# PREDICTORS OF AMBIVALENT SEXIST ATTITUDES TOWARD WOMEN 

 IN A LATTER-DAY SAINT (LDS) ADULT SAMPLE: A TEST OF GLICK AND FISKE'S AMBIVALENT SEXISM THEORY
## by

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## STATEMENT OF DISSERTATION APPROVAL

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#### Abstract

The objective of this study was to investigate the contribution of multiple demographic and religiosity variables as predictors of ambivalent sexism toward women in a sample of LDS adults. A nationwide sample of 3563 active or former LDS participants were recruited through online social media sites and email. The research design was correlational and used survey instruments.

The main findings demonstrated that gender was significantly related to the endorsement of sexism. Overall, men had greater benevolent and hostilely sexist attitudes than women. Gender also moderated the relationship between religiosity and benevolent sexism when LDS activity and affiliation were predictors, such that men's endorsement of sexism increased at a greater rate than women's. Conversely, gender moderated the relationship between all religiosity measures and hostile sexism, such that as religiosity increased, women's endorsement of hostilely sexist attitudes increased more than men's did.


Education was also related negatively to both sexism subscales. Religion did not moderate the relationship between education and benevolent sexism. However, a few interactions were significant when looking at hostile sexism, suggesting as religiosity (i.e., LDS activity \& affiliation, and intrinsic religiosity) increased, and as education decreased, endorsement of hostile sexism toward women increased.

All five religiosity variables had a significant and positive effect on both
subscales, but stronger with benevolent sexism. Intrinsic religiosity was found to have a stronger relationship than extrinsic with both subscales, which was opposite of predicted relationships. When looking at subjective LDS activity, the very active identified group had the strongest endorsement of sexism; however, the group belief in the LDS faith but not currently active had the second highest endorsement of benevolent and the highest endorsement for hostile sexism.

Contrary results were also discovered, in that neither participants age, nor years lived in Utah were found to significantly relate and neither contributed any variance in predicting ambivalent sexism.

In summary, the variables contributing the most variance in predicting both benevolent and hostile sexism were high religious fundamentalism, male gender, and lower education levels. Also, other forms of religiosity (e.g., intrinsic and extrinsic orientations, LDS activity, and LDS affiliation) also contribute significantly to the variance in sexism.

This dissertation is dedicated in memory of my mother, Karen Stevenson, who instilled in me the desire to help others through service and clinical work, as well as obtaining higher education to allow me to pursue my dreams. You served as an incredible role model of service and dedication to helping those in need. Your love, encouragement, listening ear, and belief in me have sustained me over the years and helped me achieve this great accomplishment.

## TABLE OF CONTENTS

ABSTRACT ..... iii
LIST OF FIGURES ..... viii
ACKNOWLEDGMENTS ..... ix
Chapters

1. INTRODUCTION ..... 1
Violence Against Women ..... 1
Ambivalent Sexism Theory and Religion ..... 8
Ambivalent Sexism and LDS Adults ..... 10
2. REVIEW OF LITERATURE ..... 13
Sexism and Violence Against Women ..... 14
Terminology and Attitudinal Foundations of Gender Based Violence ..... 15
Ambivalent Sexism ..... 17
Religiosity ..... 21
Gender and Sexism ..... 29
Education ..... 32
LDS Religious Beliefs ..... 36
Summary ..... 45
Statement of the Problem ..... 47
Research Questions and Hypotheses ..... 48
3. METHODS ..... 50
Participants ..... 50
Measures ..... 58
Procedures ..... 68
4. RESULTS ..... 70
Preliminary Data Analysis ..... 70
Data Analysis ..... 77
Summary ..... 139
5. DISCUSSION ..... 143
Findings ..... 143
Interpretation of Results ..... 145
Limitations ..... 160
Clinical Implications ..... 162
Recommendations for Future Research ..... 173
Conclusions ..... 174
Appendices
A: CONSENT COVER LETTER ..... 176
B: BACKGROUND INFORMATION QUESTIONNAIRE ..... 178
C: LDS ACTIVITY SCALE. ..... 180
D: SUBJECTIVE ACTIVITY IN THE LDS CHURCH ..... 182
E: LDS AFFILIATION SCALE ..... 183
F: RELIGIOUS ORIENTATION SCALE ..... 184
G: RELIGIOUS FUNDAMENTALISM SCALE ..... 185
H: AMBIVALENT SEXISM SCALE ..... 187
REFERENCES ..... 189

## LIST OF FIGURES

Figure ..... Page

1. Interaction of Participant Education Level and LDS Activity in Predicting Hostile Sexism ..... 113
2. Interaction of LDS Activity and Participant Education Level in Predicting Hostile Sexism ..... 113
3. Interaction of Participant Gender and LDS Activity in Predicting Benevolent Sexism ..... 121
4. Interaction of Participant Gender and LDS Activity in Predicting Hostile Sexism ..... 126
5. Interaction of Participant Gender and LDS Affiliation in Predicting Hostile Sexism ..... 129
6. Interaction of Participant Gender and Extrinsic Religiosity in Predicting Hostile Sexism. ..... 130
7. Graph of Subjective Religious Status and Group Means for Benevolent Sexism ..... 141
8. Graph of Subjective Religious Status and Group Means for Hostile Sexism ..... 141

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## CHAPTER 1

## INTRODUCTION

## Violence Against Women

The prevalence of men's violence against women (MVAW) or gender-based violence (GBV) towards women in the United States is alarming. According to statistics from the National Intimate Partner and Sexual Violence Survey in 2010 (NISVS-Black et al., 2011), $18.3 \%$ of women in the U.S. have survived a completed or attempted rape. Of these women, $12.3 \%$ were younger than age 12 when they were first raped, and $29.9 \%$ were between the ages of 11 and 17. Twenty-two million women in the United States have been raped in their lifetime. Sixty-three percent of women who reported being raped, physically assaulted, and or stalked since they were 18 reported being victimized by a current or former husband, cohabitating partner, boyfriend, or date. While these statistics are concerning, results from the 1999 National Crime Victimization Survey (NCVS) revealed that only $28.3 \%$ crimes related to sexual offenses were reported to law enforcement (Rennison, 1999). It has also been estimated by the U.S. Department of Justice that less than half of domestic violence incidents are reported (Bachman, 1994; Rennison \& Welchens, 2000).

## Costs and Outcomes of Violence against Women

Findings from the NISV Survey in 2010 (Black et al., 2011) indicated that sexual violence, stalking, and intimate partner violence (IPV) continue to be a major public health issue affecting women. This report further indicated that those who are victimized at early ages often re-experience victimization as adults (Smith, White, \& Holland, 2003: Tjaden \& Thoennes, 2000). It is important to also point out that across various forms of violence, the majority of victims reported their perpetrators to be male. Additionally, for all forms of violence, the vast majority of victims knew their perpetrator (Black et al., 2011). This report confirms a perception evident in the literature on violence that suggests that exposure to sexual violence, stalking, or intimate partner violence has significant adverse consequences for physical and mental health (Campbell, 2002; Cox et al., 2006).

The Center for Disease Control estimates that the cost of Domestic Violence (DV) in 2003 was more than $\$ 8.3$ billion, which includes the cost of medical care, mental health services, and overall lost productivity (Max et al., 2004). Respondents in the NISV Survey in 2010 reported the following problems related to violence they had experienced: being fearful; concerned for their safety; experiencing PTSD symptoms; injury; needing medical care; needing housing, advocate, and legal services; missing work or school; and contracting sexually transmitted diseases and pregnancy. The impact of domestic violence on children is also significant and traumatic, which can impact almost every aspect of their lives, including growth and overall development (Tjaden \& Thoennes, 2000). For example, children who witness DV report PTSD-like symptoms along with other general health problems. Finally, studies (Smith, White, \& Holland, 2003: Tjaden
\& Thoennes, 2000) reveal that individuals, both men and women, who experience abuse as a child are at greater risk of victimization as adults and also show far greater likelihood of perpetrating abuse.

## Utah Statistics for Sexual and Domestic Violence

According to the Utah's Domestic and Sexual Violence Report (No More Secrets, 2011), "domestic and sexual violence are two of the most serious violent crimes in Utah." Alarming statistics reported in 2009 by the Utah Department of Health's study "Rape in Utah Survey" indicate that since 2000 frequency of rape has been significantly higher than the rest of the United States (Mitchell \& Peterson, 2008). Utah's reported incidents of rape in 2009 were 66.5 per 100,000 females, compared to the national average of 56.6 per 100,000 females. In 2006, one in eight women (12.4\%) and one in 50 men ( $2 \%$ ) from Utah, reported experiencing rape or attempted rape in their lifetime (Mitchell \& Peterson, 2008). Also, it is often stated that one in three women from Utah will experience some form of sexual violence in their lifetime. It is also important to note that the majority of rapes (88.2\%) were not reported to law enforcement (Mitchell \& Peterson, 2008). Seventy-eight percent of females in Utah who had been sexually assaulted reported that their first assault occurred before they turned 18 (Haddon \& Christenson, 2005). According to the 2005 Rape in Utah Survey, between 80 and $93 \%$ of the victims knew their attacker (Haddon \& Christenson, 2005).

Statistics demonstrating that Utah has had the highest incidents of rape and sexual assault of any state in the country is concerning. This "begs the question" of particular causes for such problems as well as the reason for the differences in statistics. Many theories about this outcome may be proposed, but the predominant religion and culture by
which the state of Utah is known is brought to the attention of one asking such questions. Religion is a key tenant of culture and Utah is heavily dominated by the Church of Jesus Christ of Latter-day Saints (referred to as the LDS church or "Mormon" people throughout this paper) both statistically and politically. According to the 2010 U.S. Religion Census: Religious Congregations and Membership Study, Utah has the highest number of LDS members in any state in the country, based on the ratio of LDS adherents to population. In a March 2012 Gallup poll (www.gallup.com), Utah was reported to be the second most religious state (57\%), just following Mississippi at 59\% ("Mormons make Utah", 2012). This was based on participants of each state's population selfreporting as being very religious. Given the relationship between religious practices, related norms, and the high rates of abuse and violence towards women in Utah, it would be important to investigate a possible correlation of these factors.

## Causes of Violence Against Women

Many have theorized the causes of violence and abuse against women (APA, 1996; Carden, 1994; Coleman, 1996; Koss et al., 1994; Okun, 1986; Straus, 1973), and different strategies have been proposed to prevent the problems that result from society's views about the treatment of women. Cultural beliefs, practices, and the socialization process of both men and women are all postulated to be probable causes of mistreatment. When looking at how the larger society contributes to MVAW on a macro level, theorists propose that this problem is not caused by patriarchal and institutional structures alone, but more specific elements. Some of these elements have been identified as patriarchal values; gender-role stereotypes; mass media; the masculine mystique and value system; male dominance, privilege, and entitlement; and institutional forms of racism, sexism,
discrimination and cultural oppression; as well as the subordination of women. Proposing various theories will help address the overarching explanations for violence against women and address one of the key aspects being sexism as a contributing factor in this discussion.

The mainstream society in the U.S. has historically endorsed men's domination of women, even to the point of violence (Landes, Squyres, \& Quiram, 1997). Examples include cases such as the 1995 criminal trial of O.J. Simpson for the murders of Nicole Brown Simpson and Ronald Goldman, and the 2009 trial of Chris Brown for physically assaulting Rihanna. Viewed in this context, MVAW is basically a consequence of political and economic systems which render women relatively powerless compared to men (Lepowsky, 1999). Kilmartin and Allison (2007) argue that so long as men's power, dominance, and aggression are attached to the social construct of masculinity and cultural messages endorsing men's dominance of women, those most likely to participate in violence will be men.

## Theoretical Perspectives on Violence Against Women

Harway \& O'Neil (1999) have proposed a multivariate model explaining men's risk for violence against women. According to their model, all conditions and values in the larger society may directly or indirectly predispose men to be violent against women. Some of these factors include sexist and patriarchal structures, which when internalized by men, can later be externalized through violence against women in many different forms. These researchers further explain that many men, especially violent men, experience similar patterns during the socialization process. First, they are socialized in sexist ways by a patriarchal society into restrictive values of the masculine mystique and
value system. The masculine mystique is defined as a complex set of values and beliefs that define optimal masculinity in society (Harway \& O’Neil, 1999). It is based on numerous assumptions, expectations, and attitudes about what "manhood" really means. Some researchers (Thompson \& Pleck, 1995) assert that the masculine mystique is a form of masculine ideology that advances the notion that men are better than women and that power, control, competition, and dominance are essential to prove one's masculinity. Second, men commonly develop a masculine gender-role identity based on restrictive and sexist gender-role stereotypes. Indeed, O'Neil has written extensively on the concept of gender role identity and how it contributes to stereotyping attitudes. Thirdly, men learn distorted gender-role schemas of masculinity and femininity during gender-role socialization. Finally, distorted gender-role schemas produce fears of femininity, fears of emasculation, and gender-role conflict (Harway \& O’Neil, 1999).

In Kilmartin and Allison's book Men's Violence Against Women (2007), they outline a collection of theories about the treatment of women in our society. Specifically, they propose a macro-social hypothesis to gender inequality. The first aspect is that gender roles are embedded within society's division of labor, and that in most modern cultures these gender arrangements generally provide more power for men-as-a-group compared to women-as-a-group (Lerner, 1986). It is important to note that women and children were considered legal property of their husbands in many states of the U.S. through the middle of the $20^{\text {th }}$ century. Indeed, rape laws were originally property crimes against the husband and domestic violence laws were patterned after animal cruelty laws, which existed first (Kimmel \& Mosmiller, as cited in Kilmartin \& Allison, 2007).

Kilmartin and Allison also concluded that most perpetrators of gender-based violence
hold hostile sexist attitudes toward women that provide the impetus and rationalization for their violence. Sexism is manifested by men as a group through language in the sexual objectification of women, derogatory jokes, and labeling of women by animal names and body parts. Society as a whole supports the prejudice of sexism through social and structural inequalities between men and women. These authors also believe that language, comments, and behavior ultimately support sexism. For example, women are commonly referred to as "girls," whereas men are rarely called "boys."

## Women's Gender-role Socialization and Conflict

In Harway and O'Neil (1999), Roberta Nutt proposed a theory that explains women's gender role socialization and the ensuing gender-role conflict as a major contributing factor for women's domestic violence victimization. Through the lifespan, cultures teach women that they are less valued than men. They are also not taught important preventive traits against domestic violence such as self-respect, personal confidence, and assertiveness skills. Nutt (1999) proposes that women's gender role socialization may set them up to be recipients of abuse in many ways because messages they receive through life predispose them to involvement in violent relationships. They are often taught to devalue themselves, as they are less important than men, restricted, less powerful than men, and are primarily valued for their appearance and nurturing abilities. This progressively programs girls and women to expect less and to demand less equitable treatment in relationships (Harway \& O'Neil, 1999). Gender-role socialization for women leads to a variety of conflicting (O'Neil \& Egan, 1992) or paradoxical (Halas \& Matteson, 1978) messages related to appropriate attitudes and behavior, which is very important in understanding the vulnerability of women to domestic violence. It is defined
as "occurring when rigid, sexist, or restrictive gender roles, learned during socialization, result in the personal restriction, devaluation, or violation of others or self." (Nutt, 1999, p. 61). The result of women's restrictive gender-role socialization and resulting genderrole conflict that devalues and restricts women lead them into violent relationships and also ultimately prevents them from leaving them.

The author feels that is important to include the statement that although the prior theory attempts to explain causes for women's victimization of violence, it is not stating that women are to blame for men's violence against them. Our society often gets into what is referred to as "victim blame," and I do not ever feel that a women should be blamed for men's choices.

## Ambivalent Sexism Theory and Religion

To move toward a more specific topic, the question is asked, "How do men see and feel about women in general?" A longstanding history of men's ambivalence towards women still exists. The history of misogyny, which is explained as a fear or hatred of women, traces back to Western civilization's myths of human genesis in that the first woman loosed evil and misery among humankind. This however, has also been tempered by idealized views of women in literature, art, and popular culture (Tavris \& Wade, 1984). Women still experience more discrimination than men in the U.S., despite being more liked than men (Glick et al., 2000). These conflicting attitudes and inconsistencies towards women provide an explanation of the ambivalence that men hold toward the opposite sex.

Peter Glick and Susan Fiske (1996) outlined a theory about ambivalent sexism. They describe it is a special case of prejudice marked by deep ambivalence toward
women, rather than uniform antipathy. Instead of viewing sexism as a reflection of hostility toward women, they feel that positive feelings often go hand in hand with sexist antipathy. The authors ultimately view sexism as a multidimensional construct encompassing two sets of sexist attitudes: hostile and benevolent sexism. Glick and Fiske (1996) argue that two universal characteristics of human groups-patriarchy and sexual reproduction-create sexist ambivalence. On one hand, patriarchal control of central social, political, and economic institutions precipitate hostile sexism (HS). This ideology legitimizes men's social control due to the characterization of women's inferiority. At the same time, however, men are dependent on women as wives, mothers, and romantic objects, making HS accompanied by benevolent sexism (BS). BS idealizes women in traditional female roles and is sexist because it presumes traditional gender stereotypes and role divisions but consists of subjectively positive attitudes towards women (e.g., women should be protected and cherished by men, and women complete men).

Feminist theologians and women's studies scholars have suggested that religion shapes gender ideologies as well (Daly, 1974; Ruether, 1974, 2002; Sered, 1994). Some studies have posited that traditional gender role attitudes are associated with religiosity and conservative religious beliefs. A review of the literature reveals that the relationship between gender role attitudes and religious beliefs is complex (Burn \& Busso, 2005). For example, Allport (as cited in Burn \& Busso, 2005) stated that the relationship between religion and sexism "depends on which religion you are talking about and the role it plays in an individual's life" (p.412). More recently, Ruether (2002) asserted that it was a mistake to see religiousness as being authentically represented only by patriarchal and misogynous religious traditions. However, given all of the world's major religious
traditions, it is typically the conservative and fundamentalist strains that most often promote traditional roles for women (Anwar, 1999; Armstrong, 2002; Helie-Lucas, as cited in Burn \& Busso, 2005). It is important then to examine religion and the ways in which people are affected by it, and how they view gender and relationships through that specific lens.

Religion and religiosity has become an important topic of study, and many measures have been created to understand the construct within a broad range of religious backgrounds. Many studies have been conducted on religiosity and sexism, utilizing a broad range of sample populations and a number of religious measures. The body of research in this area suggests a relationship between religiosity and ambivalent sexism. There are methodological problems in the smaller body of research on religion and ambivalent sexism, which will be discussed further in the literature review. In many of these studies, specific religious populations have been used, which limits the generalizability of the outcomes. This limitation requires that more studies are carried out with various religious groups, addressing different contextual factors.

## Ambivalent Sexism and LDS Adults

The findings of strong correlations between religiosity and ambivalent sexism have been consistent among various populations throughout the world; however, none of these studies have focused upon or included Latter-day Saint participants. The LDS church is one of the fastest growing denominations in the U.S. as well as worldwide growth due to ongoing proselytizing efforts. According to the 2010 U.S. Religion Census, which is released every decade by the Association of Statisticians of American Religious Bodies, the LDS church had a $45.5 \%$ increase growth from 4,224,026 in 2000 to

6,144,582 in 2010. This growth was only second in percentage to Muslims being the fast growing faith in the U.S. during that decade. Mormons comprise about $2 \%$ of the nation's population, and the $45 \%$ membership increase between 2000 and 2010 is a rate that is double the general U.S. population growth rate. Why Mormons have been left out of the vein of Ambivalent Sexism research or why they have been disregarded is unknown. The LDS faith receives a lot of criticism in the national media due to historical practices and doctrines that seem unfamiliar to many. Despite the limitations of correlational research, this study is important to address and clarify possible sexist attitudes towards women given the reputation of the LDS church as being a patriarchal and male-dominated institution. They are an appealing population to include in this area of research given the patriarchal structure and specific religious beliefs that are somewhat different or unique to other Christian faiths. The high incidents of reported rape and sexual assault in Utah and the increased media attention focused on the LDS church and public figures who are members of the church (i.e., presidential candidate Mitt Romney) increase the relevance and interest of this population regarding sexism.

Based upon the review of the existing literature, it appears that Mormon adults or members of the LDS faith have been largely neglected in research regarding ambivalent sexism. More specifically, LDS adults appear to be absent among participants in studies addressing the relationship between ambivalent sexism, religious attitudes or behaviors, and the possible moderating factors of gender and education. The high incidents of rape and sexual assault in the state of Utah, and the high proportion of members of the LDS faith in Utah, leads one to question the relationships of these factors and sexist attitudes towards women within this population. The goal of this study is to examine the impact of
these variables on the endorsement of ambivalent sexism among adult LDS men and women.

## CHAPTER 2

## REVIEW OF LITERATURE

This chapter is divided into six sections. The first section is a summary of the introduction and includes information regarding the terminology and attitudinal foundations of gender based violence, of which sexism is considered to contribute to. The middle four sections focus on the variables included in this study. The second section addresses Ambivalent Sexism Theory, the inventories developed by Glick and Fiske to measure ambivalent sexism toward women (The Ambivalent Sexism Inventory, ASI; Glick \& Fiske, 1996) and the research examining this theory using the ASI. The third section examines religiosity and the foundational measures that led to the two measures that will be used in this study, specifically the Religious Orientation Scale (I/E-R), which was created by Allport and Ross (1967) to look at individual's intrinsic and extrinsic attitudes towards religion, and the Religious Fundamentalism-Revised scale (RF-R) created by Altemeyer and Hunsberger (1992). This section will also address religiosity and ambivalent sexism. The fourth section will discuss education, specifically addressing the topics of education and religion, research regarding education and LDS individuals, and education and ambivalent sexism. The fifth section will describe LDS religious beliefs and demographic variables important for this study. The last section will conclude as the chapter summary.

## Sexism and Violence Against Women

The introduction of this paper explained and outlined the overarching issue regarding violence against women and one of the underlying problems of sexist attitudes towards women. The mainstream society in the U.S. has historically endorsed men's domination of women, even to the point of violence (Landes, Squyres, \& Quiram, 1997). Anthropological studies by Sanday $(1981,1996)$ and Lepowsky (1999) point to a strong connection between violence against women, and two variables that emerged from their research-the social separation of the sexes and the cultural attitudes that communicate or encourage women's subordination to men. For example, given the power distinction between men and women, a clear message is given that men's bonds are threatened if they behave respectfully toward women.

Harway and O'Neil (1999) proposed a multivariate model explaining men's risk for violence against women. The authors explained that sexist and patriarchal structures, which when internalized by men could later be externalized through violence against women in many different forms. Kilmartin and Allison (2007) proposed a macrosocial hypothesis to gender inequality wherein they hypothesize that men's violence against women is related to asymmetry in power and the consequential culture of patriarchy. This is connected to Whiting's (1965) "Masculine Protest," in that men have social demands to display superiority and disconnection to feminine ideals and women in general, which means there will always be men who assert a defense against feelings of powerlessness, making it necessary to attack women. At a microsocial level, men are believed to behave in sexist ways because they believe that their male peers enjoy and value these displays. The authors also point out that despite the fact that most men never commit this type of
violence, they contribute to the attitudinal underpinnings of gender-based violence by being passive bystanders regardless of their possible discomfort. They also concluded that most perpetrators of gender-based violence hold hostile sexist attitudes toward women which provide the rationalization for their violence. They claim that society as a whole supports the prejudice of sexism through social and structural inequalities between men and women (Kilmartin \& Allison, 2007).

## Terminology and Attitudinal Foundations of Gender Based Violence

Despite strict laws and punishments for rape, sexual assault, and physical violence in the U.S., men still commit violence against women in epidemic proportion. Even though the forefathers of this country espoused ideals of "liberty and justice for all," patriarchy and the ensuing sexism prevail in our country. There is a great contradiction in our values, which are defined by cultural masculinity, in that our love of power and control often blend with our disdain for violent crime (Kilmartin \& Allison, 2007). Given this situation, it is important to examine deeper elements that help explain the causes of gender-based inequality and violence.

The ABC model derived from cognitive theory purports that attitudes are comprised of three components: affective, behavioral, and cognitive. It explains what our favorable and unfavorable evaluations of particular ideas, events, or objects are (Eagly \& Chaiken, 1998). Once an attitude is established it may exist on two different levels. When the attitude exists on an explicit level, it is in full consciousness and may be easily identified. An implicit attitude is less accessible to consciousness and is less controllable. These types of attitudes may be inconsistent in their expression, where an explicit attitude may be socially unacceptable or "politically incorrect" (e.g., embracing sexist attitudes),
which may be easily brought to consciousness but expressed in more subtle ways, if at all (Kilmartin \& Allison, 2007). For example, modern sexism has been defined as explicitly held sexist attitudes that are not expressed directly (Swim, Aiken, Hall, \& Hunter, 1995). This type of sexism promotes traditional gender roles, the unequal treatment of women, and is justified by the stereotypical notions of men's superiority. The more subtle it is, the less obviously prejudicial it is, and it is more difficult to identify and combat.

## Prejudice

Prejudice is a hostile or negative attitude toward a group of people, based solely on their membership in that group (Aronson, Wilson, \& Akert, 2005). All of the ABC components of attitude may be at play when speaking of prejudice. A prejudiced person might dislike a member of a group and may believe they are inferior to their own group and may behave or treat the person in discriminatory ways. Stereotypes are overgeneralizations about individuals based on membership in a group. They are cognitively based attitudes that support the affectively based attitudes of prejudice. Stereotyping can have many negative consequences, despite its natural function of processing data to understand the world as a whole (Kilmartin \& Allison, 2007).

## Gender

Masculinity and femininity are socially constructed concepts and can be understood as promoting stereotypes regarding men's and women's places within our society. They are relevant to gender-based violence in how one understands these concepts. Patriarchal ideology is supported by the general attitudes that we have regarding males, females, masculinity, and femininity, and the consequential gender roles
that we adhere to in our society reinforce this power differential. Despite being a part of our social fabric, in their more extreme forms these concepts and ways of being directly apply to violence against women (Kilmartin \& Allison, 2007). Masculinity is defined by Brannon in Kilmartin and Allison (2007) as the set of behavioral prescriptions for how boys and men should feel, think, and behave. The traditional concept of masculinity within the U.S. revolves around four themes: antifemininity, status and achievement, inexpressiveness and independence, and adventurousness and aggressiveness. These standards of traditional masculinity are deeply connected to power, and ultimately gender-based violence.

Turning to the notion of femininity, a review of the literature indicates that femininity is described culturally as being warm, expressive, and nurturing. For example, Susan Basow (1995) divides this concept into three substereotypes, which are the housewife (traditional woman), the professional woman (independent, self-confident, ambitious), and the Playboy bunny (sex object). Deaux et al. (1985) found that stereotypes about women were more strongly differentiated than stereotypes about men and that for both men and women, the perceptions about the sexes are conceived in terms of opposites. Hyperfemininity is the exaggerated adherence to stereotypical feminine gender roles. Those who endorse this ideology believe that the rights and roles of women in society should be traditional and restrictive (Murnen \& Byrne, 1991).

## Ambivalent Sexism

Glick and Fiske's (1996) theory on ambivalent sexism is viewed as a multidimensional construct encompassing two sets of sexist attitudes: hostile and benevolent sexism. These authors define hostile sexism as those aspects of sexism that fit

Allport's (1954) classic definition of prejudice, which is "antipathy based upon a faulty and inflexible generalization" (p. 9). They note the prevalence of hostile sexism by stating that in nearly all cultures and time periods, women have been allowed to have social roles with less status than those of men (Tavris \& Wade, 1984). In our society today, women still face discrimination in gaining employment (Fitzgerald \& Betz, 1983; Glick, 1991) and sexual harassment on the job (Gutek, 1985) and are perceived less favorably than men when in leadership roles, or when acting in a masculine manner or domain. They also add that women are often portrayed as being nice but incompetent at important tasks such as analytical thinking (Eagly, Makhijani, \& Klonsky, 1992). There is also abundant evidence of sexual violence against women (Unger \& Crawford, 1992). Hostile sexist attitudes can also influence the beliefs about rape and sexual activity between men and women. Men who score high in hostile sexism are more likely to express a willingness to commit rape (Abrams, Viki, Masser, \& Bohner, 2003) as well as being able to tolerate sexual harassment against women (Russell \& Trigg, as cited in Davoudian, 2011).

Benevolent sexism is defined by Glick and Fiske (1996) as attitudes that view women in stereotypical and restricted roles, which are subjectively positive and elicit behaviors which are commonly viewed as prosocial (e.g., helping) or intimacy seeking (e.g., self-disclosure). Glick and Fiske (1996) do not see benevolent sexism as a good thing. Benevolent sexism is a gentler justification of male dominance and prescribed gender roles in comparison to hostile sexism (Glick \& Fiske, 1997). Benevolent sexist individuals presume that while women are seen as inferior and weak, they should therefore be protected because men need women for heterosexual intimacy and
reproduction capabilities (Glick \& Fiske, 2000). Ambivalent sexism has been found to correlate with the endorsement of traditional gender roles among men and women throughout the world (Glick et al., 1997; Glick \& Fiske, 1996, 1997, 1999; Glick et al., 2004). Additionally, some authors have noted that ambivalent sexism condones and justifies spousal abuse toward wives who violate traditional gender roles (Glick et al., 2002; Sakalli, 2001).

Three attitudes are associated with benevolent sexism: women are pure and moral; women are fragile and need to be guarded by men; and finally, women and men need one another in order to be whole and happy (Glick \& Fiske, 1996). Examples of benevolent sexist behaviors include protecting women from hearing lewd jokes and holding doors open for women (Forbes, Jung, \& Haas, 2006). Despite it seeming less harmful than hostile sexism, benevolent sexism can be particularly damaging because it works effectively and invisibly to promote gender inequality (Glick et al., as cited in Davoudian, 2011). In a French study, the authors postulated that women might end up doubting their abilities because benevolent sexism appears to praise women on the surface while concurrently implying their lack of competence (Dardene et al., 2007). Due to the façade that is represented by this type of sexism, women and men are likely more willing to accept benevolent sexism toward women (Glick \& Fiske, 2001).

## Studies on Ambivalent Sexism

Numerous studies have been conducted examining the construct of ambivalent sexism. Glick and colleagues (2000) gathered data from more than 15,000 participants in 19 countries. They found that men consistently scored higher on hostile sexism measures than women and that ambivalent sexism is prevalent across cultures. Women were found
to generally reject hostile sexist ideology while also being more likely to endorse benevolent sexism. Women endorse benevolent sexism at a higher rate than men in countries or cultures where sexist attitudes are particularly common.

Benevolent sexist beliefs were found to be an important aspect in mate selection for both genders and both cultures in a study addressing mate selection and marital norms of Chinese and American undergraduate students (Chen et al, 2009). Benevolent sexism was related to men's preference for submissive and home-oriented partners. This study also found that women participants expressed a preference for dominant and resourceful men. Men and women who scored high for hostile sexism were more likely to endorse items that emphasized traditional gender roles for both partners. Items that participants responded to included beliefs that violence against women was sometimes acceptable, male authority should be respected and upheld by all family members, and that women should tend to the domestic tasks in a marital relationship. The findings of this study suggest that ambivalent sexism affects both genders' preferences of romantic partners, the norms that should guide the behavior of each spouse, and the attitudes held by both (Travaglia et al., 2009).

Van Wijk (2011) investigated contemporary expressions of sexism in the South African Navy (SAN) by having 476 sailors complete the ASI, the Modern Sexism Scale, and the Sexist Attitudes towards Women Scale. Participants scored higher than any available published samples and indicated high levels of sexism and a possible denial of the existence of discrimination within the SAN. Similar studies have addressed specific military populations such as attitudes towards women in the Swedish Armed Forces (Ivarsson, 2005). The correlational analyses in Ivarsson's study found that those
expressing more positive attitudes toward women in the military were younger, more educated, higher in rank, less likely to endorse sexist ideologies, and they also had greater contact with women in the military. Education, rank, and contact with women were the best predictors of sexist attitudes based on regression analyses.

Pearson's dissertation (2010) examined the impact of religiosity, acculturation level, and education on the endorsement of ambivalent sexism toward both men and women in a Mexican-American population. Her findings were similar to other research on ambivalent sexism conducted worldwide. Specifically, she demonstrated that education was negatively related to ambivalent sexism, in that those who were highly educated were less likely to endorse ambivalent sexism towards women and men. Acculturation of participants was also negatively related to ambivalent sexism, and education only had a moderating effect on the endorsement of ambivalent sexism towards men, which was not evident towards women in this case. Religiosity was not found to moderate the relationship of education and acculturation for either men or women. However, the frequency of religious attendance was positively related to benevolent sexism toward men and hostile sexism toward both women and men. Gender was not a moderating factor between acculturation and ambivalent sexism for men or women. Pearson's study was important because it focused on a growing population which was lacking from the ambivalent sexism literature.

## Religiosity

Religion has become an important topic of study. A number of measures have been created and used to understand the construct of religiosity in individuals and groups. One of the problems regarding the study of religion relates to the ambiguities and
inconsistencies in the definition and operationalization of the construct. The available literature reveals a broad array of definitions, which vary in terms of focus on the individual or society, as well as the emphasis on psychological, sociological, and functional aspects (Brewczynski, 2006). There has yet to be adequate and consensually recognized resolutions to the definition problem. Despite the definition problem, there has been an emphasis on certain perspectives within the field of the psychology of religion which is empirical measurement. A variety of measures address specific topics related to these phenomena (e.g., religious beliefs, practices, attitudes/identity, religious development, religious and moral values, religious coping and problem solving, etc.).

## Religious Orientation - Intrinsic/Extrinsic

Gordon Allport (1950, 1954, 1959, 1960, 1966; Allport \& Ross, 1967) was one of the first in psychology to adopt the research paradigm concerning religion as a means to an end (instrumental) versus religion as a means unto itself (ultimate). Allport was interested in understanding how religion impacts social behavior, particularly prejudice. He viewed religion in motivational terms and being manifest in people as either intrinsic or extrinsic (I/E). Allport and Ross (1967) stated that "the extrinsically motivated person uses his religion, whereas the intrinsically motivated person lives his religion" (p. 434). They developed a measure of I/E that has been followed by a long list of studies. Donahue (1985) lists 70 published studies utilizing the Intrinsic / Extrinsic Religious Orientation Scale (IEROS), which have been accompanied by other religiosity measures (e.g., religious belief and orthodoxy) and measures of prejudice, dogmatism, fear of death, and others.

Donahue (1985) described Allport's concept of I/E as "having the greatest impact
on the empirical study of religion compared to any other approach" (p. 400). Donahue (1985) posits that intrinsic religiousness provides an excellent measure of religious commitment, which is distinct from beliefs, church membership, and liberal-conservative theological orientation, etc. (Brewczynski, 2006). Donahue agrees with the theory shared by Allport (1967) that extrinsically oriented, or indiscriminately proreligious people, are more prejudiced than those who are intrinsically oriented. Also, religious people with intrinsic faith are more psychologically adjusted than extrinsically oriented individuals. Further, intrinsic orientation highly correlates with internal locus of control, purpose of life, and lack of anxiety. It is also highly related to other measures of religiousness. Extrinsic religiousness is empirically related to a number of socially undesirable variables such as prejudice, dogmatism, trait anxiety, and fear of death (Brewczynski, 2006). Donahue (1985, p. 416) states that E, "does a good job of measuring the sort of religion that gives religion a bad name." Allport (1966) posited that prejudiced people are more likely to be driven by comfort and security and external rewards such as social acceptance, friends, and God's protection (an extrinsic religious orientation). An intrinsic religious orientation characterized by a committed, internally motivated religion was thought to be incompatible with prejudice because it involves internalizing religious teachings of universal acceptance and compassion.

In the past 2 decades a lot of effort has been devoted to understanding the empirical correlates of the I/E construct. It has been demonstrated that empathy is negatively related to E and positively related to I (Watson et al., 1984); integrity is directly related to I and quality of life, but inversely to E (Brichacek, 1996). High intrinsics are more accepting of homosexuals than low intrinsics (Fulton et al., 1999). I is
associated with higher self-esteem, and low antisocial behavior (Knox et al., 1998); high intrinsic faith is inversely related to anxiety, depression, and correlates positively with ego strength (Laurencelle et al., 2002). I is the strongest predictor of psycho-spiritual health, as compared with E (Genia, 1996); I is associated with positive self-esteem and lower levels of guilt, whereas E is related to poorer self-esteem and enhanced guilt feelings (Hood, 1992). Extrinsically religious people are more depressed than intrinsics and have lower self-esteem than all other groups. Also, intrinsically religious and proreligious students report greater existential well-being than nonreligious or extrinsic students (Genia, 1998). Trimble's (1997) meta-analytic study of I/E accentuates the basic assertion of this paradigm in that I tends to correlate with "desirable variables" (e.g., mental health, altruism, and religious commitment), while E tends to correlate with "undesirable variables" (e.g., prejudice, nonmarital sex; Brewczynski, 2006).

## Religious Fundamentalism

Social psychologists created a definition of religious fundamentalism that in some ways mirrors the spirit of "The Fundamentals," which is the belief that "there is one set of religious teachings that clearly contain the fundamental, basic, intrinsic, essential, inerrant truth about humanity and deity" (Altemeyer \& Hunsberger, 1992, p. 118). According to this doctrine, this kind of truth needs to be followed according to the unchangeable and fundamental practices of the past. It is also the concept that those who believe and follow these teachings have a special relationship with deity. This definition is not specific to Christianity and may apply to many religions. The authors defined fundamentalism as an attitude about beliefs, no matter what the tenet may be, and not as a particular set of doctrines (Altemeyer \& Hunsberger, 1992).

Altemeyer and Hunsberger (1992) developed an attitude scale to measure their concept, which they called the Religious Fundamentalism (RF) Scale. Examples from this measure are "to lead the best, most meaningful life, one must belong to the one, fundamentally true religion" and a reverse item: "no single book of religious teachings contains all the intrinsic, fundamental truths about life." Since its creation in 1992, studies of the RF scale appear to have strong associations with right-wing authoritarianism (. 62 to .82 ). Because of this, it was suggested that fundamentalism can typically be viewed as a religious manifestation of right-wing authoritarianism (Altemeyer, 1996). There are also high associations with this scale and attitudes toward homosexuals (Laythe, Finkel, Bringle, \& Kirkpatrich, as cited in Altemeyer \& Hunsberger, 2004). Other studies conducted with Canadian and largely Christian samples have shown correlations with dogmatism (.57 to .78), zealotry (. 44 to .55 ), frequency of church attendance (.51 to .67 ), belief in Christian teachings (. 66 to .74 ), selfrighteousness (. 52 to .54 ), hostility toward homosexuals (. 42 to .61 ), prejudice toward women (. 23 to .40 ), prejudice toward racial/ethnic minorities ( .17 to .33 ), endorsement of censorship of various "left-wing" publications and acts (.64), reports that religion brought one comfort and joy in life (.68), a lack of reports that logic and science brought one comfort and joy (-.33), and strong religious ethnocentrism (. 70 to .82 ; Altemeyer \& Hunsberger, 2004).

Those who score high on the RF measure also endorse double standards about the teaching of religion in schools, where they are okay with their own religious beliefs, but not of others (Altemeyer \& Hunsberger, 2004). People who score higher on RF are also more likely to reject scientific evidence that contradicts their beliefs and insist that
nothing could convince them that they are wrong about the existence of the traditional God. They also strongly proselytize their faith and encourage their children to hold the same beliefs as their own. Evidence suggests that racial/ethnic prejudice of fundamentalists has roots in early childhood training from religious ethnocentrism (Altemeyer, 2003).

Groups who have been sampled and score high on RF are particularly concentrated in "fundamentalist" Protestant denominations such as the Baptists, Mennonites, Evangelicals, Pentecostals, Jehovah's Witnesses, and the Alliance Church (Altemeyer \& Hunsberger, 2004). Catholics and Lutherans also appear in accordance with their overall frequency. "Liberal" Protestant denominations (the United Church, Methodist, and some Presbyterian churches and the Anglican Church) are substantially underrepresented in the samples and studies used with this measure (Altemeyer \& Hunsberger, 2005). There is no mention of research in the literature using the RF scale with an LDS population. It is a population that holds fundamentalist attitudes towards their beliefs, making them an interesting and important population to study using this measure of religiosity. In accordance with the author's focus on capturing fundamentalism in many faiths, a study conducted in Toronto in 1992 showed that Hindus, Jews, and Muslims had alphas ranging from .85 to .94 . Correlations of these populations with hostility toward homosexuals varied from .42 to .65 , which are values that were consistent with predominantly Christian samples (Altemeyer, 1996). A sample of Muslims in Ghana posted an alpha of .87 and correlated .78 with hostility towards homosexuals (Hunsberger, Owusu, \& Duck, 1999). Jews score low as a group on this measure, and Muslims tend to score high (Altemeyer \& Hunsberger, 2005).

## Religiosity and Prejudice

Studies of religion and prejudice lead to opposite answers when asking if religious people are usually "good people." As stated earlier, a lot of research shows that religious people were more prejudiced than most (Altemeyer, 1992). Because so much research confirmed a positive relationship between religion and prejudice, Wulff (1991) declared that "researchers have continued to find positive correlations with ethnocentrism, authoritarianism, dogmatism, social distance, rigidity, intolerance of ambiguity, and specific forms of prejudice, especially against Jews and blacks" (p. 219-220), when using a variety of measures of piety-religious affiliation, church attendance, doctrinal orthodoxy, and rated importance of religion. However, another line of evidence shows that more religious persons are less prejudiced when religion is defined in specific ways. These reports are more common and cite Allport and Ross's (1967) classic finding that those with strong intrinsic religious orientation tended to be relatively unprejudiced. This was also found in cross-cultural replications of this specific effect (Eisinga, Felling, \& Peters, 1990; Ponton \& Gorsuch, 1988).

## Religiosity and Sexism

According to Maltby (2010) the most common problem in this area of research is that religious variables are conceptualized in simplistic ways. When Glick et al. (2002) carried out their study using Catholic participants in Spain, they looked at religiosity in terms of practice alone. The four categories used were nonbelievers, nonpracticing Catholics, practicing Catholics, or adherents of another faith. This narrow approach failed to isolate any practices or beliefs for Catholics that may significantly shape their attitudes towards gender relations (Maltby, 2010). Christopher's and Mull's (2006) study also
conceptualized religion in problematic ways because conservative ideologies are often conflated with religious beliefs and doctrines. Their study examined various types of conservative ideology without using any measures of actual religious beliefs. In addition to the ASI, they utilized the Social Dominance Orientation (SDO) scale, a Right Wing Authoritarianism (RWA) scale, and a Protestant Work Ethic (PWE) scale. They found that SDO and PWE were significantly related to hostile sexism, and RWA was related to benevolent sexism. They concluded that "the effects of religiosity [italics added] are greater on benevolent sexist attitudes than hostile sexist attitudes" (p. 228). Maltby (2010) criticized the outcomes of Christopher's and Mulls (2006) work because some of the measures are religiously affiliated in name (Protestant work ethic), but the constructs are defined more around work ethic and conservative ideologies, not religious doctrine or belief systems. They state that one must conduct research using actual religious variables, not just associated constructs to understand the relationship between religion and ambivalent sexism.

Burn's and Busso's (2005) research more accurately explored the relationship between religion and sexism by using measures directly addressing religiosity in participants: scriptural literalism, religious orientation (I/E construct), and the ASI. Their findings also highlight a significant methodological problem in research with religiosity and sexism. They found that the mediators and moderators of this relationship were seldom explored, specifically the way individual differences or participant characteristics impact the relationship. In their American sample, scriptural literalism significantly predicted benevolent sexism and protective paternalism, but once intrinsic religiosity was entered into the multiple regression it ceased to be a significant predictor of benevolent
sexism. Intrinsic religiosity and scriptural literalism accounted for unique variance in the protective paternalism subscale but neither of the other two benevolent sexism subscales. They stated that their modest correlations might have been stronger with a broader, more diverse sample. This suggests that some religious beliefs (such as scriptural literalism) for this sample may reinforce protective paternalism, but that individual differences (such as intrinsic religiosity) mediate the relationship between religious beliefs and ambivalent sexism. Burn and Busso (2005) posit that religious traditions may vary in how much they condone traditional gender ideologies, but the influence of a religious tradition on a person's gender beliefs may depend on the role religion plays in an individual's personal life.

## Gender and Sexism

As stated in the introduction, the dynamic interaction of religiosity, gender, and sexism has been addressed in some studies, yet more work needs to be done. McFarland's (1989) study addressed the importance of individual differences when looking at the relationship between sexism and religiosity with an American undergraduate sample. One hypothesis was that both intrinsically and extrinsically oriented people might behave similarly when it comes to religious practices (e.g., financial donations, reading sacred texts, or attending services); however, the meanings and motives of individuals could vary greatly. They found that intrinsic religiosity was negatively correlated with sexist attitudes toward women, but extrinsic religiosity was positively correlated. They also found that when controlling for religious fundamentalism in women, the relationship between both intrinsic and extrinsic religiosity and sexism disappeared. However, this was not found to be true for men, which suggests that gender might possibly moderate the
relationship between religiosity and sexism.
Finding gender differences in religious variables is consistent in other research. Numerous studies suggest that women are more religious than men (Mahalik \& Lagan, 2001; Ozorak, 1996; Reich, 1997; Thompson, 1991). Maltby postulated that women's increased involvement in religious practices could be the contributing factor to the varying functions of religiosity in counteracting or maintaining ambivalent sexism. They also hypothesized that because sexism affects genders differently, one could expect differences in the relationship between religious beliefs and ambivalent sexism between genders. Maltby and colleagues (2010) were the first to study the moderating effect of gender in the relationship between religiosity and sexism in the context of ambivalent sexism theory. Based on McFarland's results that only men's religiosity predicted sexism, the authors felt it was necessary to explore the moderators of the relationship between ambivalent sexism and religiosity. They also found conceptual shortcomings in defining religiosity in other studies, which made it difficult to draw meaningful conclusions when looking at the positive correlations of ambivalent sexism, religiosity, and conservative ideology. In the review of other studies the authors felt it necessary to clarify the differentiation between conservative, but nonreligious ideologies, and religious beliefs (i.e., doctrine), as well as participant factors that may function as moderators.

Maltby and Moderating Study of Gender
Maltby and her colleagues (2010) attempted to address the methodological shortcomings found in previous studies by using the Religious Orthodoxy scale. It is a measure specifically designed to assess religious doctrine by the degree to which one
holds to doctrine essential to the Christian faith. It is important to note that the items on this measure do not apply to all Christian religions because of doctrinal differences (e.g., LDS doctrinal differences about God or the Godhead). They also wanted to test the hypothesis that gender would moderate the relationship between orthodoxy and ambivalent sexism by finding a positive relationship between orthodoxy and ambivalent sexism in men, but not in women. This was tested by utilizing the multiple regression approach of Frazier et al. (2004).

They collected data from 337 undergraduates at a private, evangelical liberal arts university in the Southwestern U.S. All participants endorsed an affiliation with the evangelical Christian faith, a conservative Christian group. The main hypothesis of this study was supported by results, showing that as men's sexist views increased, their agreement with core tenets of Christianity increased as well. However, this finding was not concluded for the women in the study, demonstrating the previous findings in McFarland's study (1989) that gender moderates the relationship between sexism and religiosity.

Other important findings came out of this study. For example, no statistically significant gender differences were found for the hostile sexism measure. Authors report this as unusual and felt it was due to the political conservatism of the sample. Many items on this subscale refer to antagonism toward the feminist agenda. In evangelical circles, this viewpoint is seen more as a political agenda that is unpopular in this subculture, which may be held for both men and women. This sample had a greater distinction between hostile and benevolent sexism than others, which may also be due to the political nature of the items on the hostile sexism subscale. Findings of very low correlations
between hostile sexism and orthodoxy were in line with other research on religiosity and sexism using the ASI (Burn \& Busso, 2005; Glick et al., 2002). Oftentimes the relationship between religiosity and sexism appear to be limited to benevolent sexism. The last important finding in this study was that in the benevolent sexism subscale, protective paternalism was significantly related to Christian orthodoxy for men. The authors propose the idea that protective paternalism might not measure the same construct for this population as it was intended when it was developed.

The authors point out several limitations in their study, including the lack of generalizability of results given the specific religious sample utilized, which was made up of primarily European-American and female participants. They encourage future researchers who wish to address religiosity and ambivalent sexism to include such factors as socioeconomic status (SES), ethnicity, and education levels, given their mostly middle to upper middle class, highly educated, Caucasian sample. They also theorize that finding the causal factors for ambivalent sexism "is the result of complex interactions between gender, personality, culture, religion, SES, and many other factors" (p. 621). The authors do feel that understanding ambivalent sexism more deeply might help reduce the ideology that serves to limit women's equality and the reinforcement of traditional gender roles.

## Education

## Education and Religion

Caplovitz and Sherrow (1977) found strong evidence that commitment to intellectual pursuits undermined commitment to religion. They found that attending college did increase the probability of apostasy from religious pursuits. Those who did
postgraduate work exhibited even higher levels of disaffiliation, meaning the higher education level the greater the probability of apostasy. It is also important to note that the type of college that one attended was critical in having an impact on apostasy rates. Catholic students attending Catholic colleges were more resistant to disaffection than Catholic students attending secular colleges who exhibited much higher levels of apostasy. Highly religious students in general were also resistant to apostasy when in a college environment, whereas those who were less committed to their religion were more strongly influenced by the college environment.

Argyle and Beit-Hallahmi (1975) concluded from an extensive review of literature that there is a highly consistent trend toward lower church attendance and religious beliefs and attitudes with increased education levels. Individuals are less likely to be orthodox or fundamentalist in their religious beliefs the higher the level of education they obtain. Level of education also leads to one being less likely to believe in God and less favorable toward church and attach less importance to religious values according to their review of literature. While dated, a publication in the Princeton Religion Research Center, Religion in America (1982), found that the relationship between education level and religiosity was negative and linear on almost all of the 16 measures that were included in the review. Attendance at church or synagogue was the only measure that demonstrated similar religious activity for those with and without college education.

## Education and LDS Populations

In a case study, 7,446 LDS men and women from the United States and Canada were surveyed to find out if their education level impacted not only their public
expressions of religiosity such as church attendance, but also other private expressions of religiosity such as religious study, prayer, tithe paying, and belief (Albrecht \& Heaton, 1984). The authors found that the more educated the individual the more they attended church, prayed, studied, paid tithing, and felt that their belief was stronger. The authors pointed out that studies addressing education and religiosity cannot be generalized to all religions, at least given the findings among highly educated Mormons. They also point out that religion means different things to different social classes. The findings suggest that, at least for Mormons, devotion is even more important for those with higher levels of education than those with lower educations.

The authors note that a possible explanation for these results is that many
Mormons with higher levels of education may have received their education at church owned institutions, such as BYU-Provo, BYU-Idaho, or BYU-Hawaii, where their belief and commitment were strongly supported by the nature of the educational experience. This fits with the historical theory advanced by Caplovitz and Sherrow (1977) regarding the nature of the college one attends and the impact this school has on any secularizing influences. Albrecht \& Heaton (1984) found that those who attended church universities reported a weekly attendance rate of $90 \%$, which was 10 to 20 percentage points higher than those who did not go to a church university. Within this population however, the attendance rate increases the more years of college one completes regardless of institution. The concluding message from this case study was that Mormon people with college experience were more likely to attend meetings regardless of attending a church university. This suggests that education alone had a more significant effect on church attendance than the socializing influence of church colleges (Albrecht \& Heaton, 1984).

A more recent study regarding the impact of education as a secularizing agent for religiosity for LDS adults was carried out by Merrill, Lyon, and Jensen (2003). They found their results to be consistent with the previous study conducted by Albrecht and Heaton (1984) indicating that education does not appear to have a secularizing influence on Mormons. The authors proposed that other religious groups with fundamentalist beliefs and conservative Protestant affiliation do not seem as collectively proeducation as Mormons (Darnell \& Sherkat, 1997; Sherkat \& Darnell, 1999) thus possibly giving Mormons more resistance to the secularizing effects of education. The authors also note that Mormons are culturally distinctive from their evangelical counterparts due to such elements as theological conservatism, extra-biblical scriptural sources, and lay religious leadership, which may possibly be factors that assist in the resistance towards the secularizing effects of religion.

## Education and Ambivalent Sexism

Research examining the relationship between education and ambivalent sexism among an LDS population was not found in the literature. The studies that have been conducted in this area have typically addressed alternative variables. Using a sample of 1003 adults ( 508 women and 495 men, ages 18 to 65 years old) in Spain, Glick and colleagues (2002) looked at Catholic religiosity and found that higher levels of education were negatively correlated with overall ambivalent sexism towards members of both genders. However, in a less educated sample they found that Catholic religiosity was correlated with benevolent sexism toward women. Another study with a Turkish sample of 124 undergraduate students and 60 adult nonstudents looked at attitudes towards women who engaged in premarital sex (Sakalli-Ugurlu \& Glick, 2003). They found that
benevolent, but not hostile, sexism positively correlated with more negative attitudes towards women engaging in premarital sex for both men and women. Men with more education were still more likely to express negative attitudes towards women engaging in premarital sex, whereas the women in the sample were not as likely to express negative attitudes towards women engaging in premarital sex.

## LDS Religious Beliefs

The Church of Jesus Christ of Latter-day Saints, commonly referred to as the LDS church, is considered to be a Christian faith and the majority of information described below comes from their official website, www.lds.org. The LDS church was established in 1830 by the founding president and "modern day prophet," Joseph Smith. The LDS church believes that the original church and governing priesthood established by Jesus Christ had fallen away during a great apostasy and needed to be restored by Smith to bring back the correct church and authority of the priesthood. Mormon doctrine teaches that the Godhead consists of God the Father and his son Jesus Christ, which are separate, physical beings with "tangible bodies of flesh and bones." The Holy Ghost is believed to be a "personage of spirit," and all three are separate beings with specific roles, but are one in mind and purpose. These two doctrinal distinctions, including extra scriptures used by the LDS church, are the main factors that distinguish them from most other Protestant faiths.

The members of the faith are commonly referred to as "Mormons" because of the belief in the Book of Mormon, which is regarded as a volume of scripture comparable with the King James version of the Holy Bible. It is believed to be a collection of writings engraved on metal plates by prophets who lived in the America's mostly from 600 B.C.
to A.D. 421. Mormons believe that Joseph Smith translated these writings by the assistance of the Holy Ghost after they were shown to him in 1823 by an angel named Moroni, who was one of the Book's writers and prophets. The LDS church also believes in the Doctrine and Covenants, which is a collection of revelations about the governance and doctrines of the church, revealed to Joseph Smith during the establishment of the church. A few sections have been added in more recent years regarding revelations and policies of the church.

The members of the LDS church experienced persecution and eventually were led to the territory of Utah by second president of the church, Brigham Young. Salt Lake City is where the church flourished and remains the seat of its governing headquarters. The most current statistics of the worldwide membership of the church was listed at the end of 2010 as being 14, 131,467 (www.lds.org). Church growth is a result of proselytizing missionary work, which is strongly encouraged of all males who are 18 years old and optional service by women after they turn 19 as well as older married couples.

The priesthood within LDS doctrine is the "authority to act in God's name," which allows one to perform ordinances, such as baptism and other blessings, as well as the administration of communion, which is called "the sacrament." All worthy male members may begin this priesthood service at the age of 12 . Women are not ordained to the priesthood, but are able to hold leadership positions for the women's organization called the "Relief Society" or organizations working with adolescent girls and children. Mormons believe that God has called inspired men (e.g., Moses, Abraham, Paul) to speak for Him and that He continues to call prophets in modern times to make His will known
and to preside over the church. The president of the LDS church is regarded as a modernday prophet, along with other members of the church's top leadership body, known as the quorum of the Twelve Apostles. All leadership positions and callings within the church are nonpaid positions making it largely a "lay" clergy, with the exception of those who fall under the top leadership mentioned above (i.e., first presidency and quorum of the seventy) who are paid and compensated for their time.

Other important doctrines or beliefs of the LDS church are paying $10 \%$ of one's income as tithing, attending weekly meetings, and attending the temple when an adult is able to meet specific requirements to receive a temple recommend. Specific ceremonies and practices take place in the temples, such as baptisms for the dead where one is baptized "in proxy" for other people who have died without being baptized into the church. Couples who are worthy and marry in the temple believe they will be married for the rest of eternity as a family unit if they remain committed and "worthy." Mormons also believe in the "word of wisdom," which is a code of health reveled to Joseph Smith in 1833. This code encourages individuals to abstain from the use of alcohol, tobacco, coffee, tea, and illegal drugs. Mormons are also encouraged to remain chaste by abstaining from sex until marriage.

Sexist Criticisms and Traditional Gender Roles in the LDS Church Some who adopt a humanist and/or feminist approach argue that the LDS Church treats women as inferior to men (Ostling, 1999). Specific comments made by LDS leaders and some of the teachings or doctrines of the church might be seen as being sexist towards women and encourage traditional gender roles. LDS leader Bruce R. McConkie wrote in 1966 that "a woman's primary place is in the home, where she is to rear children
and abide the righteous counsel of her husband." Bushman (2006) states that during the 70s and 80s when American women were pushing for greater influence, the LDS Church actually "decreased visibility and responsibilities of women in various areas including welfare, leadership, training, publishing, and policy setting." During the women's movement of the 1960s sexually mandated roles of "motherhood" and "breadwinner" were starting to be questioned more; however, these societal trends were resisted by the leaders of the LDS Church. Motherhood became the "central factor in identity" for women in the LDS Church in the 1950s (Wilcox \& Beecher, 1987), and Church rhetoric remained forceful regarding a traditional prescriptive role for women (Emery, 1991).

The LDS Church publicly opposed the Equal Rights Amendment (ERA) during the early 1980s, claiming that it represented "a moral issue." The First Presidency issued a statement explaining their opposition to the ERA in an article of the December 1976 Ensign Magazine, the Church's monthly publication. It posed reasons and gave explanations as to why the Church disagreed with the ERA. Specifically, the leaders of the Church felt that they "already recognized men and women as equally important before the Lord and the law." With the institution of the Relief Society (i.e., women's leadership and service organization) in 1842, "its aims were to strengthen motherhood and encourage women's learning and involvement in religious, compassionate, cultural and community pursuits." They also stated that ratification of the ERA would not erase the inequities of that time due to individual states laws because these inequities were a direct result of attitudes that would continue to occur regardless of the amendment. The Church explained the core reason for opposing the ERA by stating that, "we are deeply concerned that, if passed, ERA will be implemented in ways that will collide with moral
and religious ideals to which we are equally committed." Another point the article made was that the First Presidency repeatedly encouraged Church members to exercise their constitutional right as a citizen and oppose the proposed amendment. The Church stated that membership would neither be threatened nor denied (excommunication) due to agreement with the ERA. Further, the Church believed that there was a fundamental difference with speaking in favor of the ERA based on its merits and ridiculing the Church and its leaders in an attempt to harm their work.

In a talk given in 1993 to the All-Church Coordinating Council, Boyd Packer (1993), a member of the Quorum of the Twelve Apostles, spoke of the political and social groups that LDS members were being "caught up in and being led away by." He stated,

The dangers I speak of come from the gay-lesbian movement, the feminist movement, and the ever-present challenge from the so-called scholars or intellectuals. Our local leaders must deal with all three of them with everincreasing frequency. In each case, the members [LDS] who are hurting have the conviction that the Church somehow is doing something wrong to members or that the Church is not doing enough for them.

In September of 1993, six members of the LDS church who were either historians, scholars, attorneys, or members of feminist groups were excommunicated or disfellowshipped for speaking out against the church doctrine and the leadership. They were called the "September Six" in the Salt Lake Tribune Newspaper, and this term was used later in other media and related discussions (Ostling, 1999). Critics of the church were concerned that this was in connection with the anti-intellectual posture of the LDS leadership at the time.

The Family: A Proclamation to the World was an official declaration made by President Gordon B. Hinckley as part of his message at a General Relief Society Meeting
held September, 23, 1995. It was also distributed by the LDS leadership as guidance to the body of the Church addressing beliefs about family dynamics, responsibilities, and gender roles:

By divine design, fathers are to preside over their families in love and righteousness and are responsible to provide the necessities of life and protection to their families. Mothers are primarily responsible for the nurture of their children. In these sacred responsibilities, fathers and mothers are obligated to help one another as equal partners.

In a recent leadership training to a Worldwide LDS audience on Feb 11, 2012, Boyd Packer, President of the Quorum of the Twelve Apostles, stated "the most important thing for a woman in this life, is to be the wife of a worthy priesthood holder, and the mother of his children."

## Pew Forum Survey Results with LDS Members

The Pew Forum on Religion and Public Life is a nonpartisan fact tank that provides information on issues, attitudes, and trends shaping America and the world at large. This group conducts public opinion polling, demographic studies, content analysis, and other empirical social science research. They conducted a survey on Mormonism in August and September of 2011. This survey stemmed from articles written by Newsweek and the New York Times declaring that the United States was experiencing a "Mormon moment." One of the events that garnered media attention was the Republican campaign of former Massachusetts governor and LDS member, Mitt Romney. Other events receiving media attention also included the popular radio show of the Mormon convert, Glenn Beck; the best-selling Twilight vampire novels by the Mormon author Stephenie Meyer; the finale of the HBO television series "Big Love" on polygamy (an early Mormon practice); and the hit Broadway musical "The Book of Mormon." In response,
the Pew Forum conducted the survey to understand how Mormons felt about the media spotlight, the political campaign, and their perception of their status in the U.S. The data gleaned from the survey provides a current and candid explanation about LDS beliefs and demographic aspects of the Church's membership.

Of the Mormons surveyed in the Pew Forum study, $74 \%$ said they were raised in the Mormon Faith, while $26 \%$ converted to the Mormon faith. When asked to explain why they converted, $59 \%$ cited the religion's beliefs as the main reason for joining. Ninety-four percent of survey respondents believe that the president of the church is a prophet, and $91 \%$ believe that the Book of Mormon was written by ancient prophets then translated by Joseph Smith. Twenty-two percent of respondents said that they find some of the church's teachings hard to accept, and $8 \%$ said they seldom or never attend religious services. More than $83 \%$ of Mormons said they pray at least once a day, and three-quarters reported attending religious services at least once a week. The Pew Forum created a measure of religious commitment by looking at the importance of religion, frequency of prayer, and frequency of religious attendance. Sixty-nine percent of Mormons who took the survey exhibited high levels of religious commitment, selfreporting that their religion was "very important" in their lives, that they pray every day, and attend religious services at least once a week. In comparing other religious groups, $55 \%$ of white evangelicals Protestants self-reported high levels of religious commitment, $50 \%$ of black Protestants self-reported high religious commitment, and $30 \%$ of U.S. citizens (as a whole) identified themselves as having strong religious commitment.

A significant gender gap was found when looking at religious commitment. For example, Mormon women exhibited a higher level of religious commitment than

Mormon men. Further, differences in levels of education were apparent. Eighty-four percent of Mormons who had graduated from college reported high religious commitment compared to $75 \%$ of those with some college education, and $50 \%$ of Mormons with a high school education or less. The Pew Forum noted that the relationship between level of education and commitment to religion is not found in many other religious groups in the U.S. The Pew Forum reports that prior to this study on LDS population, only $40 \%$ of college graduates exhibited high religious commitment on this specific measure. Pew Forum data on LDS religiosity and education levels are in line with research regarding Mormon's higher education levels correlating with more religious activity and attendance (Albrecht \& Heaton, 1984; Merrill, 2003). Eighty-two percent of respondents said that their religion was very important to them, whereas 56\% of the general public said the same. Mormon women said that religion is very important to them (87\%), but only $78 \%$ of Mormon men said the same. College graduates (90\%) and those with some college education ( $88 \%$ ) were more likely to say that religion was very important in their lives than those with a high school education or less (70\%).

The Pew Forum survey addressed important family life values. Eighty-one percent of respondents believed that being a good parent was one of the most important goals in life, and $73 \%$ felt that having a successful marriage was important. These responses put family concerns above career concerns. Sixty-seven percent of the Mormon adults surveyed were married, compared with $52 \%$ of the general public. Eighty-five percent of Mormons were married to another Mormon, whereas $81 \%$ of Protestants were married to another Protestant, and 78\% of Catholics were married to someone of the same faith. The survey showed that $58 \%$ of polled Mormons felt that it is a more
satisfying marriage when the husband provides for the family and the wife takes care of the children and the house, with $30 \%$ of the general public preferring this arrangement. Only $38 \%$ preferred a marriage where both husband and wife work and take care of the children, whereas $62 \%$ of the general public preferred this kind of a marriage. Seventyone percent of Mormon college graduates said they preferred a marriage where the husband was the sole provider, compared with $59 \%$ of those with some college education. This pattern is not observed among the general public. Seventy percent of Mormons who have had three or more children prefer the husband solely working. Only $11 \%$ of participants supported the belief that women should be ordained to the priesthood, and $87 \%$ reported that this should only be open to males. Both men and women expressed this view, but Mormon women were more likely than men to say the priesthood should only be given to males ( $90 \%$ vs. $84 \%$ ). This belief is less common among those with higher levels of religious commitment than those with lower levels of commitment.

The Pew Forum survey confirmed that Mormons tend to hold more conservative views on social issues. For example, $65 \%$ of survey respondents said that homosexuality should be discouraged by society, while only $26 \%$ said that it should be accepted in society. In comparison, a majority of the American public say that homosexuality should be accepted (58\%), compared to only $33 \%$ feeling that it should be discouraged. Also $79 \%$ of Mormons said that sex between unmarried adults is morally wrong, which is much higher than the $35 \%$ of the general public holding this same view. Seventy four percent of Mormons said that having an abortion was morally wrong, with $52 \%$ of the general public feeling the same. Polygamy was officially banned by the LDS Church in

1890, and $86 \%$ of survey participants said that it was morally wrong, while $11 \%$ of Mormon participants said that polygamy was not a moral issue.

The Pew Forum data helped inform hypotheses for this research project that LDS individuals who endorse more religiously committed attitudes and beliefs might also be more likely to subscribe to traditional gender roles and possibly more sexist attitudes toward women.

## Summary

Because Utah has had the highest incidents of rape and sexual assault compared to the rest of the country on certain years in the recent decade, one is led to question the causes of such high rates. Some speculate that the predominant LDS religion and related culture may be a causative factor. It becomes increasingly important for mental health researchers and practitioners to understand the challenges that are unique to populations in Utah as well as other areas where LDS individuals live. Outcomes and further information could assist with the development of interventions and therapeutic recommendations that are culturally appropriate and specifically designed to address LDS individuals, families, and communities. Much of the theory regarding violence against women points to cultural and socialization factors that impact beliefs and attitudes towards women. Religion can be considered an integral aspect of culture, which determines individuals and groups cognitive schemas about many different aspects of their lives. This research might help to explain this phenomenon and possible relationships at play, despite the fact that correlational research does not mean causation.

The LDS Church is reported to be one of the fastest growing denominations in our country and it has many unique qualities that set it apart from other Christian faiths.

Researchers who address psychological religiosity and ambivalent sexism theory have not utilized this population. In addition, both research domains call for studies to add to the literature on such topics. Researchers of masculinity as a psychological topic have also responded with encouragement and support for conducting a study involving the LDS faith.

Research examining the relationship between ambivalent sexism and topics that may be relevant to LDS adults reveal that gender inequity correlates with ambivalent sexism. Religiosity in general positively correlates with ambivalent sexism, especially benevolent sexism. Religious fundamentalism and extrinsic religiosity both positively correlate with ambivalent sexism. Education negatively correlates with ambivalent sexism and has been found to serve as a moderating variable in some research in this field. Men are more likely to endorse hostile sexism than women, and women are often more likely to endorse benevolent sexism than men. Although these findings have been consistent among populations throughout the world, none have specifically included LDS adult participants.

This study proposes to look at a population that has been researched using some of the previously addressed variables, but has yet to combine them to look at factors predicting ambivalent sexism towards women. Gender has been used in ambivalent sexism research as a moderating variable, but authors encourage the continued use of this variable and method of analysis as important aspects of other studies. This variable will be looked at as a moderating factor in the proposed relationship. LDS individuals have also been found to have opposite outcomes for increased education serving as a positive factor in religiosity and participation compared to other religious groups. Also, because
increased education has been found to correlate with a reduction in prejudice with the general public, it is important to see how these elements interact for LDS adults.

Limitations in the research will also be specifically addressed in this study. Many of the concerns with past research addressing religiosity and ambivalent sexism point to the lack of specificity when defining religiosity. In this study two religiosity measures and additional elements specific to this population will be used to define the construct with more specificity. This study also aims to compare LDS participants who have lived in or outside of Utah for specific periods of time, which will address a regional and possibly finer cultural element. It is also important to note that sampling methods utilizing Facebook and other online sources will be utilized to obtain a more diverse population than typical strategies that often use undergraduate students for this vein of research. Focusing on and recruiting a broader range of LDS participants (e.g., age, education level, region of country, and commitment to or attitudes about religion) will hopefully secure a diverse sample within the LDS culture. The purpose of this study is to examine the impact of religiosity on ambivalent sexist attitudes towards women by using established measures, specific variables of religious activity and attitudes within the LDS church, and the possibly moderating variables of education and gender with adult LDS men and women.

## Statement of the Problem

Because research addressing the relationship of religiosity, education, and ambivalent sexism is lacking among LDS adults, it is important to address these factors. Despite the LDS faith supporting a patriarchal belief system and traditional gender role model, does there exist among LDS men and women a broad continuum of sexist
attitudes towards women given different predictors of the sampled population? Do religion or religious beliefs and attitudes impact the sexist attitudes that LDS adults have towards women? Do other predictor variables impact this relationship? The predictors that have been selected for this study are as follows: intrinsic/extrinsic and fundamentalist religious attitudes, specific church activity and affiliation level, education, gender, age, and the amount of time spent living in Utah.

## Research Question and Hypotheses

## Research Questions

1. Will LDS men endorse ambivalent sexism toward women at a higher level than LDS women?
2. Are LDS men and women who are more intrinsically oriented toward religion less likely to endorse ambivalent sexist attitudes toward women than those who are extrinsically oriented?
3. Are LDS men and women who are more fundamentally religious likely to endorse more ambivalent sexist attitudes toward women than those who are less fundamentally religious?
4. Are LDS men and women who endorse being more active in their religious participation, or endorse being more affiliated with the LDS Church and its doctrines/beliefs, more likely to endorse more ambivalent sexist attitudes toward women than those who are less active/affiliated in their religious participation?
5. Do older LDS men and women endorse more ambivalent sexist attitudes towards women than younger LDS adults?
6. Do LDS men and women who have spent a significant amount of time living in Utah endorse sexism toward women at a higher rate than those who have never lived in Utah, or for very short periods of time (e.g., attending college)?
7. Do LDS men and women who are more highly educated endorse less ambivalent sexist attitudes toward women than those who are not as educated? In addition, will participant's religiosity moderate the relationship between education level and ambivalent sexism?
8. Will gender moderate the relationship between religious activity and ambivalent
sexism?
9. Which variables addressed in this study have more impact or predictive ability in regards to ambivalent sexism subscales?
*An additional question was added to the study and is addressed below in the results section.
10. How do groups identified by varying subjective LDS activity levels differ on outcome variables of both ambivalent sexism scales?

## Research Hypotheses

Hypothesis 1: LDS men will score higher on ambivalent sexism subscales than LDS women.

Hypothesis 2: Intrinsic religiosity will be negatively related to ambivalent sexism subscales, and extrinsic religiosity will be positively related to ambivalent sexism.

Hypothesis 3: High fundamentalist religiosity will be positively related to both ambivalent sexism subscales.

Hypothesis 4: Higher levels of specific LDS religious activity/affiliation will be more positively related to ambivalent sexism subscales.

Hypothesis 5: Older age will be more positively related to ambivalent sexism subscales.
Hypothesis 6: Increased amount of time living in Utah will be more positively related to ambivalent sexism subscales.

Hypothesis 7: Education will be negatively related to ambivalent sexism subscales; however, this relationship will be moderated by the religiosity of the participant such that the negative relationship between education and ambivalent sexism will be weakened when the participant endorses a high level of religiosity (LDS activity, LDS affiliation, fundamentalist, or extrinsic, but not intrinsic).

Hypothesis 8: Those endorsing higher levels of religiosity (LDS activity, LDS affiliation, extrinsic orientation, and fundamentalism) will be more positively related to ambivalent sexism; however, gender will moderate the relationship in that a much more positive relationship will be found between religious variables and ambivalent sexism in men, but not in women.

Hypothesis 9: Religiosity factors (Intrinsic/Extrinsic, Fundamentalism, LDS activity, and LDS affiliation), education level, age, and gender will be the source of the greatest amount of variance in a regression model.

## CHAPTER 3

## METHODS

The purpose of this study was to investigate the impact of religiosity, age, education, years lived in Utah, and gender on the endorsement of ambivalent sexism towards women among an LDS adult sample. The research design was correlational and was conducted using survey instruments. Participants were recruited from a nationwide sample through the use of Facebook, email, and online social media sites. This chapter provides a description of the methodology of this study including the participants, instruments used, and the procedures for data collection.

## Participants

The participants in this study consisted of men and women who were over the age of 18 and had been a member of the LDS faith at some time in their lives. Individuals were considered appropriate for this study regardless of their current activity level or membership within the church. Participants were recruited using snowballing sampling methods by contact via Facebook, email, and other web-based platforms. This provided a broad participant pool in regards to demographic background variables, including anyone with access to the internet from a nationwide sample. Selection bias is a noted concern based on the sampling method utilized and will be addressed later in the limitations section. However, the benefit of having a diverse population outweighs the negative
aspects of this sampling method. A total of 4110 surveys were initiated but only 3556 completed the survey adequately to be included in the final sample. This sample size was deemed sufficiently large enough to ensure power for all analyses completed.

## Description of the Sample

Participants were recruited using a snowball sampling approach with initial communication begin made to individuals via Facebook and other internet sources who were then encouraged to forward the survey on to others. The first tier of recruitment included personal contacts and LDS affiliated outlets such as the LDS Institute of Religion programs located on college and university campuses in major cities across the country (e.g., Seattle, Los Angeles, Washington D.C., and New York City). Other LDSrelated blogs and websites were also used for initial recruitment purposes (e.g., The Cultural Hall, The Modern Mormon Men blog, and their associated Facebook pages, etc.). Note that participants were recruited from Utah and other locations in the U.S., but they were only asked how many years they lived in Utah.

Of the 3563 participants, $55.3 \%(n=1970)$ were female, $44.4 \%(n=1582)$ were male, and $9(0.3 \%)$ endorsed being transgender. Ages of participants ranged from 18 to 79 years (female range was from 18 to 79 years; males age ranged from 18 to 76), with an average age of $33.73(S D=9.42$ years; females, $M=33.0, S D=9.52$; males, $M=$ 34.55, $S D=9.18 ; t(3550)=4.79, p=.001 ; d=.16)$ demonstrating a small effect size for difference in age. The majority of participants $(93.7 \%, n=3337)$ identified as Caucasian/White. The Ethnic breakdown of the remaining participants was $3.2 \%$ ( $n=$ 115) Hispanic/Latina(o), $1.3 \%(n=45) *$ Biracial, $0.7 \%(n=26)$ Asian American, $0.3 \%$ American Indian/Alaskan Native, $0.2 \%$ Black/African American, $0.2 \%(n=6)$ Pacific

Islander, and $0.2 \%$ listed their ethnic status as unknown.
In regards to the sexual orientation of participants, about 93\% $(n=3313)$ identified as straight/heterosexual, $2.9 \%$ as bisexual, and $2.3 \%$ identified as gay. About $1 \%(n=30)$ preferred being unlabeled, $0.4 \%$ identified as lesbian, and $0.4 \%$ endorsed other for this question. About $72 \%(n=2558)$ of participants reported being married, $16.6 \%(n=593)$ endorsed never being married, $4.7 \%$ being in a dating relationship, $4.3 \%$ divorced, $1.3 \%$ indicated being remarried, $0.8 \%$ being separated at the time of the study, and $0.3 \%$ reported being widowed.

The average level of education was just below a bachelor's degree and showed a statistically significant difference between males and females, which had a smaller than typical effect size indicating that men had more education ( $M=4.9$, with 4 representing an associate's degree and a 5 representing a bachelor's degree; females, $M=4.76, S D=$ 1.17; males, $M=5.07, S D=1.32 ; t(3169.75)=7.33, p=.001 ; d=.25)$. Two percent of the participants reported having completed high school or less; $26.8 \%$ had attended some college or received an associate's degree, $41.6 \%$ reported receiving a bachelor's degree (females, $44.7 \%$, males, $38 \%$ ); and $29.8 \%$ had graduate or postgraduate degrees. In regards to the parent's level of education, $32.9 \%$ of participants' mothers had received a bachelor's degree, $24.8 \%$ had some college, $12.7 \%$ had an associates, and $10.8 \% \mathrm{had}$ received a Master's. Of the fathers' education, $29 \%$ had a bachelors, $21.7 \%$ had Master's, $15.8 \%$ had a Doctorate, and $13.1 \%$ had some college. This indicates that participants in this sample had parents who were fairly educated in comparison to the overall population, with fathers typically receiving a higher education compared to mothers.

Fifty-one percent of participants ( $n=1813$; females, $55 \%$, males, $50 \%$ ) reported
having had attended an LDS-run college/university (i.e., BYU-Provo, Idaho, Hawaii, or LDS Business College), and 45\% ( $n=1607$ ) denying attendance, with $4 \%$ not answering this question. Thirty-eight percent of participants ( $n=1340$; females, $41 \%$, males, $42 \%$ ) reported having had attended the LDS Institute/educational programs at college or universities across the U.S. Thirty-seven percent $(n=1328)$ endorsed the N/A option on this question, and $14.9 \%$ denied attending LDS Institute in college.

Thirty-eight percent of participants reported a yearly household income of less than $\$ 50,000$. About $40 \%$ of participants reported over $\$ 75,000$. The difference between income level for males and females was statistically significant with a small effect size, $t$ $(3512)=4.16, p=.001$ (two-tailed), $d=.14)$. A summary can be found in Table 1.

Table 1
Yearly Household Income of Participants (SES)

|  | Entire Sample |  | Females |  | Males |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $N$ | \% | $N$ | \% | $\underline{N}$ | \% |
| \$0K-\$25K | 588 | 16.7 | 343 | 17.6 | 243 | 15.5 |
| \$26K-\$35K | 312 | 8.9 | 189 | 9.7 | 121 | 7.7 |
| \$36K-\$50K | 453 | 12.9 | 269 | 13.8 | 183 | 11.7 |
| \$51K-\$75K | 736 | 20.9 | 405 | 20.8 | 329 | 21 |
| \$76K-\$100K | 591 | 16.8 | 316 | 16.2 | 275 | 17.5 |
| \$101K-\$125K | 365 | 10.4 | 192 | 9.9 | 172 | 11 |
| \$126K-\$150K | 171 | 4.9 | 87 | 4.5 | 84 | 5.4 |
| \$151K and up | 309 | 8.8 | 146 | 7.5 | 160 | 10.2 |

The number of years lived in Utah ranged from 0 to 75, with the mean number of years being $14.3(S D=13.06$; females, $M=13.5, S D=12.83$; males, $M=15.3, S D=$ 13.26). It is also interesting to note that $16.1 \%$ (females $17.2 \%$, males $16 \%$ ) of participants reported never having lived in Utah, which is addressed in Hypothesis 6.

The number of years of activity in the LDS Church ranged from 0 to 79 , with the mean number of years being $28.5(S D=10.36$; females, $M=27.88, S D=10.45$; males, $M=29.24, S D=10.19 ; t(3425)=3.99, p=.001 ; d=.13)$, showing evidence that there is a statistically significant difference in the means for females and males, with a small effect size. The number of years of being inactive or unaffiliated with the LDS Church ranged from 0 to 54 , with the mean number of inactive years being 3.73 ( $S D=6.33$; females, $M=3.76, S D=6.2$; males, $M=3.7, S D=6.48$ ). It is interesting to note that $29 \%$ ( $n=1035$ ) reported no time being inactive or unaffiliated with the LDS faith, and 35.4\% ( $n=1263$ ) declined to give any answer to this question, which may be taken to mean that the participant has never been inactive or unaffiliated.

In regards to subjective religious affiliation, $32.9 \%$ reported being very active in the LDS Church, and $16.1 \%$ reported being either not active or on a sabbatical from the church; a summary of the rest of the data can be found in Table 2.

The following responses were obtained for measuring participant's level of activity and affiliation within the LDS Church. The results and tables for LDS activity will be reported followed by level of affiliation. The mean score for Total LDS Activity was $21.23(S D=11.01$; females $M=20.7, S D=11.03$; males $M=21.96, S D=10.9)$. There was a mode of 32 (females $=32$; males $=33$; scale ranges from 0 to 36 ). Only $3 \%$ (females $2.9 \%$; males $2.9 \%$ ) received a score of 0 , and $6.6 \%$ (females $4.2 \%$; males $9.7 \%$ )

Table 2
LDS Subjective Religious Affiliation of Participants

|  | Entire Sample |  | Females | Males |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\underline{N}$ | $\%$ | $\underline{N}$ | $\%$ | $\underline{N}$ | $\%$ |
| Very Active | 1152 | 32.9 | 682 | 35.2 | 466 | 30 |
| Active | 914 | 26.1 | 489 | 25.3 | 424 | 27.3 |
| Somewhat Active | 293 | 8.4 | 165 | 8.5 | 128 | 8.2 |
| Active, but not believing | 216 | 6.2 | 100 | 5.2 | 116 | 7.5 |
| Believing, but not active | 68 | 1.9 | 39 | 2.0 | 29 | 1.9 |
| Unorthodox/ In transition | 24 | 0.7 | 16 | 0.8 | 8 | 0.5 |
| Not Active/On Sabbatical | 564 | 16.1 | 299 | 15.4 | 262 | 16.8 |
| Not believing in LDS Chrch | 51 | 1.5 | 29 | 1.5 | 22 | 1.4 |
| Former/Resigned from LDS | 69 | 2.0 | 33 | 1.7 | 35 | 2.3 |
| Participate in other Religions | 105 | 3.0 | 65 | 3.4 | 39 | 2.5 |
| Atheist/Agnostic | 45 | 1.3 | 19 | 1.0 | 26 | 1.7 |

received a score of 34-36 on this scale.
More than half of the participants endorsed weekly attendance at church (67.3\%). Nineteen percent reported that they had asked to have their names removed from Church records. It is interesting to note the similar percentages for female and males. A summary of these data can be found in the following Table 3.

Twenty-seven percent reported reading their scriptures on a daily basis, $24.3 \%$ endorsed weekly reading, and $18.4 \%$ reported not reading them at all. In regards to participant's frequency of prayer, about $40 \%$ reported that they pray multiple times a day, and $14.5 \%$ reported they never pray. An interesting result emerged regarding the frequency of paying $10 \%$ tithing, which is strongly encouraged of all LDS members. More than half of participants reported paying a full tithe on a yearly basis (57.5\%).

Table 3
Frequency Table for Frequency of Church Attendance

|  | Entire Sample |  | Females |  | Males |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $N$ | \% | $\underline{N}$ | \% | $\underline{N}$ | \% |
| I attend Weekly | 2339 | 67.3 | 1300 | 67.4 | 1034 | 67.3 |
| Once a month | 207 | 6.0 | 124 | 6.4 | 83 | 5.4 |
| Few times / year | 95 | 2.7 | 51 | 2.6 | 44 | 2.9 |
| Only family/special occ. | 153 | 4.4 | 84 | 4.4 | 68 | 4.4 |
| Stopped - but didn't remove name | 2 | 1.1 | - | - | 2 | 1.1 |
| Asked for name to be removed | 678 | 19.5 | 369 | 19.1 | 306 | 19.9 |

Another question that is unique and important to the LDS faith is frequent temple attendance (different from weekly religious services), which requires meeting certain standards within the faith and obtaining a temple recommend from two religious leaders. Almost the entire sample reported having received a temple recommend at some time in their life if they were old enough ( $90.9 \%$; females $91.3 \%$; males, $96.2 \%$ ). About $6 \%$ (females $7.2 \%$; males 3.5\%) either reported never having received a temple recommend or the question was not applicable. Fifty-five percent reported attending the temple at least once in the past year.

Full-time missionary service for 2 years is strongly encouraged for adult males at the age of 18 and encouraged for females who are interested in serving for one and half years at the age of 19 (mission ages were 19 for males, and 21 for females until 2013 when they were changed by the LDS first presidency). Although one would expect a gender difference in this variable given the different expectations for men and women within the LDS faith, the magnitude of this difference is surprising. Together, about half $46.8 \%$ (females $19.5 \%$; males $80.9 \%$ ) reported serving a full length mission, and $52.4 \%$ (females 79.9\%; males 17.9\%) indicated that they had not served a mission or the question was not applicable (age is important in regards to this question).

Percentages and mean scores for the five questions addressing LDS affiliation and the accompanying scale are reported as follows. Participants were able to respond to questions using a five point likert-scale ranging from strongly disagree to strongly agree. The last question regarding leaving the LDS Church for specific reasons was reverse coded. The mean score for Total LDS Affiliation was $12.82(S D=6.77$; females $M=$ 13.06, $S D=6.68$; males $M=12.57, S D=6.85$ ). The reported mode was 20 for both
females and males (scale ranges from 0 to 20), indicating a high level of affiliation for the sample. Twenty-one percent (females $22 \%$, males $20.3 \%$ ) had a score of 20 on this scale, and $6.5 \%$ (females 6\%; males $7 \%$ ) resulted in a 0 .

Forty-six percent ( $n=1646$ ) strongly agreed with the question regarding feeling an attachment to the LDS Church, and $42 \%(n=1497)$ strongly agreed with having a belief in the LDS Church. Over half of the sample strongly disagreed with the question related to leaving the LDS Church for personal, historical, or doctrinal reasons $(52 \%, n=$ 1851). It is interesting to point out that females had a higher percentage for a strongly agree responses, and males had a higher percentage for strongly disagree, demonstrating a higher likelihood of affiliation for women and lower affiliation for men. A summary of these data can be found in Table 4.

## Measures

The variables used in this study were all comprised of measures described in this section. The following five (nine when including all five religiosity variables) predictor variables were used in this study: (a) gender (coded as a categorical dummy variable), (b) age (continuous variable from 18 to 79 , as well as categorical dummy variables in 4 groups ), (c) education level (level of education from less than high school to doctorate degree), (d) number of years lived in Utah (continuous variable from 0 up to 79), (e) religiosity (LDS activity and affiliation summed scores-obtained from the demographics section, as well as two pre-established religiosity measures).

The criterion variables in this study included all scores obtained from the Ambivalent Sexism Inventory (ASI; Glick \& Fiske, 1996; Appendix H). There were two continuous criterion variables in this study. The ASI is comprised of three scores: (a) the

Table 4 - Results for LDS Affiliation Question

| Questions |  | Strongly <br> Disagree | Disagree | Not Sure | Agree | Strongly Agree |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Entire Sample | $N$ | \% | \% | \% | \% | \% |
| Attachment to Church | 3508 | 9 | 10.1 | 8.4 | 24.7 | 46.2 |
| Belief in LDS Church | 3508 | 19.4 | 10.8 | 9.5 | 16.8 | 42 |
| Pride in LDS Church | 3501 | 12.5 | 14.4 | 16.8 | 26.2 | 28.4 |
| Belonging to Church | 3489 | 14.8 | 13.7 | 12.3 | 26 | 31.1 |
| Didn't leave for personal/ historic/doctrinal | 3469 | 19.1 | 7.2 | 5.2 | 13.9 | 52 |
| Females | $N$ | \% | \% | \% | \% | \% |
| Attachment to Church | 1970 | 8.2 | 9.0 | 8.6 | 25.1 | 49.1 |
| Belief in LDS Church | 1970 | 18.0 | 9.7 | 10.6 | 17.6 | 44.1 |
| Pride in LDS Church | 1970 | 12.4 | 13.9 | 18.3 | 26 | 29.4 |
| Belonging to Church | 1970 | 14.6 | 14.5 | 12.3 | 25.8 | 32.9 |
| Didn't leave for personal/ historic/doctrinal | 1970 | 18.8 | 6.9 | 5.3 | 14.4 | 54.6 |
| Males | $N$ | \% | \% | \% | \% | \% |
| Attachment to Church | 1582 | 10.1 | 11.9 | 8.4 | 25.2 | 44.3 |
| Belief in LDS Church | 1582 | 21.4 | 12.6 | 8.5 | 16.5 | 41.1 |
| Pride in LDS Church | 1582 | 12.7 | 15.7 | 15.6 | 27.8 | 28.2 |
| Belonging to Church | 1582 | 15.5 | 13.4 | 13.0 | 27.5 | 30.6 |
| Didn't leave for personal/ historic/doctrinal | 1582 | 20.6 | 8.0 | 5.3 | 14.1 | 51.9 |

Original wording of questions:

1. I feel a strong attachment towards the LDS Church
2. I have a strong belief in the teachings/doctrines of the LDS church
3. I feel a lot of pride in my religious group and its accomplishments
4. I have a strong sense of belonging to my religious group
5. I have left my religious group due to personal/historical/doctrinal issues (reverse coded)
*Question 5 was listed in the table this way to make more sense to the reader, despite being reverse coded originally.
total ambivalence towards women score (ASI score), (b) the benevolently sexist attitudes towards women score (BS), and (c) the hostility sexist attitudes toward women score (HS). The BS subscale is also made up of three subfactors that were not included in the results section of this study: (a) protective paternalism, (b) gender differentiation, and (c) heterosexual intimacy.

## Background Information Questionnaire (Appendix B)

Respondents were asked to complete a demographics section that included background information on such variables as gender, age, race/ethnicity, sexual orientation, relationship status, SES, education level, parent's education, number of years lived in Utah, number of years in the LDS church, subjective ratings of activity in the LDS faith, and specific aspects of religious activity in the LDS faith (Appendix C, D, \& E).

Literature used in religiosity and ambivalent sexism studies in the past have described the necessity for more accurate measures of religious activity, motivations, beliefs, and identity, which resulted in the decision to include specific questions regarding aspects of LDS activity and affiliation for participants. Some of the elements included in the LDS activity scale were (church attendance, frequency of prayer, reading religious texts, paying tithing, missionary service, temple recommend status and attendance, and official resignation from the church, etc.) A total score was computed for all questions resulting in a range from 0 to 36 from not being active, to being very active. After computing Cronbach's Alpha to determine the internal reliability of the scale, it resulted in an estimate of .87 , with the following items being the most important when addressing the construct (listed in order of salience: paying tithing regularly, reading
scriptures, church attendance, having a lay calling, yearly temple attendance, and frequency of prayer). Serving a mission was an item that was not helpful in the overall reliability.

The level of LDS affiliation was comprised of the responses and scores of five specific questions, being scored from 0-"strongly disagree" to 4-"strongly agree." These questions addressed the level to which one endorsed the following: I have a strong attachment to the Church, a strong belief in the teachings/doctrines, feeling of pride in my religious group and its accomplishments, having a strong sense of belonging to my religious group, and a reverse coded item for leaving my religious group due to personal/historical/ doctrinal issues. This resulted in a total score ranging from 0-20 from a low to a high level of affiliation. Alpha estimates for this construct were .95 , with the two questions regarding belief in the church and feeling an attachment to the church representing the most significant variance.

The Religious Orientation Scale-Revised Scale (ROS-R, Appendix F)
The IEROS was originally developed by Allport and Ross (1967) to look at religion in motivational terms, specifically for individuals as either intrinsic or extrinsic (I/E). It was shown to demonstrate reasonably adequate reliability and validity. Robinson and Shaver (1973) reported item-to-scale correlations that ranged from .22 to .54 when the whole scale of 21 items was given. The correlations reported by Allport and Ross (1967) ranged from . 18 to .58 .

The IEROS was revised by Gorsuch and McPherson (ROS-R, 1989) to address the same concept but with fewer items. The 14-item index measures the centrality of religion in the individual's daily life using a 7-point Likert-type scale ranging from $1=$
strongly disagree to $7=$ strongly agree. Eight of the items address an intrinsic religious orientation, with question such as, "my whole approach to life is based on my religion." The other six items measure the extrinsic orientation, with items such as, "I go to church because it helps me make friends." The extrinsic subscale is comprised of two components, one being concerned with social relationships (Es), and the other having concern for personal benefits (Ep).

The sample used to test the revised version by Gorsuch and McPherson (1989) was 771 college students from secular and religious institutions in Southern California. Previous research using the ROS-R has shown acceptable levels of reliability with members of Christian faiths. This scale was reported as being a reliable and valid measure for religious orientation by Hill and Hood (1999). Intrinsic scales were found to have positive correlations with measures addressing commitment to religion and an individual's general sense of purpose in life. The extrinsic scale indicated positive correlations with different variables suggestive of stress and maladjustment. Gorsuch and McPherson (1989) indicated reliability estimates for revised intrinsic items as .83 and .65 for the combined extrinsic subscale. The reliability estimates for the personal and socially oriented aspects of extrinsic religious orientation were .57 and .58 .

Reliability estimates for this study exhibited similar findings to the literature. Intrinsic reliability estimates were .83 , which is exactly what Gorsuch and McPherson (1989) found, and are considered good. All items fit well with the overall subscale, and item 12 and 7 seemed to be the most significant item in this subscale, "My whole approach to life is based on my religion," and "I try hard to live all my life according to my religious beliefs." Reliability estimates for the revised combined extrinsic subscale in
this study was .71 , with estimates for the personal and socially oriented aspects of extrinsic religious orientation as .77 and .73 , which are better than the results found by Gorsuch and McPherson (1989) and are considered acceptable for survey research purposes. However, they did report that studies with larger sample sizes might result in greater reliability. The scoring of this measure resulted in a range from 14-56. All N/A responses were coded as a 4 (i.e., neutral).

A principle axis factoring methodology with a varimax rotation for factor analysis was conducted to assess the reliability of the ROS-R with this particular sample. Given the large sample and varying level of religious activity and affiliation for this LDS sample, the loadings of the subscales resulted in some problematic outcomes. When splitting the sample into quartiles based on the LDS activity scale (explained above) the items from this measure did not load as addressed in the literature. The group falling into the lower 25\%ile for LDS activity (i.e., not religious, atheist, or no longer affiliated or active in the LDS faith) had cross-loadings for intrinsic items and personal-extrinsic items. This created a mixed construct based on the subscales in this measure. The upper $75 \%$ ile of the sample resulted in loadings similar to the intended subscales. It was noted that when a four-factor solution was analyzed, a split of the eight intrinsic items occurred for $75 \%$ of the sample (the same four items resulting for both groups in different factors). At this point in time, it was determined that moving forward with the intended analysis for the top $75 \%$ ile would allow for the measure and construct to be used as intended, and the lower quartile for LDS activity or nonreligious group would be analyzed but not included in any of the discussion sections for $I / E$ given the mixed construct.

## The Religious Fundamentalism Scale - Revised (RF-R; Appendix G)

This scale was a 20 -item measure originally developed by Altemeyer and Hunsberger (1992) to measure the belief in "one set of religious teachings which contain the fundamental basic, intrinsic, essential, inerrant truth about humanity and deity; and that those who believe and follow these fundamental teachings have a special relationship with deity." The scale was designed to measure attitudes about one's religious beliefs, but not adherence to any particular set of beliefs, so it was intended to capture fundamentalism in many faiths. Respondents are asked to rate the degree to which they agree with a statement regarding their religious beliefs. Responses are listed on an 8-point Likert-type scale which ranges from -4 for "very strongly disagree," to 4 for "very strongly agree." The results of this scale resulted in a range of scores from 12 to 108 after results were shifted to a $1-9$ scoring range.

The original scale had strong psychometric properties, with a mean interitem correlation of .37 in a large sample of parents and university students. It produced an alpha reliability of .92 . It showed a strong correlation with right-wing authoritarianism (.68) and modest but positive correlations (.23 to .41 ) with four measures of authoritarian aggression, which included racial/ethnic prejudice. It was abbreviated and revised by the original authors (Altemeyer \& Hunsberger, 2004) because they felt that the construct validity needed retooling to create a more diverse measure, reflecting a better definition of fundamentalism. They also found that various researchers were only using part of the scale. They retested the measure with thousands of students and hundreds of parents to result in a 12-item revised measure which resulted in a greater internal consistency and a 2-factor model. The 2-factor, 12-item version for students controlled $58.8 \%$ of the
variance and produced the same pro-trait, con-trait factors found in the parent data, with factors correlating at .76. Both scales in both samples were essentially unidimensional, and the more cohesive 12 -item version predictably ran in a straighter line than the earlier version. Results from this study were similar in that it had an overall reliability estimate of .94 , which is very good.

## The Ambivalent Sexism Inventory (ASI; Appendix H)

The ASI was designed to differentiate and measure hostile (HS) and benevolent sexism (BS) toward women, as described by Ambivalent Sexism Theory (Glick \& Fiske, 1996). The ASI is a self-report measure consisting of 22 items, which are divided into two scales of 11 items each, one measuring hostile and the other measuring benevolent sexism. Respondents are asked to rate the degree to which they agree with a statement regarding their attitudes about perceived characteristics of women and relationships between men and women. Responses are listed on a 6-point Likert-type scale that ranges from 0 for "disagree strongly," to 5 for "agree strongly." Six items were reverse scored in the original version of the ASI to produce the opposite meaning and to control for acquiescence bias (Glick \& Fiske, 1996). The ASI yields three scores, the Total ASI score, which is a measure of overall sexism; the Benevolent Sexism score (BS); and the Hostile Sexism score (HS; Glick \& Fiske, 1996). The benevolent sexism subscale consists of three domains that address power differences (protective paternalism, gender differentiation, and heterosexual intimacy). The hostile sexism subscale is unidimensional and contains no subfactors (Glick \& Fiske, 1996).

Reliability and validity of the ASI were established from the results of six studies that involved 2250 participants. The majority of these participants were White (from 76
to $86 \%$ ), and ages ranged from 18 to 77 years. Samples for four of the studies were taken from an undergraduate population, and the other two studies samples were recruited from nonstudent populations, which represented individuals from varied socioeconomic backgrounds who held a variety of occupations and had different education levels. Factor analysis results demonstrated reliability of the HS and BS subscales for both student and nonstudent participants. The factor structure analysis indicated that HS and BS were correlated with each other for both women and men (Glick \& Fiske, 1996). Analysis of reliability for both the HS and BS subscales across all six studies yielded alpha reliability coefficients from .80 to .92 for HS and from .73 to .85 for BS. The total ASI score alphas ranged from .83 to .92 . The results for this particular study showed estimates for reliability on the ASI total score as .91 , with the BS subscale as .87 and .74 for protective paternalism, .81 for complementary gender differentiation, and .76 for heterosexual intimacy as the three subscales of BS. The reliability estimate for HS was .88 , demonstrating that estimates are within the ranges from the literature and some even higher.

A principle axis factoring methodology with a varimax rotation for factor analysis was conducted to assess the reliability of the ASI with this particular sample. Two items from the HS subscale were of concern when neither loaded with the rest of the hostile items on a 3- and 4-factor solution. They either cross-loaded with other BS items on the 3-factor solution or loaded as their own factor with a 4-factor solution. The two items are as follows: "feminists are not seeking for women to have more power than men," and "feminists are making entirely reasonable demands of men." The nature of these items must have some specific and unique meaning for this sample. After these two items were
omitted, alpha reliability estimates for the HS subscale resulted as .88 , which was the same as the 11-item subscale reported above. When Pearson correlations were run with all of the variables in this study, they all either remained the same or resulted in very small differences. The use of the ASI and HS subscales for this study will use the 9 item, instead of the 11 , HS subscale and the 20 item, instead of the 22 item, combined ASI total. Many studies addressing religiosity and ambivalent sexism have failed to find significant relationships with the HS subscale (Burn \& Busso, 2005, Christopher \& Mull, 2006, Glick et al., 2002, Maltby et al., 2010), which also adds additional reason for omitting these items and adjusting the subscale.

Convergent validity of the ASI was assessed by comparing it to other scales of sexism, racism, and hostility toward women. The scales used include The Old-Fashioned Sexism Scale (.42; Swim, Aikin, Hall, \& Hunter, 1995), The Attitudes Toward Women Scale (.63; Spence \& Helmreich, 1972), The Modern Sexism Scale (.57; Swim, Aikin, Hall, \& Hunter, 1995), and The Rape Myth Acceptance Scale (.54; Burt, 1980; Glick \& Fiske, 1996). These scales mentioned are indicative of hostility, which is why the HS scale and overall ASI score were used for comparison.

Glick and Fiske predicted that HS should be correlated with overall negative attitudes and stereotypes about women as a group. On the other hand, BS was predicted to correlate with positive attitudes toward women as a group. The total ASI score is composed of the two opposing subscales, but it was predicted to correlate with overall ambivalence toward women. Strong support has been provided through research for the discriminant and predictive validity for all three scores (BS, HS, and overall ASI). It was indicated that the total ASI score did measure ambivalent sexist attitudes toward women,
for men and women (Glick \& Fiske, 1996).

## Procedures

Participants were recruited in various ways. A snowball sampling method was utilized by posting a link on Facebook, an online social networking website, to the anonymous web-based survey hosted by SurveyMonkey.com. The link encouraged LDS adults to participate by completing the survey. After logging into the URL on Survey Monkey, participants were directed to the informed consent document, then to the demographics and attached measures. The researcher asked individuals to post the SurveyMonkey.com link on their Facebook pages, creating a broader recruitment pool. Research participants have been recruited through the use of Facebook in the past with success. Amerson (2010) used Facebook to locate nursing students and to ask them to participate in a qualitative study. This recruitment tool was used by the author because "social networks provide new opportunities for locating potential research participants" (p. 415).

The survey hyperlink was also emailed to friends and colleagues. Coordinators and Webmasters of Web logs (i.e., blogs), discussion forums, and Web sites with a unique focus on LDS topics were contacted for permission to post a link and information about the study to their members. The purpose of the study, eligibility criteria, and a hyperlink to the online survey were posted on all sites. Many of the selected blogs and Web sites represent a diverse LDS audience, ranging from LDS feminist perspectives to more mainstream and conservative LDS topics. Accessing a broad audience of participants within this population produced a more representative sample. This sampling method recruited a larger and broader sample than traditional sampling approaches used
on university campuses and was able to collect over 3,500 participants. Student populations tend to be restricted in a number of demographic factors, and Gosling, Vazire, Srivastava, and John (2004) found that internet samples yielded diverse data with regard to age, geographic region, and socioeconomic status. It has also been suggested by Locke and Gilbert (1995) that due to the anonymity of a Web questionnaire, participants might disclose information more readily than if they were in a lab setting.

Participants were offered compensation by electing to enter a drawing for a gift card upon completion of the survey. Multiple $\$ 10$ gift cards to retail stores were randomly selected by the researcher and awarded after the completion of data analysis. Participants were informed that their responses would be held confidential and anonymous to protect their responses from being connected to their emails attached for the gift card selection.

## CHAPTER 4

## RESULTS

This chapter is divided into three sections. In the first section, results of preliminary data analysis are discussed. In the second section, data analysis and results of hypothesis testing are presented, and in the third a brief summary of the overall results are provided.

## Preliminary Data Analysis

SPSS Version 20 was used to examine data for normality, linearity, and homoscedasticity in the preliminary data analysis stage. Univariate level outliers were found for age and years lived in Utah but were retained in the data set as neither impacted the analyses carried out in this study.

## Correlations

Correlations between the criterion variables, ambivalent sexism toward women, and key continuous and ordinal variables were computed. The correlation between benevolent sexism and hostile sexism $(r=.47)$ was statistically significant at $p<.001$, as was the case with benevolent $(r=.90)$ and hostile $(r=.81)$ with the total ASI scale. Results are presented in Table 5. These findings are consistent with previous research, and are considered by Cohen (1988) to have a larger and much larger than typical strength of relationship. Significant correlations were found for all BS subfactors with BS

Table 5
Correlation Matrix for Background Variables and Ambivalent Sexism Toward Women

|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Benevolent Sexism | 1.0 |  |  |  |  |  |  |  |  |  |  |  |
| 2. Hostile Sexism | . $47 * * *$ | 1.0 |  |  |  |  |  |  |  |  |  |  |
| 3. Gender | $-.23 * * *$ | $-.06 * * *$ | 1.0 |  |  |  |  |  |  |  |  |  |
| 4. Age | . 01 | -. 02 | $-.09 * * *$ | 1.0 |  |  |  |  |  |  |  |  |
| 5. Income | $-.05 * *$ | -.08*** | $-.07 * * *$ | . $43 * * *$ | 1.0 |  |  |  |  |  |  |  |
| 6. Education | -.10 *** | $-.20 * * *$ | -.13*** | . 17 *** | .28*** | 1.0 |  |  |  |  |  |  |
| 7. Utah Years | . 02 | . 00 | $-.07 * * *$ | . 28 *** | .11*** | . 02 | 1.0 |  |  |  |  |  |
| 8. LDS Activity | . $45^{* * *}$ | .16*** | $-.08^{* * *}$ | -. 03 | -.04* | . $08 * * *$ | $-.06 * *$ | 1.0 |  |  |  |  |
| 9. LDS Affiliation | . $51 * * *$ | . $22 * * *$ | . 03 | $-.07 * * *$ | -. $09 * * * *$ | -. 01 | $-.06 * *$ | .81*** | 1.0 |  |  |  |
| 10. Intrinsic Total | .47*** | . $19 * * *$ | . $08 * * *$ | -.04* | $-.10 * * *$ | -. 01 | $-.05 * *$ | . $73 * * *$ | . 80 *** | 1.0 |  |  |
| 11. Extrinsic Total | . 21 | .16*** | .15*** | $-.08 * * *$ | $-.07 * * *$ | -. 03 | -.04* | . 25 *** | .33*** | . $23 * * *$ | 1.0 |  |
| 12. Relig Fundamental | . 60 *** | . $37 * * *$ | . $08 * * *$ | $-.09 * * *$ | $-.15 * * *$ | $-.11 * * *$ | $-.06 * *$ | .70*** | .81*** | . 80 *** | .27*** | 1.0 |
| **Intrinsic (Top 75\%) | . 40 *** | . 15 *** | .13*** | $-.07 * * *$ | $-.13 * * *$ | -.06** | -. 02 | .60*** | .71*** | 1.0 | .05* | . $75 * * *$ |
| **Extrinsic (Top 75\%) | . 11 *** | . 15 *** | . $17 * * *$ | $-.07 * * *$ | $-.07 * * *$ | -.04* | -. 02 | . 04 | .18*** | .05* | 1.0 | .13*** |

## Table 5 continued

Note: $\mathrm{N}=3282$ (*except for the bottom two variables - more information listed below)
The correlations with the Total ASI scale were both significant at $p<.001$ for Benevolent Sexism $(r=895)$ and for Hostile sexism $(r=.814)$.
Gender was coded as $0=$ male, $1=$ female
Income Level was coded on a 1 to 8 Likert scale with $1=" 0$ to $\$ 25 \mathrm{~K} "$ to $8=" \$ 150 \mathrm{~K}$ and up"
Education level was coded on a 1 to 7 Likert Scale with $1=$ "Less than H.S." to $7=$ "Doctoral" ( $4=$ associates, $5=$ bachelors )
Total LDS Activity was coded on a scale from 0-36 based on participants total score from questions related to questions related to church attendance, frequency of prayer, scripture study, payment of tithing, and temple attendance, etc.

Total LDS Affiliation was coded on a 1 to 5 Likert scale with $0=$ "strongly disagree" to $4=$ "strongly agree" based on 5 questions on level of attachment, pride, felt belonging, and belief in doctrine, and an item that was reversed for left the church for personal, historical, or doctrinal reasons, with a total of 20 points.

Intrinsic and Extrinsic Religiosity was coded on a 7 point Likert Scale with $1=$ "Strongly disagree" to $7=$ "Strongly agree"
*Because the I/E constructs didn't load for the bottom $25 \%$ ile after the factor analysis, both sets of zero-order correlations were conducted to see the difference and are listed in the correlation matrix.

Religious Fundamentalism was coded on a 9 point Likert Scale with $-4=$ "Very strongly disagree" to $4=$ "Very strongly agree"

* $p<.05$ (2-tailed)
** $p<.01$ (2-tailed)
*** $p<.001$ (2-tailed)
at the $p<.001$ level, protective paternalism $(r=.88)$, gender differentiation $(r=.80)$, and heterosexual intimacy $(r=.85)$. As expected they had weaker correlations with medium or typical effect sizes with HS and were still significant at the $p<.001$ level, protective paternalism ( $r=.40$ ), gender differentiation $(r=.40)$, and heterosexual intimacy $(r=.39)$.

Gender was found to correlate negatively and significantly with all three variables of ambivalent sexism toward women at the $p<.001$ level, $(r=-.23)$ with total ASI, $(r=$ -.30 ) benevolent, and ( $r=-.06$ ) hostile sexism. Gender was also found to be negatively and significantly related to the BS subfactors, protective paternalism ( $r=-.34$ ), gender differentiation ( $r=-.23$ ), and heterosexual intimacy ( $r=-.18$ ). The majority of these coefficients fall in the medium or typical range for effect sizes (.30) according to Cohen (1988). The negative relationship indicates that men have a higher mean score than women given the 0 for male and 1 for female coding. Gender had a negative relationship with education $(\mathrm{r}=-.13, \mathrm{p}<.001)$, which is to be expected given that LDS male individuals generally obtain more education than females, especially in higher education. Some interesting findings based on gender and religious variables are that a positive relationship was found for the following variables, indicating that women had higher scores. Gender correlated positively at $p<.001$ with intrinsic religious orientation (top $75 \%$ ile, $r=.13$ ) and extrinsic orientation (top 75\%ile, $r=.17$ ) and religious fundamentalism ( $r=.08$ ). Gender also correlated positively with LDS Affiliation ( $r=.03$, $p=.138$ ), despite not being statistically significant. On the other hand, gender had a negative and male leaning relationship with LDS Activity ( $r=-.08, p<.001$ ). These results will be explored further in the discussion section.

It is important to note the different correlations for male and females on key
variables. When looking at the men in the sample, they correlated positively at $p<.01$ with total ASI and benevolent sexism $(r=.86)$ and women $(r=.91)$ and ASI and hostile sexism for men $(r=.76)$ and women $(r=.87)$. When looking at how benevolent sexism correlated with the following variables for men, education $(r=-.10, p<.01)$ and for women $(r=-.19, p<.01)$; income for men $(r=-.05, p=\mathrm{NS})$ but for women $(r=-.09, p$ < .01); LDS activity for men $(r=.50, p<.01)$ and women $(r=.40, p<.01)$; LDS affiliation for men $(r=.58, p<.01)$ and women $(r=.51, p<.01)$; intrinsic orientation for men $(r=.55, p<.01)$ and women $(r=.49, p<.01)$; extrinsic orientation for men $(r=.29$, $p<.01)$ and women ( $r=.27, p<.01$ ); and religious fundamentalism for men and women ( $r=.65, p<.01$ ), these results indicate that men tend to have greater endorsement with benevolently sexist attitudes towards women as their religiosity endorsement increases.

When looking at how hostile sexism correlated with the following variables for men, education $(r=-.18, p<.01)$ and for women $(r=-.24, p<.01)$ income for men $(r=$ $-.05, p=\mathrm{NS})$ but for women $(r=-.11, p<.01)$; LDS activity for men $(r=.05, p=N S)$ and women $(r=.24, p<.01)$; LDS affiliation for men $(r=.10, p<.01)$ and women $(r=$ $.32, p<.01)$; intrinsic orientation for men $(r=.09, p<.01)$ and women $(r=.28, p<.01)$; extrinsic orientation for men $(r=.12, p<.01)$ and women $(r=.20, p<.01)$; and religious fundamentalism for men $(r=.28, p<.01)$ and women $(r=.45, p<.01)$, it appears that women have higher correlations with hostile sexism when looking at all of the religious variables than the men, which may indicate that higher religiosity for women leads to greater endorsement of hostilely sexist attitudes towards women.

The correlations for the majority of background variables in this study were found to be statistically significant, but having smaller effect sizes unless pointed out. Starting
with those anticipated and hypothesized, education was significantly ( $p<.001$ ) and negatively correlated with the following, total ASI ( $r=-.17$ ), benevolent sexism ( $r=-$ .10), protective paternalism ( $r=-.08$ ), gender differentiation ( $r=-.08$ ), and heterosexual intimacy ( $r=-.10$ ), hostile sexism ( $r=-.20$ ), and religious fundamentalism $(r=-.11)$. Education had a significant positive correlation with total LDS Activity ( $r=.08$ ), which fits the research carried out by Merrill, Lyon, and Jensen (2003) and Albrecht and Heaton (1984) for positive relationships between higher education and increased religious activity among LDS populations, which tends to be the opposite among other religious groups. Education was negatively correlated but not significantly related with LDS Affiliation ( $r=-.004, p=.834$ ). When zero-order correlations were run for the top 75\%ile of LDS Activity (factor analysis issue) where the construct factor loadings held up, a predicted significant and negative correlation resulted for Intrinsic ( $r=-.06, p<$ $.001)$ and Extrinsic orientations ( $r=-.04, p<.05$ ).

Age and years lived in Utah were expected to correlate positively with the outcome variables in this study; however, they were both found to not be statistically significant with both BS and HS variables. Age correlated with BS ( $r=.01, p=.729$ ) and HS ( $r=-.02, p=.378$ ). Years lived in Utah correlated with BS $(r=.02, p=.200)$ and HS ( $r=.00, p=.922$ ). Age had some interesting relationships with the following variables: LDS Activity ( $r=-.03, p=.057$ ) and LDS Affiliation $(r=-.07, p<.001)$, demonstrating that younger participants had a stronger relationship with these variables. Just as the last two variables demonstrated, age correlated with Intrinsic and Extrinsic religious orientations both significantly and negatively with the same coefficient $(r=-.07, p<$ .001). Years lived in Utah was surprisingly negatively and significantly correlated with
the following religious variables at $p<.01$, LDS Activity ( $r=-.06$ ), LDS Affiliation ( $r=$ -.06), and Religious Fundamentalism ( $r=-.06$ ), demonstrating that those living in Utah less years, and possibly never, were more correlated with these variables.

Religious variables were all predicted to correlate positively with ambivalent sexism subscales, except for intrinsic religious orientation, which had a stronger relationship to BS and HS than extrinsic orientation, going in opposition to the hypothesized relationships. All variables had positive relationships to BS and HS at $p<$ .001. Intrinsic orientation (top 75\%ile for LDS Activity) correlated with BS at ( $r=.40$ ) and HS at $(r=.15)$. Extrinsic (top 75\%ile for LDS Activity) correlated with BS at ( $r=$ .11) and HS at ( $r=.15$ ), which indicates a stronger relationship with hostile than benevolent sexist attitudes towards women for those in the top 75\%ile of LDS Activity with higher extrinsic religious orientation endorsement.

The largest and most significant relationship for ambivalent sexism subscales and other variables, occurred with religious fundamentalism at $p<.001$, having medium to large effect sizes. RF correlated with BS at $(r=.60)$ and HS at $(r=.37)$. RF interestingly but maybe not surprisingly correlated negatively with income ( $r=-.15, p<.001$ ), education ( $r=-.11, p<.001$ ), and years in Utah ( $r=-.06, p<.01$ ). The highest positive correlations with RF at $p<.001$ were surprisingly LDS Affiliation ( $r=.81$ ), intrinsic religious orientation (Top 75\%ile for LDS Activity, $r=.75$ ), and LDS Activity ( $r=.70$ ), all falling in the much larger than typical level of effect sizes, and much lower but understandably so with extrinsic orientation (Top 75\%ile for LDS Activity, $r=.13$ ).

One last interesting variable to look at, which was not included in any of the hypotheses or analyses, was income. It correlated significantly with every variable in the
study. Income correlated negatively with BS $(r=-.05, p<.01)$, HS $(r=-.08, p<.001)$, LDS Affiliation ( $r=-.09, p<.001$ ), intrinsic orientation ( $r=-.13, p<.001$ ), extrinsic orientation $(r=-.07, p<.001)$, and $\mathrm{RF}(r=-.15, p<.01)$.

## Data Analysis

This section includes results of hypothesis testing and is divided into two parts. In the first, research questions and hypotheses testing are performed and discussed. In the second part, results of data analysis are summarized.

## Hypothesis Testing

## Gender and Ambivalent Sexism Subscales

Question 1. Will LDS men endorse ambivalent sexism toward women at a higher level than LDS women?

Because previous research has demonstrated important gender differences in variables related to ambivalent sexism and religiosity, the means and standard deviations for all study variables were calculated separately for males and females and are presented in Table 6. It is important to point out that men scored higher than women on all ASI scales, while women scored higher than men on all religious variables, with the exception of LDS Activity.

Gender was hypothesized to serve as an important variable in this study, and it was predicted that men would score higher than women on ambivalent sexism scales. Independent sample $t$ tests were calculated to indicate the differences in mean and related significance for scores between men and women on important criterion and predictor variables. Table 7 shows that males were significantly different from females on all three

Table 6
Means and Standard Deviations for ASI Subscales and Religion Indexes by Gender

| Variable | Male $(N=1522)$ | Female $(N=1905)$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | M (Total) | SD | M (Total) | SD |
| ASI Total - Avg (Sum) | $2.04(40.73)$ | $.78(15.6)$ | $1.66(33.25)$ | $.85(16.9)$ |
| Hostile Sexism Avg. (Sum) | $1.46(13.15)$ | $.93(8.38)$ | $1.34(12.07)$ | $.96(8.6)$ |
| Benevolent Sexism Avg (Sum) | $2.51(27.58)$ | $.97(10.6)$ | $1.93(21.18)$ | $.94(10.3)$ |
| -Protective Paternalism (Avg) | 2.90 | 1.08 | 2.14 | 1.07 |
| -Gender Differentiation (Avg) | 2.03 | 1.19 | 1.50 | 1.11 |
| $\quad$-Heterosexual Intimacy (Avg) | 2.47 | 1.22 | 2.04 | 1.18 |
|  |  |  |  |  |
| Intrinsic Religiosity (Sums) | 39.38 | 10.3 | 41.22 | 9.94 |
| Extrinsic Religiosity (Sums) | 21.19 | 6.61 | 23.02 | 6.30 |
| Social (Sums) | 8.88 | 4.07 | 9.05 | 3.98 |
| Personal (Sums) | 12.19 | 4.41 | 13.96 | 4.12 |
| Religious Fundamentalism (Sums) | 48.17 | 25.57 | 52.33 | 25.16 |
| LDS Activity (Sums - 36 total) | $\mathbf{2 1 . 9 6}$ | 10.9 | 20.69 | 11.03 |
| LDS Affiliation (Sums - 20 total) | 12.57 | 6.85 | 13.06 | 6.68 |

sexism scales and scored higher on average than females, but had the greatest effect on the benevolent sexism toward women scale ( $p<.001$ ). Inspection of the two group means indicates that the summed BS score for LDS women $(M=21.18, S D=10.34)$ is significantly lower than the summed scores $(M=27.58, S D=10.65)$ for LDS men. The difference between the means is 6.4 points on a 55 -point scale. The effect size $d$ is approximately .6, which is a medium or typical effect size in the behavioral sciences according to Cohen (1988). Males differed significantly from females on hostile sexism ( $p<.001$ ) with a mean difference of only 1.08 on a 45-point scale, and the effect size $d$ was approximately .1 , which is small. The mean difference between men and women on

Table 7
Comparisons of LDS Male and Female Adults on Benevolent Sexism, Hostile Sexism, Ambivalent Sexism Toward Women Scales (males, $n=1582$; females, $n=1970$ )

| Variable | M | $S D$ | $t$ | $d f$ | $p$ | $d$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benevolent Sexism |  |  | 18.09 | 3550 | . 000 | . 6 |
| Male | 27.58 | 10.65 |  |  |  |  |
| Female | 21.18 | 10.34 |  |  |  |  |
| Hostile Sexism |  |  | 3.79* | 3418 | . 000 | . 1 |
| Male | 13.15 | 8.38 |  |  |  |  |
| Female | 12.07 | 8.60 |  |  |  |  |
| Ambivalent Sexism |  |  | 13.68* | 3479 | . 000 | . 5 |
| Male | 40.73 | 15.60 |  |  |  |  |
| Female | 33.25 | 16.90 |  |  |  |  |

*The $t$ and $d f$ were adjusted because variances were not equal
the Total Ambivalent Sexism Scale Score was 7.48 on a 100-point scale ( $p<.001$ ), and the effect size $d$ was approximately .5 , which is also a typical or medium effect size. The results of Hypothesis 1 were supported.

## Covariates for Regression Analyses

For hypotheses two through six, multiple hierarchical regressions were run, and the covariates gender and education level were entered into the first step of each regression model. The combination of covariates were found to account for $10.7 \%$ ( $p<$ .001 ) of the variance in benevolent sexism towards women, and $4.5 \%$ ( $p<.001$ ) of the variance in hostile sexism, and $8.8 \%(p<.001)$ of the variance in total ambivalent sexism towards women.

## Religious Orientation (I/E)and Ambivalent Sexism Subscales

Question 2. Are LDS men \& women who are more intrinsically oriented toward religion less likely to endorse ambivalent sexist attitudes toward women?

In the second hypothesis, intrinsic religious orientation was predicted to be negatively related to benevolent and hostile sexism, and extrinsic religious orientation was predicted to be positively related to both subscales of sexism. Due to the construct issue discovered after conducting the factor analysis on the $I / E$ variables, it was determined that it would be best to provide results for the sample where the factor loadings lined up with the initial construct (i.e., the top 75\%ile for LDS activity). To address this hypothesis, four hierarchical multiple regressions were performed. Religious orientation (I/E) was the predictor variable in all four regressions. In the first two regressions intrinsic orientation was used as the measure of religiosity, and in the second two regressions extrinsic religiosity was used. The criterion variables for each set of regressions, respectively, were benevolent and hostile sexism.

Two Pearson correlations were run using potentially confounding variables, gender and education level as covariates and BS/HS as criterion variables. Second, the covariates were entered into the regression model. Third, the main effect of Religious Orientation (I/E) was entered into the regression model. A correlation matrix was computed using all of the variables required for data analysis, and a summary of these data are presented in Table 8.

Intrinsic Orientation Regressions - $1 \& 2$
A summary of the results from the first regression, when religiosity was measured by intrinsic religiosity and the criterion variable was benevolent sexism, can be found in

Table 8
Correlation Matrix for Benevolent Sexism Toward Women, Hostile Sexism Toward Women, Gender, Education Level, Intrinsic and Extrinsic Religiosity for the top 75\% percentile for LDS Activity

|  | $(1)$ | $(2)$ | $(3)$ | $(4)$ | $(5)$ | $(6)$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. Benevolent Sexism | 1.0 |  |  |  |  |  |
| 2. Hostile Sexism | $.43^{* * *}$ | 1.0 |  |  |  |  |
| 3. Gender | $-.32^{* * *}$ | -.01 | 1.0 |  |  |  |
| 4. Education Level | $-.13^{* * *}$ | $-.22^{* * *}$ | $-.14^{* * *}$ | 1.0 |  |  |
| 5. Intrinsic Religiosity | $.39^{* * *}$ | $.15^{* * *}$ | $.13^{* * *}$ | $-.06^{* * *}$ | 1.0 |  |
| 6. Extrinsic Religiosity | $.11 * * *$ | $.15^{* * *}$ | $.17^{* * *}$ | $-.04^{*}$ | $.05 * * *$ | 1.0 |
| Mean |  | 1.46 | .55 | 4.94 | 43.63 | 23.12 |
| Standard Deviation | .95 | .93 | .50 | 1.23 | 8.64 | 6.08 |

Note. $N=2630$.
Gender was coded as 0 for male, 1 for female
Education level was coded as: Associates $=4$, Bachelors $=5$, Master's $=6$

Table 8 Continued
Intrinsic and Extrinsic Religiosity was coded on a 7 -point Likert Scale with $1=$ strongly disagree to $7=$ strongly agree.
*The top $75 \%$ ile on LDS Activity was the variable used during factor analysis to test the factor loadings for the construct of Religious Orientation (I/E). The loadings only lined up for the top $75 \%$ ile when split into four dummy coded groups on LDS Activity, and the bottom $25 \%$ ile were those who identified as being less religiously active, causing problems with religious constructs.

* $p<.05$ (2-tailed)
*** $p<.001$ (2-tailed)

Table 9. A summary when religiosity was measured by intrinsic religiosity and the criterion variable was hostile sexism, can be found in Table 10.

Results of both the first and second regressions show that the covariates, gender and education level, were negatively and significantly related to both benevolent sexism and hostile sexism, even after the addition of intrinsic orientation on the second step of the regression model. After the addition of intrinsic orientation on the second step, gender related to benevolent $(\beta=-.40, p<.001)$ and hostile sexism $(\beta=-.06, p<.001)$. After the addition of intrinsic orientation on the second step, education still related to benevolent sexism ( $\beta=-.15, p<.001$ ) and hostile sexism $(\beta=-.22, p<.001)$.

## Table 9

Summary of Hierarchical Multiple Regression Analysis of Benevolent Sexism Toward Women on Gender, Education Level, and Intrinsic Orientation - Top 75\%ile ( $N=2631$ )

| Predictor Variable | $B$ | $S E$ | $B$ | $R^{2} \Delta$ | $F$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Step 1 |  |  |  |  |  |
| Gender | -.66 | .04 | $-.35^{* * *}$ | .13 | $204.12^{* * *}$ |
| Education | -.13 | .01 | $-.17^{* * *}$ |  |  |
| Step 2 |  |  |  | .19 | $724.36^{* * *}$ |
| Gender | -.77 | .03 | $-.40^{* * *}$ |  |  |
|  | Education | -.12 | .01 | $-.15^{* * *}$ |  |
|  | Intrinsic Orientation | .05 | .00 | $.44^{* * *}$ |  |

Note. $\quad R^{2}=.13, F(2,2628)=204.12$, for Step $1, p<.001$.
$R^{2}$ Change $=.19, F(1,2627)=724.36$, for Step $2, p<.001$.
$R^{2}=.32, F(3,2627)=414.99$, for Step 2, $p<.001$.
*** $p<.001$

Table 10
Summary of Hierarchical Multiple Regression Analysis of Hostile Sexism Toward Women on Gender, Education Level, and Intrinsic Orientation - Top 75\% ( $N=2630$ )

| Predictor Variable | B | $S E$ | $B$ | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  | . 05 | 70.91*** |
| Gender | -. 08 | . 04 | -.04* |  |  |
| Education | -. 17 | . 02 | $-.23 * * *$ |  |  |
| Step 2 |  |  |  | . 02 | $56.13 * * *$ |
| Gender | -. 12 | . 04 | $-.06 * * *$ |  |  |
| Education | -. 17 | . 01 | $-.22^{* * *}$ |  |  |
| Intrinsic Orientation | . 02 | . 00 | . $14^{* * *}$ |  |  |

Note. $\quad R^{2}=.05, F(2,2627)=70.91$, for Step $1, p<.001$.
$R^{2}$ Change $=.02, F(1,2626)=56.13$, for Step 2, $p<.001$.
$R^{2}=.07, F(3,2626)=66.97$, for Step $2, p<.001$.

* $p<.05$
*** $p<.001$

After controlling for the covariates, religious orientation (measured by intrinsic orientation) accounted for $18.7 \%$ of the variance in benevolent sexism and $2.0 \%$ of the variance in hostile sexism towards women ( $p<.001$ ). The model as a whole accounted for $32.2 \%$ of the variance in benevolent sexism and $7.1 \%$ of the variance in hostile sexism. Examination of the beta values for religious orientation indicated that the relationship between intrinsic orientation and benevolent sexism was positive and statistically significant (Step $2, \beta=.44, p<.001$ ) as well as hostile sexism (Step 2, $\beta=$
$.14, p<.001)$. Results indicate that participants who endorse items on the intrinsic orientation scale at a higher level are more likely to endorse benevolent sexism toward women, as well as hostilely sexist attitudes. Observations of correlation coefficients also demonstrate a positive relationship between intrinsic religious orientation and both subscales of ambivalent sexism. Results of the first and second regressions were not supportive of Hypothesis 2 because relationships with sexism and intrinsic religiosity were predicted to be negative.

Extrinsic Orientation Regressions - $3 \& 4$
Results of the third and fourth regressions both show that the covariates, gender and education level were negatively and significantly related to both benevolent sexism and hostile sexism towards women, even after the addition of extrinsic orientation on the second step of the regression model. After the addition of extrinsic orientation on the second step, gender still related to benevolent ( $\beta=-.37, p<.001$ ) and hostile sexism ( $\beta=$ $-.07, p<.001)$. After the addition of extrinsic orientation on the second step, education still related to benevolent ( $\beta=-.17, p<.001$ ), and hostile sexism ( $\beta=-.23, p<.001$ ).

Table 11 presents the results from the third regression, when religious orientation was measured by extrinsic orientation and the criterion variable was benevolent sexism, and Table 12 presents the criterion variable as hostile sexism.

After controlling for the covariates, religious orientation (measured by extrinsic orientation) accounted for $2.6 \%$ of the variance in benevolent sexism toward women and $2.2 \%$ of the variance in hostile sexism $(p<.001)$. The model as a whole accounted for $15.9 \%$ of the variance in benevolent sexism and $7.4 \%$ of the variance in hostile sexism. Examination of the beta values for religious orientation indicated that the relationship

## Table 11

Summary of Hierarchical Multiple Regression Analysis of Benevolent Sexism Toward Women on Gender, Education Level, and Extrinsic Orientation- Top 75\% ( $N=2622$ )

| Predictor Variable |  | $B$ | SE | B | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  |  | . 13 | 201.39*** |
|  | Gender | -. 66 | . 04 | $-.35 * * *$ |  |  |
|  | Education | -. 13 | . 01 | $-.17 * * *$ |  |  |
| Step 2 |  |  |  |  | . 03 | 79.45*** |
|  | Gender | -. 71 | . 04 | -.37*** |  |  |
|  | Education | -. 13 | . 01 | $-.17 * * *$ |  |  |
|  | Extrinsic Orientation | . 03 | . 00 | .16*** |  |  |
| Note. $R^{2}=.13, F(2,2619)=201.39$, for Step 1, $p<.001$. |  |  |  |  |  |  |
| $R^{2}$ Change $=.03, F(1,2618)=79.45$, for Step 2, $p<.001$. |  |  |  |  |  |  |
| $R^{2}=.16, F(3,2618)=164.76$, for Step 2, $p<.001$. |  |  |  |  |  |  |
| *** $p<.001$ |  |  |  |  |  |  |

between extrinsic orientation and benevolent sexism was positive and statistically significant (Step 2, $\beta=.16, p<.001$ ) as well as hostile sexism (Step $2, \beta=.15, p<.001$ ). The results indicate that participants who endorse items on the extrinsic orientation scale at a higher level are more likely to endorse benevolent and hostile sexist attitudes. Results of the last two regressions were supportive of Hypothesis 2, given that extrinsic orientation was predicted to have a positive relationship with sexism.

Table 12
Summary of Hierarchical Multiple Regression Analysis of Hostile Sexism Toward Women on Gender, Education Level, and Extrinsic Orientation- Top 75\% ( $N=2621$ )

| Predictor Variable | B | $S E$ | B | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  | . 05 | $71.52^{* * *}$ |
| Gender | -. 08 | . 04 | $-.04 * * *$ |  |  |
| Education | -. 17 | . 02 | $-.23 * * *$ |  |  |
| Step 2 |  |  |  | . 02 | $61.78 * * *$ |
| Gender | -. 13 | . 04 | $-.07 * * *$ |  |  |
| Education | -. 17 | . 01 | $-.23 * * *$ |  |  |
| Extrinsic Orientation | . 02 | . 00 | . $15^{* * *}$ |  |  |

Note. $\quad R^{2}=.05, F(2,2618)=71.52$, for Step $1, p<.001$.
$R^{2}$ Change $=.02, F(1,2617)=61.78$, for Step 2, $p<.001$.
$R^{2}=.07, F(3,2617)=69.38$, for Step $2, p<.001$.
*** $p<.001$

## Religious Fundamentalism and Ambivalent Sexism

Question 3. Are LDS men \& women who are more fundamentally religious likely to endorse more ambivalent sexist attitudes toward women than those who are less fundamentally religious?

Religious fundamentalism was predicted to be positively related to both subscales of ambivalent sexism, with emphasis on the BS scale. To address this hypothesis, two hierarchical multiple regressions were performed. Religious fundamentalism was used as the predictor variable in both. The criterion variable in each regression was benevolent
sexism and hostile sexism.
Two Pearson correlations were run first using potentially confounding variables, gender and education level, as covariates and BS/HS as criterion variables. Second, the covariates were entered into the regression model. Third, the main effect of religious fundamentalism was entered into the regression model.

Results of data analysis for Hypothesis 3 revealed that the covariates, gender and education level, were negatively and significantly related to both benevolent and hostile sexism towards women, even after the addition of religious fundamentalism on the second step of the regression model. After the addition of RF on the second step, gender still related to benevolent $(\beta=-.36, p<.001)$ and hostile sexism $(\beta=-.11, p<.001)$. After the addition of RF on the second step, education still related to benevolent ( $\beta=-$ $.08, p<.001)$ and hostile sexism $(\beta=-.17, p<.001)$. A summary of the results when the criterion variable was benevolent sexism towards women can be found in Tables 13 and 14. A summary of the results of data analysis from the second regression of Hypothesis 3, when the criterion variable was hostile sexism toward women, can be found in Tables 15 and 16.

Religious fundamentalism was positively and statistically significantly related to both benevolent (Step 2, $\beta=.61, p<.001$ ) and hostile sexism (Step $2, \beta=.36, p<.001$ ). After controlling for the covariates, religious fundamentalism accounted for $37 \%$ of the variance in benevolent sexism and $12.5 \%$ of the variance in hostile sexism towards women $(p<.001)$. The model as a whole accounted for $47.7 \%$ of the variance in benevolent sexism and $17 \%$ of the variance in hostile sexism. Results indicate that participants who endorsed religious fundamentalism at a higher level also endorsed

Table 13
Correlation Matrix and Descriptive Statistics for Gender, Education Level, Religious Fundamentalism, and Benevolent Sexism Toward Women

|  | $(1)$ | $(2)$ | $(3)$ | $(4)$ |
| :--- | :--- | :--- | :--- | :--- |
| 1. Benevolent Sexism | 1.0 |  |  |  |
| 2. Gender | $-.30^{* * *}$ | 1.0 |  |  |
| 3. Education Level | $-.10^{* * *}$ | $-.13^{* * *}$ | 1.0 |  |
| 4. Religious Fundamentalism | $.59 * * *$ | $.08^{* * *}$ | $-.11^{* * *}$ | 1.0 |
| Mean |  |  |  |  |
| Standard Deviation | 2.17 | .55 | 4.91 | 50.48 |
| Not. $N=3391.0$ | .497 | 1.24 | 25.43 |  |

Note. $N=3391$.
Gender was coded as 0 for male, 1 for female
Education level was coded as Associates $=4$, Bachelors $=5$, Master's $=6$
*** $p<.001$

Table 14
Summary of Hierarchical Multiple Regression Analysis of Benevolent Sexism Toward Women on Gender, Education Level, and Religious Fundamentalism ( $N=3391$ )

| Predictor Variable | B | SE | B | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  | .11 | 202.61 *** |
| Gender | -. 63 | . 03 | $-.31^{* * *}$ |  |  |
| Education | -. 12 | . 01 | $-.14 * * *$ |  |  |
| Step 2 |  |  |  | . 37 | 2398.69*** |
| Gender | -. 71 | . 03 | $-.36 * * *$ |  |  |
| Education | -. 07 | . 01 | $-.08 * * *$ |  |  |
| Religious Fundament | . 02 | . 00 | .61*** |  |  |

Note. $\quad R^{2}=.11, F(2,3388)=202.61$, for Step 1, $p<.001$.
$R^{2}$ Change $=.37, F(1,3387)=2398.69$, for Step 2, $p<.001$.
$R^{2}=.48, F(3,3387)=1030.229$, for Step $2, p<.001$.
*** $p<.001$

Table 15
Correlation Matrix and Descriptive Statistics for Gender, Education Level, Religious Fundamentalism, and Hostile Sexism Toward Women

|  | $(1)$ | $(2)$ | $(3)$ | $(4)$ |
| :--- | :--- | :--- | :--- | :--- |
| 1. Hostile Sexism | 1.0 |  |  |  |
| 2. Gender | $-.06^{* * *}$ | 1.0 |  |  |
| 3. Education Level | $-.20^{* * *}$ | $-.13^{* * *}$ | 1.0 |  |
| 4. Religious Fundamentalism | $.37 * * *$ | $.08^{* * *}$ | $-.11^{* * *}$ | 1.0 |
| Mean | 1.38 | .55 | 4.91 | 50.49 |
| Standard Deviation | .94 | .50 | 1.24 | 25.42 |

Note. $N=3389$.
Gender was coded as 0 for male, 1 for female
Education level was coded as Associates $=4$, Bachelors $=5$, Master's $=6$
*** $p<.001$

Table 16
Summary of Hierarchical Multiple Regression Analysis of Hostile Sexism Toward Women on Gender, Education Level, and Religious Fundamentalism ( $N=3389$ )

| Predictor Variable | B | SE | B | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  | . 05 | 80.14*** |
| Gender | -. 16 | . 03 | $-.08 * * *$ |  |  |
| Education | -. 16 | . 01 | $-.21 * * *$ |  |  |
| Step 2 |  |  |  | . 13 | 511.07*** |
| Gender | -. 20 | . 03 | $-.11 * * *$ |  |  |
| Education | -. 13 | . 01 | $-.17 * * *$ |  |  |
| Religious Fundamnt | . 01 | . 00 | . $36^{* * *}$ |  |  |

Note. $\quad R^{2}=.05, F(2,3386)=80.14$, for Step $1, p<.001$.
$R^{2}$ Change $=.13, F(1,3385)=511.07$, for Step 2, $p<.001$.
$R^{2}=.17, F(3,3385)=170.08$, for Step $2, p<.001$.
*** $p<.001$
benevolent and hostile sexism, but significantly higher scores on benevolent sexism. The results fully support Hypothesis 3 .

## LDS Religiosity and Benevolent/ Hostile Sexism

Question 4. Are LDS men \& women who endorse being more active in their religious participation, or endorse being more affiliated with the LDS Church and its doctrines/beliefs, more likely to endorse more ambivalent sexist attitudes toward women than those who are less active/affiliated in their religious participation?

In this study LDS religiosity was measured using two self-reported variables. The first was Total LDS Activity, measured by 10 questions related to behavioral activity in the church. The second was Total LDS Affiliation, measured by five questions addressing the level of agreement with aspects of attachment to the church.

In the fourth hypothesis, both LDS religiosity variables were predicted to be positively related to benevolent and hostile sexism, with emphasis on the relationship with BS. Four hierarchical multiple regressions were performed. Religiosity was the predictor variable in all four regressions. In the first two regressions, Total LDS Activity was used as the measure of religiosity, and Total LDS Affiliation was used in the second two regressions. The criterion variables for each set of regressions, respectively, were benevolent and hostile sexism toward women. Two Pearson correlations were run first using potentially confounding variables, gender and education level, as covariates and BS/HS as criterion variables, presented in Table 17. Second, the covariates were entered into the regression model. Third, the main effect of LDS religiosity was entered into the regression model. Table 18 presents the results for total LDS activity and the criterion variable was benevolent sexism, and Table 19 presents hostile sexism.

Table 17
Correlation Matrix for Benevolent Sexism Toward Women, Hostile Sexism Toward Women, Gender, Education Level, Total LDS Activity and Total LDS Affiliation

|  | (1) | (2) | (3) | (4) | (5) | (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Benevolent Sexism | 1.0 |  |  |  |  |  |
| 2. Hostile Sexism | .47*** | 1.0 |  |  |  |  |
| 3. Gender | $-.29 * * *$ | -.06*** | 1.0 |  |  |  |
| 4. Education Level | $-.10^{* * *}$ | -.20 *** | $-.12 * * *$ | 1.0 |  |  |
| 5. LDS Activity | . $41^{* * *}$ | .13*** | $-.06 * * *$ | . $09 * * *$ | 1.0 |  |
| 6. LDS Affiliation | .49*** | . $20 * * *$ | .04* | . 00 | . 81 *** | 1.0 |
| Mean | 2.18 | 1.40 | . 55 | 4.9 | 21.25 | 12.84 |
| Stand Deviation | 1.0 | . 95 | . 50 | 1.25 | 11.0 | 6.76 |

Note. $N=3552$.
Gender was coded as 0 for male, 1 for female
Education level was coded as Associates $=4$, Bachelors $=5$, Master's $=6$

Table 17 continued
Total LDS Activity was coded on a scale from 0-36 based on participants total score from questions related to questions related to church attendance, frequency of prayer, scripture study, payment of tithing, and temple attendance, etc.

Total LDS Affiliation was coded on a scale from 0-20 based on 5 questions on level of attachment, pride, felt belonging, and belief in doctrine, and an item that was reversed for left the church for personal, historical, or doctrinal issues using a $0-4$ likert scale with $0=$ "strongly disagree" to $4=$ "strongly agree"

* $p<.05$ (2-tailed)
*** $p<.001$ (2-tailed)


## Table 18

Summary of Hierarchical Multiple Regression Analysis of Benevolent Sexism Toward Women on Gender, Education Level, and Total LDS Activity ( $N=3552$ )

| Predictor Variable | $B$ | $S E$ | $B$ | $R^{2} \Delta$ | $F$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Step 1 |  |  |  |  |  |
| Gender | -.62 | .03 | $-.31^{* * *}$ |  | .10 |
| Education | -.11 | .01 | $-.14^{* * *}$ |  |  |
| Step 2 |  |  |  |  |  |
| Gender | -.58 | .03 | $-.29 * * *$ |  |  |
| Education | -.14 | .01 | $-.18^{* * *}$ |  | $825.34^{* * *}$ |
| Total LDS Activity | .04 | .00 | $.41^{* * *}$ |  |  |

Note. $\quad R^{2}=.10, F(2,3549)=206.35$, for Step $1, p<.001$.
$R^{2}$ Change $=.17, F(1,3548)=825.34$, for Step 2, $p<.001$.
$R^{2}=.27, F(3,3548)=444.64$, for Step $2, p<.001$.
*** $p<.001$

Table 19
Summary of Hierarchical Multiple Regression Analysis of Hostile Sexism Toward Women on Gender, Education Level, and LDS Activity ( $N=3549$ )

| Predictor Variable | $B$ | SE | B | $R^{2} \Delta$ | F |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  | . 05 | $87.99 * * *$ |
| Gender | -. 17 | . 03 | $-.09 * * *$ |  |  |
| Education | -. 16 | . 01 | $-.21 * * *$ |  |  |
| Step 2 |  |  |  | . 02 | 84.0*** |
| Gender | -. 16 | . 03 | $-.08^{* * *}$ |  |  |
| Education | -. 17 | . 01 | $-.22 * * *$ |  |  |
| Total LDS Activity | . 01 | . 00 | . $15^{* * *}$ |  |  |

Note. $\quad R^{2}=.05, F(2,3546)=87.99$, for Step $1, p<.001$.
$R^{2}$ Change $=.02, F(1,3545)=84.0$, for Step 2, $p<.001$.
$R^{2}=.07, F(3,3545)=73.45$, for Step $2, p<.001$.
*** $p<.001$

Results of the first two regressions show that the covariates, gender and education level, were negatively and significantly related to both benevolent and hostile sexism, even after the addition of total LDS activity on the second step of the model. After the addition of LDS activity on the second step, gender still related to benevolent $(\beta=-.29, p$ $<.001$ ) and hostile sexism ( $\beta=-.08, p<.001$ ). After the addition of LDS activity on the second step, education still related to benevolent $(\beta=-.18, p<.001)$ and hostile sexism $(\beta=-.22, p<.001)$.

After controlling for the covariates, religiosity (measured by total LDS activity) accounted for $16.9 \%$ of the variance in benevolent sexism and $2.2 \%$ of the variance in hostile sexism ( $p<.001$ ). The model as a whole accounted for $27.3 \%$ of the variance in benevolent sexism toward women and $6.9 \%$ of the variance in hostile sexism. Examination of the beta values for religiosity indicated that the relationship between total LDS activity and benevolent sexism was positive and statistically significant (Step 2, $\beta=$ $.41, p<.001$ ) as well as hostile sexism (Step $2, \beta=.15, p<.001$ ). The results indicate that participants who are involved in more aspects of daily life as an LDS member and therefore score higher on the total LDS activity scale are more likely to endorse benevolent than hostile sexist attitudes toward women, although there were positive relationships for both sexism scales. Results of the first two regressions were supportive of Hypothesis 4.

## LDS Affiliation

Results of the data analysis for the third and fourth regressions indicated that the covariates, gender and education level, were negatively and significantly related to both benevolent and hostile sexism, even after the addition of total LDS affiliation on the
second step of the regression model. After the addition of LDS Activity on the second step, gender still related to benevolent $(\beta=-.33, p<.001)$ and hostile sexism $(\beta=-.10, p$ <.001). After the addition of LDS affiliation on the second step, education still related to benevolent $(\beta=-.15, p<.001)$ and hostile sexism $(\beta=-.21, p<.001)$.

After controlling for the covariates, religiosity (measured by total LDS affiliation) accounted for $25.3 \%$ of the variance in benevolent sexism and $4.2 \%$ of the variance in hostile sexism ( $p<.001$ ). The model as a whole accounted for $35.8 \%$ of the variance in benevolent sexism and $9.0 \%$ of the variance in hostile sexism. Examination of the beta values for religiosity indicated that the relationship between LDS affiliation and benevolent sexism was positive and statistically significant (Step $2, \beta=.50, p<.001$ ) as well as hostile sexism (Step 2, $\beta=.21, p<.001$ ). The results indicate that participants who feel a stronger sense of affiliation to the LDS Church are more likely to endorse both sexist attitudes toward women, however, with a much stronger relationship with benevolent sexism. Results of the last two regressions were supportive of Hypothesis 4 as well.

Table 20 presents the results for LDS Affiliation when the criterion variable was benevolent sexism toward women, and Table 21 presents the results when the criterion variable was hostile sexism.

## Age of Participant and Sexism Subscales

Question 5. Do older LDS men and women endorse more ambivalent sexist attitudes towards women than younger LDS adults?

The age of participants was predicted to be positively related to both subscales of ambivalent sexism, specifically that older participants would have higher scores on both

Table 20
Summary of Hierarchical Multiple Regression Analysis of Benevolent Sexism Toward Women on Gender, Education Level, and LDS Affiliation ( $N=3552$ )

| Predictor Variable | $B$ | $S E$ | $B$ | $R^{2} \Delta$ | $F$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Step 1 |  |  |  |  |  |
| Gender | -.62 | .03 | $-.31^{* * *}$ | .10 | $206.35^{* * *}$ |
| Education | -.11 | .01 | $-.14^{* * *}$ |  |  |
| Step 2 |  |  |  | .25 | $1399.29^{* * *}$ |
| Gender | -.66 | .03 | $-.33^{* * *}$ |  |  |
|  | Education | -.12 | .01 | $-.15^{* * *}$ |  |
|  | Total LDS Affiliation .07 | .00 | $.50^{* * *}$ |  |  |

Note. $\quad R^{2}=.10, F(2,3549)=206.35$, for Step $1, p<.001$.
$R^{2}$ Change $=.25, F(1,3548)=1399.29$, for Step 2, $p<.001$.
$R^{2}=.36, F(3,3548)=658.20$, for Step $2, p<.001$.
*** $p<.001$

## Table 21

Summary of Hierarchical Multiple Regression Analysis of Hostile Sexism Toward Women on Gender, Education Level, and LDS Affiliation ( $N=3549$ )

| Predictor Variable | B | $S E$ | B | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  | . 05 | $88.00^{* * *}$ |
| Gender | -. 17 | . 03 | $-.09 * * *$ |  |  |
| Education | -. 16 | . 01 | $-.21 * * *$ |  |  |
| Step 2 |  |  |  | . 04 | $164.90^{* * *}$ |
| Gender | -. 18 | . 03 | $-.10^{* * *}$ |  |  |
| Education | -. 16 | . 01 | $-.21 * * *$ |  |  |
| Total LDS Affiliation | . 03 | . 00 | . $21 * * *$ |  |  |

Note. $\quad R^{2}=.05, F(2,3546)=88.0$, for Step $1, p<.001$.
$R^{2}$ Change $=.04, F(1,3545)=164.90$, for Step 2, $p<.001$.
$R^{2}=.09, F(3,3545)=116.34$, for Step $2, p<.001$.
*** $p<.001$
subscales of sexism than younger participants. To address this hypothesis, two hierarchical multiple regressions were performed. Age was used as the predictor variable in both. The criterion variable in each regression was benevolent and hostile sexism.

Two Pearson correlations were run first using potentially confounding variables, gender and education level, as covariates and BS/HS as criterion variables. Second, the covariates were entered into the regression model. Third, the main effect of age was entered into the model.

Results of data analysis for Hypothesis 5 revealed that the covariates, gender and
education level, were negatively and significantly related to both benevolent sexism and hostile sexism, even after the addition of age on the second step of the regression model. After the addition of age on the second step, gender related very similarly to benevolent ( $\beta=-.31, p<.001$ ) and hostile sexism $(\beta=-.09, p<.001)$, as they did on the first step. After the addition of age on the second step, education related to benevolent ( $\beta=-.14, p$ $<.001$ ) and hostile sexism ( $\beta=-.21, p<.001$ ).

Age was not significantly related to either benevolent (Step $2, \beta=.00, p=.972$ ) or hostile sexism ( $\beta=.01, p=.629$ ). After controlling for the covariates, age accounted for $0 \%$ of the variance in both benevolent sexism ( $p=.972$ ) and hostile sexism ( $p=$ .629). The model as a whole accounted for $10.4 \%$ of the variance in benevolent sexism and $4.7 \%$ of the variance in hostile sexism, which is the variance accounted for by the covariates, exclusively. The results indicate that Hypothesis 5 was not supported. In other words, it cannot be concluded that there was a relationship between participants' age and endorsement of benevolent or hostile sexism.

To look at the results of participant's age even closer, the continuous variable was split into four dummy coded groups, and the means and standard deviations of all four groups are presented in Table 22. It is important to point out the very similar mean scores for all four groups, and the lack of a linear increase in mean score as age increased, which indicates the reasoning for no significant relationship on this variable. It is also notable that the opposite of the predicted relationship with increased age and ambivalent sexism scores exists in the results of average group means because the youngest age group had some of the highest means for both scales.

Table 22
Means and Standard Deviations Comparing Dummy Coded Age groups and Sexism Subscales

| Age groups | $N$ | Benevolent Sexism |  | Hostile Sexism |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M | SD | M | SD |
| 18-26.9 | 768 | 2.19 | . 99 | 1.53 | 1.0 |
| 27-31.9 | 905 | 2.17 | 1.0 | 1.32 | . 90 |
| 32-37.9 | 965 | 2.22 | 1.0 | 1.38 | . 95 |
| 38-79 | 922 | 2.15 | . 98 | 1.38 | . 92 |

## Number of Years Lived in Utah and Subscales of Sexism

Question 6. Do LDS men and women who have spent a significant amount of time living in Utah endorse sexism toward women at a higher rate than those who have never lived in Utah, or for very short periods of time (e.g., attending college)?

It was hypothesized that as the number of years one lived in Utah increased, it would directly result in a higher endorsement of benevolent and hostile sexist attitudes towards women. To address this hypothesis, two hierarchical multiple regressions were performed. Years lived in Utah was used as the predictor variable in both. The criterion variable was BS and HS.

Two Pearson correlations were run first using potentially confounding variables, gender and education level, as covariates and BS/HS as criterion variables. Second, the covariates were entered into the model. Third, the main effect of years lived in Utah was entered into the regression model.

Results of data analysis for Hypothesis 6 revealed that the covariates, gender and education level, were negatively and significantly related to both benevolent and hostile sexism, even after the addition of age on the second step of the regression model. Gender related to BS and HS at exactly the same rate both prior to and after the addition of years lived in Utah on the second step, benevolent sexism ( $\beta=-.32, p<.001$ ) and hostile $\operatorname{sexism}(\beta=-.09, p<.001)$. Education was also the same before and after the addition of the number of years lived in Utah on the second step, benevolent $(\beta=-.14, p<.001)$ and hostile $(\beta=-.21, p<.001)$.

The number of years lived in Utah was positively but not significantly related to either benevolent $(\beta=.00, p=.819)$ or hostile sexism $(\beta=.00, p=.853)$. After controlling for the covariates, age accounted for $0 \%$ of the variance in both benevolent $\operatorname{sexism}(p=.819)$ and hostile sexism $(p=.853)$. This resulted in no change in variance by adding years lived in Utah to the model as a whole. The covariates (i.e., gender and education) accounted for $10.8 \%$ of the variance in benevolent sexism and $4.7 \%$ of the variance in hostile sexism toward women, exclusively. The results indicate that Hypothesis 6 was not supported. In other words, it cannot be conclude that there was a relationship between the number of years that a participant lived in Utah and endorsement of benevolent or hostile sexist attitudes.

To inspect the impact of years spent living in Utah on endorsement of sexist attitudes towards women closer, the continuous variable was split into four dummy coded groups (the first group singles out those never having lived in Utah at any time) and the means and standard deviations are presented in Table 23. All of the means are very similar, which helps explain why there are no significant findings. It is interesting to note

Table 23
Means and Standard Deviations Comparing Dummy Coded Years in Utah and Sexism Subscales

| Years in Utah | $N$ | Benevolent Sexism |  | Hostile Sexism |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M | SD | M | SD |
| No time in Utah | 572 | 2.24 | 1.0 | 1.51 | . 98 |
| .17-5 years | 698 | 2.17 | . 97 | 1.34 | . 92 |
| 5.5-21 years | 1067 | 2.09 | 1.0 | 1.31 | . 93 |
| $\underline{21.5-70+\mathrm{yrs}}$ | 1096 | 2.23 | . 97 | 1.41 | . 94 |

the highest scores being for those never having lived in Utah and those who have lived in Utah the longest on both sexism subscales, despite small differences.

## Moderating Variables for Benevolent and Hostile Sexism

## Religiosity, Education, and Sexism Subscales

Question 7. Do LDS men \& women who are more highly educated endorse less ambivalent sexist attitudes toward women than those who are not as educated? In addition, will participant's religiosity moderate the relationship between education level and ambivalent sexism?

In the seventh hypothesis, education was predicted to be negatively related to both sexism subscales; however, this relationship would be moderated by the religiosity of the participant such that the negative relationship between education and sexism scales would be weakened when the participant endorsed a higher level of religiosity (i.e., fundamentalism, extrinsic, LDS activity, LDS affiliation, but not intrinsic due to is hypothesized negative relationship with sexist scales). All prior regression analyses in
this study indicate the negative relationship between education and both sexism subscales. To further test this hypothesis, 10 multiple regressions were performed. The predictor variables were different for each analysis, but they represented education, the five different religiosity variables, and the interaction terms. Benevolent and hostile sexism were the criterion variables for each of the two sets of analyses.

A number of steps were taken to prepare the data for analysis. First, five multivariate outliers were found on the hostile sexism variable, and they were Windsorized to match the highest score that did not fall into the outlier range. Second, the religiosity variables were centered, which was done by subtracting the mean value of each variable from the original value. Third, a dummy coded variable for education was created splitting it into low, medium, and high groups. Low represented those with an Associate's degree or lower, medium represented those with Bachelor's degrees, and high represented all graduate degrees. Fourth, an interaction term for education and all centered religiosity variables were created. Fifth, Pearson Correlations were run using all relevant variables to check for multicollinearity, and tests indicated an absence of this issue between all predictor variables. Sixth, the main effects of education and religiosity variables were entered into the model. Education was entered on the first step, then the centered religion variable was entered on the second step, and the interaction term was entered on the third step of the regression model. The results will be presented in tables and figures below.

Some of the results of the data analyses from Hypothesis 7 were similar for benevolent and hostile sexism. As such, all results will be explained but only some will be outlined in greater detail and depicted by tables and figures to avoid redundancy.

Results for the five hierarchical regressions with benevolent sexism as the criterion variable will be presented first followed by results for the five hierarchical regressions with hostile sexism.

## Benevolent Sexism

Results of this analysis show that education was negatively and significantly related to benevolent sexism $(\beta=-.13, p<.001)$. LDS activity was positively related to benevolent sexism and statistically significant ( $\beta=.42, p<.001$ ). When the interaction term for education and LDS activity was added to the final model of the regression it was not statistically significant ( $\beta=.003, p=.946$ ). Education and LDS activity explained $17.9 \%$ of the variance, and the overall regression explained $18.8 \%$ of variance in predicting benevolent sexism. These results do not fully support Hypothesis 7 given the lack of moderation. However, main effects were exhibited for education and LDS Activity. Table 24 displays a summary of the results of the first regression of Hypothesis 7 in which religiosity was measured by LDS activity and the criterion variable was benevolent sexism.

To avoid redundancy and repeated tables, results of the next four regressions analyses addressing the criterion variable of benevolent sexism will be presented only in the text below.

In the second regression of Hypothesis 7, religiosity was measured by LDS affiliation and the criterion variable was benevolent sexism toward women. Results of this analysis show that education was negatively and significantly related to benevolent $\operatorname{sexism}(\beta=-.10, p<.001)$. LDS affiliation was positively related to benevolent sexism and statistically significant $(\beta=.51, p<.001)$. When the interaction term for education

Table 24
Summary of Hierarchical Multiple Regression Analysis of Benevolent Sexism Toward Women on Education, LDS Activity, and the Interaction Term for Education and LDS Activity $(N=3563)$

| Predictor Variable |  | B | $S E$ | B | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  |  | . 01 | $33.34 * * *$ |
|  | Education | -1.38 | . 24 | $-.10 * * *$ |  |  |
| Step 2 |  |  |  |  | . 18 | 782.77*** |
|  | Education | -1.9 | . 22 | $-.13 * * *$ |  |  |
|  | LDS Activity (centered) | . 42 | . 02 | . $42 * * *$ |  |  |
| Step 3 |  |  |  |  | . 00 | . 01 |
| Education |  | -1.89 | . 22 | $-.13 * * *$ |  |  |
|  | LDS Activity (centered) | . 42 | . 04 | . $42^{* * *}$ |  |  |
|  | Interaction Term Edu and LDS Activity | . 00 | . 02 | . 00 |  |  |

Note. $\quad R^{2}=.01, F(1,3561)=33.34$, for Step $1, p<.001$.
$R^{2}$ Change $=.18, F(1,3560)=782.77$, for Step 2, $p<.001$.
$R^{2}=.19, F(2,3560)=411.72$, for Step 2, $p<.001$.
$R^{2}$ Change $=.00, F(1,3559)=.01$, for Step 3, $p=.946$.
$R^{2}=.19, F(3,3559)=274.40$, for Step 3, $p<.001$.
*** $p<.001$
and LDS affiliation was added to the final model of the regression, it was not statistically significant $(\beta=-.02, p=.601)$. Education and LDS affiliation explained $24.1 \%$ of the variance, and the overall regression explained $25 \%$ of variance in predicting benevolent sexism. These results do not support Hypothesis 7 due to the lack of moderation found. In the third regression analysis, intrinsic religiosity was the predictor variable. Results of this analysis show that education was negatively and significantly related to benevolent sexism ( $\beta=-.09, p<.001$ ). Intrinsic religiosity was positively related to benevolent sexism and statistically significant $(\beta=.49, p<.001)$. When the interaction term for education and intrinsic religiosity was added to the final model of the regression, it was not statistically significant $(\beta=-.03, p=.510)$. Education and intrinsic orientation explained $22 \%$ of the variance, and the overall regression explained $23 \%$ of variance in predicting benevolent sexism. These results also do not support Hypothesis 7.

The predictor variable in the fourth regression was extrinsic religiosity. Results of this analysis indicate that education was negatively related to benevolent sexism and statistically significant $(\beta=-.09, p<.001)$. Extrinsic religiosity was positively and statistically related to benevolent sexism ( $\beta=.27, p<.001$ ). When the interaction term for education and extrinsic religiosity was added to the final model of the regression, it was not statistically significant ( $\beta=-.08, p=.086$ ). Education and extrinsic orientation explained $4.1 \%$ of the variance, and the overall regression explained $5 \%$ of variance in predicting benevolent sexism. These results also do not support Hypothesis 7.

Finally, religious fundamentalism served as the predictor variable in the fifth regression analysis. Similar to the previous analyses, education was negatively related to benevolent sexism and was statistically significant ( $\beta=-.03, p=.035$ ). Religious
fundamentalism was positively and statistically related to benevolent sexism ( $\beta=.59, p<$ .001). However, when the interaction term for education and religious fundamentalism was added to the final model of the regression, it was not statistically significant ( $\beta=$ $-.003, p=.931$ ). Education and fundamentalism explained $34.2 \%$ of the variance, and the overall regression explained $35 \%$ of variance in predicting benevolent sexism. Again, these results do not support Hypothesis 7.

Regardless of how religiosity was measured, it was positively and statistically significantly related to benevolent sexism, and education was negatively and statistically significantly related at $p<.001$. No interaction terms were statistically significant when benevolent sexism was the criterion variable, demonstrating that religiosity did not moderate the relationship with education, which does not support Hypothesis 7. However, main effects were found, showing that religiosity and education level were significant predictors of benevolent sexism, indicating that being less educated and more religious predict higher endorsement of benevolent sexism.

## Hostile Sexism

The next five regression analyses test Hypothesis 7 using hostile sexism as the criterion variable. Table 25 presents the results for regression six of Hypothesis 7 when religiosity was measured by LDS activity and hostile sexism toward women served as the criterion variable.

Results for this analysis show that education was negatively and significantly related to hostile sexism ( $\beta=-.21, p<.001$ ). LDS activity was positively related to hostile sexism and statistically significant $(\beta=.26, p<.001)$. When the interaction term for education and LDS activity was added to the final model of the regression it was

Table 25
Summary of Hierarchical Multiple Regression Analysis of Hostile Sexism Toward Women on Education, LDS Activity, and the Interaction Term for Education and LDS Activity ( $N=3560$ )

| Predictor Variable |  | B | SE | $B$ | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  |  | . 04 | 142.25*** |
|  | Education | -2.19 | . 18 | -.20 *** |  |  |
| Step 2 |  |  |  |  | . 02 | 87.88*** |
|  | Education | -2.33 | . 18 | $-.21^{* * *}$ |  |  |
|  | LDS Activity (centered) | . 12 | . 01 | .15*** |  |  |
| Step 3 |  |  |  |  | . 00 | 6.71** |
|  | Education | -2.36 | . 18 | $-.21^{* * *}$ |  |  |
|  | LDS Activity (centered) | . 20 | . 04 | .26*** |  |  |
|  | Interaction Term for Ed \& LDS Activity | -. 04 | . 02 | $-.12 * *$ |  |  |

Note. $\quad R^{2}=.04, F(1,3558)=142.25$, for Step $1, p<.001$.
$R^{2}$ Change $=.02, F(1,3557)=87.88$, for Step 2, $p<.001$.
$\mathrm{R}^{2}=.06, F(2,3557)=116.80$, for Step $2, p<.001$.
$R^{2}$ Change $=.00, F(1,3556)=6.71$, for Step 3, $p=.010$.
$\mathrm{R}^{2}=.06, F(3,3556)=80.23$, for Step $3, p<.001$.
** $p \leq .01$
*** $p<.001$
statistically significant ( $\beta=-.12, p \leq .01$ ). Simple slopes were calculated using guidelines provided by Holmbeck (2002) and plotted using guidelines by Dawson (2009). It was determined that a positive representation would be easier to understand the moderating relationship, so the moderating variable was reversed prior to the simple slopes analysis. The unstandardized simple slope for high level of education was $.17(t[3556]=0, p=\mathrm{ns})$, the unstandardized simple slope for medium level of education was $.20(t[3556]=6.39, p$ <.001), and the unstandardized simple slope for low level of education was $.23(t[3556]=$ 4.66, $p<.001$ ). The related interaction plot is presented below in Figure 1. A residual plot was also created for the reversed moderator, with education on the x -axis, represented in Figure 2.

Education and LDS activity explained $2.3 \%$ of the variance, and the overall regression explained $6.3 \%$ of variance in predicting hostile sexism. These results and examination of the interaction plot suggest a buffering effect that as religiosity (i.e., measured by LDS activity) increased, and as the level of education decreased, endorsement of hostile sexism toward women increased. Or in other words, as religiosity increased, the negative relationship that education level had with hostile sexism became weaker at a greater rate depending on the level of endorsement of religiosity. The results support Hypothesis 7.

To avoid redundancy and repeated tables and figures, results of the seventh and eighth regression when religiosity was measured by LDS affiliation and intrinsic orientation will be listed next, given that the plots looked very similar to those representing LDS activity above.

Results for the analysis of the seventh regression show that education was


Figure 1. Interaction of Participant Education Level and LDS Activity in Predicting Hostile Sexism


Figure 2. Interaction of LDS Activity and Participant Education Level in Predicting Hostile Sexism (Reversed moderator plot diagram from Figure 1)

Results for the analysis of the seventh regression show that education was negatively and significantly related to hostile sexism ( $\beta=-.20, p<.001$ ). LDS affiliation was positively related to hostile sexism and statistically significant $(\beta=.31, p<.001)$. When the interaction term for education and LDS affiliation were added to the final model of the regression it was statistically significant $(\beta=-.11, p=.01)$. The unstandardized simple slope for high level of education was $.34(t[3556]=7.40, p<.001)$, the unstandardized simple slope for medium level of education was $.39(t[3556]=7.05, p<.001)$, and the unstandardized simple slope for low level of education was $.44(t[3556]=6.10, p<.001)$. The overall regression explained $8.2 \%$ of variance in predicting hostile sexism. These results are similar to the prior analysis suggesting a buffering effect that as religiosity (i.e., measured by LDS affiliation) increased and as the level of education decreased, endorsement of hostile sexism toward women increased. The results support Hypothesis 7 and moderation by religiosity.

Results for the analysis of the eighth regression show that intrinsic religiosity was positively related to hostile sexism and statistically significant ( $\beta=.26, p<.001$ ), and education level was negatively related but also significant $(\beta=-.19, p<.001)$. When the interaction term for education and intrinsic religiosity were added to the final model of the regression it was statistically significant $(\beta=-.09, p<.05)$. The unstandardized simple slope for high level of education was $.12(t[3519]=2.17, p<.05)$, the unstandardized simple slope for medium level of education was $.15(t[3519]=4.61, p$ <.001), and the unstandardized simple slope for low level of education was $.17(t[3519]=$ $22.12, p<.001$ ). Education and intrinsic orientation explained $3.2 \%$ of the variance, and the overall regression explained $7.1 \%$ of variance in predicting hostile sexism. The results
indicate that increased religiosity (i.e., intrinsic religiosity) weakens the negative relationship that education level has with hostile sexism. However, intrinsic religiosity as not hypothesized to have a positive relationship with ambivalent sexism subscales, which is the opposite of expected outcomes (Hypothesis 2) and therefore is not supportive of Hypothesis 7.

A summary of the results of regressions nine and ten testing Hypothesis 7 will be listed next. Neither of these interactions were statistically significant. Results for regression nine, in which religiosity was measured by extrinsic religiosity and hostile sexism, are in Table 26.

In regression nine, the predictor variable was extrinsic religiosity. Results of this analysis show that education level was negatively and significant related ( $\beta=-.19$, $p<.001$ ), and extrinsic religiosity was positively related to hostile sexism and statistically significant $(\beta=.17, p<.001)$. When the interaction term for education and extrinsic religiosity were added to the final model of the regression it was not statistically significant $(\beta=-.02, p=.73)$. Education and extrinsic orientation explained $2.4 \%$ of the variance, and the overall regression explained $6.2 \%$ of variance in predicting hostile sexism. These results indicate that religiosity did not moderate the relationship and was not supportive of Hypothesis 7.

Finally in regression 10, religious fundamentalism served as the predictor variable. Similar to previous regression analysis, education was negatively and significantly related to hostile sexism ( $\beta=-.16, p<.001$ ). Religious fundamentalism was positively related to hostile sexism and statistically significant ( $\beta=.42, p<.001$ ). When the interaction term for education and religious fundamentalism were added to the final

Table 26
Summary of Hierarchical Multiple Regression Analysis of Hostile Sexism on Education, Extrinsic Religiosity, and the Interaction Term for Education and Extrinsic Religiosity ( $N$ = 3508)

| Predictor Variable |  | B | $S E$ | $B$ | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  |  | . 04 | 138.39*** |
|  | Education | -2.17 | . 18 | -.20 *** |  |  |
| Step 2 |  |  |  |  | . 02 | 88.16*** |
|  | Education | -2.11 | . 18 | $-.19 * * *$ |  |  |
|  | Extrinsic Rel. (centered) | . 20 | . 02 | .15*** |  |  |
| Step 3 |  |  |  |  | . 00 | . 12 |
|  | Education | -2.11 | . 18 | $-.19 * * *$ |  |  |
|  | Extrinsic Rel. (centered) | . 22 | . 06 | .17*** |  |  |
|  | Interaction Ter Ed \& Ext Rel. | -. 01 | . 03 | -. 02 |  |  |

Note. $\quad \mathrm{R}^{2}=.04, F(1,3506)=138.39$, for Step $1, p<.001$.
$\mathrm{R}^{2}$ Change $=.02, F(1,3505)=88.16$, for Step 2, $p<.001$.
$\mathrm{R}^{2}=.06, F(2,3505)=115.0$, for Step $2, p<.001$.
$\mathrm{R}^{2}$ Change $=.00, F(1,3504)=.12$, for Step 3, $p=.727$.
$\mathrm{R}^{2}=.06, F(3,3504)=76.69$, for Step $3, p<.001$.
*** $p<.001$
model of the regression, it was not statistically significant ( $\beta=-.08, p=.084$ ). Education and fundamentalism explained $12.2 \%$ of the variance and the overall regression explained $16 \%$ of variance in predicting hostile sexism. These results were not supportive of Hypothesis 7, despite having a p-value close to statistical significance.

Regardless of how religiosity was measured, it was positively and statistically significantly related to hostile sexism toward women, and education was negatively and statistically significantly related at $p<.001$. Three interaction terms were statistically significant when hostile sexism was the criterion variable, and one (RF) was very close to being statistically significant. This demonstrates that religiosity does moderate the relationship between education and hostile sexism toward women, when measured by some religiosity variables, which is partially supportive of Hypothesis 7.

## Gender, Religiosity, and Sexism Subscales

Question 8. Will gender moderate the relationship between religious activity and ambivalent sexism?

In the eighth hypothesis, it was predicted that participants endorsing higher levels of religious fundamentalism, extrinsic religiosity, LDS activity and affiliation, but not intrinsic religiosity would be more positively related to ambivalent sexism scales; however, gender would moderate the relationship in that a much stronger positive relationship would be found between religious variables and sexism subscales for men, than for women. To test this hypothesis, 10 hierarchical multiple regressions were performed. Five multivariate outliers were found on the hostile sexism variable, and they were Windsorized to match the highest score that did not fall into the outlier range. The predictor variables were the five different religiosity variables, gender, and the interaction
terms for all. Benevolent and hostile sexism were the two criterion variables.
First, the religiosity variables were centered, which was done by subtracting the mean value of each variable from the original value. Second, an interaction term for gender and all centered religiosity variables was created. Third, Pearson Correlations were run using all relevant variables to check for multicollinearity, and tests indicated an absence of this between all predictor variables. Fourth, the main effects of gender and religiosity variables were entered. Gender was entered on the first step, the religiosity variables were entered on the second step, and the interaction term was entered on the third step of the regression model.

Some of the results of analyses from Hypothesis 8 were similar for benevolent and hostile sexism. All results will be explained, but only some will be outlined in greater detail and depicted by tables and figures to avoid redundancy. Results for the analysis will also be split up into five hierarchical regressions for benevolent first, followed by five regressions for hostile sexism.

## Benevolent Sexism

Table 27 provides a summary of results of the first regression of Hypothesis 8 wherein religiosity was measured by LDS activity and the criterion variable was benevolent sexism.

Results for this analysis show that gender was negatively and significantly related to benevolent sexism $(\beta=-.27, p<.001)$. LDS activity was positively related to benevolent sexism and statistically significant ( $\beta=.46, p<.001$ ). When the interaction term for gender and LDS activity was added to the final model of the regression, it was statistically significant ( $\beta=-.08, p<.001$ ). Simple slopes were calculated using

Table 27
Summary of Hierarchical Multiple Regression Analysis of Benevolent Sexism Toward Women on Gender, LDS Activity, and the Interaction Term for Gender and LDS Activity ( $N=3552$ )


Note. $\quad R^{2}=.08, F(1,3550)=327.23$, for Step $1, p<.001$.
$R^{2}$ Change $=.16, F(1,3549)=740.30$, for Step 2, $p<.001$.
$\mathrm{R}^{2}=.24, F(2,3549)=567.84$, for Step $2, p<.001$.
$\mathrm{R}^{2}$ Change $=.00, F(1,3548)=13.56$, for Step 3, $p<.001$.
$\mathrm{R}^{2}=.25, F(3,3548)=384.42$, for Step 3, $p<.001$.
*** $p<.001$
guidelines provided by Holmbeck (2002) and plotted using guidelines by Dawson (2009). A simple slopes analysis was calculated and plotted and are presented in Figure 3. The unstandardized simple slope for men was $.46(t[3548]=0, p<.001)$, and the unstandardized simple slope for women was $.35(t[3548]=11.04, p=\mathrm{ns})$. Gender and LDS activity explained $15.8 \%$ of the variance, and the overall regression explained $24.5 \%$ of variance in predicting benevolent sexism. These results suggest that as men's benevolently sexist attitudes of women increase, their endorsement of activity or involvement in the LDS church also increased (and vice versa) at a greater rate than women's did. The results support the Hypothesis 8 that gender moderates the relationship between LDS activity and benevolent sexism.

To avoid redundancy and repeated tables and figures, results of the second regression when religiosity was measured by LDS affiliation are listed in text only. Results for this analysis show that gender was negatively and significantly related to benevolent sexism $(\beta=-.31, p<.001)$. LDS affiliation was positively related to benevolent sexism and statistically significant ( $\beta=.54, p<.001$ ). When the interaction term for gender and LDS affiliation was added to the final model of the regression, it was statistically significant $(\beta=-.05, p=.015)$. A simple slopes analysis was calculated and looked similar to the one above in Figure 3, with a different intercept and slope, respectively. The unstandardized simple slope for men was $.87(t[3548]=27.58, p<$ $.001)$, and the unstandardized simple slope for women was $.76(t[3548]=24.16, p<$ .001). Gender and LDS affiliation explained $25.2 \%$ of the variance, and the overall regression explained $33.7 \%$ of variance in predicting benevolent sexism. These results suggest that as men's benevolent sexist attitudes of women increase, their endorsement of


Figure 3. Interaction of Participant Gender and LDS Activity in Predicting Benevolent Sexism
affiliation with the LDS church also increased (or vice versa) at a greater rate than women's did, which is also supportive of Hypothesis 8.

A summary of the results of regressions three through five testing Hypothesis 8 will be listed next, wherein none of the interactions were statistically significant. Table 28 presents the results for regression three in which religiosity was measured by intrinsic religiosity and the criterion variable was benevolent sexism.

Results for this analysis show that intrinsic religiosity was positively related to benevolent sexism and statistically significant $(\beta=.52, p<.001)$, and gender was negatively related but also significant ( $\beta=-.34, p<.001$ ). When the interaction term for gender and intrinsic religiosity was added to the final model of the regression, it was not statistically significant ( $\beta=-.03, p=.178$ ); however, men had a slightly steeper slope

Table 28
Summary of Hierarchical Multiple Regression Analysis of Benevolent Sexism Toward Women on Gender, Intrinsic Religiosity, and the Interaction Term for Gender and Intrinsic Religiosity $\quad(N=3515)$

| Predictor Variable |  | B | SE | $B$ | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  |  | . 09 | 327.83*** |
|  | Gender | -6.45 | . 36 | $-.29 * * *$ |  |  |
| Step 2 |  |  |  |  | . 25 | 1282.05*** |
|  | Gender | -7.43 | . 31 | $-.34 * * *$ |  |  |
|  | Intrinsic Re (centered) | . 54 | . 02 | . 50 *** |  |  |
| Step 3 |  |  |  |  | . 00 | 1.81 |
|  | Gender | -7.44 | . 31 | $-.34 * * *$ |  |  |
|  | Intrinsic Re (centered) | . 56 | . 02 | . $52 * * *$ |  |  |
|  | Interaction <br> Gender \& I | $-.04$ | . 030 | -. 03 |  |  |

Note. $R^{2}=.09, F(1,3513)=327.83$, for Step $1, p<.001$.
$\mathrm{R}^{2}$ Change $=.25, F(1,3512)=1282.05$, for Step 2, $p<.001$.
$\mathrm{R}^{2}=.33, F(2,3512)=864.71$, for Step $2, p<.001$.
$\mathrm{R}^{2}$ Change $=.00, F(1,3511)=1.81$, for Step $3, p=.178$.
$\mathrm{R}^{2}=.33, F(3,3511)=577.21$, for Step 3, $p<.001$.
*** $p<.001$
than women did. The unstandardized simple slope for men was $.56(t[3511]=0, p=1)$, and the unstandardized simple slope for women was $.52(t[3511]=16.41, p<.001)$. Gender and intrinsic orientation explained $24.5 \%$ of the variance, and the overall regression explained $33 \%$ of variance in predicting benevolent sexism. The results indicated that religiosity was positively related to sexism, and men had a slightly steeper slope, but gender did not fully moderate the relationship between intrinsic religiosity and benevolent sexism, which is not supportive of Hypothesis 8 .

In the fourth regression analysis, extrinsic religiosity was the predictor variable. It was positively related to benevolent sexism and statistically significant ( $\beta=.24, p<$ .001 ), and gender was negatively related but also significant $(\beta=-.33, p<.001)$. When the interaction term was added to the final model of the regression, it was not statistically significant $(\beta=.01, p=.551)$. Gender and extrinsic orientation explained $6.2 \%$ of the variance, and the overall regression explained $14.6 \%$ of variance in predicting benevolent sexism. These results were not supportive of Hypothesis 8.

Finally, religious fundamentalism served as the predictor variable in the fifth regression analysis. Similar to the previous two analyses, fundamentalism was positively related to benevolent sexism and statistically significant ( $\beta=.63, p<.001$ ), and gender was negatively related but also significant $(\beta=-.35, p<.001)$. When the interaction term was added to the final model of the regression, it was not statistically significant ( $\beta=.01$, $p=.713$ ). Gender and fundamentalism explained $38.4 \%$ of the variance, and the overall regression explained $47.1 \%$ of variance in predicting benevolent sexism. These results were also not supportive of Hypothesis 8 .

Regardless of how religiosity was measured, it was positively and statistically
significantly related to benevolent sexism, and gender was negatively and statistically significantly related at $p<.001$. The only interaction terms that were statistically significant when added to the final model of regressions was gender and both of the LDS religiosity predictor variables, demonstrating that gender did moderate these two relationships, partially supporting Hypothesis 8.

## Hostile Sexism

The next five regression analyses test Hypothesis 8 using hostile sexism as the criterion variable. The results for regression six when religiosity was measured by LDS activity are presented in Table 29.

Results for this analysis show that gender was negatively and significantly related to hostile sexism ( $\beta=-.06, p=.001$ ). LDS activity was positively related to hostile sexism and was statistically significant $(\beta=.13, p=.001)$ until the third step of the regression $(\beta=.02, p=.556)$ when the interaction term was added to the model. When the interaction term for gender and LDS activity was added to the final model of the regression it was statistically significant $(\beta=.15, p<.001)$. Simple slopes were calculated using guidelines provided by Holmbeck (2002) and plotted using guidelines by Dawson (2009), and the simple slopes plot is presented in Figure 4. The unstandardized simple slope for men was $.01(t[3545]=0, p=n s)$, and the unstandardized simple slope for women was $.17(t[3545]=5.41, p<.001)$. Gender and LDS activity explained $1.7 \%$ of the variance, and the model as a whole explained $3.1 \%$ of the variance in hostile sexism.

These results and examination of the interaction plot indicate an antagonistic effect, that as women's endorsement of LDS activity increased, so did their endorsement

Table 29
Summary of Hierarchical Multiple Regression Analysis of Hostile Sexism Toward Women on Gender, LDS Activity, and the Interaction Term for Gender and LDS Activity ( $N=3549$ )

| Predictor Variable | B | $S E$ | $B$ | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  | . 00 | 14.01*** |
| Gender | -1.07 | . 30 | $-.06 * * *$ |  |  |
| Step 2 |  |  |  | . 02 | $61.41^{* * *}$ |
| Gender | -. 95 | . 29 | $-.06 * * *$ |  |  |
| LDS Activity (centered) | . 10 | . 01 | . $13^{* * *}$ |  |  |
| Step 3 |  |  |  | . 01 | $38.39 * * *$ |
| Gender | -. 98 | . 28 | $-.06 * * *$ |  |  |
| LDS Activity (centered) | . 01 | . 02 | . 02 |  |  |
| Interaction Term for Gender \& LDS Act. | . 16 | . 03 | .15*** |  |  |

Note. $\quad R^{2}=.00, F(1,3547)=14.01$, for Step $1, p<.001$.
$\mathrm{R}^{2}$ Change $=.02, F(1,3546)=61.41$, for Step 2, $p<.001$.
$\mathrm{R}^{2}=.02, F(2,3546)=37.83$, for Step $2, p<.001$.
$\mathrm{R}^{2}$ Change $=.01, F(1,3545)=38.39$, for Step 3, $p<.001$.
$\mathrm{R}^{2}=.03, F(3,3545)=38.28$, for Step 3, $p<.001$.
*** $p<.001$


Figure 4. Interaction of Participant Gender and LDS Activity in Predicting Hostile Sexism
of hostilely sexist attitudes toward women, whereas men's endorsement of hostilely sexist attitudes did not change regardless of their endorsement of LDS activity, indicated by the nonsignificant effect for gender after the interaction term was added to the model. At low levels of LDS activity, men scored higher on hostile sexism; however, this difference reversed as LDS activity increased for both genders, and women actually scored higher on hostile sexism at the highest level for LDS activity. Therefore, gender had a moderating effect on the relationship between religiosity and hostile sexism toward women. However, the direction of this interaction and outcome was not expected, given that men were predicted to score higher on all sexism outcomes, and is consequently not supportive of Hypothesis 8, but demonstrates a breakthrough in this line of research. The results for regression seven when religiosity was measured by LDS affiliation are presented in Table 30. Results for this analysis show that gender was negatively and

Table 30
Summary of Hierarchical Multiple Regression Analysis of Hostile Sexism Toward Women on Gender, LDS Affiliation, and the Interaction Term for Gender and LDS Affiliation ( $N=3549$ )

| Predic | or Variable | B | SE | $B$ | $R^{2} \Delta$ | $F$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Step 1 |  |  |  |  | . 00 | $14.05^{* * *}$ |
|  | Gender | -1.08 | . 29 | $-.06 * * *$ |  |  |
| Step 2 |  |  |  |  | . 04 | 154.40*** |
|  | Gender | -1.21 | . 28 | $-.07 * * *$ |  |  |
|  | LDS Affilia <br> (centered) | . 26 | . 02 | . $20^{* * *}$ |  |  |
| Step 3 |  |  |  |  | . 01 | 54.33*** |
|  | Gender | -1.20 | . 28 | $-.07 * * *$ |  |  |
|  | LDS Affili <br> (centered) | . 09 | . 03 | .07** |  |  |
|  | Interaction <br> Gender \& L |  | . 04 | .18*** |  |  |

Note. $\quad \mathrm{R}^{2}=.00, F(1,3547)=14.05$, for Step $1, p<.001$.
$\mathrm{R}^{2}$ Change $=.04, F(1,3546)=154.40$, for Step 2, $p<.001$.
$\mathrm{R}^{2}=.05, F(2,3546)=84.52$, for Step $2, p<.001$.
$\mathrm{R}^{2}$ Change $=.01, F(1,3545)=54.33$, for Step 3, $p<.001$.
$\mathrm{R}^{2}=.06, F(3,3545)=75.31$, for Step $3, p<.001$.
** $p<.01$,
*** $p<.001$
significantly related to hostile sexism ( $\beta=-.07, p=.001$ ). LDS affiliation was positively related to hostile sexism and was statistically significant $(\beta=.07, p=.002)$. When the interaction term for gender and LDS affiliation was added to the final model of the regression, it was statistically significant $(\beta=.18, p<.001)$. Simple slopes were calculated and plotted and are presented in Figure 5. The unstandardized simple slope for men was $.09(t[3545]=2.91, p=.003)$, and the unstandardized simple slope for women was $.40(t[3545]=12.52, p<.001)$. Gender and LDS affiliation explained $4.2 \%$ of the variance, and the model as a whole explained $6 \%$ of the variance in hostile sexism. These results and examination of the interaction plot also indicate an antagonistic effect, that as women's endorsement of LDS affiliation increased, so did their endorsement of hostilely sexist attitudes toward women, at a rate much higher than men's. At low levels of LDS affiliation, men scored higher on hostile sexism; however, this difference reversed as LDS affiliation increased for both genders and women actually scored higher on hostile sexism. As stated in the prior analysis, gender had a moderating effect on the relationship but the direction of this interaction and outcome was not expected and is not fully supportive of Hypothesis 8.

A similar interaction was found for the three remaining religiosity predictor variables for Hypothesis 8 , with a slight exception on results for extrinsic religiosity. The results will be explained below without tables and figures to avoid redundancy.

In regression eight, the predictor variable was intrinsic religiosity. Results of this analysis show that gender was negatively and significantly related to hostile sexism ( $\beta=$ $-.08, p<.001)$. Intrinsic religiosity was positively related to hostile sexism and was statistically significant $(\beta=.07, p<.01)$. When the interaction term was added to the final


Figure 5. Interaction of Participant Gender and LDS Affiliation in Predicting Hostile Sexism
model of the regression it was statistically significant $(\beta=.16, p<.001)$. The unstandardized simple slope for men was $.06(t[3508]=0, p=\mathrm{ns})$, and the unstandardized simple slope for women was $.24(t[3508]=7.62, p<.001)$. Gender and intrinsic orientation explained $3.5 \%$ of the variance, and the model as a whole explained $5 \%$ of the variance in hostile sexism. This result is similar to the prior analysis and is therefore not fully supportive of Hypothesis 8 .

Extrinsic religiosity was the predictor variable for regression nine, and it was positively related to hostile sexism and was statistically significant $(\beta=.12, p<.001)$. Gender was negatively and significantly related to hostile sexism ( $\beta=-.09, p<.001$ ). When the interaction term was added to the final model of the regression, it was statistically significant $(\beta=.07, p<.01)$. Simple slopes were calculated and plotted and are presented in Figure 6. The unstandardized simple slope for men was $.15(t[3494]=$


Figure 6. Interaction of Participant Gender and Extrinsic Religiosity in Predicting Hostile Sexism
$4.84, p<.001)$, and the unstandardized simple slope for women was $.28(t[3494]=8.85$, $p<.001$ ). Gender and extrinsic orientation explained $2.8 \%$ of the variance, and the model as a whole explained $3.4 \%$ of the variance in hostile sexism.

It is important to note that upon examination of the slopes, women's endorsement of LDS affiliation and endorsement of hostilely sexist attitudes toward women increased at a rate higher than men's. However, the degree of reversal of scores for hostile sexism were not as strong as the rest of the analyses in this hypothesis. In other words, at low levels of LDS affiliation, men scored higher on hostile sexism, and most likely stayed above women despite the difference in slopes for both genders. This resulted in different slopes; however, men had higher scores regardless of the levels of extrinsic religiosity for both genders. Therefore, gender had a moderating effect on the relationship, but not the way initially intended, and is likely to be partially supportive of Hypothesis 8.

In the final regression, religious fundamentalism was positively related to hostile sexism and was statistically significant $(\beta=.26, p<.001)$. Gender was negatively and significantly related to hostile sexism ( $\beta=-.09, p<.001$ ). When the interaction term was added to the final model of the regression it was statistically significant $(\beta=.15, p<$ .001). The unstandardized simple slope for men was $.09(t[3385]=0, p=\mathrm{ns})$, and the unstandardized simple slope for women was $.16(t[3385]=0, p=\mathrm{ns})$. Gender and fundamentalism explained $13.9 \%$ of the variance, and the model as a whole explained $15.2 \%$ of the variance in predicting hostile sexism. This result is similar to regression seven and eight and is therefore not fully supportive of Hypothesis 8.

The results of the analyses suggest that as the level of religiosity increased for women, their endorsement of hostilely sexist attitudes toward women also increased at a much greater rate than men's did. Men may have scored higher on hostile sexism when they endorsed lower levels of religiosity in comparison to women, but this relationship was not maintained as levels of religiosity increased, as hypothesized originally. However, there was an exception when addressing the predictor variable, extrinsic religiosity. Specifically, men scored higher than women on hostile sexism throughout; however, the slope or degree to which they changed as extrinsic religiosity increased was much lower than women's rate of change. This is partially supportive of the hypothesis that men would score higher than women on hostile sexism; however, the moderation interaction, direction, and difference in slopes were not as initially expected.

Hypothesis 8 was only partially supported by these results. Regardless of how religiosity was measured, it was positively related to both types of sexist attitudes toward women and gender was negatively related to both at $p<.001$, as hypothesized. Gender
was found to moderate the relationship for both types of sexism, but only in a few cases when addressing benevolent sexist attitudes. Also, the outcome that men would have higher scores on sexism in relation to religiosity was met on all regression models for benevolent sexism, but only when addressing extrinsic religiosity in relation to hostile sexism as the criterion variable. The rest of the hostile sexism interactions where women scored higher were unexpected and unique to this line of research and will be explored in greater detail in the discussion section.

## Predictors of Benevolent and Hostile Sexism Toward Women

Question 9. Which variables addressed in this study have more impact or predictive ability in regards to ambivalent sexism subscales?

In the ninth and final original hypothesis, it was predicted that religiosity factors (fundamentalism, Intrinsic/Extrinsic religiosity, LDS activity level, and level of LDS affiliation), education level, gender, and age would be the source of the greatest amount of variance when using a simultaneous multiple regression model. To test for the best predictors of both ambivalent sexism subscales, two separate simultaneous multiple regressions were conducted.

First, the combination of variables used to predict benevolent sexism from gender, age, education, LDS activity, LDS affiliation, intrinsic religiosity, extrinsic religiosity, and religious fundamentalism were entered into a linear regression analysis. The means, standard deviations, and intercorrelations can be found in Table 31. Income was included in the model to add another important variable utilized in this sample. The entire model was statistically significant, $F(10,3273)=321.26, p<.001$. The beta coefficients are presented in Table 32. Note that the following predictor variables, listed in order of

Table 31
Means, Standard Deviations, and Intercorrelations for Benevolent Sexism and Predictor Variables ( $N=3284$ )

| Variable | M | SD | Gend | Age | Inc | Educ | Utah | ACT | AFL | INT | EXT | R.F. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benevolent Sexism | 23.92 | 10.97 | $-.30^{* * *}$ | . 01 | -.05** | $-.10^{* * *}$ | . 02 | . $45^{* * *}$ | . $51 * * *$ | . $47^{* * *}$ | .21*** | . $60 * * *$ |
| Predictor variables |  |  |  |  |  |  |  |  |  |  |  |  |
| Gender | . 56 | . 50 | -- | $-.09 * * *$ | $-.07 * * *$ | $-.13 * * *$ | $-.07 * * *$ | -.08*** | . 03 | . $08 * * *$ | .15*** | . $08 * * *$ |
| Age | 33.8 | 9.39 | -- | -- | .43*** | . $17^{* * *}$ | . $28 * * *$ | -.04* | $-.07 * * *$ | -.04** | -.08*** | -.09*** |
| Income | 4.06 | 2.10 | -- | -- | -- | . $28^{* * *}$ | . $11^{* * *}$ | -.04** | -.09*** | $-.10 * * *$ | $-.07^{* * *}$ | $-.15 * * *$ |
| Education | 4.92 | 1.24 | -- | -- | -- | -- | . 02 | . $08 * * *$ | -. 00 | -. 01 | -. 03 | $-.11^{* * *}$ |
| Utah Yrs | 14.27 | 13.01 | -- | -- | -- | -- | -- | -.06*** | -.06*** | -.05** | -.04* | $-.06 * * *$ |
| LDS Activity | 21.68 | 10.73 | -- | -- | -- | -- | -- | -- | . 81 *** | .73*** | . $25 * * *$ | . 70 *** |
| LDS Affiliation | 12.95 | 6.64 | -- | -- | -- | -- | -- | -- | -- | . 80 *** | . $33 * * *$ | . 81 *** |
| Intr Religiosity | 40.36 | 10.11 | -- | -- | -- | -- | -- | -- | -- | -- | . 23 *** | .80*** |
| Extr Religiosity | 22.18 | 6.51 | -- | -- | - | -- | -- | -- | -- | -- | -- | . $27 * * *$ |
| Relig Fundamental | 50.48 | 25.44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Table 32
Summary of Simultaneous Regression Analysis of Benevolent Sexism on Gender, Age, Income, Education, Utah Years, LDS Activity, LDS Affiliation, Intrinsic Religiosity, Extrinsic Religiosity, and Religious Fundamentalism ( $N=3284$ )

| Variable | B | SE B | $\beta$ | $t$ | $p$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Gender | -8.23 | .29 | -.37 | -28.64 | .000 |
| Age | .04 | .02 | .03 | 2.18 | .029 |
| Income | .19 | .08 | .04 | 2.59 | .010 |
| Education | -.86 | .12 | -.10 | -7.30 | .000 |
| Utah Years | .02 | .01 | .03 | 1.90 | .059 |
| LDS Activity | -.07 | .02 | -.07 | -3.14 | .002 |
| LDS Affiliation | .12 | .05 | .07 | 2.70 | .007 |
| Intr Religiosity | .03 | .03 | .03 | 1.10 | .271 |
| Extr Religiosity | .17 | .02 | .10 | 7.44 | .000 |
| Relig Fundamental | .24 | .01 | .57 | 23.46 | .000 |
| Constant | 13.25 | 1.05 |  | 12.59 | .000 |
| Note. R ${ }^{2}=50 . F(10$ | $3273)=32126, p<.001$ |  |  |  |  |

Note. $R^{2}=.50 ; F(10,3273)=321.26, p<.001$
relativity, all significantly predict benevolent sexism when all 10 variables are included in the regression: high religious fundamentalism, male gender, lower levels of education attainment, high extrinsic religiosity, lower LDS activity, high LDS affiliation, higher age, and income level. Multicollinearity may be problematic and taken into consideration when interpreting results given the higher correlations between some of the predictor variables (e.g., LDS activity and affiliation as well as intrinsic religiosity and religious fundamentalism). The beta weight for intrinsic religiosity may have been impacted by multicollinearity, and years lived in Utah was just beyond significance level. The adjusted $\mathrm{R}^{2}$ value was .50 , indicating that $50 \%$ of the variance in benevolent sexism was explained by the model. This is a large or larger than typical effect size (Cohen, 1988).

Next, the combination of variables to predict hostile sexism from gender, age, education, LDS activity, LDS affiliation, intrinsic religiosity, extrinsic religiosity, and religious fundamentalism were entered into a linear regression analysis with the addition of income as a predictor variable. The means, standard deviations, and intercorrelations can be found in Table 33. The entire model was statistically significant, $F(10,3271)=$ 87.57, $p<.001$. The beta coefficients are presented in Table 34. Note that the following predictor variables, listed in order of relativity, all significantly predict hostile sexism when all 10 variables are included in the regression: high religious fundamentalism, low intrinsic religiosity, lower levels of education attainment, male gender, high extrinsic religiosity, low levels of both LDS affiliation and LDS activity, as well as higher age. Surprisingly, income and years lived in Utah did not result in significant beta weights. Once again, multicollinearity may be an issue given the higher correlations between some of predictor variables mentioned above (e.g., LDS activity and affiliation as well as

Table 33
Means, Standard Deviations, and Intercorrelations for Hostile Sexism and Predictor Variables ( $N=3282$ )

| Variable | M | SD | Gend | Age | Inc | Educ | Utah | ACT | AFL | INT | EXT | R.F. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hostile Sexism | 12.38 | 8.43 | -.06 *** | -. 02 | $-.08 * * *$ | -.20*** | . 00 | .16*** | . 22 *** | .19*** | .16*** | . $38^{* * *}$ |
| Predictor variables |  |  |  |  |  |  |  |  |  |  |  |  |
| Gender | . 56 | . 50 | -- | $-.09 * * *$ | -. 07 *** | -.13 *** | -.07*** | $-.08 * * *$ | . 03 | . $08 * * *$ | . $15^{* * * *}$ | . 08 *** |
| Age | 33.8 | 9.37 | -- | -- | . $43^{* * *}$ | . 17 *** | . $28 * * *$ | -.03* | $-.07^{* * *}$ | -.04** | $-.08 * * *$ | -.09*** |
| Income | 4.06 | 2.10 | -- | -- | -- | . $28 * * *$ | .11*** | -.04** | $-.09 * * *$ | $-.10^{* * *}$ | $-.07^{* * *}$ | $-.15 * * *$ |
| Education | 4.92 | 1.24 | -- | -- | -- | -- | . 02 | . 08 *** | -. 00 | -. 01 | -. 03 | $-.11^{* * *}$ |
| Utah Years | 14.26 | 13.00 | -- | -- | -- | -- | -- | $-.06 * * *$ | -.06*** | -.05** | -.04* | -.06*** |
| LDS Activity | 21.69 | 10.72 | -- | -- | -- | -- | -- | -- | . 81 *** | .73*** | . 25 *** | . 70 *** |
| LDS Affiliation | 12.95 | 6.64 | -- | -- | -- | -- | -- | -- | -- | . 80 *** | . $33 * * *$ | . 81 *** |
| Intrin Religiosity | 40.36 | 10.11 | -- | -- | -- | -- | -- | -- | -- | -- | . 23 *** | . 80 *** |
| Extrin Religiosity | 22.18 | 6.51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | .27*** |
| Relig Fundamental | 50.49 | 25.44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Table 34
Summary of Simultaneous Regression Analysis of Hostile Sexism on Gender, Age, Income, Education, Utah Years, LDS Activity, LDS Affiliation, Intrinsic Religiosity, Extrinsic Religiosity, and Religious Fundamentalism ( $N=3282$ )

| Variable | B | SE B | $\beta$ | $t$ | $p$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Gender | -2.20 | .28 | -.13 | -7.98 | .000 |
| Age | .04 | .02 | .04 | 2.43 | .015 |
| Income | .02 | .07 | .01 | .329 | .742 |
| Education | -1.03 | .11 | -.15 | -9.10 | .000 |
| Utah Years | .00 | .01 | .02 | .11 | .909 |
| LDS Activity | -.06 | .02 | -.07 | -2.57 | .010 |
| LDS Affiliation | -.12 | .04 | -.10 | -2.84 | .005 |
| Intrin Religiosity | -.16 | .03 | -.19 | -6.37 | .000 |
| Extrin Religiosity | .13 | .02 | .10 | 6.09 | .000 |
| Relig Fundamental | .21 | .01 | .62 | 20.54 | .000 |
| Constant | 13.13 | 1.01 |  | 12.99 | .000 |

Note. $R^{2}=.21 ; F(10,3271)=87.57, p<.001$
intrinsic religiosity and religious fundamentalism). The adjusted $R^{2}$ value was .21 , indicating that $21 \%$ of the variance in benevolent sexism was explained by the model. This result falls in between the small to medium effect size (Cohen, 1988).

Results of data analysis for Hypothesis 9 revealed that high religious fundamentalism, male gender, and lower education levels all contribute a significant amount of variance in predicting both benevolent and hostile sexism. Also, depending on the outcome variable being addressed, types of religiosity (I/E) and specific measurements of an individual's LDS activity or affiliation level also contribute significantly to the variance in sexism. Age, income, and years lived in Utah seem to be the least important predictors for this sample when addressing types of sexism towards women. The results indicate that Hypothesis 9 was supported given that both models were statistically significant, with the exception of intrinsic religiosity not being a significant predictor on its own when explaining benevolent sexism. However, this is most likely explained by multicollinearity playing a role as mentioned earlier in this section. The only other predictor variables that were not significant on their own were income and years lived in Utah, which were not even included in the hypothesis.

## Outcomes for Varying Group Levels of Subjective LDS Religious Activity and Sexist Attitudes

Question 10. How do groups identified by varying subjective LDS activity levels differ on outcome variables of both ambivalent sexism scales?

The tenth hypothesis, or better stated simply as a question, was added to the study after data was collected and interesting information resulted. The question addresses how might groups identified by varying subjective LDS activity levels differ on outcome
variables of ambivalent sexism. It draws from the idea that more religious individuals would likely endorse higher sexism scores. After collecting data on participants’ subjective identification of religious activity within the LDS faith, mean scores were computed for all 10 groups in relation to their endorsement of benevolent and hostile sexist attitudes toward women. The results are displayed in Table 35, and graphs of the means are listed in Figures 7 and 8, followed by an explanation.

Despite group means being very different in size, it is evident that a relationship exists between the level of endorsement of religiosity within the LDS faith and benevolent and hostilely sexist attitudes. It is also interesting to point out the high group mean score on both benevolent and hostile sexism for those identified with having a belief in the LDS Church, but not being currently active. The reasoning behind their higher score will be discussed later. There is also a shift in the two graphs when looking at patterns in the relationship between LDS religiosity and sexist attitudes.

## Summary

Results of data analysis were not supportive of Hypotheses 5 and 6 , given the lack of variance shown by age and years lived in Utah in predicting sexist attitudes. Hypothesis 3 and 4 were supported, as evidenced by the positive and significant relationships found between religious fundamentalism and the two LDS religious measures with both sexism subscales. Hypotheses 9 and 10 were supportive and descriptive, addressing the overall predictors of sexism in this sample and how subjectively active participants identified with the LDS faith or not and the relationship to endorsement of sexist attitudes. Only partial support was concluded by the results of Hypotheses 1, 2, 7, and 8, or results that were not expected or those occurring in the

Table 35
LDS Subjective Religious Affiliation and Means for ASI Total and Two Subscales ( $N=$ 3500)

| Category | Sample | ASI | Benevolent | Hostile |
| :--- | :--- | :--- | :--- | :--- |
|  | $N$ | $M$ | $\underline{M}$ | $\underline{M}$ |
| Very Active | 1152 | 42.35 | 28.60 | 13.75 |
| Active | 913 | 39.10 | 25.92 | 13.18 |
| Somewhat Active | 293 | 34.66 | 22.54 | 12.12 |
| Unorthodox/ In transition | 24 | 31.30 | 20.21 | 11.08 |
| Active, but not believing | 216 | 29.26 | 19.01 | 10.21 |
| Believing, but not active | 68 | $\mathbf{4 2 . 6 8}$ | $\mathbf{2 6 . 7 0}$ | $\mathbf{1 5 . 9 9}$ |
| Not Active/On Sabbatical | 564 | 28.47 | 17.65 | 10.82 |
| Participate other Religions | 105 | 26.98 | 17.29 | 9.70 |
| Not believing in LDS Church 51 | 26.85 | 15.76 | 11.10 |  |
| Former/Resigned from LDS | 69 | 23.64 | 15.31 | 8.33 |
| Atheist/ Agnostic | 45 | 24.51 | 15.38 | 9.13 |



Figure 7. Graph of Subjective Religious Status and Group Means for Benevolent Sexism


Figure 8. Graph of Subjective Religious Status and Group Means for Hostile Sexism
opposite manner in which they were predicted. They looked at gender, intrinsic, and extrinsic religious orientation, as well as the mixed results for the moderating variables. The results and outcomes will be further explored next in the discussion section.

## CHAPTER 5

## DISCUSSION

In this chapter, results of this study are interpreted and discussed. This chapter is divided into five sections as follows: (a) major findings of the study, (b) interpretation of the results, (c) limitations of the study, (d) clinical implications, (e) recommendations for future research, and (f) conclusion.

The research objective of this study was to investigate the contribution of multiple demographic and religiosity variables as predictors of ambivalent sexism toward women in a sample of LDS adults. To test the hypotheses of this study, data from a sample of LDS and former LDS volunteer participants from across the U.S. were obtained and analyzed.

## Findings

The main findings of this study are as follows: Gender was significantly related to the endorsement of sexism. Overall, men had greater benevolent and hostilely sexist attitudes than women (Hypothesis 1). Gender also moderated the relationship between religiosity and benevolent sexism when LDS activity and LDS affiliation were the predictor variables, such that men's endorsement of sexism increased at a greater rate than women's in direct relation to their increasing levels of religiosity. Conversely, all interactions were significant and demonstrated that gender moderated the relationship
between all religiosity measures and hostile sexism such that as the level of religiosity increased for women, their endorsement of hostilely sexist attitudes toward women also increased at a much greater rate than men's did. Moreover, highly religious women endorsed more hostile sexism than highly religious men (Hypothesis 8).

Education was also related negatively to benevolent and hostile sexism. Religion did not moderate the relationship between education level and benevolent sexism. However, a few interactions were significant when looking at hostile sexism, suggesting a buffering effect that as religiosity (i.e., measured by LDS activity, LDS affiliation, and intrinsic religiosity) increased and as the level of education decreased, endorsement of hostile sexism toward women increased. All of the results indicate that being less educated and more religious predict higher endorsement of sexism (Hypothesis 7).

All five religiosity variables had a significant and positive effect on the endorsement of benevolent and hostile sexism. Religious fundamentalism, LDS affiliation, and LDS activity all had a positive and statistically significant impact on the endorsement of both measures of sexism as hypothesized (Hypotheses 3 and 4). Although it was expected that intrinsic religiosity would be negatively related to sexist attitudes and extrinsic religiosity would have a positive relationship (Hypothesis 2 ), the results did not support this assertion. Results indicated that both intrinsic and extrinsic religiosity was positively related to both types of sexism, and intrinsic religiosity was found to have a stronger relationship with ambivalent sexism than extrinsic religiosity. When looking at participants' subjective activity level or affiliation within the LDS Church, the more actively identified group resulted in a stronger endorsement of both sexism scales (Hypothesis 10). However, one exception was found. Participants who believed in the

LDS faith or doctrines but were not currently active had almost as high of an endorsement for benevolent sexism and an even higher endorsement for hostile sexism than those who identified as being very active.

Contrary results were also discovered when examining participant's age and the number of years lived in Utah. Higher age and greater years lived in Utah were predicted to contribute to the endorsement of benevolent and hostile sexism (Hypothesis 5 and 6 ). However, neither were found to be significantly related and neither contributed to any variance in predicting either subscale of ambivalent sexism. Despite very small differences in scores, younger participants and those who never lived in Utah had higher scores on both sexism scales.

In summary, the variables contributing the most variance in predicting both benevolent and hostile sexism were high religious fundamentalism, male gender, and lower education levels. Also, other forms of religiosity (e.g., intrinsic and extrinsic religious orientations, LDS activity, and LDS affiliation) also contribute significantly to the variance in sexism (Hypothesis 9).

## Interpretation of Results

Gender
As partially anticipated, results of this study demonstrate that there were significant gender differences in the endorsement of sexist attitudes. In general, men endorsed more sexist attitudes than women. Men had higher correlations with benevolent sexism and all religious variables, except for religious fundamentalism where both genders had the same relationship. Prior research shows that men generally score higher than women on both benevolent and hostile sexism in western samples (Burn \& Busso,

2005; Glick \& Fiske, 2001a, 2001b). In this study, the mean difference scores between men and women on benevolent sexism had a medium effect size, whereas the mean difference scores between men and women on hostile sexism showed a small effect size. This result is likely due to overall lower scores on hostile sexism for both genders and the added impact of moderation as described below.

Significant moderation interactions indicate that men tend to have greater endorsement of benevolently sexist attitudes towards women as their endorsement of LDS activity and affiliation increases. The finding that gender moderates the relationship is similar to other studies (Maltby, 2010; McFarland, 1989) in that men are more likely to score higher than women on benevolent sexism scales or BS subfactors as religiosity increases. This has been explained in the literature as religious teachings being more subjectively positive towards women supporting benevolently sexist ideals, like the need to protect and take care of women.

Another important yet unsuspected finding occurred in this study, pointing to what may be a unique difference in this LDS sample, in that no prior studies have found moderation when examining hostile sexism and religiosity. As described previously, women had higher correlations than men between hostile sexism and all religious variables, which indicate greater endorsement of hostilely sexist attitudes in highly religious women. Further, gender had an antagonistically moderating effect on the relationship between all five religiosity predictors and hostile sexism, which was the opposite of the hypothesized interaction. In this study, men endorsed more hostilely sexist attitudes at lower levels of religiosity. However, as the level of religiosity increased for women, so did their endorsement of hostilely sexist attitudes and at a greater rate than
men, with the exception of extrinsic religious orientation. Explanations for this outcome are difficult to address and the writer cautiously puts forth some theories and hypotheses that would benefit from further investigation. It is possible that highly religious LDS men may be less likely to endorse hostile sexism at the same level as highly religious LDS women due to the interpretations of religious messages which focus on love, admiration, and the need to care for women. This concept might be explained by the LDS teaching/doctrine that "men are to preside, provide, and protect in the home." On the other hand, highly religious women might interpret the messages differently, which may be internalized in a more oppressive nature, leading them to be more critical of themselves and other women.

It is important to attempt further explanations of the moderating influence gender had on hostile sexism. This finding may be influenced by stronger traditional gender roles, and patriarchal messages that LDS women experience. For example, an LDS woman who regularly reads religious materials, attends her weekly meetings, and also goes to the temple might interpret messages that women are "less than" and "not as capable" as men (e.g., the priesthood or "the power of God" is meant to benefit everyone, but only given to men, and the majority of positions of significance given to men). Possibly, some highly religious women may experience internalized feelings of devaluation, restriction, inadequacy, powerlessness, and low self-esteem due to more rigid roles encouraged in religious contexts, leading to negative or hostile views of themselves and other women. On the other hand, these women may also receive or perceive stronger validation and meaning by enacting traditional gender roles, while also feeling threatened by other women who do not subscribe to similar attitudes or beliefs.

Another possible explanation and more in-depth look at the moderating influence of gender on religiosity and hostilely sexist attitudes stems from a historical phenomenon occurring in LDS communities in the recent past. Feminist leaning groups in the LDS community have encouraged activism around gender equality within the church, which has resulted in a backlash from many in the general membership of the church, which may lead to a more hostile view of progressive women. An example of such movements occurred just a few months prior to the administration of this survey. Members of the Feminist Mormon Housewives online community encouraged women to wear pants instead of dresses and skirts to church on Dec. 16, 2012, which resulted in hundreds of Mormon women showing support by wearing pants to church. Stephanie Lauritzen, the Utahan that developed the idea said, "it was a symbolic effort to show solidarity and visibility for women who don't feel included or accepted in the church" (Stack, 2013). Another push for gender equality was made by a group identified as Ordain Women aimed at giving the priesthood to LDS women. They have attempted to attend Priesthood meetings at semi-annual LDS Conferences, which are only attended by men and boys who are twelve and older. On October 5, 2013 a group of 130 in support of Ordain Women were turned away (Moulton, 2013), which was also the case in prior attempts. These events and ideas create strong reactions by women typically not identifying as feminists. Expressions of contempt and disrespect for Mormon feminists who want to change the status quo are communicated in online forums.

Other survey data could help support this point regarding women and the priesthood. Putnam and Campbell (2010) found that $90 \%$ of LDS women opposed female ordination in the church and only $52 \%$ of Mormon men were opposed to extending the
priesthood to women, distinguishing a much stronger opinion by women. The PEW Forum Survey (2012) found a similar trend in that only $11 \%$ of participants supported women receiving the priesthood, and $87 \%$ reported that this should only be open to males. Both men and women expressed this view, but Mormon women were more likely than men to say the priesthood should only be given to males ( $90 \%$ vs. $84 \%$ ). This opinion was also more common among those with higher levels of religious commitment, supporting a few of the findings in this particular study. While men may get involved in the discussion around women receiving the priesthood, it may directly impact highly religious women and raise stronger feelings and reactions in particular. It would seem that the more entrenched that women's beliefs regarding their role in society become, the more they must subscribe to doctrine about gender roles that explain their reality and maintain their overall experience. When alternate realities or options arise (e.g., women holding leadership roles within the church), it potentially threatens the core of a woman's identity and reality, more so than a male counterpart feeling threatened, especially if men view it as less likely to occur.

In addition, hostile sexism addresses the notion that women use sexuality to influence and control men. The strong messages of modesty and sexual purity/fidelity existing in the church might influence highly religious women to be skeptical of and perceive women who do not follow or adhere to such messages as divisive and threatening, whereas highly religious men may be less likely to react similarly. Further, messages from LDS leaders that openly criticize feminist groups and other progressive ideas might impact highly religious LDS women. Although this talk was given in the LDS conference after the survey was administered to participants, it represents typical
opinion and direction in the Church regarding gender and gender roles. During the October 2013 semi-annual LDS conference, D. Todd Christofferson, a member of the Quorum of the twelve Apostles, praised women for having "innate moral authority" and he warned Mormon listeners about "trends and forces at work that weaken and eliminate that influence" (Stack, 2013). He further stated that "some feminist thinkers view homemaking with outright contempt." He also attributed attitudes about sexuality to be of harm by stating that, "abortion for personal or social convenience and promiscuity strike at the heart of women's most sacred powers and destroys her moral authority." When pointing out the third harmful influence he stated, "those who in the name of equality, want to erase all differences between the masculine and feminine...which often takes the form of pushing women to adopt more masculine traits, which are to be more aggressive, tough, and confrontational." He further added that "in blurring feminine and masculine differences, we lose the distinct, complementary gifts of men and women that together produce a greater whole." These quotes get at the heart of benevolently and hostilely sexist attitudes towards women. Some of the more hostile themes may impact women more, given that they are spoken directly from religious authorities, and they are necessary to fulfill group norms and expectations, further validating their role as women in the LDS community.

## Religiosity

Religiosity, as measured in all five construct variables, were found to have a significant and positive effect on both scales of ambivalent sexism, with a stronger relationship to benevolent sexism (Hypotheses 2, 3, \& 4). This finding is consistent with previous research in that benevolent sexism typically relates more closely to religious
teachings and ideals (Burn \& Busso, 2005; Glick \& Fiske, 2001a, 2001b; Maltby, 2010; Pearson, 2010). However, one area where expected outcomes were inconsistent with previous research but aligned with other research applies to the intrinsic and extrinsic religious orientation variables. In addressing religious orientation and its impact on forms of prejudice this particular study found similar results to Allport when he stated that "the relationship between religion and sexism depends on which religion you are talking about and the role it plays in an individual's life," (as cited in Burn \& Busso, 2005, p. 412).

Contrary to the initial prediction, both types of religious orientation (Intrinsic/Extrinsic) had positive and significant relationships with benevolent and hostile sexism, which is therefore not fully supportive of the outcomes expected for this sample. Intrinsic orientation was predicted to have a negative relationship with both sexism subscales, and extrinsic orientation was predicted to have a stronger positive relationship with both subscales, especially with benevolent sexism. After controlling for the two covariates, gender and education, extrinsic orientation accounted for only $2.6 \%$ of the variance in benevolent and $2.2 \%$ of the variance in hostile sexism, whereas intrinsic orientation accounted for $18.7 \%$ of the variance in benevolent and $2.0 \%$ of the variance in hostile sexism.

In this study, it was hypothesized that intrinsic religiosity would be negatively related to both types of sexism due to Allport's theory (1966), suggesting that an intrinsic religious orientation was incompatible with prejudice given the idea that one would internalize the teachings of compassion and acceptance. On the other hand, extrinsic religiosity tends to have a more positive relationship with sexism because prejudiced people are more likely driven by behaviors and beliefs that fit in line with a more
extrinsic orientation to religion (Allport, 1966). Allport's theory has been empirically supported in past research (Herek, 1987; Ponton \& Gorsuch, 1988). However, Burn and Busso (2005) further hypothesized and found that the impact on prejudice from an extrinsic religious orientation was determined by the norms of the particular religious group, and the influence of intrinsic orientations on prejudice was dependent on which beliefs a person internalized, which is more in line with this study's findings. To extend their explanation for this sample, an intrinsic religious orientation may increase prejudice if the internalized message from that religion or culture is that traditional gender roles are crucial and right. Similarly, other studies have shown a connection between prejudiced attitudes and an intrinsic orientation based on religious doctrine or belief by looking at other types of prejudice such as homosexuality, race/ethnicity, and communist or other religious out-groups (Fulton, Gorsuch, Maynard, 1999; Herek, 1987; Hunsberger \& Jackson, 2005). The findings in this study addressing intrinsically motivated people and religious beliefs are less surprising in an LDS sample given the strong patriarchal underpinnings and encouraged traditional gender roles that can be seen in LDS religious scripture, modern texts, as well as LDS temple practices. There is a strong message that God is intent upon traditional gender roles, and that all mankind were designed with different but complimentary qualities, with men "presiding at home" and being responsible for the majority of significant leadership roles.

Intrinsic and extrinsic orientations had a stronger and more significant relationship with benevolent than hostile sexism, which is common in the literature (Burn \& Busso, 2005; Glick \& Fiske, 1996) Also, given the construct issue with this measure, and that the analysis was limited to only $75 \%$ of the sample, the resulting beta weights
were smaller than what was found for the entire sample. However, it is a more accurate representation of the construct when using this smaller sample size and can be more generalizable to the general LDS population. The beta weight for intrinsic religiosity may have been impacted by multicollinearity in Hypothesis 9 when looking at all predictors of benevolent sexism, especially given the higher correlations with other predictor variables (e.g., LDS activity and affiliation, and religious fundamentalism); however, this was not the case with hostile sexism where it predicted $19 \%$ of the variance. Despite the hypothesis not being supported, Allport's (1954) comments about the importance of looking at how religion impacts a person to understand its impact on prejudice rings true.

Some of the limitations and weaknesses in similar studies point out the problematic ways in which religion was defined and measured (Maltby, 2010), which is the reason that multiple measures of religiosity were used in this study. Results indicate that participants who endorsed religious fundamentalism at a higher level also endorsed both types of sexism, but significantly higher on benevolent sexism. Fundamentalism accounted for $37 \%$ of the variance in predicting benevolent and $12.5 \%$ of the variance in predicting hostile sexism after controlling for the two selected covariates, gender and education. Religious fundamentalism is often a stronger predictor for discriminatory attitudes toward women than other forms of religiosity (Hunsberger, Owusu, \& Duck, 1999; Kirkpatrick, 1993; Mangis, 1995), which aligns with the findings of this study and Hypothesis 3. Results from Hypothesis 9 further demonstrate that religious fundamentalism accounted for the most variance (57\%) in predicting benevolent sexism when all 10 variables were included in the regression, and even more ( $62 \%$ ) when addressing hostile sexism. Burn and Busso (2005) stated that orthodoxy and
fundamentalism are typically correlated at a higher rate with intrinsic religiosity, which holds true given the correlations of religious fundamentalism, intrinsic religiosity, LDS affiliation, and LDS activity.

The two specific LDS religiosity scales were important and telling additions to this study and were not surprisingly related to one another at a high level. The results for the data analysis of Hypothesis 4 were supported in that both measures of LDS religiosity had a stronger and more significant relationship with benevolent than hostile sexism, typical of similar studies. LDS affiliation had the second highest correlation with benevolent and hostile sexism, following behind religious fundamentalism. Using LDS affiliation to measure an aspect of religiosity for this sample proved to account for more variance in the relationship between both benevolent (25.3\%) and hostile sexism (4.2\%) as compared with LDS activity levels ( $\mathrm{BS}=16.9 \% ; \mathrm{HS}=2.2 \%$ ), after controlling for gender and education. LDS affiliation gave a better representation of the samples specific approach and attitude towards a religiously cultural attachment, connection to, belief in doctrines, pride in the church, and lack of desire to leave the church, which demonstrates why it had a strong correlation with religious fundamentalism. On the other hand, LDS activity was a good measure of day to day participation and could be considered a type of orthodoxy and behavioral participation, possibly focusing less on inner conviction.

One of the most interesting findings from this study came from the last hypothesis (10) where subjective ratings of LDS religiosity group means were addressed for both sexism subscales. There appears to be a very steady correlation between higher religious activity and both sexism subscales, which has already been addressed. However, it was surprising that the group identifying as believing in the LDS faith but not being currently
active scored high on both scales. It is possible that participants in this group identify with LDS doctrines and beliefs despite not actively participating have unknown predictors impacting their high endorsement of sexist attitudes towards women, such as broader environmental, cultural, and educational causes. It is also possible that participants from this specific group could endorse high affiliation with the LDS church, not endorse LDS activity, and also have lower education attainment, which may result in higher sexist attitudes. It is not surprising that participants who identify as formerly LDS, less religious, and atheists/agnostics endorse lower sexist attitudes.

## Education

Education had a significant and negative effect on the endorsement of both benevolent and hostile sexism (Hypothesis 7), but stronger with hostile sexism, which is also consistent with prior research (Glick, Lameiras et al., 2002; Pearson, 2010; SakalliUgurlu \& Glick, 2003). In the fully inclusive model (10 predictor variables), education accounted for $10 \%$ of the variance in predicting benevolent sexism and $15 \%$ of the variance in predicting hostile sexism. Results only partially support Hypothesis 7, that education would be a moderator with both benevolent and hostile sexism. While education did not moderate the prediction of benevolent sexism, it did play a role in the prediction of hostile sexism.

When looking at the moderation interaction for hostile sexism, the results suggest a buffering effect such that as religiosity (i.e., measured by LDS activity, LDS affiliation, and intrinsic religiosity) increased, and as the level of education decreased, endorsement of hostile sexism toward women increased at a greater rate. In other words, participants who were more active in, or who felt more affiliated with the LDS Church, and endorsed
more intrinsic religious motivations were more likely to endorse hostilely sexist attitudes towards women than participants who were less religious, but equally educated. Religious fundamentalism was close to being a statistically significant moderator as well. In general, the moderation interactions for hostile sexism and main effects found on all analyses for Hypothesis 7 indicate that being less educated and more religious predict higher endorsement of sexism.

A possible explanation as to why increased education, decreased activity or affiliation with the LDS church, and decreased endorsement of intrinsic religiosity resulted in a lower endorsement of hostile sexism are possibly similar, and supportive of each other. Education typically increases the ability to critically think while expanding one's knowledge base, which exposes people to new information and often times challenges long held beliefs, values, and perspectives. When an individual is no longer or less exposed to materials (i.e., scriptures or literature) or a group/institution that espouses specific ideas or beliefs, they are less likely to maintain these attitudes and beliefs, especially when these ideas are challenged by alternative sources (e.g., through education and experiences). The interesting finding is that more hostile attitudes towards women are associated with increased LDS religiosity and intrinsic religious motivation and a lack of higher education.

An explanation as to why religiosity did not weaken the negative relationship that education has with benevolently sexist attitudes is possibly due to the strong influence of the LDS Church on those who follow its tenants closely. Messages from LDS leadership and the document, The Family: A Proclamation to the World (1995) have created a paradigm of womanhood and manhood where men should "preside, provide, and
protect," whereas "women should be responsible for the nurture and care of the family," which supports such roles and acceptance of benevolently sexist attitudes. A strong restriction of women from the priesthood, accompanied by specific traits and roles for men and women further support the notion that women are weaker and that the sexes are very different and deserving of different levels of power. The desire to act in accordance with the dominant religious culture has a strong countering influence upon the secularizing influence that education might have on one's existing beliefs and attitudes.

It is also possible that the types of educational experiences in church owned schools or LDS institutes on university/college campus that many participants in this sample have had are so powerful that education does not counter the more subjectively positive and deceptively less harmful attitudes about women represented by benevolent sexism. As the literature on the secularizing effect that education has on religious individuals hypothesizes and has found that the type of institution that one attends can strongly impact the influence of critically thinking or challenging beliefs of an individual if those ideas or concepts (i.e., traditional gender roles) are supported within that institution (Caplovitz \& Sherrow, 1977). This sample represented a high proportion of individuals who either attended church run schools (i.e., BYU's 51\%) or LDS Institutes ( $38 \%$ ), which require students to take religious based courses and where secular courses are infused or biased by religious themes and doctrines (i.e., religious perspectives in social sciences, creationism vs. evolution). The two studies (Albrecht \& Heaton, 1984; Merrill, Lyon, \& Jensen, 2003) and stats from the Pew Forum study (2012) carried out on LDS samples also show a strong relationship between education and increased activity in the church, which is mostly uncommon among other religious groups. Findings from the

Pew Forum study showed that $71 \%$ of Mormon college graduates preferred a marriage where the husband was the sole provider, compared with $59 \%$ of those with some college education. The study reported that this pattern was not observed among the general public. Finally, only $38 \%$ preferred a marriage where both husband and wife work and take care of the children, whereas $62 \%$ of the general public preferred this kind of a marriage.

Age
It was anticipated that older participants would have more sexist attitudes than younger participants (Hypothesis 5), but this was not supported by the data. Although age was thought to predict sexist attitudes, it was not found in earlier studies. The reason it was used as a variable is that newer measures (e.g., the Modern Sexism Scale, Swim et al., 1995; and the Sexist Attitudes towards Women Scale, Benson, 1980) have been created to address more modern forms of sexism. It was therefore concluded that the age of participants might be a contributing factor in predicting sexist attitudes.

The age of participants was not significantly correlated to either scale of sexism but was negatively related to hostile sexism. When the variable was broken down into four dummy coded groups, those who fell into the 32-37.9 age range had the highest mean score for BS, whereas the highest mean score for HS was in the youngest age category (ages 18-26.9). The differences in scores were very small (BS; 0.17), and (HS; 0.21). It is interesting that the highest score for BS was the midthirties, but the lowest score was the oldest age group. On the other hand, the highest HS mean score was the youngest group (ages 18-26.9) and the second age category (ages 27-21.9) had the lowest HS score. This possibly indicates that older men in this sample hold less
benevolently sexist attitudes than younger participants, and those in their midthirties espouse the highest for some reason. When looking at hostile sexism, younger individuals tend to endorse more, and this can be due to a greater influence by the media, less experience with actual relationships, and uncertainty about their beliefs and attitudes about women. These are all speculations based on very small differences in mean scores for each group, and problems often result from splitting a continuous variable into a categorical.

## Years Lived in Utah

The number of years lived in Utah did not have a significant effect on the endorsement of ambivalent sexism (Hypothesis 6). No prior research on sexist attitudes has addressed this variable, but it was determined to be an important addition given the higher incidence of reported rape and sexual assault in Utah. Surprisingly, the data showed that the number of years lived in Utah was not significantly correlated to either scale of sexism and accounted for $0 \%$ of the variance. When broken into four dummy coded groups, very small mean differences were found (BS; 0.13) and (HS; 0.20). The results indicate that participants who have never lived in Utah tend to endorse benevolent and hostilely sexist attitudes at rates higher than those who have lived in Utah, followed next by those living in Utah the longest.

It is possible that the amount of time spent living in Utah has very little to do with endorsing sexist attitudes, or it was operationalized poorly. This result makes it hard to address the impact of geography and specific cultures within a larger subgroup. If used in future research, this variable should be operationalized differently.

## Limitations

This study had several limitations. The most problematic aspect of this study's methodology was the use of snowball sampling, which requires participants to self-select, and it is possible that responses may have been biased in some way due to their relationship with the primary investigator (Constantine \& Ponterotto, 2005). At the same time, it is important to note that the large sample size obtained in this study characterized a broad geographic representation that may compensate for self-selection bias. Another consideration regarding self-selection is that many individuals might have chosen not to complete the survey due to fear of the study's findings and their implications (Constantine \& Ponterotto, 2005). Over 500 surveys were initiated but never completed. It is possible the nature of the questions and items were discouraging. The fact that this study addressed how the LDS faith might impact relationships may have raised concerns about the study and the researcher's intentions. As is typical of studies on prejudice, the data from individuals who did not participate may provide interesting results from those who are suspicious of such endeavors.

Another significant limitation is that self-report measures were the only means of collecting data. All measures, except for the two LDS religiosity scales were psychometrically sound; however, this type of data collection inherently has weaknesses. The historical context at the time of data collection has been addressed in looking at social and political events and trends at the time of survey administration and the period leading up to the study; however, the specific life experience of participants are unknown (Constantine \& Ponterotto, 2005). Given the likelihood that participants were less likely to reach out for clarification, it is impossible to fully understand if the content and
purpose of the questions and study were understood and interpreted as intended (Constantine \& Ponterotto, 2005). Also, this study did not make use of social desirability (SD) measures, which are used to address the particular impression of participants' responses (Constantine \& Ponterotto, 2005). It is important to point out, however, that SD scales were utilized in the norming and development of the ASI measure (Glick \& Fiske, 1996).

Given that this study was correlational, it is important to state that no causal conclusions can be made. Although it is likely that religion and religiosity might promote benevolent or hostile sexism to a greater degree, it is also possible that individuals who endorse such sexist beliefs might be attracted to the types of religiosity that align with those attitudes and beliefs. As this study attempted to address multiple predictors of ambivalent sexist attitudes, it is very likely that other, yet to be known sociocultural factors could add to or be responsible for such relationships. Despite the large and somewhat diverse sample, the study's generalizability is limited in relation to ethnicity, age, SES, education level, and other geographic variables. It is a very

Euroamerican/White and educated sample in relation to the rest of the U.S., but not necessarily different from LDS samples (Pew Study, 2012). It is also representative of a higher SES and more female population. It is also likely to exclude those who are not engaged in the online community and possibly those who do not speak English as their first language. Many LDS individuals live in the Western States (e.g., Utah, California, Idaho, Arizona), and although attempts were made to collect from a nationwide sample, gathering more data from other geographic regions might bare different results.

## Clinical Implications

To address culturally sensitive therapeutic approaches requires that clinicians understand the background, culture, and worldview of a given population. However, members of religious groups are often categorized and stereotyped as very homogenous entities with specific ways of viewing the world. It is thus important for mental health providers to understand the variability that exists within a population regarding beliefs, attitudes, values, and approach to life-especially when addressing religion and spirituality. This study addressed variability in an LDS sample with respect to sexist attitudes, and the impact of religiosity, education, gender, age, and years lived in a religiously dominant geographic area such as Utah. To help a clinician understand the attitudes and beliefs of those who currently or previously identified as LDS, studies such as this serve to point out a religious group's impact on daily life and perceptions of gender roles and attitudes regarding various topics. This study helps remind the clinician that individual differences definitely apply and the level of education and activity or affiliation within a strong cultural group can possibly add to or impact the views and attitudes of individuals.

A shocking finding from this study that merits clinical attention is the moderation results for gender. Specifically, LDS women who identify as very religious, especially in more fundamentalist ways, endorse more hostilely sexist attitudes towards other women. In essence, LDS women and men are endorsing benevolent and hostilely sexist attitudes towards women, which may in turn justify and support traditional gender roles. In fact, this may pacify women's resistance to gender subordination by masking gender inequality with themes comprised within benevolent and hostile sexist theory (i.e., men
are more powerful than women, they should protect women, and women may use sexuality and feminist agendas to gain power over men). Glick and Fiske (2002) suggest that many women are less likely to be reactive to benevolently sexist attitudes and perspectives because it also presents an idea that men will likely protect, provide, and show more affection towards them, which is comforting and also a strong emphasis of religious beliefs. Burn and Busso (2005) take this thought even further by implying that benevolent and hostile sexism rooted in religion might be a very significant obstacle to gender equality when rooted in literal scriptural interpretations and a more fundamentalist approach to religion, "because God has established these patterns and there is no reason to argue with the word of God" (p. 417).

To offer an explanation for the results of this moderation outcome, it is helpful to return to the literature of Nutt (as cited in Harway \& O'Neil, 1999), who theorized that women's gender role socialization teaches women to devalue themselves, as they are less important than men, restricted, less powerful than men, and are primarily valued for their appearance and nurturing abilities, which is more common in conservative and traditional religious cultures. This progressively programs girls and women to expect less and to demand less equitable treatment in relationships (Harway \& O’Neil, 1999). Gender-role socialization for women leads to a variety of conflicting (O’Neil \& Egan, 1992) or paradoxical (Halas \& Matteson, 1978) messages related to appropriate attitudes and behavior, which is very important in understanding the vulnerability of women to inequality in everyday relationships. It is defined as "occurring when rigid, sexist, or restrictive gender roles, learned during socialization, result in the personal restriction, devaluation, or violation of others or self," (p. 61). Nutt proposes that this is what leads
women to domestically violent relationships and also prevents them from leaving such relationships, which is a great concern for clinicians working with women. This is not to say that religious individuals are more abusive or more likely to be abused, but cultural groups and religious organizations assist in gender-role socialization. As women are typically more religious than men, they might also be impacted more severely by the messages espoused by the religious group, but not recognize what is possibly harmful and oppressive in nature when the focus is placed solely on nurturing characteristics and the primary role of being a mother. The result of women's restrictive gender-role socialization and resulting gender-role conflict that devalues and restricts women, might explain the relationship between higher religiosity and hostilely sexist attitudes towards themselves and other women. Understanding these relationships can help clinicians further appreciate the role of cultural and religious influences and intervene more appropriately.

The results of this study further demonstrate that religion and education act as contributing forces in women's perceived status and level of power-which is much lower than men's in Western society and particularly in areas where LDS culture is of the majority. Burn and Busso (2005) offer a religious explanation for men's higher status, "Many religions communicate to their followers that men's greater power and status relative to women is appropriate and acceptable" (p. 417). They further add that although this message is shared in a more benevolent rather than hostile manner, it is still supporting gender inequality. It is interesting to note the imbalance of power and equality between genders within the state of Utah. The Salt Lake Tribune printed an article on September 27, 2013, entitled "Utah Given Flunking Grade in Report on Women's Well-
being" (Manson, 2013). The article expounds upon a report entitled "The State of Women in America" by Chu and Posner (2013), where Utah was ranked at number 49 of 50 states and received an overall grade of F on 36 different factors impacting the wellbeing of women in the U.S. Some of the specific factors addressed were the wage gap, the poverty rate, women in elected office, the management gap, abortion and maternal mortality rates, as well as the percentage of uninsured women. Utah also has the largest college education gender gap in the nation, which is said to be a contributor of the large wage gap, with early marriage credited as another significant factor. In Utah, women make 70 cents for every dollar that men make, which is lower than the 77 cent national average. Also, $57.6 \%$ of Utahans being paid minimum wage are women. The article points out that women make less money and choose occupations that are lower paying, which is often influenced by the fact that women tend to be the primary caregivers of children. Only $31.8 \%$ of management jobs were hold by women, which is the third lowest in the nation. The report also points out that Utah is one of five states with no women in Congress or statewide office, and women only represent $16.3 \%$ of the state legislature. Looking broadly at major categories in this report, Utah ranked $43^{\text {rd }}$ with an F on economic security, $50^{\text {th }}$ on leadership (F), and was given a D and ranked $34^{\text {th }}$ on women's health. The question is often posed regarding the cause of gender inequality in Utah, and if these outcomes are related to religious influences, which gives greater support to pursuing studies on sexist attitudes within the LDS population.

The results of this study provide several additional implications for mental health practitioners who work with LDS women and men. First, female participants in this study who were more active or affiliated with the LDS Church tended to endorse more
hostilely sexist attitudes towards other women. These results may be rooted in gender role socialization within the Church or oppressive dynamics within society and the Church. There are possible psychological consequences to the experienced oppression and internalized messages that women and girls experience. Despite the protective and positive aspects of a religious community and belief system, including a support system, LDS women may be more susceptible to lower self-worth, anxiety, and depression. Given that these results indicate both genders have hostile and sexist attitudes, women may be receiving double the negative messages-from men and also from their female peers, mentors, friends, and family. This attitudinal foundation may set LDS women up for additional competition with other women and increased levels of stress.

A second implication for practice includes the importance of practitioners’ utilization of the Principles Concerning the Counseling and Psychotherapy with Women (APA, 2007; Worell, 2002) and other divisions and counseling bodies' guidelines for working with girls and women to help incorporate multicultural competent practices and guidelines into the work with this specific population. To point out the specific issues relevant to this study and clinical implications, some key tenants will be sited and addressed.

First and foremost, it is important to address a sense of awareness and a few foundations highlighted by Enns (2004) that are important when working with genderrelated issues. The social construction of gender and the gender socialization process has been discussed throughout this study and the impact it has on boys and girls and women and men. Religious organizations, beliefs, books, education, class, and multiple aspects of one's life and experience impact the cognitive schemas an individual uses to organize
a gendered life. Gender roles and behaviors are also very context specific, and a therapist should approach a client with a curiosity and awareness that conflict and complexity around gendered-behavior plays out in various aspects of one's life. Diversity in its various forms and intersections and the impact social identities have upon each individual. Enns encourages counselors to explore how women define themselves in various situations and the impact of these constructions on daily interactions and selfconcepts. She also reminds the clinician to be aware of the intersection of gender identities that are often associated with power and privilege or oppression and discrimination, which is very likely to be experienced within a religious setting, and the degree to which either is experienced is strongly dependent on contextual and situational factors. The primary source of a woman's concerns is to be viewed and modified remembering individual differences, cultural values, class, race, sexual orientation, etc. Enns concludes this section of her chapter with the recognition of power differences permeating society and goes on to explain the impact of bias, isms, and the experience of women based on sexist attitudes. Because of the subtlety and contradictory nature of benevolent and contemporary sexism in particular, men and women may find it difficult to recognize the presence and impact of it in their lives. It is also complicated in that individuals are also more likely to internalize subtle sexist attitudes and have greater difficulty resisting the effects of this bias.

APA's guidelines (2003) for working in a competent manner encourage selfknowledge and self-awareness as essential aspects of effective work with clients. To work competently, a counselor should develop ongoing awareness of their own socialization experiences and identities (e.g., class, race, culture, spiritual, or religious
experience, etc.) values, stereotypes, and biases. Exploring one's own position of oppression and/or privilege and how this might impact practice with women, men, and younger individuals is important, as well as professional education, self-reflection, supervision, consultation, and self-care. Maintaining positive attitudes in this process and the ability to examine blind spots in relation to multiple layers of one's own as well as clients identities are essential.

Another important skill or level of knowledge is having a familiarity with a specific religious group and more importantly asking clients about the religious affiliation and background of the client. LDS clients are not immune to these influences. This of course, implies that the counselor has a basic understanding of LDS beliefs and the significance of traditional gender roles and perspectives within the Church and how that is viewed or experienced by clients. It is important to explore their view on the strengths and supportive factors of their religious affiliation, as well as the possible barriers or weaknesses that they experience all within the context of their self-identified belief in, commitment to, and level of participation and activity within the religious group.

There are various therapeutic approaches and theories that might work well with women and men addressing religious aspects of one's life; however, a specific recommendation is to utilize the tenets of Feminist Therapy as a guide in working with girls and women. Some of these tenants and ideas have been shared above, and references given should be used for further information, but the four main tenets will be described here. The first principle is, attention to the diversity of women's multiple identities, focusing on personal and social identities, which were addressed above. The second principle is using a conscious-raising approach, often referred to as "the person is
political," which helps clients distinguish between social and political systems which maintain sexist, racist, or homophobic aspects that affect women and their internal process. Enns (1997) states that symptoms experienced by women are often seen as coping methods with sources of oppression that no longer works for the client. The awareness of internalized oppressive messages brought about by gender-role socialization can be replaced by more flexible and freely chosen schemas. Through feminist therapy, clients collaboratively identify their coping mechanisms in response to an oppressive system of patriarchy and how they no longer work and how they can develop new, healthier strategies (Enns, 1997). The third principle focuses on the development of egalitarian relationships, which includes the therapeutic relationship (Enns, 1997). A few important aspects of this approach include being up front with clients about values and beliefs and using self-disclosure when it is appropriate and helpful to the client. This approach also emphasizes a collaborative process between the client and counselor where the client is the expert on their life and the counselor provides counseling knowledge and skills (Enns, 1997). Clients are also encouraged to make informed choices about changing power imbalances in their lives by doing a cost benefit analysis (Worell \& Remer, 2003). The last principle promotes a woman-valuing and self-validating process, which respects traditional female traits like emotional expressiveness, cooperation, and communication, nurturance, and interdependence, which are often devalued by society (Enns, 1997). An additional important aspect of this principle is to help women identify their personal strengths, valuing themselves, and taking care of personal needs.

Further, results imply that greater education and income tend to be more of a protective factor for women when it comes to both types of sexist attitudes. Because
women typically drop out of higher education earlier to start families and attend to traditional gender roles, they are less likely to be exposed to different ideas and critical thinking opportunities that expose them to the causes of gender inequality. It also seems that as women in this sample are more involved in religious pursuits they tend to endorse more sexist attitudes, especially hostilely sexist attitudes, which are likely to perpetuate this cycle. One way to address this concern is to encourage the empowerment of women, through exposure to new ideas in a collaborative and supportive approach to women and men. Establishing new ideas and awareness about gender equality might take place through more discussion around this topic, as well as increased educational opportunities in various forms and engaging individuals or couples in discussions about more flexible family planning and possibly starting families later in life after identities are more soundly established and educational attainment is achieved. Given the protective factors of education and income in this study, it is important for the clinician to have awareness around career and vocational guidance, as the attitudes and beliefs of girls, women, and their environment impact their self-efficacy and motivation around career decisions. The pressures or encouragement of a religious group or cultural entity towards educational and career decisions impact individuals a great deal, and discussing this in a therapeutic manner could be beneficial.

From a social justice standpoint, continuing this research and providing results to religious groups may be a way of informing those in power to become aware of issues that impact their followers and religious participants. The smaller population of women and men who have recognized the inequality due to personal experience, increased education, and new ideas are likely the ones endorsing less sexist attitudes. Interestingly,
these individuals are typically viewed as the population going against the norms and are often discriminated against for their divisive approach and opposition to the agenda of the majority. Evidence for this has been referenced earlier in this paper when addressing Mormon feminist groups, which include male activists, and specific groups such as Ordain Women, who are trying to raise awareness regarding traditional gender roles within the church and the exclusion of women from the Priesthood of the LDS Church. The Church has not only ignored these groups or attempted to pacify, but has made statements that such groups were a distraction and formal conversations about any changes have been discouraged and avoided.

The topic of this study was influenced by the writer's interest and desire to engage in prevention and treatment of violence against women. It is important to note that men and women must work together and separately to prevent gender-based violence. Women have been at the forefront of this movement working as agents of change, but this work must be done by the support, collaboration, and helpful feedback of both groups. This section is not meant to provide an exhaustive list of clinical approaches or programs that address intervention and prevention, but resources on this issue can be found in Kilmartin and Allison's (2007) book, Men's Violence Against Women. Both research and theory have found that single-sex, peer-facilitated, interactive men's programs are the most effective at preventing gender-based violence by men (Berkowitz, 1994; Clinton-Sherrod et al., 2003), and further consultation by the reader is encouraged. Kilmartin and Allison (2007) touch on the historical inequality between the sexes, which is related to division of labor which gives men-as-a-group disproportionate social and economic power, which is directly tied to violence against women. They suggest many efforts that could assist in
the elimination of gender inequality ranging from treatment for survivors and perpetrators of abuse to preventative efforts in political, educational, and legal reforms. Community and large scale prevention work is important, and results from this study should be included with content focused on religious and cultural dynamics that directly impact gender socialization, gender roles, and beliefs or attitudes. This could be emphasized more by the inclusion in materials, manuals, and didactic/lecture-based trainings on domestic violence, intimate partner violence, and rape/sexual assault for treatment certification and licensing purposes with mental health providers and advocacy/volunteer based positions.

When working with men it would be important to engage them in a discussion around awareness of themselves, masculinity and gender in a broad sense, and the impact that gender roles have on themselves as well as girls, women, and spouse or partner. Kilmartin and Allison (2007) strongly encourage the collaborative involvement of boys and men in prevention and awareness work in relation to sexism and violence against women and to avoid blaming or inducing guilt. It is important to support critical thinking in raising awareness and values related to equality and empathy while creating change through ambivalence or questions regarding attitudes, beliefs, and rules guiding relationship dynamics and gender based attitudes or behaviors. One of the author's suggestions is gender role resocialization, which helps identify stereotypic masculine pressures and effects of such forces including the effects of dominance and male insecurity (Saunders, as cited in Kilmartin \& Allison, 2007). It is also important to incorporate these efforts into therapeutic work and psychoeducational efforts with men and similar approaches to work with women above could be utilized with boys and men.

Kilmartin and Allison (2007) provide a list of goals for violence prevention programming for men (but the reader should consult their text for further information): 1) Educate men about the effect of gender on their lives, including the impact of privilege and social advantage; 2) Invite men to explore gendered issues, including gender stereotypes, fear of women, homophobia, anger and other feelings, sexuality, relationships, and "the box" of masculinity, which refers to the pressures that men exert on one another to remain in the boundaries of masculinity defined by culture and society; 3) Facilitate empathy for women, other men, and having empathy for the self; 4) Associate masculinity with dignity and individual choice, which emphasizes the positive and honorable qualities of masculinity; 5) Define and denormalize gender-based violence (e.g., rape/sexual assault, IPV, DV, and stalking) and the underlying negative attitudes toward women; 6) Identify characteristics of healthy relationships and learn skills needed to develop such relationships, which helps them try harder to have and maintain egalitarian relationships with others; 7) Learn how to positively affect other men and women, which means taking the step beyond personal growth to responsibility for change; and 8) Contribute to the overall intellectual, moral, and psychological development of men and women, boys and girls.

## Recommendations for Future Research

Research involving LDS populations in the U.S. is often limited but as they are a diverse and influential group (i.e., the Mormon Moment, U.S. Presidential candidates Mitt Romney and John Huntsman), they deserve greater representation in the literature. This is especially the case given the unique culture and religious doctrine of the LDS faith. Ongoing research is needed to help understand and create more knowledge around
issues that are relevant to their psychological well-being. Utah specifically makes up many interesting mental health statistics (antidepressant prescription rates, higher plastic surgery per capita) and disparities in gender equality, some of which have been touched on in this paper. The replication of this study is recommended to investigate the generalizability of the findings related to religiosity, education, gender, and sexist attitudes toward women. One of the findings that is very interesting, and should be replicated if possible, is the gender moderation of hostile sexism.

A few variables that were not used in this study, but would also add to future research on this topic are rape myths, ambivalence toward men, and the political affiliation of participants. Attitudes towards rape myths (Burt, 1998; Illinois Rape Myth Acceptance Scale [IRMA]; Payne, Lonsway, \& Fitzgerald, 1999) would be an important variable to include given the high reported incidents of rape/sexual assault in Utah. It is also recommended that the Ambivalence Toward Men Inventory (AMI; Glick and Fiske, 1999) be used in future studies to understand the issue of gender roles and attitudes towards men (Glick \& Fiske, 1999; Glick et. al., 2004; Pearson, 2009), especially in this population. The political affiliation of participants would be an easy variable to include, and it might possibly serve as another good predictor of sexist attitudes. Mormons have historically been more aligned with the Republican Party. It would also be interesting to compare these findings with other fundamentalist religious groups in the U.S. or other countries to look for similarities as well as differences in groups.

## Conclusions

The results of this study do a lot to assist the theory behind sexist attitudes and point to important predictors that may relate to or directly impact the perpetuation of such
attitudes. Many of the predictor variables impact the relationship with benevolent and hostile sexism, especially gender, education, income, and types of religiosity; however, age and years lived in Utah do not seem to have much of a predictive quality. Many of these outcomes have been found in other studies, but there is a unique nature to this population. Possibly, the larger, more diverse sample in addition to the specific doctrines and structure of the LDS faith set it apart from other religious samples. Among this broad sample of LDS men and women, a continuum of sexist attitudes towards women does exist. It appears that the level of religious beliefs, motivations, and behaviors do impact the sexist attitudes that LDS adults have towards women, especially when looking at the mean scores for the different subjective religious affiliation groups.

Glick, Lameiras, and Castro (2002) succinctly point out that sexist attitudes tend to justify and reinforce structural inequality between the sexes, and if those attitudes change it might lead to achieving greater equality. The societal institutions that have been established, such as religion and education, may either act to accelerate or hamper such change, and the context of such institutions lead to specific outcomes. As ambivalent sexism and other elements of possibly harmful attitudes towards women emerge, it is important to address the ideologies that limit the equality of women and the reinforcing nature of traditional gender roles. It is important to engage in research that illuminates these forms of prejudice which serve as a foundation to violence against women, which can be changed through education, empowerment, and other clinical approaches.

## APPENDIX A

## CONSENT COVER LETTER FOR STUDY

## Welcome to the study about religiosity, and relationships between men and women

The purpose of this research study is to investigate the relationships between religious beliefs and attitudes, and other factors impacting attitudes held about women and gender roles among active or former LDS adults. We are conducting this study because it is important to try to understand how these concepts relate to each other, specifically how women are viewed and what factors impact the attitudes people hold about them.

I would like to ask you to complete the survey that is included with this link if you are at least 18 years old and have been a member of the LDS church at any time in your life. There are 70 brief questions which might require about 10-15 minutes of your time. At the end of the survey you will have the opportunity to enter yourself into a drawing for a $\$ 20$ gift card to a retail store of your choice (i.e., Gap, REI, etc.). Your personal information for this drawing will not be linked to your responses and will not be available to the researchers. Participation in this study is voluntary. You may choose not to finish the survey or omit any questions you prefer not to answer. You are also eligible for the gift card drawing even if you do not complete the survey.

The risks of participating in this study are minimal. You may feel certain emotions as you read questions associated with your religious beliefs/attitudes, and your attitudes regarding women and gender roles. If you feel upset from this experience, please contact the researcher who can talk to you about it and/or provide you with additional resources. There are no direct benefits for taking part in this study, besides possibly being selected for the gift card. However, we hope the information we gain may help develop a greater understanding of the relationship between religiosity, education attainment, and attitudes about women and gender roles in the future.

This survey is confidential. Only the researcher and members of the team at the university will have access to this information. No personally identifiable information is required to participate in this study. Survey results will be stored on a password protected online database collection service. Results and subsequent publications from this survey will be written in general terms not referring to any specific individual.

If you have any questions, concerns, or complaints or if you feel you have been harmed by this research please contact Ryan Stevenson, PhD student- Educational Psychology Dept., University of Utah, 801-367-2488 or by email at Ryan.Stevenson@utah.edu.

Contact the Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. Also, contact the IRB if you have questions, complaints or concerns which you do not feel you can discuss with the investigator. The University of Utah IRB may be reached by phone at (801) 581-3655 or by e-mail at irb@hsc.utah.edu.

By completing this survey, you are giving your consent to participate. Thank you very much for taking the time to share your thoughts and attitudes about this important topic.

## APPENDIX B

## BACKGROUND INFORMATION QUESTIONNAIRE

## Demographics

1. Gender: a. Woman b. Man c. Transgendered. Other
2. Hispanic Ethnicity:
a. Hispanic b. Latino(a) c. Spanish Origin

Race:
a. White
b. Black, African American, or Negro
c. American Indian or Alaskan Native
d. Asian Indian
e. Chinese
f. Filipino
g. Japanese
h. Korean
i. Vietnamese
j. Native Hawaiian
k. Guamanian

1. Samoan
m. Other Pacific Islander
n. Other
2. Current Age: $\qquad$
3. Sexual Orientation:
a. Heterosexual b. Gay c. Lesbian d. Bisexual e. Unlabeled f. Asexual g. Other
4. Relationship Status:
a. Married/Partnered
b. Single
c. Divorced/Separated
d. Widowed
e. Seriously Dating
5. Family / Household Income:
a. < $\$ 25,000$
b. $\$ 25,000$ to $<\$ 35,000$
c. $\$ 35,000$ to $<\$ 50,000$
d. $\$ 50,000$ to $<\$ 75,000$
e. $\$ 75,000$ to $<\$ 100,000$
f. > \$100,000
6. Your Highest Degree Completed:
a. Less than High School
b. High School/G.E.D.
c. Some College/ Associates degree
d. Bachelor's (e.g., B.A., B.S.)
e. Master's (e.g., M.A, M.S., M.Ed., M.B.A.)
f. Doctorate (e.g., Ph.D., Psy.D., Ed.D, M.D., J.D.)
7. Father's Highest Degree Completed:
a. Less than High School
b. High School/G.E.D.
c. Some College/ Associates degree
d. Bachelor's (e.g., B.A., B.S.)
e. Master's (e.g., M.A, M.S., M.Ed., M.B.A.)
f. Doctorate (e.g., Ph.D., Psy.D., Ed.D, M.D., J.D.)
8. Mother's Highest Degree Completed:
a. Less than High School
b. High School/G.E.D.
c. Some College/ Associates degree
d. Bachelor's (e.g., B.A., B.S.)
e. Master's (e.g., M.A, M.S., M.Ed., M.B.A.)
f. Doctorate (e.g., Ph.D., Psy.D., Ed.D, M.D., J.D.)
9. Have you ever attended an LDS run college (BYU, BYU-I, BYU-H, LDS B.C.) $y / n$ b. If you did not attend a BYU/church run college, did you attend LDS Institute while in college? $y / n$
10. How many years have you lived in Utah (give combined total) $\qquad$
11. How many years do you consider yourself being, or having been, actively involved in the LDS church? $\qquad$ (i.e., since being baptized, or starting at age 8 )

## APPENDIX C

## LDS ACTIVITY SCALE

*What is your current religious activity level? (please mark all that apply)

1. Current LDS Church attendance:
a. I attend church on a weekly basis
b. I attend once a month
c. I attend a few times a year
d. I only attend for family/special occasions
e. I stopped attending the church altogether (but did not remove my name from records)
f. I asked to have my records removed from the church / my name is no longer on the records of the church
2. I read LDS scriptures on a $\qquad$ basis:
a. Daily
b. Weekly
c. Monthly
d. Occasionally
e. Never
3. I pray on average:
a. Multiple times a day
b. Once a day
c. A few times a week
d. Once a week
d. Occasionally
e. Never
4. I have served an LDS mission

$$
\mathrm{y} / \mathrm{n}
$$

-I seriously plan on serving a mission
$y / n$
5. I typically pay my tithing as follows:
a. Full tithe yearly
b. Not a full tithe, but on a regular basis
c. Never
6.. I have had the opportunity and have received a temple recommend -I have attended the temple in the past year:
y/n N/A
y/n N/A
7. I currently have, or have had a church calling in the past 3 months $y / n \quad$ N/A
8. I subscribe to or read LDS publications occasionally (Ensign, New Era) y/n

## APPENDIX D

## SUBJECTIVE ACTIVITY IN THE LDS CHURCH

1. I consider myself $\qquad$ in relation to LDS church activity.
a. Very active
b. Active
c. Somewhat active
d. Not active.
e. Active, but not believing (i.e., I attend due to social/family pressures)
f. Atheistic, or Agnostic
g. I am a member of, or I participate in another religion(s)

## APPENDIX E

## LDS AFFILIATION SCALE

22. Please indicate the degree to which you agree or disagree with the following statements regarding your affiliation with the LDS Church ( $1=$ strongly disagree, $2=$ disagree, $3=$ not sure, $4=$ agree, $5=$ strongly agree):
a. I feel a strong attachment towards the LDS Church
b. I have a strong belief in the teachings/doctrines of the LDS church
c. I feel a lot of pride in my religious group and its accomplishments
d. I have a strong sense of belonging to my religious group
e. I currently have a lot of questions about my religion but still believe
f. I have left my religious group due to personal/historical/doctrinal issues $\qquad$

## APPENDIX F

## RELIGIOUS ORIENTATION SCALE

## Religious Orientation Scale- Revised (ROS-R; Gorsuch \& McPherson, 1989)

Constructs: $\quad I=$ Intrinsic $\quad$ Es $=$ Extrinsic Social $\quad E p=$ Extrinsic Personal
7-point Likert-type scale: 1 = "strongly disagree" to 7 = "strongly agree"Scale
Item

I 1. I enjoy reading about my religion.
Es 2. I go to church because it helps me to make friends.
I(rev.) 3. It doesn't much matter what I believe so long as I am good.
I 4. It is important to me to spend time in private thought and prayer.
I 5. I have often had a strong sense of God's presence.
Ep 6. I pray mainly to gain relief and protection.
I 7. I try hard to live all my life according to my religious beliefs.
Ep 8. What religion offers me most is comfort in times of trouble and sorrow.
Ep 9. Prayer is for peace and happiness.
I(rev.) 10. Although I am religious, I don't let it affect my daily life.
Es 11. I go to church mostly to spend time with my friends.
I 12. My whole approach to life is based on my religion.
Es 13. I go to church mainly because I enjoy seeing people I know there.
I (rev.) 14. Although I believe in my religion, many other things are more important in life.

## APPENDIX G

## RELIGIOUS FUNDAMENTALISM SCALE

## Religious Fundamentalism Scale -Revised (RF-S; Altemeyer \& Hunsberger, 1992)

This survey is a part of an investigation of general public opinion concerning a variety of social issues. Please indicate your reaction to each statement.

> -4 if you very strongly disagree with the statement
> -3 if you strongly disagree with the statement
> -2 if you moderately disagree with the statement
> -1 if you slightly disagree with the statement
> +1 if you slightly agree with the statement
> +2 if you moderately agree with the statement
> +3 if you strongly agree with the statment
> +4 if you very strongly agree with the statement

If you feel exactly and precisely neutral about an item, blacken the " 0 " bubble.

1. God has given humanity a complete, unfailing guide to happiness and salvation, which must be totally followed.
2. No single book of religious teachings contains all the intrinsic, fundamental truths about life.
3. The basic cause of evil in this world is Satan, who is still constantly and ferociously fighting against God.
4. It is more important to be a good person than to believe in God and the right religion.
5. There is a particular set of religious teachings in this world that are so true, you can't go any "deeper" because they are the basic, bedrock message that God has given humanity.
6. When you get right down to it, there are basically only two kinds of people in the world: the Righteous, who will be rewarded by God; and the rest, who will not.
7. Scriptures may contain general truths, but they should NOT be considered completely, literally true from beginning to end.
8. To lead the best, most meaningful life, one must belong to the one, fundamentally true religion.
9. "Satan" is just the name people give to their own bad impulses. There really is no such thing as a diabolical "Prince of Darkness" who tempts us.
10. Whenever science and sacred scripture conflict, science is probably right.
11. The fundamentals of God's religion should never be tampered with, or compromised with others' beliefs.
12. All of the religions in the world have flaws and wrong teachings. There is no perfectly true, right religion.

## APPENDIX H

## AMBIVALENT SEXISM SCALE

## Ambivalent Sexism Scale (ASI; Glick \& Fiske, 1996)

0 - disagree strongly, 1- disagree somewhat, 2- disagree slightly, 3- agree slightly, 4 - agree somewhat, 5-agree strongly

Below are a series of statements concerning men and women and their relationships in contemporary society. Please indicate the degree to which you agree or disagree with each statement using the scale below:

1. No matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman. (B - Hetero)
2. Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for "equality." (H)
3. In a disaster, women ought to be rescued before men. (B,R - Protective Pat)
4. Most women interpret innocent remarks or acts as being sexist. (H)
5. Women are too easily offended. (H)
6. People are not truly happy in life without being romantically involved with a member of the other sex. (B,R - Hetero)
7. Feminists are seeking for women to have more power than men. (H,R)
8. Many women have a quality of purity that few men possess. ( $\mathrm{B}-\mathrm{Trad}$ Gend)
9. Women should be cherished and protected by men. ( B - Prot Pat)
10. Most women fail to appreciate fully all that men do for them. (H)
11. Women seek to gain power by getting control over men. (H)
12. Every man ought to have a woman whom he adores. (B - Hetero)
13. Men are complete without women. (B,R - Hetero)
14. Women exaggerate problems they have at work. (H)
15. Once a woman gets a man to commit to her, she usually tries to put him on a tight leash. (H)
16. When women lose to men in a fair competition, they typically complain about being discriminated against. (H)
17. A good woman should be set on a pedestal by her man.( B - Prot Pat)
18. Many women who get a kick out of teasing men by seeming sexually available and then refusing male advances. $(\mathrm{H}, \mathrm{R})$
19. Women, compared to men, tend to have a superior moral sensibility. (B-TradGend)
20. Men should be willing to sacrifice their own wellbeing in order to provide financially
for the women in their lives. ( B - Prot Pat)
21. Feminists are making unreasonable demands of men. (H,R)
22. Women, as compared to men, tend to have a more refined sense of culture and good taste.(B - Trad Gend)

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