally agreed that the relative influence of heritability increases with age, while shared environmental influence decreases (Eaves et al., 2008; Koenig et al., 2005; 2009). If genetic similarities were the sole driving factor underlying religious value transmission, we would expect to see differences in patterns of transmission among the age groups, particularly between adolescents and the young adults/adults; but, the patterns of results were generally consistent across the three age groups. The inclusion of non-genetically related parent/offspring dyads, however, would have allowed for more direct tests of hypotheses concerning the relative contributions of genes and parental behavior to children's beliefs. Moreover, although the direct association between parental influence and religiosity could be explained by genetic overlap, it was not the primary focus of this dissertation. I was interested in understanding the mediating role that internalization plays in religious value transmission. Genetic overlap between parents and their children does not explain the key finding that identified internalization tended to predict religiosity more strongly than

introjected internalization did across the three life stages, or that introjection predicted only particular forms of transmission (in Study Three).

This dissertation focused on value transmission and the role that internalization plays in the intergenerational continuity of religiosity. During childhood, religious attendance is often externally mandated by one's parents (Francis & Casson, 2019), and as young adults gain independence from their parents, a decline in religious attendance is often observed (Desmond et al., 2010). Yet, as people enter parenthood, they become the driving force behind encouraging religious belief and attendance in their own children (Knafo & Galansky, 2008; Myers, 1996). This typical trajectory from "forced" affiliation to disinclination to active encouragement deserves further study to understand how beliefs become internalized and transmitted between generations. Across the life stages examined here, parental influence was positively associated with religiosity. Parental influence was also positively associated with both introjected and identified internalization, but only identification consistently predicted religiosity.

The continuity throughout these life stages highlights the important role that parents play in their children's internalization and long-term religiosity. Childhood experiences can have lasting implications, even when the experiences are not directly pertinent to religion. The use of conditional regard, a socialization practice in which parents make their love and affection contingent upon their child's behavior (Assor et al., 2004), has been widely associated with introjected internalization (Assor et al., 2004; 2005; Brambilla et al., 2015; Grolnick et al., 1997). Study Three found that the association between past religious experiences and introjected internalization was

dependent on the level of conditional regard participants experienced in their childhood. The associations were significant only when individuals had experienced high levels of conditional regard. This pattern emphasizes how experiences in childhood (e.g., experiencing conditional regard) may have lasting implications later in life, through individuals' level of internalization.

Studies on childhood experiences often rely on recollections of past experiences and perceptions, which can be fallible (Dudley & Wisbey, 2000). Study One asked about current perceptions during childhood, thereby eliminating the limitations associated with remembrances. It also assessed the accuracy of adolescents' perceptions by comparing their responses to the self-reports of their parents. Given the reliance that many studies place on people's perceptions of others, it was notable that adolescent perceptions and parent responses did not align, suggesting that adolescents are not particularly adept at accurately perceiving their parents' beliefs and behaviors. Whereas there was not a significant correlation between parents' self-reported beliefs and adolescent beliefs, there was a strong positive correlation between adolescents' perceptions of their parents' beliefs and their own self-reported beliefs. This supports the notion that adolescents may project their own beliefs onto their parents (Stattin & Kim, 2017).

Regardless of accuracy, perceptions of parental beliefs was associated with both their introjected and identified internalization. The association between perceived parental belief and introjected internalization, however, was significant only when participants also reported high levels of perceived parental private behavior. Religious practice outside the confines of church attendance has been highlighted as an important

component of religious value transmission (Brown et al., 2011; Erickson, 1992; Goodman & Dyer, 2020). It is, therefore, interesting that perceived private behavior was not associated in any way with identified internalization. Whereas introjected internalization was not associated with either religiosity outcome, identified internalization was associated with belief, which would seem to be evidence of successful value transmission. It may be that the question about perceived parental private behavior did not sufficiently encompass parents' private behaviors. Assessing specific private behaviors, beyond "discussion about religion outside of church," may provide clarity as to how private practices may predict each form of internalization. In all, the results from Studies One and Three demonstrate how early life experiences with parents can have lasting impressions through their associations with internalization.

Early parental influences appear to persist into young adulthood, despite the increased independence people have from their parents. College is a time of personal exploration and identity formation, wherein students are exposed to a variety of novel ideas that may challenge their existing values (Desmond et al., 2010). In general, there is a large decline in religiosity observed during the college years (Desmond et al., 2010). Among Catholics, this decline is surprisingly more rapid and drastic at Catholic affiliated, compared to non-religiously affiliated universities (Hill, 2009). This may be due to the pluralism at non-affiliated schools encouraging a sub-culture identity amongst religiously initiated students (Hill, 2009; Magolda & Gross, 2009). It is also during this time that parental influence wanes and peer influence increases (Desrosiers et al., 2011; Nurmi, 2004). Peers are incredibly influential agents in people's lives (Desrosiers et al., 2011;

Nurmi, 2004). It is for this reason that peer influence may be predicted to be a major catalyst in any shifts away from parental values and belief systems during college. Identified, compared to introjected, internalization may provide a better buffer, as identified values are more autonomously accepted as one's own. Young people often seek out friendships with individuals who share similar goals and characteristics (reviewed in Nurmi, 2004). Therefore, students who have more deeply internalized their religious values may seek out similarly religious peers who, in turn, may aid in the further deepening of those values. In contrast, introjection, despite being internally regulated, is highly susceptible to external factors (Assor et al., 2005; Ryan et al., 2000; Vansteenkiste & Deci, 2003, Vansteenkiste et al., 2004; Walker & Rhoades, 2022). It is, therefore, reasonable to expect that values maintained under introjected internalization would be more prone towards change based on peer influences.

As expected, peer experience and school affiliation were significant predictors of religious beliefs and behaviors in Study Two, but they did not completely supersede parental influence. In general, the pattern observed in adolescence (e.g., parental influence was associated with religiosity, and this association was mediated through identified, but not introjected, internalization) was also observed in college students. These direct associations, however, changed when peer experience and school affiliation were included in the model. Whereas school affiliation was significant in some of the associations (i.e., those predicting identified internalization and belief), peer experience was a significant predictor of all outcomes. Yet, parental influence persisted in predicting at least some of the variance in religiosity and introjected internalization when the

moderators were included. The only instance in which parental influence was rendered non-significant involved identified internalization. Instead, this fuller form of internalization was uniquely predicted by both peer experience and school affiliation. It is possible that this result could be attributed to adolescent socialization. As suggested above, individuals with high levels of identified internalization may seek out peers who share their values. Both parent experience (when assessed individually) and peer experience were positively and directly associated with identified internalization, which lends credence to the idea that like-minded peers may encourage further and deeper internalization of values that were initially espoused by one's parents. This possibility, however, would require a longitudinal approach to assess internalization at the outset of college and how it may interact with different influences during these formative years.

Although parent influence may seem to diminish during the college years, it is far from lost, particularly as people begin to transition into parenthood. Religiosity tends to increase in individuals as they marry and begin to form families (Blekesaune & Skirbekk, 2022). People may rely on their faith to help overcome the stresses associated with new parenthood (Assor et al., 2005; Ryan et al., 2000; Vansteenkiste & Deci, 2003, Vansteenkiste et al., 2004; Walker & Rhoades, 2022). They may also turn to their religion as a product of their past. When deciding how to best raise their children, individuals often reflect on their upbringing and integrate different practices into their own childrearing (Horwath et al., 2008). The results of Study Three were unsurprising, showing that people tend to engage in similar religious experiences with their children to those that they experienced, themselves, while growing up. Such similarities could be the

result of observational learning or genetic similarities (Neppl et al., 2009; Pasternak, 2014), but they could also be explained by variations in their internalization. Of the four religious experiences examined (i.e., assurance, disapproval/punishment, social involvement, and encouraged skepticism), all were mediated through identified internalization, and two were mediated through introjected internalization. The two experiences that were mediated through introjected internalization were disapproval/punishment and social involvement.

Identified internalization is often associated with behavioral enactment, because the values associated with the behaviors are autonomously understood and maintained (Assor et al., 2004; 2005; Brambilla et al., 2015; Cohen et al., 2009; Deci & Ryan, 2000). It was, therefore, unsurprising that values that were autonomously internalized earlier in life would be associated with the continuation of those practices later in life, as was seen in Study Three. Conversely, it was surprising to find that introjected internalization mediated two of the associations, because this deviates from patterns observed in Studies One and Two. The two experiences that were mediated by introjection (disapproval/punishment and social involvement) are uniquely implicated with some form of external pressure, whereas the other two experiences are not. This is important because, despite introjected internalization being an effective form of internal behavior regulation, it is, to an extent, still reliant on external influences (Assor et al., 2005; Ryan et al., 2000; Vansteenkiste & Deci, 2003; Vansteenkiste et al., 2004; Walker & Rhoades, 2022). In other words, sometimes the superficial internal compulsions to act in certain ways may not be sufficient to actually enact such behaviors. For example, a person might feel that

they ought to attend Mass, but if they have a stronger desire to partake in some other activity, that desire may override the internal pressures to attend Mass. If they are concurrently being pressured by some external factor, such as a parent, to attend Mass, the desire to partake in the alternative activity may be unable to overtake both the internal and external pressures.

Both disapproval/punishment and social involvement have an external component that may facilitate the enactment of introjected internalizations. Encouraging one's child to be involved in the church can serve as a public display of faith that can be evaluated and critiqued by other parishioners (Desmond & Kraus, 2014). This social pressure inherent to social involvement may explain why introjected internalization was positively associated, specifically, with current social involvement. The external pressure innate to disapproval/punishment is slightly more abstract, as it takes the form of God, serving as a pseudo-parental figure. People have a tendency to view God in a similar way to how they view their own parents (Assor et al, 2005; Horwath et al., 2008). Therefore, the perception of God as a strict disciplinarian, as is the case with disapproval/punishment, may also act as an external pressure facilitating the enactment of introjected internalizations.

It is this unique pattern of results observed for introjected internalization in predicting both disapproval/punishment and social involvement that may provide an explanation for the observed differences in declining affiliation for Catholicism as compared to other Christian denominations. Over the past fifteen years, the percentage of US adults who identify as Christian decreased from 78% to 63%; however, a closer

examination reveals that this decline is almost exclusively due to Protestants leaving the faith, not Catholics. Whereas Protestant identification decreased from 52% to 40%, there was only a 3% decrease for Catholicism (Smith, 2021). Catholicism places a large emphasis on hierarchy and the authority of different figures within the church. Such emphases may serve as external pressures that are unique to the Catholic church, prompting beliefs and behaviors through introjected, and not just identified, internalization. Other denominations that do not experience the same extent of external pressures as Catholicism, may be reliant on identified internalization to drive continued affiliation, as introjection is not as powerful a predictor of long-term behavioral enactment (Assor et al., 2005; Ryan et al., 2000; Vansteenkiste & Deci, 2003, Vansteenkiste et al., 2004; Walker & Rhoades, 2022). At present, this possibility is purely speculative, as this dissertation was a case study of Catholicism and did not include any cross-religious comparisons.

Furthermore, I cannot speculate on how unique the pattern of continuity of parenting practices observed in Study Three is to Catholicism. Studies on intergenerational continuity in religion, primarily focus on the continuity of values and behaviors (e.g., church attendance, prayer, etc. e.g., Bader & Desmond, 2006; Flor & Knapp, 2001; Francis & Casson, 2019), but not on the specific ways in which parents raise and expose their children to religious values. The research questions often focus on how different parenting practices, styles, and attachments are associated with religiosity in subsequent generations (e.g., Granqvist, 2002; Hardy et al., 2011; Kirkpatrick & Shaver, 1990; Luft & Sorell, 1987; Pinquart & Sibereisen, 2004; Vonk et al., 2019). One

study that did explore religious differences in the intergenerational continuity of parenting behaviors concluded that there were no differences between the Muslim and Jewish mothers that were studied (Pasternak, 2014). The parenting practices that were examined, however, were more generalized (i.e., demandingness, enforcement, punishment, and responsiveness), rather than specifically related to religious value transmission. It is understandable that researchers may opt to compare general practices across religions, because beliefs can be so disparate, but such an approach does not address how religious affiliation may play into the continuity of practices specific to religious value transmission. It is, therefore, not possible at this juncture to determine whether the overall pattern of continuity observed in Study Three is unique to Catholicism or generalizes to other denominations and religions.

Limitations and Future Directions

This dissertation was not immune from a number of notable limitations. Most critically, the data were self-report and correlational, so they do not allow for causal attributions. Although I adopted a mediational model to explore hypothesized conceptual models of belief transmission, it is important to note that I do not infer that the associations are causal, given the limitations of our data collection. Additionally, this study did not incorporate controls for genetic influence, so it is not possible to rule out genetic similarities as an explanation for associations between parental behavior and children's religiosity. However, a primary focus of this dissertation was the differential ability of identified versus introjected internalization to predict religiosity. These specific

associations are independent of parental influences and, therefore, cannot be explained by genetic overlap.

Another notable limitation was that the results of Study Two and Three were based primarily on recollections, and the accuracy of such remembrances may be biased or inaccurate (Dudley & Wisbey, 2000). Future studies would benefit from a cross-sequential design, which would allow for comparisons across cohorts, while also limiting the issues associated with remembrances by comparing longitudinal differences within cohorts. Such a design would also allow for observations during the transitional years between the life stages examined in this dissertation. It may be during those transitional years that individuals are navigating doubts about their beliefs and evaluating their identities. Such inner turmoil and development may produce more evident, age-related differences in internalization and religiosity, thereby providing a deeper and more complete understanding of the observed relationships. Internalization and religiosity are incredibly complex topics and require equally complex methods of examination.

This study was also focused exclusively on Catholics as they make for an interesting test case to explore value transmission given their relative resistance to disaffiliation in recent years (Smith, 2021). In addition, because only individuals that currently identify as Catholic were recruited, I could not examine differences between individuals raised Catholic who continued in their faith and those who disaffiliated, which may be key to understanding why disaffiliation might occur. This narrow scope limited the generalizability of my results. It also impeded the ability to draw any conclusions as to why Catholicism is not facing the same rate of disaffiliation as other

Christian denominations (Smith, 2021). Although I was able to speculate about a possible explanation (i.e., that differences in the structures and teachings of the church may explain differences in parishioners' tendencies to enact introjected behaviors), further research comparing Catholicism and other denominations/religions would be necessary to assess the proposed hypothesis. In addition to comparing religious transmission across denominations, it would also be beneficial to sample from a more diverse group of participants. Whereas the results of Study Three came from an online community sample of participants from across the United States, both Study One and Two were more geographically limited. Study One drew from a single group of religious education students in a suburb of Detroit, Michigan. Study Two sampled from students at a non-religiously affiliated university north of Detroit, Michigan, and students from a Catholic-affiliated university in Fairfield, Connecticut. Increasing the diversity of samples in future studies would help to increase the external validity of the results.

Overall, despite these limitations, the results of this dissertation point to an overall pattern regarding the associations that parental influence has with internalization and subsequent religiosity. One question that this dissertation was not able to answer is what differentially predicts identified versus introjected internalization. It is clear from the results that identified, but not introjected, internalization was consistently associated with religiosity. While this certainly lends to our current understanding of internalization and its role in religious value transmission, it is an incomplete answer. It is not sufficient to know that parental influence is associated with internalization, in general, as it is primarily identified internalization that is, in turn, associated with a person's religiosity

and how they may transmit those values to the next generation. Future studies should focus on determining the specific factors of parental influence that may predict identified, but not introjected, internalization. Conditional regard, for example, consistently moderated the association between past religious experiences and introjected internalization, thereby providing a tangible parenting practice that may serve to facilitate the development of introjected internalization. Whereas introjection is a highly controlled form of internalization, identified internalization is more autonomous and self-determined (Assor et al., 2004; 2005). Therefore, it may be prudent to explore factors that contribute to self-regulation, such as autonomy-supportive parenting (Grolnick et al., 1997) and how they play into internalization and religiosity.

Studies on religious value transmission often focus on parents as the primary socialization agent driving the transmission (e.g., Desmond & Bader, 2006; Dudley & Dudley, 1986; Francis & Casson, 2019; Hardy et al., 2011; Knafo & Galansky, 2008; Meyer, 1996; Willits & Crider, 1989). This emphasis is valid, given that the family unit is often the first context in which children are exposed to religious values (Meyer, 1996). This dissertation, however, demonstrated that other prominent influences, such as peers can also play a role in internalization and religiosity. Although the influence of peers was solely incorporated in Study Two, it would be fascinating to explore how the relative influence of parents and peers vary across the three life stages explored herein. During adolescence, peers become more prominent socialization agents, serving as important models that may serve to compliment or compete with parental teachings (Desrosiers et al., 2011; Grotevant & Cooper, 1986; Nurmi, 2004; Schwartz, 2006). Peers at this stage

may embolden the development of important foundational values that people carry with them throughout their lives. During parenthood, a person's spouse often becomes a principal source of social feedback (Perry, 2014). It is also during this stage that people tend to reflect on their own upbringing as they navigate parenthood (Assor et al., 2005; Horwath et al., 2008). It would, therefore, be worthwhile to explore the relative influence of parents and peers on internalization and religiosity, and how their influences may ebb and flow throughout the different life stages explored in this dissertation.

Conclusion

The novelty of this dissertation is that it explored internalization and religious value transmission across three notable life stages, exploring well-known concepts (i.e., religious value transmission) through a new lens (i.e., internalization) in two of the age groups, and forging new paths by exploring the continuity of religious parenting practices in the third. The pseudo-cross-sectional nature of this dissertation allowed me to examine how parental influences change throughout life, while also exploring specific age-related questions. People experience a variety of external influences over the course of their lives which may seem to outcompete parental influence (Desrosiers et al., 2011; Nurmi, 2004), but the results of this dissertation demonstrate that parental influence, particularly through identified internalization, persists long-term.

Early experiences and the ways in which children perceive their parents' religiosity were associated with both introjected and identified internalization. This youthful internalization carries forward as adolescence transitions into young adulthood. It is at this stage that peers, among other external influences, gain in prominence,

compared to parents. The results of Study Two, however, show that, despite their waning presence, parental influence is not inconsequential at this stage. Current factors (e.g., peer experience and school affiliation) did change the ways in which parental experience was associated with internalization and religiosity, but they did not entirely replace parental influence. The pattern of results observed in adolescents persisted in college students, showing that parental influence was associated with religiosity and this association was mediated through identified, but not introjected internalization. This pattern carried into parenthood and, by extension, into the next generation.

A primary way in which childhood religious teachings and experiences may be born out in adult life is in how people raise their own children. Study Three is key to understanding the mediating role internalization plays in the intergenerational continuity of religious transmission. Study Three showed that people tend to raise their children similarly to how they, themselves, were raised. More importantly, it also showed how a person's level of internalization plays into this overall continuity. All the associations between past and current religious experiences were mediated through identified internalization, and two of the associations were mediated through introjected internalization. This highlights the importance of internalization in the fulfillment of the value transmission cycle. Across the three life stages, identified, but not introjected, internalization was almost always associated with religiosity, emphasizing the role of this fuller form of internalization in autonomous and volitional behavioral enactment. The only instances in which introjected internalization was associated with religiosity was in Study Three for disapproval/punishment and social involvement. It is evident that

identified internalization is a centrally important component in understanding both why and how the cycle of religious value transmission continues from generation to generation.

APPENDIX A

IRB APPROVAL FOR STUDY ONE



Institutional Review Board

Date: September 18, 2023

Study #: IRB-FY2023-157

Study Title: Religious Education Transmission - 1

Submission Type: Modification

IRB Decision: Approved

Research Team:

Joy Ott

Jennifer Vonk

The IRB has reviewed the Modification submission for the above referenced study. The modified study with the changes listed below has been determined to involve no more than minimal risk to participants and is Approved through an expedited review per federal regulations.

The approved modifications are the following:

- **Addition of one key personnel:** Addition of Gina Montalto
- **Change in recruitment process:** PI will conduct an in person group announcement
- **Change in recruitment document:** Group announcement script attached
- **Change in consent process:** The participants are in person but still complete an online consent. Parents will self generate a code to link parent and child responses.
- **Change in consent documents:** Edited to reflect new location and privacy concerns.
- **Change in procedures:** data collection is now in person but the data gathered will still be online. Participants will generate code to link child and parent responses together. Child survey has additional questions. Change in privacy as data collection is in person: Participants will be seated separately with spaces between them while completing survey. They can take the survey at any time during the evening
- **Addition of in person location:** Research will be at St. Louis Catholic Church in Clinton Township MI.
- **Change in risks:** Addition of risk due to change in privacy as data collection is in person

The two IRB approved (date-stamped) consent documents have been published under [Attachments](#) in the [Submission Details](#) page. Please make sure to use the most recent IRB approved version of the consent form in consenting participants.

You are approved to implement the aforementioned modifications. Please retain a copy of this notification for your records.

This letter can also be found in Cayuse under the Letters tab in the Submission Details page.

If you have any questions, please contact the IRB office.

Thank you.

The Oakland University IRB

APPENDIX B

IRB APPROVAL FOR STUDY TWO



Date: April 3, 2023

Study #: IRB-FY2023-252

Study Title: Religious Value Development in Catholic College Students

Submission Type: Initial

IRB Decision: Exempt

Research Team:

Joy Vincent

Jennifer Vonk

Based on applicable federal regulations, the above referenced study has been determined to be Exempt, with the following categories:

Category 2.(ii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation.

Letter and Consent Documents:

This letter along with the two IRB approved (date-stamped) consent documents can be found in Cayuse in the [Submission Details](#) page under [Letters](#) and [Attachments](#), respectively. Please make sure to use the most recent IRB approved version of the consent forms in consenting participants.

Permission from Research Sites:

Please note the following:

- This IRB exemption determination letter means that this research has met one or more of the federal criteria for exemption per 45 CFR 46.104- Exempt Research.
- Before the research is initiated, permission to conduct research at a given site must be obtained from all research locations listed in the IRB submission. You must keep copies of all such permission letters for your files.
- It is the responsibility of each researcher to follow all applicable policies and procedures of any outside institution where the research will be conducted.

Modifications:

Any changes to this exempt project must be reviewed by the IRB prior to initiation by submitting a MODIFICATION request. Do not collect data while the changes are being reviewed. Data collected during this time cannot be used in research.

Record Retention:

Exempt projects will be retained by the IRB office for three years after the last action on the project.

You are approved to start the research. Please retain a copy of this notification for your records.

If you have any questions, please contact the IRB office.

Thank you.

The Oakland University IRB

APPENDIX C

IRB APPROVAL FOR STUDY THREE



Date: May 25, 2023

Study #: IRB-FY2023-298

Study Title: Religious Value Development in Catholic Adults

Submission Type: Modification

IRB Decision: Exempt

Research Team:

Joy Ott
Jennifer Vonk

The IRB has reviewed the Modification submission related to the above referenced study and determined that the changes listed below do not affect the exemption status of the study. The Modification submission is Approved and the study remains Exempt per federal regulations.

The approved modifications are the following:

1. Change in recruitment methods: Addition use of Prolific to recruit participants. PI continues to use Connect as well.
2. Addition of advertisement: PI has added a Prolific advertisement
3. Change in consent form: The consent form is edited to reflect all payment sources

The REVISED IRB approved (date-stamped) consent document has been published under Attachments in the Submission Details page. Please make sure to use the most recent IRB approved version of the consent form in consenting participants.

You are approved to implement the aforementioned modifications. Please retain a copy of this notification for your records.

This letter can also be found in Cayuse under the Letters tab in the Submission Details page.

If you have any questions, please contact the IRB office.

Thank you.

The Oakland University IRB

APPENDIX D

SANTA CLARA STRENGTH OF RELIGIOUS FAITH QUESTIONNAIRE

Santa Clara Strength of Religious Faith Questionnaire (SCSRFQ)

Please indicate your level of agreement with the following statements regarding your religious faith using the following scale:

1 = Strongly disagree, 2 = Disagree, 3 = Agree, 4 = Strongly agree

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

APPENDIX E

CHRISTIAN FAITH PRACTICES SCALE

Christian Faith Practices Scale (CFPS)

Please describe how often you participate in each of the following activities. Be as honest as possible, describing your true level of participation and not how active you would like to be.

Number	Item	Scoring
1	I attend weekly Mass.	0 = Never 1 = Rarely 2 = Once in a while 3 = Sometimes 4 = Often 5 = Almost always 6 = Always
2	I participate in a Bible study actively.	
3	I study the teachings and history of the Roman Catholic Church.	
4	I pray.	
5	I confess my sins at confession.	
6	I forgive and work towards healing relationships with others.	
7	I encourage others, especially when they fail.	
8	I give financial support to my church.	
9	I provide hospitality and care to strangers.	
10	I volunteer time to help the less fortunate.	
11	I participate in activities that promote social justice in society.	
12	I discuss Catholic responses to contemporary issues with other Catholics.	

APPENDIX F

AUTONOMOUS AND CONTROLLED MOTIVATIONS FOR AGREEMENT WITH PARENTAL VALUES

Autonomous and Controlled Motivations for Agreement with Parental Values (ACM)

For each of the following statements, please indicate your level of agreement based on the following scale:

1 = Strongly disagree, 4 = Neither agree nor disagree, 7 = Strongly agree

Each statement completes this sentence: “When I agree with my parents’ religious values...”

Number	Item	Autonomous or Controlled
1	...it is because I think my parents’ values are just (moral).	Autonomous
2	...it is because it is profitable.	Controlled
3	...it is because otherwise I would feel bad about myself.	Controlled
4	...it is because I understand the logic behind my parents’ values.	Autonomous
5	...it is because sometimes I feel there is something inside me that forces me to agree with their values.	Controlled
6	...it is because my parents’ values fit the kind of person I am.	Autonomous
7	...it is because my parents’ values match my natural tendencies.	Autonomous
8	...it is so that my parents will give me what I want.	Controlled
9	...it is because I don’t want to disappoint my parents.	Controlled
10	...it is because I am like my parents by nature.	Autonomous
11	...it is because I don’t want my parents to scold me.	Controlled
12	...it is because my parents’ values seem right to me.	Autonomous

APPENDIX G

CHRISTIAN RELIGIOUS INTERNALIZATION SCALE

Christian Religious Internalization Scale (CRIS)

Please indicate how true each of the following statements is based on the following scale:

1 = Not at all true, 4 = Neither true nor untrue, 7 = Very true

Number	Item	Introjected or Identified
	One reason I think it is important to actively share my faith with others is...	
1	...because God is important to me, and I would like other people to know about Him too.	Identified
2	...because I would feel bad about myself if I didn't.	Introjected
3	...because I want other Catholics to approve of me.	Introjected
	When I turn to God, I most often do it because...	
4	...I enjoy spending time with Him.	Identified
5	...I would feel guilty if I didn't.	Introjected
6	...I find it satisfying to me.	Identified
	I think praying by myself is important because...	
7	...if I don't, God will disapprove of me.	Introjected
8	...I enjoy praying.	Identified
9	...I find prayer satisfying.	Identified
	An important reason why I attend Mass is...	
10	...because one is supposed to go to Mass.	Introjected
11	...by going to Mass, I learn new things.	Identified
12	...because others would disapprove of me if I didn't.	Introjected

APPENDIX H

CHILDHOOD RELIGIOUS EXPERIENCE INVENTORY: PRIMARY
CAREGIVER

Childhood Religious Experience Inventory: Primary Caregiver (CREI:PC)

For each of the following statements, please indicate how frequently your primary caregiver said or did the following to you while you were growing up.

Number	Item	Subscale	Scoring
1	My primary caregiver told me that God has a plan for everything.	Assurance	0 = Never 1 = One time 2 = Rarely 3 = Sometimes 4 = Frequently 5 = Very Frequently 6 = Always
2	My primary caregiver told me that God has blessed our family.		
3	My primary caregiver told me that believing in God will help me through difficult times.		
4	My primary caregiver told me that God loves me.		
5	My primary caregiver told me that my actions made God upset.	Disapproval/ Punishment	
6	My primary caregiver told me that I would suffer in the afterlife if I misbehaved.		
7	My primary caregiver questioned my religious beliefs when they differed from his/her own.		
8	My primary caregiver signed me up for a religious activity.	Social Involvement	
9	My primary caregiver encouraged me to attend a religious camp.		
10	My primary caregiver encouraged me to join a religious youth group.		
11	My primary caregiver allowed me to choose whether or not I attended Mass.	Encouraged Skepticism	
12	My primary caregiver allowed me to choose my own religious beliefs.		
13	My primary caregiver told me that I could explore other religions.		

APPENDIX I

CHILDHOOD RELIGIOUS EXPERIENCE WITH PEERS INVENTORY

Childhood Religious Experiences with Peers Inventory (CREPI)

For each of the following statements, please indicate how frequently your peer currently says or does the following.

Number	Item	Scoring
1	My peer encourages me to attend a place of worship.	0 = Never 1 = One time 2 = Rarely 3 = Sometimes 4 = Frequently 5 = Very Frequently 6 = Always
2	My peer encourages me to change my religious beliefs.	
3	My peer tells me that stories in religious texts are true.	
4	My peer encourages me to participate in religious traditions.	
5	My peer tells me I should believe in God.	
6	My peer tells me about the religious meaning of holidays.	
7	My peer encourages me to pray.	
8	My peer tells me about their religion.	
9	My peer tells me that they pray for me.	
10	My peer tells me that religious events are fun.	
11	My peer tells me that when loved ones die, they are in a "better place."	
12	My peer tells me that they feel the presence of God.	
13	My peer tells me quotes from a religious text.	
14	My peer and I participate in religious practices at our place of worship together.	
15	My peer attends the same place of worship as me.	
16	My peer and I attend a young adult church group together.	
17	My peer and I read a religious text together.	
18	My peer and I pray together.	
19	My peer's religious beliefs make us closer.	
20	My peer and I sing religious songs together.	
21	My peer and I discuss our religious beliefs about the afterlife.	
22	My peer and I talk about our struggles with our religious beliefs.	
23	My peer and I talk about our similar religious beliefs.	
24	My peer tells me I should be tolerant of other religions.	
25	My peer and I talk about our interpretations of religious texts.	
26	My peer and I talk about prayers being effective.	
27	My peer tells me that when loved ones die, our loved ones are still "with us."	

APPENDIX J

PARENTAL CONDITIONAL REGARD

Parental Conditional Regard (PCR)

Please reflect on your experiences with your primary caregiver while growing up, and indicate your level of agreement with each of the following statements based on the below scale:

1 = Do not agree at all, 2 = Disagree, 3 = Neither disagree nor agree, 4 = Agree, 5 = Greatly agree

Number	Item
1	When I immersed myself in my studies, I felt that my primary caregiver was very satisfied with my and was nicer to me.
2	If I worked hard to follow the church's teachings, I felt that my primary caregiver loved me more.
3	When I immersed myself in my studies, I felt that my primary caregiver appreciated me more.
4	I felt that if I succeeded in following the church's teachings appropriately, my primary caregiver would love and appreciate me more.
5	When I worked hard to following the teachings of the church, I felt that my primary caregiver gave me more and warmer regard than usual.
6	When I didn't immerse myself in my studies, I felt that my primary caregiver loved me less.
7	When I didn't work hard to following the church's teachings, I felt that my primary caregiver gave me less attention and had less regard for me.
8	When I didn't immerse myself in my studies, my primary caregiver made me feel that I was a worthless person.
9	I felt that if I didn't follow the church's teachings, my primary caregiver would show me less caring and attention.
10	When I didn't work hard to follow the church's teachings, I felt that my primary caregiver gave me less warmth and love than usual.

APPENDIX K
GOD CONDITIONAL REGARD

God Conditional Regard (GCR)

Please indicate your level of agreement with each of the following statements based on the below scale:

1 = Do not agree at all, 2 = Disagree, 3 = Neither disagree nor agree, 4 = Agree, 5 = Greatly agree

Number	Item
1	When I follow the commandments, I feel that God is very satisfied with me.
2	If I work hard to follow the church's teachings, I feel that God loves me more.
3	When I take time to pray, I feel that God appreciates me more.
4	I feel that if I succeed in following the church's teachings appropriately, God will love me more and appreciate me more.
5	When I work hard to follow the teachings of the church, I feel that God gives me more and warmer regard than usual.
6	When I don't take time to pray, I feel that God loves me less.
7	When I don't work hard to follow the church's teachings, I feel that God gives me less attention and has less regard for me.
8	When I don't follow the commandments, I feel that God thinks I am a worthless people.
9	I feel that if I don't succeed in following the church's teachings, God will show me less caring and attention.
10	When I don't work hard to follow the church's teachings, I feel that God gives me less warmth and love than usual.

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