

Ambivalent Sexism, Religiosity, and Perceptions of College Majors  
in Christian College Students

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## Abstract

This study sought to determine if college students view certain majors as masculine or feminine and if gender perceptions influence their choice of major and subsequent vocation. The methodology included analysis of predictive relationship between scores on the Ambivalent Sexism Inventory (ASI), the Ambivalence toward Men Inventory (AMI), the Revised Religious Fundamentalism Scale (RRFS), and a scale measuring perceptions of majors as masculine or feminine. A total of 492 college students from a large east coast Christian university participated in this study by completing an online survey. Based on the university's degree offerings, 24 college majors were selected, and students were asked to rate them as masculine or feminine. The three that were rated the most masculine by the study participants and the three that were rated the most feminine were analyzed, using linear regression to determine if statistical relationships exist between scores on the ASI and AMI and rating the majors as gendered. Nursing, Family and Consumer Sciences, and Education were found to be the top three feminine majors and Pastoral Leadership, Engineering, and Sport Management were named as the top three masculine majors. There was a significant association between the top three feminine majors and scores on the AMI. There was a significant association between the top three masculine majors and scores on the ASI. Religious fundamentalism was significantly correlated with scores on the ASI. An academic major is an important stepping stone to a career so it is important to how people stereotype majors.

## Ambivalent Sexism, Religiosity, and Perceptions of College Majors

## in Christian College Students

Gender differences between men and women have traditionally been viewed as distinct, with specific, culturally-defined pathways for men and women in regards to their roles in society. American culture has undergone a shift in its perceptions of gender roles, but sexism is still prevalent in modern society. Each society has different views of what is or is not socially acceptable for women and for men (Connell, 2005).

Culturally-based prejudice is a concept that has been studied by many psychologists over the years in an attempt to discover the influencing factors. Gordon Allport (1954), an early theorist of prejudice, summarized the effect of prejudice on a group or individual as an undeserved negative outcome. Similarly, stereotyping is looking at a group or an individual and over-emphasizing characteristics specific to the object of stereotype. Derived from this theory, Glick and Fiske (1996) developed a theory of ambivalent sexism which separates sexism into two categories: benevolent and hostile sexism. Hostile sexism aligns with the Allport's theory of prejudice, while benevolent sexism views women favorably, yet with distinct opinions of what roles women should hold. Glick and Fiske considered both forms of sexism as negative and detrimental to women. Ambivalence towards men is the other side of the spectrum. This scale looks at hostile sexism towards men, which is characterized by a resentment of paternalism, compensatory gender differentiation, and heterosexual hostility (Glick & Fiske, 1999). Benevolent sexism towards men is also examined. Benevolence towards men looks at maternalism, complimentary gender differentiation, and heterosexual intimacy. Using factor analyses to develop the scales and a series of studies to provide reliability, Glick and Fiske

developed the Ambivalent Sexism Inventory (ASI) and the Ambivalence towards Men Inventory (AMI) to measure this theory.

Despite modern shifts in perspective, there is a lingering view that some areas of study are masculine in nature and are more suited to men and others are more feminine in nature and best suited to females. Science, technology, engineering, and math (STEM) majors and forms of work outside the home have traditionally been viewed as masculine, while domestic work, such as childcare, education, and forms of caregiving like majors in the humanities and social sciences, is perceived as feminine (Gheaus, 2012). Research is needed to determine whether a relationship exists between ambivalent sexism and perceptions of college majors as masculine, feminine, or neutral.

### **Factors Influencing Choice of Major**

There are many factors influencing how a student chooses a major. Students often choose majors based on their personal interests and how they perceive that a certain career will match their personality (Beggs, Bantham, & Taylor, 2008). Certain personality characteristics have been labeled as male or female. Yet women can have masculine characteristics, and men can have feminine characteristics. These gender-typed traits exist in both sexes, although research tends to indicate that the subtypes within genders still adhere to the more traditional roles of masculinity and femininity (Carpenter, 1994). Personality traits have both a genetic and an environmental component to them. The environment in which a person is raised has a great deal of influence over what personality characteristics develop. However, biology plays a strong part in personality as well (Berenbaum, Blakemore, & Beltz, 2011). Women score higher on personality traits such as neuroticism and agreeableness across cultures (Costa Jr., Terracciano,

& McCrea, 2001). Just as with gender, there is a nature and a nurture element to personality characteristics.

A child's personality can be strongly influenced by his or her gender and how society treats that gender. Children are very malleable when they are young, and when there are expectations as to how to act, children tend to pick up on those cues and act accordingly. Similarly, guidance counselors can play a role in pointing females towards atypical majors by not treating boys and girls differently (Gaudet & Savoie, 2007). Some studies indicate that guidance counselors who hold gender-stereotyped views of specific occupations could play a role in the STEM divide, as they might point girls towards more stereotypically feminine careers simply because of their sex. An Australian study found that career counselors were more likely to point males towards careers in construction, a stereotypically masculine occupation, than females (Francis & Prosser, 2013). Family can also influence a person's choice of major, as people often first learn about different career options from family members (Beggs et al., 2008). The researchers cautioned against getting parents overly involved in the college major decision-making process. Parental expectations can sway children towards specific majors, and if parents hold more rigid views of gender roles, these expectations may translate into guiding children towards traditional career pathways. Still, in a study of 825 college students, Beggs et al. discovered that a match with interests was the number one factor that students identified as the reason for their choice of major, followed by the attributes of the particular major.

### **Gender Roles and Occupational Choice**

Majors are stereotyped as masculine or feminine based on cultural expectations of what men's and women's roles should be. Culture is a dynamic, fluid force that dictates what is and is not socially acceptable. Today's cultural expectations for men and women are very different than

the cultural expectations for men and women two hundred years ago, and the expectations two hundred years ago were vastly different than the expectations for people one thousand years ago. Culture changes, and with it, societal expectations such as gender roles. Gender roles are constantly shifting, particularly in today's society with the rise of feminism. Both men and women face gender injustice based on what society says is proper for each gender. Just as women face stereotyping in STEM fields, men have to combat stereotyping in the social science fields (Gheaus, 2012). Despite the feminist movement and the shift towards equality in gender roles, the idea of the "manly man" as being an outdoorsy, superhero type has not completely gone away. Although people typically tend to associate gender stereotypes mainly with females, males are stereotyped as often as females (Prentice & Carranza, 2002).

Gender differences in the STEM fields appear long before the college years. Boys consistently score higher in math on the College Board standardized achievement tests than girls do (College Board, 2010; College Board, 2014). One study found that even in situations where girls and boys have similar scores in math, girls reported higher anxiety and hopelessness, and lower enjoyment (Frenzel, Pekrun, & Goetz, 2007). This difference in performance may be related to teacher expectation. Girls often experience gender discrimination in the STEM areas dating back to their early education. Beilock, Gunderson, Ramirez, and Levine (2010) found that the math anxiety level of female math teachers had an impact on their female students. For female students only, by the end of the year math achievement was lower if they were taught by a female teacher who had high math anxiety. There was no effect for male students. In another experiment by Wout, Shih, Jackson, and Sellers (2009), female students were told they were given a math test on which males and females had similar scores to see if differences in performance were gender-ability related. Upon hearing that both genders typically succeeded on

the math test, females performed equally as well as males when male teachers volubly rejected the stereotypes. When male teachers remained silent on the issue, the women's performance decreased, corresponding with the stereotype. These studies (Beilock, et al., 2010; Wout, et al., 2009) indicate that teachers can either foster or diminish stereotype threat by their beliefs in its accuracy. Confirmation bias is the idea that people focus on the incidents and ideas that confirm the beliefs that they already hold (Nickerson, 1998). When teachers believe that female students will not perform as well, they may look for the girls that have lower scores and generalize that to the rest of the class, regardless of whether or not there are high-performing girls in the class. People like to have their ideas confirmed, whether it be through only looking at the evidence that supports their preconceived notions about gender roles or subconsciously adapting their performance to align with their beliefs.

### **Attitudes toward Atypical Majors**

Although the gender differences in academic majors are less rigid than they have been in the past, there are still differences in attitudes towards those in atypical majors. Men pursuing traditionally feminine majors are not viewed as highly as those in traditionally masculine majors. Attitudes towards men in the social sciences are lower than attitudes for women in the natural sciences, indicating that it is more culturally acceptable for women to participate in traditionally masculine activities than for men to participate in traditionally feminine activities (Sakallı-Uğurlu, 2010). Similarly, DiDonato and Strough (2013) found that students rated masculine-typed majors as appropriate for both men and women, but feminine-typed majors as more appropriate for women than for men. The same is true in younger students. Researchers Mendez and Crawford (2002) conducted a study in which they collected data from 132 girls and 95 boys who were in a high school gifted program. They found that gifted high school girls are more

likely to have an open mind when deciding upon careers that are traditionally male-dominated, whereas high school boys are less likely to choose careers that were traditionally feminine. They also found that girls who viewed themselves as more feminine were not necessarily more likely to choose feminine careers (Mendez & Crawford, 2002).

Stereotype threat involves a lack of performance due to the fear of confirming or conforming to current stereotypes (Thoman, Smith, Brown, Chase, & Lee, 2013). Researchers Steele, James, and Barnett (2002) found that females who were pursuing a degree in a male-dominated academic area reported more gender-based discrimination than those in female-dominated majors and felt that the discrimination would carry on into the future should they pursue a career in a male-dominated field because of stereotype threat. Women who hold gender-stereotyped views of the science career identify with their major as strongly as those who do not hold gender-stereotyped views (Cundiff, Vesico, Loken, & Lo, 2013). As a way of handling stereotype threat, women use more coping methods in STEM academic areas than men (Morganson, Jones, & Major, 2010). The stereotype that men are better at math than women could be one of the factors determining why there are fewer women in STEM fields (Reuben, Sapienza, & Zingales, 2014). If girls believe that they are less capable than boys in the areas of science and mathematics, they may not put forth as much effort.

### **Gender-Stereotyping and Ambivalent Sexism**

Ambivalent sexism can play a part in gender-stereotypes. Hostile sexism would say that women have no place in male dominated majors. Benevolent sexism has a favorable, although stereotyped, view of women (Glick & Fiske, 1996). Such being the case, benevolent sexism would claim that women are better suited for more nurturing majors such as social sciences and nursing. A study by Clow, Ricciardelli, and Bartfay (2015) analyzed hostile and benevolent

sexism and perceptions of nurses through three conditions: female nurses, male nurses, and ‘manly’ nurses. The researchers discovered that in the male nurse condition, men who scored highly on hostile sexism and benevolent sexism rated nursing as an inappropriate career for men. The only significant finding for females was that women who scored highly on benevolent sexism also rated nursing as an inappropriate career for men. Results differed among the other conditions, which indicates the complexity of how ambivalent sexism influences people and their perceptions of others.

Sexist views also influence perceptions of individuals in non-traditional college majors. In a study of Spanish students, both men and women in technical majors scored higher on benevolent sexism and hostile sexism than students in other majors. The same study found that majors that were traditionally male dominated were less socially acceptable for females. Conversely, men in majors that were predominantly feminine were not viewed as highly (Fernández, Castro, Otero, Foltz, & Lorenzo, 2006). These findings align with the theory of ambivalence towards men (Glick & Fiske, 1999). In general, hostile sexism is seen in higher levels in men than women. However, there is not as big of a difference in attitudes of benevolent sexism, as men had only a slightly higher score on benevolent sexism (Mikołajczak & Pietrzak, 2014).

Hostile sexism is damaging to both males and females. People who are high in hostile sexism often hold negative views of feminists and career-oriented women and feminine men (Glick, Wilkerson, & Cuffe, 2015). Men who have more feminine traits are viewed as weak, and women who have feminist ideals or are interested in traditionally masculine areas of work are viewed negatively. The same study by Glick et al. (2015) found that benevolent sexism appears

to primarily target women, but is correlated with more positive views of stay-at-home mothers, feminine women, and to an extent, career women as well.

Sexism does not only impact the person who holds the sexist views; collateral damage can occur when others are directly or indirectly impacted by the beliefs of those around them. Bradley-Geist, Rivera, and Geringer (2015) found that when bystanders observed different forms of sexism, self-esteem was impacted. When men observed hostile sexism directed towards women, their self-esteem increased. When women observed the same hostile sexism, their self-esteem decreased. These individuals did not experience the sexism personally; rather, they witnessed it as a casual observer. Despite this, they were affected by the sexism they witnessed, suggesting that the effects of ambivalent sexism can be far-reaching.

### **Ambivalent Sexism and Religiosity**

Studies have found that people who believe in a literal interpretation of the Christian Bible are more likely to score high on benevolent sexism (Burn & Busso, 2005). In traditional Christianity, the man, who was created before the woman, is viewed as the leader and head over the household, which includes the woman. The Bible emphasizes different roles for the male and female genders. The same study by Burn and Busso found that there was not a correlation between hostile sexism and religiosity. However, a study by Maltby, Hall, Anderson, and Edwards (2010) found that for men, Christianity and sexism have a positive correlation, but the same is not true for women. Since benevolent sexism holds a positive view of women, those holding to religious views may not immediately reject it as they might hostile sexism. In Catholicism, adherence to religious tenets correlates with benevolent sexism. A study conducted in Spain looked at 1,003 adults, 508 women and 495 men, to determine the role of education and Catholicism on ambivalent sexism scores. The researchers found that Catholics scored higher on

benevolent sexism, which focuses more on women, and benevolence towards men. They also found that those with more education were less likely to have sexist attitudes (Glick, Lameiras, & Castro, 2002).

Other religions also correlate with ambivalent sexism. In Islam, religiosity correlates with both hostile and benevolent sexism. For men, hostile sexism and religiosity were significantly correlated, although the same was not the case for women (Taşdemir & Sakallı-Uğurlu, 2010). Islam is a patriarchal religion and it places great emphasis on the man being above the woman. In their holy text, there are passages that many people have traditionally interpreted as God saying that men are superior to women (Bauer, 2006). Although in recent times people have started to reinterpret passages that now are viewed as sexist, traditional views lean more towards hostile sexism. However, in other studies, the correlation between religiosity and hostile sexism is negative. In a study of Jewish men and women, Gaunt (2012) found that benevolent sexism towards men and women increased with Jewish religiosity, and hostile sexism towards men and women decreased with Jewish religiosity. This seems to indicate that it is not just that people hold religious beliefs that impact their view of men, women, and gender roles, but rather what the religion specifically states about men and women and the natural order that determines ambivalent and benevolent sexism.

Although religion appears to be a strong predictor of benevolent and hostile sexism, there are other factors that may play a role as well. In a study among Catholics, Mikołajczak and Pietrzak (2014) found that adherence to conservative views moderated the effect between religiosity and benevolent sexism. Similarly, Christopher and Mull (2006) found that social dominance orientation and Protestant work ethic, both conservative traits, were significantly correlated with hostile sexism, and right-wing authoritarianism was significantly correlated with

benevolent sexism. Strong conservative views seem to impact a person's score on the

Ambivalent Sexism Inventory, and as many religions are characterized by conservative views, religious fundamentalism may influence the outcomes.

### **Gap in the Literature**

In the past, there have been studies conducted on sexism and college major choice, and studies have also been conducted on ambivalent sexism and Christianity (Burn & Busso, 2005; Maltby et al., 2010). Yet most of these studies do not look at how all three combine. The literature indicates that sexism and college major choices may be linked, and that religion plays a role in ambivalent and benevolent sexism. However, unlike studies that have been conducted in the past, this study will look at a combination of these two, namely, perceptions of academic majors as masculine or feminine with religiosity as a third variable. Since this study is taking place at a conservative Christian university, the results may be different from previous studies, providing further understanding of how gender stereotypes interact with religious fundamentalism. Christian students tend to hold more traditional views which may influence their perceptions of gender roles and, therefore, their perceptions of college majors as masculine or feminine.

### **Research Questions**

Based on the current research, the following questions can be asked:

Research Question 1: Do Christian college students rate certain college majors as more masculine or feminine, and if so, which ones?

Research Question 2: Do scores on the Ambivalent Sexism Inventory correlate with perceptions of academic majors as masculine or feminine?

Research Question 3: Will high scores on the Revised Religious Fundamentalism Scale correlate with high scores on the Ambivalent Sexism Inventory and Ambivalence towards Men Inventory?

## **Methods**

### **Participants**

Participants were undergraduate college students from a large east-coast university. There were a total of 492 participants, of which there were 117 men (23.8%) and 375 women (76.2%). There were 126 freshmen (25.6%), 149 sophomores (30.2%), 100 juniors (20.3%), and 117 seniors (23.7%). The age range options were 18-20, 21-23, 24-26, 27-30, and 30+. The majority were ages 18-20, 71.4%, and an additional 25.6% falling between 21 and 23. Only 14 students were above the age of 23. Their majors were grouped by discipline, so sub-disciplines like business marketing and international business both fell under the generic label of business. If two majors were listed, the one the student listed first was selected and the other removed from the data. The majority of participants were psychology students (22.3%), followed by education majors (7.1%), business majors (6.5%), and nursing majors (5.1%). The rest of the participants represented a wide variety of majors within the school.

### **Procedures**

Upon approval from the Institutional Review Board (IRB), an online survey was posted to gather information. Participants agreed to a consent form prior to taking the survey. Participants took the online survey which utilized Qualtrics software. In return for taking the survey, participants were given credit for a psychology activity that could be counted towards their psychology classes. Each psychology activity is worth .5% of a student's total grade in psychology classes.

**Materials**

Demographic information included questions gathering the ages of the participants, what degree they were pursuing, and their current classification in school (freshman, sophomore, junior, senior). There were four different scales given that were used to gather information from those who took the survey.

**Ambivalent Sexism Inventory.** Participants were given a survey which utilized Glick and Fiske's (1996) Ambivalent Sexism Inventory (ASI). This inventory measures hostile and benevolent sexism that is aimed at women. The test-retest reliability for the ASI ranged between .82 and .91 over a series of six studies. This inventory was positively correlated with several other measures of sexism, indicating that it is an accurate way to determine sexism. Responses are given in a Likert-type scale with answers ranging from 0-5, with 0 being strongly disagree and 5 being strongly agree. An example is, "Women should be cherished and protected by men." High scores indicate sexist attitudes towards women, while low scores indicate less of a gender bias.

**Ambivalence towards Men Inventory.** This inventory, also by Glick and Fiske (1999), is the companion to the ASI. The Ambivalence towards Men inventory (AMI) examines the same type of benevolent and hostile sexism but aimed towards men. There are multiple subsets of the scale, but only the benevolence towards men and hostility towards men subscales were examined and averaged together to achieve a total ambivalence towards men score. Responses are given in a Likert-type scale with answers ranging from 0-5, with 0 being strongly disagree and 5 being strongly agree. An example is, "Most men sexually harass women, even if only in subtle ways, once they are in a position of power over them." High scores indicate sexist attitudes towards men, while low scores indicate a more equal view of the genders.

**Revised Religious Fundamentalism Scale.** This scale is a revised version of the 20-item Religious Fundamentalism Scale. The shortened and revised version, by Altemeyer and Hunsberger (2004), is comprised of 12 questions that are designed to determine how religious a person is. This scale has an internal consistency reliability of .91 for students and .92 for parents. The authors of the scale found strong reliability ratings among various religious orientations. Participants were asked to rate statements from -4 to +4 as to the extent they disagreed or agreed. An example is: “It is more important to be a good person than to believe in God and the right religion.” High scores indicate high degrees of religious fundamentalism and low scores indicate low religious fundamentalism.

**Perceptions of College Majors Scale.** This scale was designed in a seven-point Likert format to measure perceptions of college majors as masculine or feminine. Twenty-five different college majors were listed and participants were asked to rate each item as most likely to be masculine, feminine, or neutral. Answers ranged from strongly masculine to strongly feminine, detailed in Table 1.

Table 1						
<i>Answer Options on Perceptions of College Majors Scale</i>						
Strongly Masculine 1	Moderately Masculine 2	Slightly Masculine 3	Neutral 4	Slightly Feminine 5	Moderately Feminine 6	Strongly Feminine 7

## Results

### Research Question 1

Many of the majors were rated as gender-neutral, but in order to effectively analyze the data, the three majors that were rated as most strongly feminine and the three majors that were rated most strongly masculine were selected for further analysis. The three majors with the

highest means, that were rated as most feminine, were Nursing ( $M = 6.05, SD = 1.011$ ), Family and Consumer Sciences ( $M = 6.01, SD = 1.192$ ), and Education ( $M = 5.76, SD = 1.098$ ). The three occupations with the lowest means, rated as most masculine, were Pastoral Leadership ( $M = 1.62, SD = 1.006$ ), Engineering ( $M = 2.27, SD = 1.058$ ), and Sport Management ( $M = 2.54, SD = 1.015$ ). For a full breakdown of results, see Table 2.

Table 2	
<i>Means of College Majors</i>	
<b>Major</b>	<b>Mean</b>
Pastoral Leadership	1.62
Engineering	2.27
Sport Management	2.54
Computer Science	2.56
Aeronautics	2.58
Criminal Justice	2.81
Philosophy	3.02
Government	3.03
Business	3.13
Athletic Training	3.16
Mathematics	3.22
Exercise Science	3.53
Chemistry	3.60
Pre Med	3.75

Biology	3.83
Worship Studies	3.85
Studio and Digital Arts	4.21
Music	4.43
Communication Studies	4.65
Psychology	4.90
English and Modern Languages	5.17
Education	5.76
Family and Consumer Sciences	6.01
Nursing	6.05

### Research Question 2

The ASI has two subscales that measure hostile sexism and benevolent sexism. Scores on the two scales were averaged together to create a total Ambivalent Sexism score. Similarly, the AMI has two subscales measuring hostility towards men and benevolence towards men. The two subscales on this inventory were averaged together as well to create a total ambivalence towards men score.

Multiple regression was used to determine if scores on the ASI and scores on the AMI predicted ratings of majors as masculine or feminine. To avoid running six different analyses and increasing the chance of a type 1 error, the top three masculine majors were summed and averaged, and the top three feminine majors were summed and averaged. One regression with two predictors, ASI and AMI, was run for the three most masculine rated majors, and one regression with two predictors, ASI and AMI, was run for the three most feminine rated majors.

The regression results for ratings of majors as feminine indicated that the two predictors explained 2.9% of the variance ( $R^2 = .029$ ,  $F(2,473) = 6.980$ ,  $p < .01$ ). It was found that scores on the AMI significantly predicted ratings of majors as feminine ( $\beta = .112$ ,  $p < .05$ ). When the scores for the top three feminine majors were summed and averaged, there was a statistically significant positive association between ratings of majors as feminine and the scores on the AMI ( $p < .05$ ), indicating that those who had high scores on the AMI were more likely to rate nursing, education, and family and consumer sciences as feminine. There was not a statistically significant relationship between the scores on the feminine majors and the scores on the ASI. See Table 3 for a summary of the regressions.

Table 3					
<i>Regression of Feminine Majors and Sexism Scales</i>					
<i>Scale</i>	<i>B</i>	<i>SE B</i>	<i>β</i>	<i>t</i>	<i>Sig.</i>
<i>AMI_Avg</i>	.147	.071	.112	2.071	.039
<i>ASI_Avg</i>	.139	.092	.081	1.501	.134

The regression results for ratings of majors as masculine indicated that the two predictors explained 4.9% of the variance ( $R^2 = .049$ ,  $F(2,469) = 11.917$ ,  $p < .01$ ). It was found that scores on the ASI significantly predicted ratings of majors as not masculine ( $\beta = -.151$ ,  $p < .01$ ). When the scores for the top three masculine majors were averaged, there was a statistically significant association with scores on the ASI indicating that those who had high scores on the ASI were more likely to rate pastoral leadership, engineering, and sports management as masculine. There was not a statistically significant relationship between the scores of the masculine majors and

scores on the Ambivalence towards Men Inventory. See Table 4 for a summary of the regressions.

Table 4					
<i>Regression of Masculine Majors and Sexism Scales</i>					
<i>Scale</i>	<i>B</i>	<i>SE B</i>	<i>β</i>	<i>t</i>	<i>Sig.</i>
<i>AMI_Avg</i>	-.111	.061	-.098	-1.828	.068
<i>ASI_Avg</i>	-.222	.079	-.151	-2.825	.005

**Research Question 3**

Research Question 3 asked about the correlation between scores on the Revised Religious Fundamentalism Scale (RRFS) and scores on the Ambivalent Sexism Inventory and Ambivalence towards Men Inventory (see Table 5). In examining the data, it was found that scores on the Revised Religious Fundamentalism Scale had a negative skew. This ceiling effect was compensated for by running a nonparametric test. A Spearman’s rho correlation was run to determine if there were any correlations between participants’ scores on the different scales. There was not a significant correlation between scores on the RRFS and the AMI ( $r = -.011, ns$ ).

Table 5				
<i>Correlations Between Scores on the RRFS and AMI</i>				
			<i>RRFS_Avg</i>	<i>AMI_Avg</i>
Spearman's rho	<i>RRFS_Avg</i>	Correlation Coefficient	1.000	-.011
		Sig. (2-tailed)		.808
		N	478	484
	<i>AMI_Avg</i>	Correlation Coefficient	-.011	1.000
		Sig. (2-tailed)	.808	

N	478	484
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There was a significant correlation between participants' scores on the Revised Religious Fundamentalism Scale and scores on the Ambivalent Sexism Inventory ( $r = .096, p < .05$ ).

Participants who had high scores on the ASI, indicating sexist attitudes towards women, also had high scores on the RRFS, indicating strong religious fundamentalism (See Table 6).

			RRFS_Avg	ASI_Avg
Spearman's rho	RRFS_Avg	Correlation Coefficient	1.000	.096*
		Sig. (2-tailed)		.037
		N	486	476
	ASI_Avg	Correlation Coefficient	.096*	1.000
		Sig. (2-tailed)	.037	
		N	476	483

## Discussion

### Perceptions of Majors as Masculine and Feminine

Consistent with previous research, the results indicated that stereotyping of majors still exists among current college students. Had there been no bias, all of the majors would have averaged a neutral 4. Interestingly, the major that was closest to neutral was Worship Studies ( $M = 3.85$ ), while the major that was most masculine was also related to religion. This is consistent with religious views that state that women have certain roles. Judaism prescribes certain roles for women, as does Christianity and Islam (Bauer, 2006; Burn & Busso, 2005; Gaunt, 2012).

The major that was listed as the most masculine, pastoral leadership, can possibly be explained by the fact that the survey was given at a Christian school. The Bible instructs that men are to be spiritual leaders and pastors rather than women, which could explain why pastoral leadership was rated as very masculine while the other ministry-related major, worship studies, was rated as gender neutral. Pastoral leadership is a major that is somewhat unique to the college at which the survey was given. The fact that this major was the one listed as most strongly masculine suggests that religious beliefs may play a role in how people categorize and stereotype college majors. As a result of the strong negative skew in the religiosity scale, no correlation could be done between the ratings of pastoral leadership as masculine or feminine and religiosity. However, due to the denomination of the college, it is likely that religious views impacted the rating of this college major.

In accordance with previous research that has been done on stereotypes, engineering was rated as predominately masculine. Only two people out of 492 rated engineering as moderately feminine, and two as slightly feminine. The rest rated engineering as neutral or masculine. This finding is consistent with the results found by researchers Beilock et al. (2010). STEM majors have traditionally been viewed as more masculine than feminine, although some might argue that this perception is shifting, particularly in regards to the math and science fields. Despite current cultural changes, the engineering major is still viewed by college students as more masculine than feminine. Previous research on gender-differentiated career areas indicates that women in male-dominated fields tend to use more coping methods, and the results of this study indicate that there may be a need for those mechanisms since engineering is rated as masculine, and females tend to report more gender-discrimination in fields that are male-dominated (Morganson et al., 2010; Steele et al., 2002).

The major that was perhaps the most surprising among the top three masculine rated majors was that of sport management. It is interesting to note that although sport management was rated as masculine, both athletic training and exercise science were rated closer to neutral. Even within the same type of discipline, there are differences in ratings of masculine and feminine simply by the name and the type of population with which the major typically works. The specific division of the major, rather than the field itself, seems to be more indicative of stereotyping of college majors as masculine or feminine.

In regards to the female majors, it is consistent with the research that nursing was rated as predominately feminine. Nursing has been consistently rated as a feminine occupation, as researchers Clow et al. (2015) discovered, with men rating nursing as an inappropriate major for males. Medicine in general is not categorized as feminine, as the major of pre-med was rated as gender-neutral. Despite this, nursing carries a female stereotype even though nurses do much of the same work as doctors.

Similarly, family and consumer sciences was seen as a predominantly feminine major. Family and consumer sciences, although labeled with the term 'sciences,' falls into the category of social sciences. As Gheaus (2012) pointed out, this type of major is predominantly viewed as feminine. The results in this setting added confirmation to that point of view, since family and consumer sciences was rated as one of the most feminine majors. These findings align with the idea that people tend to have lower opinions of men who choose majors that are under the category of social sciences (Sakallı-Uğurlu, 2010).

Education was also rated as predominantly feminine. Education is another major that falls more into the category of social sciences. The results align with the notion of women as

homemakers, taking care of and teaching children. Although men commonly teach school, particularly in higher education, the education major is seen as predominantly feminine.

### **Relationship between Ambivalent Sexism and Perceptions of College Majors**

The fact that the feminine majors (nursing, education, and family and consumer sciences) were significantly correlated to scores on the AMI is consistent with research that has been previously conducted in the field of gender stereotyping. Students who were more likely to stereotype majors as predominantly feminine had higher scores on ambivalence towards men. This tendency to stereotype aligns with the results found in the study conducted by DiDonato and Strough (2013), in which students rated masculine majors as appropriate for both males and females but rated feminine-typed majors as appropriate only for females.

In contrast to the study done by Clow et al. (2015), there was no significant relationship between scores on the ASI and the rating of nursing as feminine. However, the results were significantly correlated with the AMI, which aligns with the results found by Fernandez et al. (2006). High scores on the AMI indicate that men are viewed in a sexist light. This has interesting implications for men in feminine-typed majors. The AMI is geared towards assessing sexist attitudes towards men. Many people think about sexism only in connotation with women, but there are definitely sexist beliefs about men as well. The results of this study indicate that people who are more likely to stereotype majors as feminine are also more likely to hold sexist beliefs about men. The AMI includes both hostile and benevolent sexism, although a participant's total ambivalence towards men score includes an average of both types of sexism.

Consistent with previous literature, there was a positive association between ratings of majors as masculine and scores on the ASI. High scores on the top three masculine majors were significantly related to high scores on ambivalent sexism. High scores on the ASI significantly

predicted ratings of the top three masculine majors as masculine. Research indicates that males are less likely to choose majors that are feminine (Mendez & Crawford, 2002). This would support the idea that those who were more likely to rate majors as masculine also had high scores on ambivalent sexism, indicating sexist beliefs about women. Previous research indicates that those who are more likely to stereotype majors as masculine may hold sexist beliefs that women do not fit in these majors or will not be able to do them as well as men (Steele et al., 2002). Although there has been a push for gender equality in academia, these results indicate that those who have high scores on sexism are more likely to label majors as masculine or feminine.

### **Religious Fundamentalism**

Because the survey was given at a Christian school, it is not surprising that the results of the Revised Religious Fundamentalism Scale were skewed. For Christian college students, there was limited variance among answers on the scale, with most students scoring high on religious fundamentalism. However, using a non-parametric test, a correlation was found between scores on the ambivalent sexism inventory and scores on the revised religious fundamentalism scale. This is consistent with the results of the study conducted by Burn and Busso (2005), in which the researchers found that there was a positive correlation between benevolent sexism and religious fundamentalism. Similarly, the results of the study by Glick, et al. (2002) found that Catholics had higher sexist attitudes towards women.

There were no significant correlations between scores on the RRFs and the AMI. Ambivalence towards men is a subject that has had limited study in correlation with religion, although it makes sense that religious fundamentalism would have more of a sexist attitude towards women than towards men. The Bible holds that God created man first, and so it would

make sense that Catholics, Jews, and Christians would not be significantly more likely to hold sexist attitudes towards men.

### **Limitations**

There are a number of limitations that this study has that must be taken into consideration. The sample of students was a convenience sample, which limits the external validity and therefore the generalizability to the rest of the population. Since the study was mainly advertised through the school psychology department page, many of the participants were psychology majors, a population that is not representative of the entire school. Only college students from the one university chose whether or not to take the survey, making it non-random and hindering generalizability. Furthermore, since the study was conducted at a Christian college, some of the majors listed are unique to the specific university. The major that was rated as most masculine, pastoral leadership, is a uniquely Christian major. Without these college-specific majors the data may have shown different outcomes and different correlations and conclusions with the ASI and the AMI. Similarly, due to an error in putting the perceptions of college majors scale into the computer system, one of the majors that was intended to be on the scale, religion, was omitted. Because of the Christian factor of the school, this major may have been rated predominantly masculine just like pastoral leadership.

Information regarding the ethnicity of the students was not gathered. Students from different cultural backgrounds may have unique perspectives about masculine and feminine majors. Some cultures have unique perspectives on what the roles of men and woman are, which could translate to ratings of what majors are appropriate for each gender. The personal history and background of each student may have impacted his or her ratings of majors as masculine and feminine.

Another factor to consider is that students taking the survey may have rated majors as neutral because they felt it was what was expected of them, rather than going with their true attitudes towards the majors. The same can be said with the Revised Religious Fundamentalism Scale, since students at a Christian college might have thought that they were expected to answer in a certain way and modified their answers to meet what they believed to be the expectations.

Another limitation of the current study is that in order to avoid running multiple analyses, the top three masculine majors and the top three feminine majors were summed and averaged. This grouping together of majors could mask individual differences that could be found in each of the three majors for top masculine and top feminine.

Furthermore, the subscales of the ASI and the AMI were not differentiated. The ASI is separated into hostile and benevolent sexism, and the AMI has similar scales. Scores were examined as a whole, rather than by their individual subscales. Whereas added together the two subscales provide a total sexism score, individually they measure different forms of sexism. It is possible that hostile sexism or benevolent sexism could factor more thoroughly into the results.

### **Suggestions for Further Research**

There is limited research regarding the AMI in relation to career choices. Further research should be conducted regarding perceptions of college majors and the implications that holds for future careers for men in feminine-typed majors. Additionally, research should be done determining the impact of being in a masculine-typed major for females.

This type of research should be conducted at universities that do not have a Christian denominational background, since some of the majors rated were specific to a Christian college. Since the data were skewed for the Revised Religious Fundamentalism Scale, further research should be conducted at a university that does not have the same Christian belief set. Similarly,

this type of study should be conducted at different universities around the world, as the cultural values likely influence the stereotypes that students hold. Students from different ethnic backgrounds could provide a more diverse perspective about global stereotypes of occupations

### **Conclusion**

College students still stereotype majors as masculine and feminine. While some gender stereotypes are fading out, others are still strong. Scores on the ASI and the AMI indicate relationships with perceptions of college majors as masculine and feminine. Religiosity is another factor that appears to play a role, in that there is a correlation between religious fundamentalism and ambivalent sexism towards women. There are many different factors that influence how college students choose their majors and view their peers, but stereotypes and gender-typed beliefs are certainly factors. It is important to understand the nature of stereotypes and beliefs about college majors, since the stigma associated with certain fields has implications for career experience, well-being, and stereotyping throughout life.

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