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Gender role socialization, religiosity, and self-efficacy in career choice: Does religion encourage a gender-based career choice?

Karen Vyn
University of Windsor

GENDER ROLE SOCIALIZATION, RELIGIOSITY, AND SELF-EFFICACY IN CAREER CHOICE: DOES RELIGION ENCOURAGE A GENDER-BASED CAREER CHOICE?

By
Karen Vyn

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ABSTRACT

Despite the fact that females are obtaining advanced degrees at higher rates than previous generations (National Center for Education Statistics, 2002), males and females are still being socialized to view certain academic areas and occupations as male or female domains (Coltrane & Adams, 1997; Keller, 2001; She, 1998). Regardless of school performance, male and females often veer into gender-appropriate fields, leading them to choose gender-appropriate occupations (Frome & Eccles, 1998; Farenga & Joyce, 1999; Kenkel & Gage, 1983). There are consequences of this phenomenon for both the individuals making the choices and society at large. Several studies have looked at how gender role socialization influences self-efficacy in academic and career choices (e.g., Hackett, 1985); however, few studies have examined religiosity as a possible factor in the designation of sex roles. This current study examines the relationships among gender role socialization, religiosity, and self-efficacy in terms of the career choice of males and females. Using an undergraduate sample, this study addresses the question of whether religiosity predicts career self-efficacy over and above gender role socialization.

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CHAPTER 1

BACKGROUND AND PURPOSE

Introduction

Gender role socialization has a large impact on the academic and career choices of males and females. Boys and girls are still being socialized to view certain academic areas and occupations as male or female domains (Coltrane & Adams, 1997; Keller, 2001; She, 1998). It seems that regardless of school performance, males and females still veer into gender-appropriate subjects, leading them to choose gender-appropriate occupations (Frome & Eccles, 1998; Farenga & Joyce, 1999; Kenkel & Gage, 1983). This can be seen with the large discrepancies between the types of jobs that men and women hold in the workforce. More males are in traditionally male-dominated occupations, while more females are in traditionally female-dominated occupations (Okamoto & England, 1999). This is a problem that creates consequences for both the individual and society. The present study aimed to examine a rarely-recognized factor, religiosity, in relation to gender role socialization and its effects on self-efficacy in terms of future career choice. Does religion encourage a gender-based career choice?

Gender stereotypes are still pervasive in Western society, despite the emphasis on gender equality and efforts to eliminate gender discrimination. In much more subtle ways, these stereotypes are creeping into the values and beliefs of young boys and girls, creating certain attitudes that will have consequences in terms of the life decisions and choices that they make. Children are still viewing different occupations as being associated with either men or women, and consequently are aspiring to the kinds of

careers that are consistent with these gender stereotypes (Liben, Bigler, & Krogh, 2002).

This phenomenon occurs through a process that has been termed *gender role socialization* (Greenglass, 1982). According to Okamoto and England, "The socialization approach explains occupational outcomes by focusing on agents of socialization and the attitudes, aspirations, and expectations that result from the socialization process" (1999, p. 561). Agents of socialization include parents, peers, teachers, and the media; these socializing influences determine how children develop their values, attitudes, emotional responses, and characteristics. Many of these socialization systems involve gender stereotypes, with children learning that there are different expectations according to gender. Okamoto and England (1999) go on to say that a gender role socialization perspective implies men and women acquire different interests and abilities according to what is considered appropriate for their gender in their particular culture. It is this gender socialization process that encourages males to aspire to male-dominated fields and females to aspire to female-dominated fields (Powell & Butterfield, 2003). This is an important phenomenon to look at because occupations should ideally be chosen based upon innate interests and abilities in order to promote the most personal happiness, as well as to gain the greatest degree of talent within each field of the workforce.

Current Situation

While the number of women in the workforce has risen dramatically in the last several decades, women seem to be more concentrated in a limited number of career fields. In addition, these fields are primarily dominated by women; therefore, women tend to be clustering in female-dominated careers. In 1993, most women worked in jobs

that were 65% female, while most men worked in jobs that were 27% female (Okamoto & England, 1999). This is concerning because the jobs that are more male-dominated are often the jobs that offer higher pay and more opportunities for advancement, while female-dominated jobs are often low-wage jobs (Bagnall, 2002). Therefore, these continuing conditions are perpetuating the wage gap between the genders and preventing equal numbers of women from being in positions of power in the workplace.

Today, more women than men earn associate, bachelor's, and master's degrees, with the number of women earning any type of degree increasing at a faster rate than the number of men earning degrees (National Center for Education Statistics, 2002). Also, the number of women in graduate school has surpassed the number of men since the year 1984 (National Center for Education Statistics, 2002). However, there still remain male and female-dominated areas in terms of which fields are actually chosen for study.

The National Science Foundation (NSF, 2000) found that women are still not as likely to pursue college education in higher-status fields such as mathematics and science (as cited in Bleeker & Jacobs, 2004). Specifically, women made up only 23% of the science and engineering fields and only 9% of the physical science fields. Recently, the number of women pursuing a science or math degree has actually increased. However, the specific areas in science or math being pursued by these women are still limited. While more women are going into the life sciences and business areas, with women making up 45% of the doctorates in the life sciences and 50% of the business degrees in 1999/2000 (National Center for Education Statistics, 2002), they are still under-represented in computer science, physics, and engineering (as cited in Bleeker & Jacobs,

2004).

According to Martin, Arnold, and Parker (1988), even in traditionally male careers which are seeing an increase of females, there are still gender differences in terms of the specified area that is chosen. In 1960, 5% of medical graduates were women, and in 1985, 31% were women. However, the majority of these women chose to enter primary care fields and rarely entered surgical areas. In 1985, 70% of these graduate women entered primary care fields of family practice, such as internal medicine, obstetrics-gynecology, pediatrics, and psychiatry. In addition, these women were more likely to become employees, while males were more likely to be self-employed. These statistics reveal that there is still a problem in regards to the lack of representation of females in all fields of work.

Social Cognitive Theory

So how do the genders become socialized to view males and females having different tasks and roles in life? This is an important question to be asked because once the specific pathways can be pinpointed, it will be easier to target factors for improvement and change. The Social Cognitive Theory views gender differences as stemming from social learning through observation and imitation (Bandura, 1986). Social influences work through many systems which interact together, producing gender differentiation, directing males and females to select different attributes and roles. In addition, people are cognitive beings who thus contribute to their self-development and social change through agentic actions (Bussey & Bandura, 1999).

Bandura's (1986) model of triadic reciprocality suggests that personal attributes,

external environmental factors, and overt behaviour affect one another bidirectionally (Lent, Brown, & Hackett, 1994). Self-efficacy and outcome expectations lead to the development of career interests which leads to goals, then activity selection, followed by performance attainments, which in turn create feedback to self-efficacy and outcome expectations. This reciprocity of influence makes gender role socialization very powerful, very pervasive, and very prolonged.

A very important component in the Social Cognitive Theory is self-efficacy. Self-efficacy can be defined as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). Thus, it is the belief in the self to be able to master some task or situation. People learn self-efficacy through four routes as hypothesized by the Social Cognitive Theory: performance accomplishments, vicarious learning or modeling, verbal persuasion (i.e., encouragement), and emotion arousal (i.e., anxiety) (Bussey & Bandura, 1999). Self-efficacy is crucial because it is these self-efficacy beliefs that affect one's expectations, goals, attributions, and motivations. This then affects behavior. In accordance, these self-efficacy expectations are the key to behaviour, as well as behaviour change (Taylor & Betz, 1983). In order to change behavior, self-efficacy must be changed.

There has been much research surrounding the Social Cognitive theory, and it has been applied to research on career choice (Lent, Brown, & Hackett, 1994). In fact, Lent, Brown, & Hackett (1994) expanded the Social Cognitive theory to the Social Cognitive Career Theory (SCCT). The basic idea is that career decisions are influenced by a

person's environment. These theories were used as the foundation for the research questions of this study.

Gender

There is often a focus on women in terms of the obstacles surrounding the traditional male-oriented fields which often offer higher prestige and pay. However, the issue is just as important for men whose talent in the traditional female-oriented fields may go unheeded or even discouraged. Therefore, it is also important to try to uncover reasons why men enter traditional and nontraditional fields. Lease (2003) tested a model of men's nontraditional occupational choice. Men who had participated in the Cooperative Institutional Research Program (CIRP) were studied in their first year of college and four years later. They were chosen based on their representation in the 10 most female-dominated and 10 most male-dominated careers. It was discovered that men with more liberal social attitudes and greater socioeconomic status were more likely to choose a traditionally female career. Men with higher educational aspirations, higher academic ability, higher perceived academic ability, and who placed greater importance on a prestigious career were more likely to choose a traditionally male career. Therefore, it is equally important to identify barriers for both men and women in terms of future career choice.

Gender Stereotypes

Gender stereotypes affect one's perceived self-efficacy, and this is especially salient when it comes to education and specific academic subjects. Gender stereotypes have a very detrimental effect in all areas of life but especially in education. When boys

and girls enter the school system and different subject materials are presented, ideas about supposedly female and male-appropriate subjects can create harmful self-fulfilling prophesies. When young people enter high school, and there are more options in the type of subjects that can be taken, gender stereotypes may lead them into gender-appropriate areas, thereby limiting their experience with certain academic domains. This, in turn, will place boundaries on their choice of college major, and eventually, their career. This is evident when the proportion of males and females are examined in the different areas of the workforce.

Many studies show that while there is no longer a gender difference between girls and boys in their performance in certain subjects in school, boys and girls still feel differently about their skills and abilities in these subjects. These beliefs include the notion that boys are better in math and science, and girls are better in reading and writing. According to the Third International Mathematics and Science Study (TIMSS) released in July 2000, while boys performed better than girls in math in grade twelve, there were virtually no differences between boys and girls in math in the fourth and eighth grade. In science, boys were outperforming girls in the fourth grade, and this gap increased in the eighth and twelfth grades (Mullis, Martin, Fierros, Goldberg, & Stemler, 2000). This suggests that the gender gap in achievement in math and science may be a function of age. Also of interest, more boys said it was important to do well in math and science, while more girls said it was important to do well in language. This demonstrates the disturbing notion of a differing importance of specific academic subjects in the minds of young boys and girls.

In contrast to the results of the TIMSS, the National Center for Education Statistics (2001) reports that there were no gender differences in the math and science abilities of girls and boys in middle and high school (as cited in Bleeker & Jacobs, 2004). Other reports show that girls actually tend to perform better than boys. The Ontario Education Quality and Accountability Office (EQAO)'s assessment of reading, writing, and mathematics for 1998 found that girls were outscoring boys by four percentage points in an Ontario-wide math test. Still, boys claimed to enjoy math more and in fact, overestimated their abilities: 58% of boys stated that they were good at math, and only 46% of girls made this same claim (Krueger, 1998). The EQAO's results for 2000/2001 showed that girls in grades three and six were doing better in reading, writing, and mathematics. However, more boys claimed to like math, and more girls claimed to like reading and writing (Kozlow, 2001). From this research, it appears as though the "gender gap" in boys' and girls' math and science abilities has been eliminated. Even so, although performance has increased, the self-efficacy of young girls has not. This low self-efficacy is perhaps leading to decreased performance in, or even avoidance of, math and science in future years, causing the gender discrepancies in math and science careers.

Gender Role Socializing Agents

Parents. The results of the studies discussed above may be primarily due to socializing agents. Studies show that parents' perceptions of their children's abilities are stronger predictors of a child's perceptions of his or her abilities than are his or her own grades. Jacobs and Eccles (1992) found a relationship between parental attitudes and children's beliefs and achievements. Mothers and children were asked about the

children's abilities in math, sports, and social domains. Mothers' gender role stereotypic beliefs influenced their perceptions of their children's abilities, either overestimating or underestimating their abilities, depending on if the stereotype favoured their children's gender. Mothers' perceptions were mediators of the past performance of their children and also affected their children's perceptions of their own abilities.

In Frome and Eccles' (1998) study of children in grades six and seven, mothers' perceptions were more strongly predictive of their children's perceptions of their ability in math. Mothers tended to overestimate their sons' abilities and underestimate their daughters' abilities in math. Furthermore, mothers believed that their daughters had to expend more effort in order to do well in math. However, girls had significantly higher grades in both English and math. Despite their actual grades, girls underestimated their abilities; thus, their perceptions were consistent with their mothers' perceptions.

In a follow-up to Jacobs and Eccles' (1992) study, Bleeker and Jacobs (2004) examined participants from the Michigan Study of Adolescent Life Transitions. They found that mothers who had higher perceptions of their adolescents' success in math-related careers had children who also had greater math career self-efficacy in tenth grade, as well as two years after high school. Those mothers who had lower perceptions had children who were more likely to choose a non-science or a life science-business career as opposed to a physical science-computing career. This longitudinal study showed that mothers' expectations had a direct link to children's choice of career. These studies demonstrate the huge impact that parents, as socializing agents, have on their children. This impact on children's self-efficacy affects their entire future in terms of their

education and career pursuits.

Religion. Another way that parents exert influence on their children is through the imparting of values and beliefs, often drawn from their religious background. Religiosity can be defined as commitment to religion (Schwartz & Huismans, 1995) and has been found to be a predictor of traditional family values (Blanchard-Fields, Hertzog, Stein, & Pak, 2001). Religiosity is often associated with stereotypes of people who hold traditional family beliefs and values. Blanchard-Fields, Hertzog, Stein, and Pak (2001) studied both college students and non-students. They found that a high need for closure, high religiosity, and low verbal ability were associated with traditionalism. Both the student and non-student populations produced a relationship between need for closure and religiosity, and traditional family values.

Religiosity is thought to be transferred through the process of socialization and has an influence on attitudes and behaviours related to gender. This is because often the family develops many of its ideas about gender and gender roles from religion (Brinkerhoff & Mackie, 1988). Religious denominations "are characterized by coherent bodies of values, beliefs, and practices derived from prescribed doctrines and organizations" (Brinkerhoff & Mackie, 1988, p. 235), and these impart certain attitudes about gender. Some denominations are more conservative and may have more literal interpretations of scripture, thus conveying more traditional gender attitudes (Brinkerhoff & Mackie, 1988). Therefore, a family's religion may have a large impact on the designation of sex roles, making religiosity a potentially important factor in this area of research.

Gender Roles and Career Choice

Okamoto and England (1999) examined gender roles and parental occupation in terms of whether a traditional or nontraditional career was chosen. They found that for women, a more liberal gender role predicted working in a nontraditional or more male-typed occupation. No relationships were found here for men. The authors found no support for the theory that women take traditional jobs because they are anticipating intermittent employment due to personal or family plans. However, these researchers' results regarding gender roles have been contradicted in previous studies.

O'Connell, Betz, and Kurth (1989) found that gender role beliefs had no effect for women in traditional and nontraditional occupations. They studied women who were training in veterinary medicine and engineering (nontraditional), as well as in nursing (traditional) fields. While women in nontraditional jobs were more likely to seek full time work, their gender role beliefs and plans for marriage and children were similar to women in traditional jobs. However, O'Connell, Betz, and Kurth (1989) did not use a validated scale to measure gender role beliefs; in fact, participants were given seven statements about men and women's roles in terms of jobs, children, and housework. Unless their gender stereotypes were explicit and purposeful, it is likely that people responded in a socially desirable way. Okamoto and England (1999) also measured gender role attitudes through statements; this could be why there was no influence of gender role on the occupations chosen by men. Perhaps, men are more wary of appearing sexist. It may be important to find ways to examine gender role attitudes without people being aware that these attitudes are being measured.

Self-Efficacy and Career Choice

Self-efficacy has been proposed to be the key to how gender socialization leads to choosing traditional vs. nontraditional jobs (Betz & Hackett, 1981; Taylor & Betz, 1983; Hackett, 1985). Betz and Hackett (1981) looked at 20 occupations that were either traditional or nontraditional and asked undergraduates to indicate their level of self-efficacy in regards to both earning the degree and the job duties required. Females had a greater self-efficacy for traditional jobs and a much lower self-efficacy for nontraditional jobs. This had no relationship to their actual abilities. This tendency towards higher self-efficacy towards more traditional jobs is also true for males. In a study by Ji, Lapan, & Tate (2004), it was found that both boys and girls in grade eight had more interest and a higher self-efficacy for careers that they perceived as being dominated by their own gender.

Hackett (1985) looked at self-efficacy in terms of choice of major, proposing that math self-efficacy was the mediating factor in the choice of a math major. She found that gender socialization and the number of math courses taken predicted math achievement which predicted math self-efficacy which predicted math anxiety and math-related major choices. In a study by Pajares and Miller (1994), males were found to have higher math self-efficacy than females, and females had higher levels of math anxiety. Gender had an effect on performance, but this effect was one mediated through self-efficacy. Self-efficacy also had an impact on the perceived usefulness of mathematics, suggesting that math self-efficacy will be the most important factor in math-related decisions. Math-related courses and careers may be avoided because of low self-efficacy.

Other studies lend support to this hypothesis. Lent, Lopez, & Bieschke (1991) discovered that high self-efficacy in mathematics was related to a science-based career choice. Hackett and Betz (1989) found that math self-efficacy predicted a math-related major. The longitudinal study by Bleeker and Jacobs (2004) showed that mothers of boys had higher expectations of success in math careers than mothers of girls, that these boys in tenth grade had higher perceptions of math ability than the girls, and that two years after high school, these boys had higher self-efficacy for math/science careers than the girls. Lower self-efficacy may be a major factor in why women are not as likely to be in traditionally male-dominated fields. Therefore, it seems that the indirect effect of gender role socialization may be low self-efficacy, and that this is a key factor inhibiting women from choosing nontraditional, higher level, technological, and male-dominated jobs.

On the other hand, general self-efficacy does not always relate to career self-efficacy. Research by Hackett, Betz, O'Halloran, and Romac (1990) revealed that gender influenced self-efficacy and interests for traditional and nontraditional subjects but did not generalize to career self-efficacy and interests. Additionally, although previous studies have shown that career self-efficacy is a greater influence than interests and performance in choosing a career, a study by Kelly (1993) produced contradicting results. Kelly (1993) had ninth and eleventh grade students rate 20 occupations based on self-efficacy and interests. Males had higher self-efficacy for 3 of 6 male occupations, and females had higher self-efficacy for 3 of 8 female occupations. There was no gender influence on the remaining occupations, and gender did not influence interests. In addition, achievement was a stronger predictor of career self-efficacy than gender. Both males and females of

higher achievement levels were less interested in female jobs than lower achievers.

This finding contradicts previous studies, suggesting that perhaps the gender influence is not as strong as it once was. Even so, the question remains, with high self-efficacy and interests in a particular career, will these students actually choose this career? As Kelly (1993) says, "The influence of career self-efficacy on actual career development behaviors such as choice of major and career achievement for gifted students remains to be documented" (p. 63). Therefore, it is important to look at how self-efficacy and gender role socialization relate to actual career choice.

Self-Efficacy and Gender Role Attitudes

Self-efficacy has been examined in terms of career aspirations. The following studies also present gender role attitudes as a factor in self-efficacy for career choice. Fassinger (1990) found that high levels of career orientation and a tendency toward science-related, high prestige, nontraditional careers was related to high ability, liberal sex role attitudes, and instrumental personality tendencies in adolescent females. This demonstrates how gender role attitude is a factor in occupational aspirations. These results were supported by O'Brien and Fassinger's (1993) findings that adolescent females who had liberal gender role attitudes had higher agentic characteristics; that is, they were more confident in terms of math and careers. These girls with greater agentic characteristics were more likely to want nontraditional and prestigious careers. Ahrens and O'Brien (1996) studied adolescent females in terms of academic ability, agency (measured by the mathematics self-efficacy scale, the instrumental items of the Bem Sex Role Inventory, and the Career Confidence Scale), and gender role attitudes. Results

showed that girls with high levels of ability and agency also had liberal gender-role attitudes. This highlights the importance of gender role attitudes in creating higher self-efficacy for careers.

Religiosity and Gender Role Attitudes

This study focused on an aspect of socialization that has rarely been examined in previous research. This is the aspect of religion. Religiosity has frequently been measured in relation to attitudes towards such things as homosexuality, cohabitation, domestic violence, and specifically being a male or female; however, there has been little research done on the relation between religiosity and gender role socialization. Exceptions would include Morgan and Scanzoni's (1987) research which examined students' expectations about future work frequency at seven points in their life and how this was related to their religious devoutness. Religious devoutness was based on the frequency of engaging in religious activities and the experience of religious feelings. Increased religious devoutness decreased the expectations of college women regarding continued work in the workforce. Religious devoutness was also negatively related to sex-role attitudes; the more religiously devout female students were, the more likely they were to choose female-dominated majors. Therefore, the authors concluded that religious devoutness influences sex-role attitudes as well as choice of major, and this affects future work expectations. Being religiously devout led to entering female-dominated majors and limiting work expectations.

Feltey and Poloma (1991) examined the relationship between gender roles and religiosity. They found that sex and gender role ideology were not related. Women were

no more likely to support gender equality than men. However, gender role ideology was related to five of six dimensions of religiosity. That is, attitudes of gender equality were associated with a lower belief in the literal interpretation of the Bible, less prayer, lower personal importance of religion, lower church attendance, and less experiences of intimacy with God. Similarly, Fine-Davis (1979) found that the more religious a person was, the more likely they were to have a traditional sex-role orientation.

Brinkerhoff and Mackie (1988) found that denominational identification and belief systems and behaviours were related to traditional gender attitudes. This may be because religion has been used to define gender roles and legitimize distinctions between the genders, thus continuing women's subordinate status in the family and society (Feltey & Poloma, 1991). Both one's childhood and current denominational affiliation may be a strong influence on gender role socialization. Therefore, it is important to take both childhood and present denomination into account.

CHAPTER 2

PRESENT STUDY

This present study examined both males and females, and their gender role socialization, religiosity, and self-efficacy in terms of future career choice. Thus, it attempted to create additional support for the Social Cognitive Theory being used as a model of career choice, and thus for the Social Cognitive Career Theory. It also attempted to demonstrate that the variable of religiosity plays a role in career choice,

specifically that religiosity predicts career choice over and above gender role socialization.

Measuring Gender Role Socialization

Gender role identity. Gender role socialization influences the gender role identity one adopts (Powell & Butterfield, 2003). This socialization process results in an identification with a certain gender role, which then becomes the framework from which people interpret their own and others' experiences (Palan, Areni, & Kiecker, 1999). According to Palan, Areni, & Kiecker (1999), gender role identity can be defined as "...an individual's self-perceived endorsement of masculine and feminine personality traits..." (p. 363), while gender role socialization is "...how people learn to be masculine or feminine..." (p. 364).

In order to examine gender role socialization in this study, participants' gender role identity or sex role identity was determined using the short form of the Bem Sex Role Inventory (s-BSRI, Bem, 1981). The BSRI is rarely looked at in association with measures of self-efficacy; usually it is gender itself that is measured along with self-efficacy. However, there are a few studies that have found correlations between the BSRI and measures of self-efficacy. In a study by Wulff and Steitz (1999), high androgyny was associated with high self-esteem and high self-esteem with high career self-efficacy. Long (1989) discovered that women with high scores of masculinity also had higher self-efficacy. Women with low scores on femininity had higher self-efficacy if they were in nontraditional jobs than if they were in traditional jobs. Women with low masculinity had less self-efficacy no matter what type of job they held.

The BSRI has also been linked to choice of career. Measures of androgyny have been positively related to the selection of careers that are not dominated by men or women (Strange & Rea, 1983). Rotberg, Brown, and Ware (1987) found that gender did not predict career self-efficacy expectations in a group of community college students, but sex role orientation, as measured by the BSRI, did. However, self-efficacy was not related to the range of career choice. Sztaba and Colwill (1988) studied female students in a traditional field (secretarial program) and a nontraditional field (management program). They found that females in the traditional field scored lower on the masculine and higher on the feminine subscale of the Personal Attributes Questionnaire (PAQ, Spence, Helmreich, & Stapp, 1974), a scale similar to the BSRI. These females in the traditional field were also more likely to identify with a feminine sex role identity.

Betz, Heesacker, and Shuttleworth (1990) found that women who were masculine or androgynous (as measured by the BSRI) obtained higher scores on the ACT and chose male-dominated fields. They also discovered that while more women were now entering male-dominated fields than in 1981, men were still avoiding female-dominated fields. Thus, men seem to be more sex-typed. Evidence shows that there is a link between traditionally masculine gender roles and traditionally male careers (Tokar & Jome, 1998; Lemkau, 1984). Men may also be discouraged from entering traditionally female jobs, emphasizing the importance of considering males and career limitations as well.

Some researchers (Spence & Helmreich, 1980, Spence & Buckner, 2000) have argued that the BSRI does not accurately predict attitudes and behaviours related to gender and hence, is not a valid measure of global gender concepts. On the contrary, the

BSRI is hypothesized to have such a relationship with career choice because of the fact that the BSRI measures instrumentality and expressiveness. Stereotypical feminine roles require expressive characteristics and stereotypical masculine roles require instrumental characteristics (Spence & Helmreich, 1980). Expressive traits include an affective concern for others' welfare, while instrumental traits include a cognitive focus on getting a job done (Bem, 1974). Expressiveness is associated with being interpersonally-oriented, kind, tactful, and aware of others feelings; instrumentality is associated with being self-assertive, independent, active, and self-confident (Spence & Helmreich, 1980). Thus, traditionally male careers would be associated with instrumentality, and traditionally female careers would be associated with expressiveness. Additionally, as Spence & Buckner (2000) admit, the concept of gender identity, which is measured by the BSRI, at least plays some role in influencing one's attitudes and behaviours.

Gender role stereotypes. In addition, gender role stereotypes were measured as another aspect of gender role socialization. Self-report measures of gender stereotypes may cause a person to consciously control their answers in order to present themselves as egalitarian (Nosek, Banaji, & Greenwald, 2002). Of course, men and women do not have to endorse gender stereotypes for these stereotypes to influence them. Studies using implicit association tests show that gender stereotypes are still influencing people unconsciously (Nosek, Banaji, & Greenwald, 2002; Karylowski et al., 2001). Therefore, this present study addressed gender stereotypes with scenarios designed to elicit gender beliefs without the knowledge of the participants. If participants do not know that their gender stereotypes are being measured, their gender beliefs may be presented more

accurately. When information is either ambiguous or indeterminate, people will tend to use stereotypical cues to fill in these ambiguities (Dunning & Sherman, 1997). By asking questions regarding a scenario in which the person's gender is ambiguous, perhaps gender stereotypes would surface, based upon occupational cues.

Measuring Religiosity

There are many measures of religiosity and spirituality in the psychological literature, and they are often associated with each other (Berry, 2005). It is therefore important to distinguish between these two concepts even though they are both somewhat difficult to operationalize. Religiosity can be defined as an organized system of beliefs and rituals, while spirituality is a quest for personal meaning, the process of making sense of oneself and the world, and the search for understanding the ultimate questions of life (King & Crowther, 2004; Frey, Daaleman, & Peyton, 2005; Berry, 2005). This study focused strictly on religiosity, as it is the foundational belief system of religion that is hypothesized to play a part in the designation of sex roles.

The most common way to measure religiosity has been to ask about the frequency of church attendance (Schwartz & Huismans, 1995; McDonald, 1979; Grasmick, Kinsey, & Cochran, 1991). Some researchers claim that single-item measures of religiosity have validity and are useful (Rohrbaugh & Jessor, 1975). However, many concerns over the unidimensional nature of this operationalization have been raised (Brinkerhoff & Mackie, 1988). There have been a variety of scales developed to try to measure religiosity in more multidimensional formats, including Allport and Ross's (1967) Religious Orientation Scale. Many of these scales however are based on traditional Judaeo-Christian beliefs or

deviations from these beliefs. Examples include Faulkner & De Jong's (1966) Five Dimensional Religiosity Scale and Fullerton & Hunsberger's (1982) Christian Orthodoxy Scale (as cited in Young, 1986 and Prancer, Jackson, Hunsberger, Pratt, & Lea, 1995).

It is important to measure religiosity more extensively than only gathering information on a person's denominational affiliation. This is because differences on religious scales are found among members of the same denomination (Altemeyer & Hunsberger, 1992). Morgan and Scanzoni (1987) also claim that liberals of all religions may have more in common with one another than with conservatives within their own religion. This study aimed to evaluate religiousness, apart from mere denominational affiliation.

Religious commitment is one way to measure the religiousness of a person. Worthington (1988) developed a model of religion, suggesting that religious commitment led to people evaluating the world based on religious values, integrating religion into all of their life. Since it was of interest in this study to determine how religiosity impacts areas of life such as gender role socialization, self-efficacy, and career choice, commitment to religion seemed to be an important aspect. The Religious Commitment Inventory-10 (RCI-10), developed by Worthington et al. (2003), was thus used in this study to assess participants' degree of religiosity.

Apart from the degree of commitment to religion, there is also the aspect of the content and structure of this religion. Those with stronger religious beliefs may hold more traditional ideas about gender (Feltey & Poloma, 1991). Religions that adhere to more literal interpretations of the Bible tend to encourage male leadership within the

family. These groups may also be referred to as fundamentalists. The terms *orthodoxy* and *fundamentalism* have been distinguished by Kirkpatrick, Hood, and Hartz (1991) with the former being the specific content of a Christian belief system and the latter being the structure of that belief system. This means that fundamentalism refers to how these beliefs function for the individual.

This study aimed to look at a variety of religious systems, and hence, fundamentalism was chosen to examine the structural aspect of religiosity. Altemeyer and Hunsberger (1992) define fundamentalism as

> "...the belief that there is one set of religious teachings that clearly contains the fundamental, basic, intrinsic, essential, inerrant truth about humanity and deity; that this essential truth is fundamentally opposed by forces of evil which must be vigorously fought; that this truth must be followed today according to the fundamental, unchangeable practices of the past; and that those who believe and follow these fundamental teachings have a special relationship with the deity" (p. 118).

Kellstedt and Smidt (1991) measured fundamentalism with a biblical literalism question about the story of Genesis, as well as a fundamentalist identification question. However, the first question is aimed only at Christian groups, and the second question allows people to self-identify which may not produce the most accurate results. The Religious Fundamentalism (RF) scale was a 20-item scale developed by Altemeyer and Hunsberger (1992) for their research on right-wing authoritarianism. It was their aim to create a conceptualization of fundamentalism that would apply to religions beyond Christianity and thus, this scale steers away from specifically Christian components. It also includes a large range of religious topics.

Altemeyer and Hunsberger (1992) found that those high on religious fundamentalism were more likely to be authoritarian and prejudiced. The authors suggest that these fundamentalist beliefs could be linked to ethnocentrism and self-righteousness which would perpetuate stereotypes and intolerance towards minority groups. Though Altemeyer and Hunsberger (1992) were measuring prejudice towards racial and ethnic groups, as well as towards homosexuals, it is possible that these same beliefs may also play a role in gender role stereotypes. Thus the RF scale was used in this study to assess the fundamentalist component of religiosity, and how this impacts gender role socialization and self-efficacy in choosing a career.

Measuring Self-Efficacy

In this study, the Task Specific Occupational Self-Efficacy Scale (TSOSS, Osipow & Temple, 1996) was used to assess career self-efficacy. The TSOSS contains specific activities that can be applied to specific types of careers. In this way, it is different from many other scales measuring self-efficacy for careers in general, such as Taylor and Betz's (1983) Career Decision-Making Self-Efficacy Scale (CDMSE). With such a skill-specific approach, it is possible to see if career self-efficacy varies depending on the type of skill that is involved. The scale contains four factors, including 1) verbal, interpersonal skills, 2) quantitative, logical, and business skills, 3) physical strength and agility, and 4) aesthetic skills. It is expected that high scores on the verbal and quantitative factors will be linked with high femininity scores and high masculinity scores, respectively.

However, the relationship between the BSRI and the TSOSS has not yet been examined. Therefore, this present study attempted to find possible connections between

gender role identity and career self-efficacy using this measure. Osipow and Temple (1996) revised the Task-Specific Occupational Scale (TSOSS) and found it to be successful for the second and third revision versions. The first revision included changing the 5-point scale to a 10-point scale in order to create a wider range of responses. The second revision included rewording the activities or items to the "I" format to make them more personally relevant. The third revision was a combination of the changes from the first and second revisions. Osipow and Temple acknowledge that the TSOSS needs additional validity studies. This present study used the first and only available version of the TSOSS.

Hypotheses

Therefore, this current study addressed the factors of gender role socialization, as measured by sex role identity and gender stereotypes, and religiosity, as measured by commitment to religion and religious fundamentalism, and how these relate to career self-efficacy and career choice. The hypotheses of this study were as follows. Religiosity would be related to gender role socialization, and gender role socialization would be related to career self-efficacy. This means that gender role socialization may mediate the relationship between religiosity and career self-efficacy. However, the primary hypothesis of this study was that religiosity would predict career self-efficacy over and above gender socialization. Additionally, it was hypothesized that gender, gender role socialization, religiosity, and career self-efficacy would all be related to career choice.

CHAPTER 3

METHODOLOGY

Design

This study examined the relationships between gender, gender role socialization, religiosity, career self-efficacy, and career choice.

Participants

Participants were taken from the participant pool at the University of Windsor. This random sample of participants consisted of undergraduate students who had signed up in the pool to receive bonus marks for psychology classes.

Measures

Questionnaire. A questionnaire was used to gather certain demographic information that would enable important factors to be considered within this study (see Appendix A). It collected information on gender, ethnic background, citizenship, family socioeconomic status, year of study, present or predicted major, mother's occupation, father's occupation, family or childhood religion, and current religious affiliation. In addition, it asked participants to list their top 5 career choices, and how certain they were in these choices on a scale of 1 to 5, with 1 being "Very Certain" and 5 being "Very Uncertain". To determine whether the choice of career fell under the category of nontraditional or traditional, the percentage of men and women currently in these fields was appraised, with a percentage of 70% male or above indicating a traditionally masculine career and a percentage of 70% female or above indicating a traditionally feminine career. Careers that were over 30% and under 70% male or female were

considered gender-neutral. This type of designation by percentages has been employed in previous studies (Betz & Hackett, 1981; Lease, 2003), using information from the Bureau of Labor Statistics.

Scenarios. Scenarios were given to participants that contained gender-neutral titles and traditional male and female-oriented occupations (see Appendix B). The scenarios involved a person with a gender-neutral title ("Dr." or "Nurse") performing either traditionally male or female-oriented work. The participants were told that this task was to determine what motivates decision-making in careers. The participants were required to answer a question regarding the decision motivation using at least two to three sentences. This was to create a higher likelihood that pronouns would be used, and the participants' use of a specific pronoun was used as an indication of whether they held certain gender stereotypes in terms of occupations.

TSOSS. The Task-Specific Occupational Self-Efficacy Scale (Osipow & Temple, 1996) was used to measure participants' career self-efficacy (see Appendix C). This scale was created to ascertain self-efficacy expectations regarding specific career skills. It contains four factors: 1) verbal, interpersonal skills, 2) quantitative, logical, and business skills, 3) physical strength and agility, and 4) aesthetic skills. For brevity, the labels of these four factors will subsequently be referred to as verbal self-efficacy, quantitative self-efficacy, physical self-efficacy, and aesthetic self-efficacy. The TSOSS is a 60-item scale with 15 items for each of the four factors. Participants were instructed to indicate their confidence in their ability to perform specific career-related activities on an alphabetical scale of *A* through *E*, with *A* indicating "No Confidence", and *E* indicating "Absolute

Certainty". These letters are given numerical values which are then used in scoring each factor by adding the response values for each factor. In addition, a total self-efficacy score can be obtained by adding all 60 items. This study was important in providing more statistical information for the TSOSS.

RCI-10. The Religious Commitment Inventory-10 (Worthington et al., 2003) was used to measure commitment to religion (see Appendix D). This scale was developed based on earlier 62-item, 20-item, and 17-item versions. It contains 10 statements which are rated on a 5-point Likert scale: 1 = Not at all true of me, 2 = Somewhat true of me, 3 = Moderately true of me, 4 = Mostly true of me, and 5 = Totally true of me. Those scoring one standard deviation above the mean should be considered highly religious (normative mean being 26, with a standard deviation of 12), meaning that a score of 38 or higher would indicate a highly religious person). Data from this scale has been shown to have high levels of reliability and validity.

RF. The Religious Fundamentalism scale (Altemeyer & Hunsberger, 1992) was used to measure how conservative or fundamentalist one was in regards to religious beliefs (see Appendix E). This scale contains 20 opinion statements, requiring responses to be made on a 9-point Likert scale, anchored at 1 (Strongly Disagree), 5 (Neutral), and 9 (Strongly Agree). Items are both positive and negative and thus, some items were reverse-scored. Higher scores indicate a greater level of religious fundamentalism. Data from this scale has good levels of inter-item correlation and an alpha reliability of .92.

S-BSRI. The Short Form of the Bem Sex Role Inventory (Bem, 1981) was used to measure participants' sex role identity (see Appendix F). This scale was designed to

measure self-perceptions of masculinity and femininity, and to identify gender-typed and non-gender-typed persons. It is based on the full 60-item BSRI (Bem, 1974), with the socially desirable items from the original scale excluded (Payne, 1987). It contains 30 descriptive adjectives, 10 measuring femininity, 10 measuring masculinity, and 10 that are gender-neutral. These adjectives are rated on a 7-point Likert scale (1 = Never or almost never true, 7 = Always to almost always true). Participants were characterized as masculine, feminine, androgynous, or undifferentiated based on their scores in each of these categories. The s-BSRI has proven to have high levels of reliability and both construct and predictive validity as a measure of masculine and feminine attributes. Bem (1981) reported correlations of r = 0.94 between the short and long forms of the BSRI for the masculine scale and r = 0.87 for the feminine scale.

Procedure

Participants were first given the demographic questionnaire. It was important that this was done first because this measure contained the question about career choice, and there was a small possibility that the following measures may have led participants to choose differently. This may have been especially likely for undergraduate students who are not clearly committed to a single career.

Following the questionnaire, gender role stereotypes were measured. This was done before the other scales because of the danger that the other scales (especially the BSRI) might have caused participants to realize that gender stereotypes were being examined. It is very difficult to measure gender stereotypes because of a desire to please the researcher or conform to a politically correct standpoint (Bowman & Auerbach, 1978).

Therefore, it is ideal to find a way to measure this without the knowledge of the participants. Participants were required to answer a question regarding these scenarios that would force them to respond with a gender-specific pronoun. This was used to uncover participants' gender stereotypes.

Participants were then given the next three scales in a counterbalanced fashion to avoid order effects. These included the Task Specific Occupational Self-Efficacy Scale (TSOSS, Osipow & Temple, 1996) to measure participants' career-related self-efficacy, as well as the religiosity measures: the Religious Commitment Inventory-10 (RCI-10, Worthington et al., 2003) and the Religious Fundamentalism scale (RF, Altemeyer & Hunsberger, 1992). Since the TSOSS may have drawn out self-efficacy for specific career skills traditionally associated with masculinity and femininity, this was presented before the s-BSRI which would have alerted participants to the fact that sex role identity was under study. Lastly, the Short Form of the Bem Sex Role Inventory (s-BSRI, Bem, 1981) was administered. Following this, participants were debriefed on the true nature of the study.

Data Analysis

Data was analyzed using a hierarchical regression in order to determine whether religiosity predicts career self-efficacy over and above gender role socialization. In the first step of this analysis, the gender role socialization variables predicting career self-efficacy were entered and an R^2 was obtained. In the second step, the religiosity variables predicting career self-efficacy were entered, and a new R^2 was obtained. Other additional analyses were performed to explore various relationships among the variables of gender,

gender role socialization, religiosity, career self-efficacy, and career choice. The outcome of the analyses would then possibly be used to support the Social Cognitive Theory as a model of career choice, and thus provide support for the Social Cognitive Career Theory, with evidence for including religiosity as an important factor in career choice.

CHAPTER 4

RESULTS

A reliability analysis was conducted on all scales used for data analysis. Data from the Task-Specific Occupational Self-Efficacy Scale was found to be reliable. Alpha coefficients from all four subscales of the TSOSS exceeded .85 (.88, .90, .92, and .90 for Factors 1 though 4 respectively). The Religious Commitment scale and the Religious Fundamentalism scale had alpha coefficients of .95 and .94 respectively, indicating good reliability for the data from the religious scales. Data from the masculinity and femininity scales of the Bem Sex Role Inventory was also found to have satisfactory reliability with alpha coefficients of .83 and .90 respectively. Table 1 shows the reliability coefficients, means, and standard deviations for each of these scales.

Table 1

Reliability of the TSOSS, RC, RF, Masculinity, and Femininity Scales (N = 156)

	Alpha Coefficient	Mean	Standard Deviation
TSOSS- Factor 1	.88	61.62	7.56
TSOSS- Factor 2	.90	54.38	10.61
TSOSS- Factor 3	.92	56.81	11.02
TSOSS- Factor 4	.90	47.10	12.22
RC Scale	.95	22.33	10.69
RF Scale	.94	71.64	33.44
Masculinity Scale	.83	51.54	8.00
Femininity Scale	.90	57.64	7.92

Frequencies for individual scale items were examined to check for accuracy in the data. Descriptive statistics were used to make sure scale scores fell within an accurate range. One participant was eliminated from the data set because of scores lying outside of the normal range. This was determined within a regression analysis by using a histogram and the DFFITS influence statistic in SPSS. The DFit value for this particular case was -1.62, and with the removal of this case, the R^2 for the new regression analysis changed considerably. Scatter plots of the religiosity variables and the four factors of the career self-efficacy scale were examined to ensure that a curvilinear relationship did not exist between religiosity and career self-efficacy because the following analyses assume a linear relationship.

The remaining 156 participants included 74 females (47.4%) and 82 males (52.6%). Figure 1 shows the percentages of participants by their ethnic status. The majority of participants were Whites (n = 115), followed by Asians (n = 20), Blacks (n = 9), Mixed (n = 7), and Unknown (n = 5). Figure 2 shows the percentages of participants by their year in university. Most participants were in their first, second, or third year of

university. Figure 3 shows the percentages of participants by their family socioeconomic status. The largest numbers were in the "$100,000 or more" bracket (n = 41), followed by "$50,000 to $74,999" (n = 29), "Don't Know" (n = 25), "$75,000 to $99,999" (n = 23), "$35,000-$49,999" (n = 14), "Less than $24, 999" (n = 13), and "$25,000 to $34,999" (n = 11).

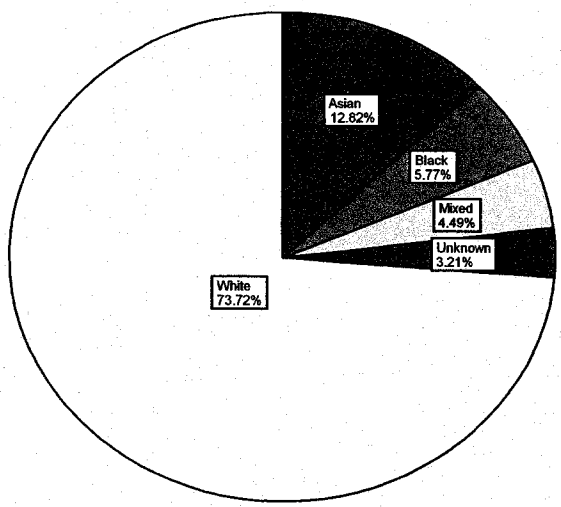

Figure 1. Percentage of participants by ethnicity.

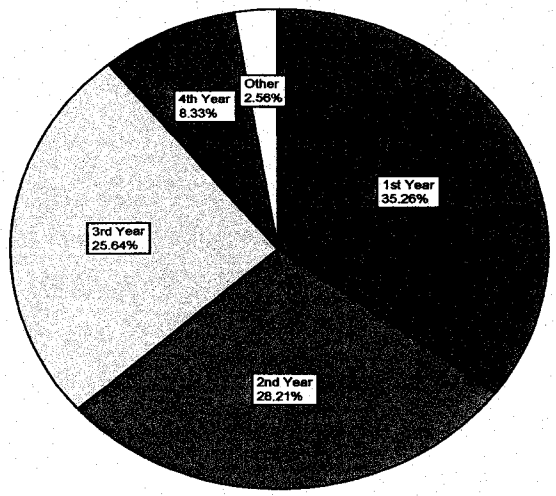

Figure 2. Percentage of participants by year in university.

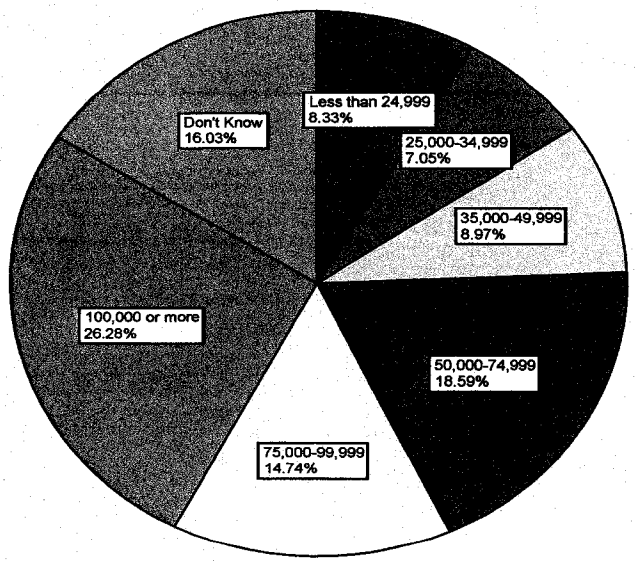

Figure 3. Percentage of participants by family socioeconomic status in dollars.

Descriptive statistics were obtained for participants' responses to the two career choice scenarios. Responses to the scenarios from one participant were deleted from the analyses because they could not be interpreted; instead of answering the scenario questions, this participant focused on personal experiences. Frequencies and percentages were obtained from the remaining 155 participants. Figure 4 and 5 show these percentages. For scenario one involving the doctor, 121 participants used the pronoun "He", 4 used "She", 19 used "He/She", 8 used "Dr. Jones", and 3 did not use pronouns. For scenario two involving the nurse, 123 participants used the pronoun "She", 4 used "He", 17 used "He/She", 7 used "Nurse Smith", and 4 did not use pronouns. Because the majority of participants indicated gender-typical pronouns in reference to the scenarios, no further analyses were performed.

Figure 4

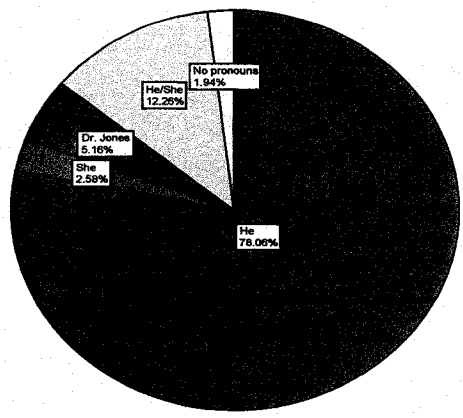

Figure 5

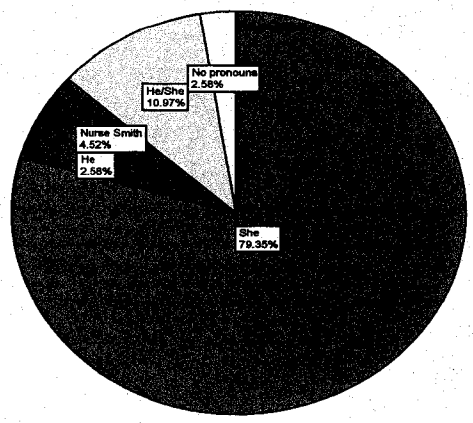

Figure 4. Pie chart of pronoun responses for scenario 1.

Figure 5. Pie chart of pronoun responses for scenario 2.

Correlation coefficients were computed among the eight scales, including the four factors of the Task Occupational Self-Efficacy Scale, the Religious Commitment Scale, the Religious Fundamentalism Scale, and the masculinity and femininity subscales of the Bem Sex Role Inventory. To control for Type 1 error among the 28 correlations, the Bonferroni approach was used (Green & Salkind, 2005), setting the revised requirement for significance at a p value less than .002 (.05 / 28 = .002). The results of the correlational analyses are shown in Table 2. There were 9 statistically significant correlations out of 28 correlations. These 9 correlations were greater than or equal to .27. From the table below, it can be seen that factor one (verbal self-efficacy) correlates with all the other factors (factor two- quantitative self-efficacy, factor three- physical self-efficacy, and factor four- aesthetic self-efficacy). Also of note, the femininity scale correlates with both religiosity scales, the Religious Commitment and the Religious Fundamentalism scale.

Table 2
Correlations among the Eight Scales (N = 156)

	Factor 1	Factor 2	Factor 3	Factor 4	Religious Commitment	Religious Fundamental	Masculinity
Factor 2	.36*						
Factor 3	.33*	.37*					
Factor 4	.32*	.12	.13				
Relig. Com.	.02	.08	.02	.13			
Relig. Fund.	-.06	.05	.04	.08	.74*		
Masculinity	.51*	.14	.32*	.21	.14	.05	
Femininity	.22	-.03	.03	.16	.28*	.27*	.01

* $p < .00$

A hierarchical regression analysis was conducted in order to determine if religiosity predicted career self-efficacy over and above gender role socialization. This

was done to test the primary hypothesis, even though as shown in the above correlation matrix, it was already apparent that there were no correlations between the religiosity variables and the self-efficacy factors. The criterion variable was career self-efficacy; thus, four regression analyses were run, one with each of the four factors entered separately as the dependent variable. The first set of predictor variables entered were the masculinity and femininity scores, representing gender role socialization. The second set of predictor variables were the religious commitment and religious fundamentalism scores, representing religiosity. The alpha level was set at .05 for all regression analyses.

The results for factor one- verbal self-efficacy- showed that gender role socialization accounted for a significant amount of variability in verbal self-efficacy, R^2 = .30, adjusted R^2 = .29, $F_{(2, 153)} = 32.83$, $p < .01$. Approximately 29% of the variance in verbal self-efficacy was due to the masculinity and femininity variables. However, the addition of the second set of predictor variables (religiosity) did not significantly improve the prediction of the dependent variable, R^2change = .02, $F_{(2, 151)} = 2.41$, $p = .093$.

The results for factor two- quantitative self-efficacy- showed that gender role socialization did not account for a significant amount of variance in quantitative self-efficacy, R^2= .02, adjusted R^2 = .01, $F_{(2, 153)} = 1.60$, $p = .21$. Also, the addition of the second set of predictor variables (religiosity) did not significantly improve the prediction of the dependent variable, R^2change = .01, $F_{(2, 151)} = .45$, $p = .64$.

The results for factor three- physical self-efficacy- showed that gender role socialization accounted for a significant amount of variance in physical self-efficacy, R^2= .12, adjusted R^2= .09, $F_{(2, 153)} = 8.93$, $p < .05$. Approximately 9% of the variance in

physical self-efficacy could be attributed to the masculinity and femininity variables. However, the addition of the second set of predictor variables (religiosity) did not significantly improve the prediction of the dependent variable, R^2change = .00, $F_{(2, 151)}$ = .35, p = .709.

The results for factor four- aesthetic self-efficacy- showed that gender role socialization accounted for a significant amount of variance in aesthetic self-efficacy, R^2= .07, adjusted R^2 = .06, $F_{(2, 153)} = 5.92$, $p < .05$. Approximately 6% of the variance in aesthetic self-efficacy could be attributed to the masculinity and femininity variables. However, the addition of the second set of predictor variables (religiosity) did not significantly improve the prediction of the dependent variable, R^2 change = .00, $F_{(2, 151)}$ = .25, p = .78. The unstandardized regression coefficients (b and standard error for b), the standardized coefficients (Beta weights), the t statistics, and the alpha coefficients (p) for model 1 and model 2 of the four regression analyses are reported in Table 3.

Table 3
Regression Equation Statistics (N = 156)

			b	Std. Error	Beta	*t*	*p* value
Factor 1	Model 1	Masculinity	4.49	.60	.50	7.44	<.05
		Femininity	1.92	.61	.21	3.16	<.05
	Model 2	Masculinity	4.57	.61	.51	7.55	<.05
		Femininity	2.31	.63	.26	3.67	<.05
		Religious Commitment	-.01	.07	-.02	-.19	.85
		Religious Fundamentalism	-.03	.02	-.14	-1.38	.17
Factor 2	Model 1	Masculinity	1.82	1.04	.14	1.75	.08
		Femininity	-.38	1.04	-.03	-.37	.71
	Model 2	Masculinity	1.67	1.05	.13	1.59	.11
		Femininity	-.67	1.10	-.05	-.61	.54
		Religious Commitment	.08	.12	.08	.66	.51
		Religious Fundamentalism	.00	.04	.00	-.00	1.00
Factor 3	Model 1	Masculinity	4.32	1.03	.32	4.21	<.05

		Femininity	.40	1.03	.03	.39	.70
	Model 2	Masculinity	4.44	1.05	.33	4.25	<.05
		Femininity	.47	1.09	.04	.43	.67
		Religious Commitment	-.10	.12	-.10	-.82	.41
		Religious Fundamentalism	.03	.04	.08	.68	.50
Factor 4	Model 1	Masculinity	3.25	1.19	.21	2.72	<.05
		Femininity	2.51	1.20	.16	2.09	<.05
	Model 2	Masculinity	3.11	1.22	.20	2.56	<.05
		Femininity	2.29	1.27	.15	1.81	.07
		Religious Commitment	.08	.14	.07	.61	.55
		Religious Fundamentalism	-.01	.04	-.02	-.18	.85

Therefore, while the masculinity and femininity scales predicted some of the variance in verbal self-efficacy, physical self-efficacy, and aesthetic self-efficacy, neither religious commitment nor religious fundamentalism added predictive strength to any of the four factors. The masculinity and femininity scales of the Bem Sex Role Inventory were predictive of three of the four factors of Task Specific Occupational Self-Efficacy Scale, but the Religious Commitment and Religious Fundamentalism Scales did not help in predicting these factors. Therefore, the primary hypothesis was not supported: religiosity does not predict career self-efficacy over and above gender role socialization. In fact, based on nonsignificant correlations, religiosity appears to be unrelated to career self-efficacy.

Though the hypothesized results were not obtained, it is possible that while the religiosity variables do not have a main effect on career self-efficacy, they may have an effect through their interactions with other variables. Thus, interactions between religiosity and gender role socialization, and religiosity and gender were examined. First, the religiosity variables, religious commitment and religious fundamentalism, and the

gender role socialization variables, masculinity and femininity, were centered. This means that each variable's mean was subtracted from each score on that variable to get a new deviation score. Second, interaction terms for the sets of variables were computed by multiplying the new deviation scores. Third, these interaction terms were then entered into a new hierarchical regression analysis.

The interaction between religiosity and gender role socialization was examined first. There were several significant correlations among the interaction terms of religiosity x gender socialization and factor one- verbal self-efficacy. The alpha level for significance was set at .05. Religious commitment x masculinity was significantly correlated with verbal self-efficacy, $r = -.13$, $p < .05$. Religious fundamentalism x masculinity was also significantly correlated with verbal self-efficacy, $r = -.15$, $p < .05$. However, when these interactions terms were entered into the hierarchical regression analysis, no significant results were found. For factors two to four, there were no significant correlations with religiosity x gender socialization. This means that although religiosity and gender role socialization are correlated, once the main effect for gender role socialization is taken into account, the interaction between religiosity and gender role socialization does not add any new information for predicting the self-efficacy factors.

The interaction between religiosity and gender was examined next. There were no significant correlations among the interaction terms of religiosity x gender and the four factors of the career self-efficacy scale.

Another possibility that was thought of after the initial analysis was that perhaps religiosity is only predictive of career self-efficacy when participants' career choices are

either consistent or inconsistent with their own gender. Therefore, a two-way contingency table analysis using crosstabs was conducted. The two variables were gender, with the levels of male or female, and career choice, with the levels of feminine, masculine, or gender-neutral. The career choice that was selected for analysis was the career choice that each participant indicated the highest certainty towards. This career choice was categorized as masculine, feminine, or gender-neutral, depending on the current percentage of males and females within that career. These percentages were obtained from the U.S. Bureau of Labor Statistics (U.S. Department of Labor, Bureau of Labor Statistics, 2004).

The analysis revealed that gender and career choice were significantly related, Pearson $\chi^2(2, N = 156) = 24.00$, $p < .01$, Cramér's $V = .40$. Observed and expected frequencies showed that more females and less males chose feminine careers, more males and less females chose masculine careers, and more males and less females chose gender-neutral careers than would be expected if there was no relationship between gender and career choice. Table 4 shows the count and percentages of career choice by gender.

Table 4

Crosstab Table of Career Choice and Gender (N = 156)

			Male	Female	Total
Career Choice	Feminine	Number	17	43	60
		Percent	20.7%	58.1%	38.5%
	Masculine	Number	35	13	48
		Percent	42.7%	17.6%	30.8%
	Neutral	Number	30	18	48
		Percent	36.6%	24.3%	30.8%
Total		Number	82	74	156
		Percent	100%	100%	100%

Note: Percent = % within gender

Follow-up pairwise comparisons were conducted to evaluate the differences among career choice and gender. Table 5 shows the results of these analyses. The Holm's sequential Bonferroni method was used to control for Type 1 error (Green & Salkind, 2005). Therefore the alpha level was set at .02, .03, and .05 respectively for the three comparisons. There was a significant difference between feminine and masculine career choices, Pearson $\chi^2(1, N = 108) = 21.23, p < .01$, Cramér's $V = .44$. Significantly more males chose masculine careers (67.3%, n = 35) than feminine careers (32.7%, n = 17). Significantly more females chose feminine careers (76.8%, n = 43) than masculine careers (23.2%, n = 13). There was also a significant difference between feminine and gender-neutral career choices, Pearson $\chi^2(1, N = 108) = 12.67, p < .01$, Cramér's $V = .34$. Significantly more males chose gender neutral careers (63.8%, n = 30) than feminine careers (36.2%, n = 17). Significantly more females chose feminine careers (70.5%, n = 43) than gender neutral careers (29.5%, n = 18). However, there was no significant difference between masculine and gender-neutral careers, Pearson $\chi^2(1, N = 96) = 1.19, p = .28$, Cramér's $V = .11$.

Table 5
Results for the Pairwise Comparisons for Career Choice

Comparison	Pearson chi-square	*p* value (alpha)	Cramér's *V*
Feminine vs. Masculine Career	21.23*	.00 (.02)	.44
Feminine vs. Neutral Career	12.67*	.00 (.03)	.34
Masculine vs. Neutral Career	1.19	.28 (.05)	.11

* p value ≤ alpha

Hierarchical regression analyses were also conducted with the new groups of gender by career choice. The inconsistent group, categorized by a participant choosing a

career dominated by the opposite sex, did not have enough numbers, for either males or females, to be able to use in the analyses. Instead, the consistent group, categorized by a person choosing a career dominated by his or her own sex, was used in the regression equation. This was done to determine if religiosity had an effect on career self-efficacy over and above gender role socialization for the people who remained consistent in terms of their gender and career choice. Those people who chose a career typical to their gender may be those who were impacted by religiosity more strongly.

The first group, females who chose feminine careers, showed significant results for the masculinity and femininity variables on factor one- verbal self-efficacy, $R^2 = .39$, adjusted $R^2 = .36$, $F_{(2, 40)} = 12.93$, $p < .05$. Within this group, gender role socialization predicted 36% of the variance of verbal self-efficacy. However, the addition of religiosity produced no significant results, R^2 change = .02, $F_{(2, 38)} = .79$, $p = .46$. Results for this group also showed significance for the masculinity and femininity variables on factor three- physical self-efficacy, $R^2 = .19$, adjusted $R^2 = .15$, $F_{(2, 40)} = 4.67$, $p < .05$. Gender role socialization predicted 15% of the variance of physical self-efficacy. However, the addition of religiosity produced no significant results, R^2change = .03, $F_{(2, 38)} = .70$, $p = .51$. Finally, this group also showed significant results for the masculinity and femininity variables on factor four- aesthetic self-efficacy, $R^2 = .17$, adjusted $R^2 = .13$, $F_{(2, 40)} = 3.99$, $p < .05$. Gender role socialization predicted 13% of the variance of aesthetic self-efficacy. Once again, the addition of religiosity produced no significant results, R^2change = .01, $F_{(2, 38)} = .21$, $p = .81$.

The second group, males who choose masculine careers, showed significant

results for the masculinity and femininity variables on factor one- verbal self-efficacy, R^2= .33, adjusted R^2 = .29, $F_{(2, 32)} = 7.94$, $p < .05$. Gender role socialization predicted 29% of the variance on verbal self-efficacy. However, the addition of religiosity produced no significant results, R^2 change = .02, $F_{(2, 30)} = .41$, $p = .67$. No significant results were found for this group on factors two, three, or four. The unstandardized regression coefficients (b and standard error for b), the standardized coefficients (Beta weights), the *t* statistics, and the alpha coefficients (*p*) for the significant masculinity and femininity variables are reported in Table 6.

Table 6
Regression Equation Statistics for Career Choice Consistency

			b	Std. Error	Beta	*t*	*p* value
Feminine Career Females	Factor 1	Masculinity	5.34	1.24	.53	4.30	<.05
		Femininity	4.33	1.43	.37	3.02	<.05
	Factor 3	Masculinity	3.89	1.57	.35	2.48	<.05
		Femininity	3.55	1.81	.28	1.96	.06
	Factor 4	Masculinity	6.55	2.36	.40	2.78	<.05
		Femininity	1.94	2.72	.10	.72	.48
Masculine Career Males	Factor 1	Masculinity	5.08	1.28	.58	3.98	<.05
		Femininity	-.44	1.37	-.05	-.32	.75

A two-way contingency table analysis was also conducted for the variables of career choice and sex role. Sex role was determined by examining high and low scores on the masculinity and femininity variables and placing each participant in one of four categories: masculine, feminine, androgynous, or undifferentiated. The analysis showed that career choice and sex role were significantly related, Pearson $\chi^2(6, N = 156) = 16.46$, $p = .01$, Cramér's $V = .23$. Observed and expected frequencies showed that more people who had a feminine sex role chose feminine careers, and less people who had a masculine

sex role choose feminine careers than would be expected if there was no relationship between career choice and sex role. More people with a masculine sex role chose masculine careers, and less people who had a feminine sex role chose masculine careers than would be expected if there was no relationship between career choice and sex role. Additionally, more people with a masculine sex role chose gender-neutral careers, and less people with a feminine sex role choose gender-neutral careers than would be expected if there was no relationship between career choice and sex role. Table 7 shows the count and percentages of career choice by sex role.

Table 7

Crosstab Table of Career Choice and Sex Role (N = 156)

			Masculine	Feminine	Androgynous	Undifferentiated	Total
Career Choice	Feminine	Number	7	21	18	14	60
		Percent	18.4%	63.6%	40%	35%	38.5%
	Masculine	Number	16	7	14	11	48
		Percent	42.1%	21.2%	31.1%	27.5%	30.8%
	Gender-Neutral	Number	15	5	13	15	48
		Percent	39.5%	15.2%	28.9%	37.5%	30.8%
Total		Number	38	33	45	40	156
		Percent	100%	100%	100%	100%	100%

Note: Percent = % within sex role

Following this, pairwise comparisons were conducted to find where the differences might lie. Masculine and feminine sex roles were compared, as well as masculine and androgynous sex roles and feminine and androgynous sex roles. Table 8 shows the results of these comparisons. The Holm's sequential Bonferroni method was used to control for Type 1 error (Green & Salkind, 2005). Therefore, the alpha level was set at .02, .03, and .05 respectively for three comparisons. There was a significant difference between feminine and masculine sex roles, Pearson $\chi^2(2, N = 71) = 15.25$, $p =$

.00, Cramér's $V = .46$. A feminine career was more likely to be chosen by someone with a feminine sex role (75%, n = 21) as opposed to a masculine sex role (25%, n =7). A masculine career was more likely to be chosen by someone with a masculine sex role (69.6%, n = 16) as opposed to a feminine sex role (30.4%, n = 7). A gender-neutral career was more likely to be chosen by someone with a masculine sex role (75%, n = 15) than a feminine sex role (25%, n = 5). No significant differences were found between masculine and androgynous sex roles or between feminine and androgynous sex roles.

Table 8
Results for the Pairwise Comparisons for Sex Roles

Comparison	Pearson chi-square	*p* value (alpha)	Cramér's *V*
Masculine vs. Feminine	15.25*	.00 (.02)	.46
Masculine vs. Androgynous	4.56	.10 (.03)	.23
Feminine vs. Androgynous	4.44	.11 (.05)	.24

* p value ≤ alpha

A two-way contingency table analysis was also conducted for the variables of sex role and gender. Sex role included the levels of masculine, feminine, androgynous, and undifferentiated, while gender included the levels of male and female. However, the analysis showed that sex role and gender were not significantly related, Pearson $\chi^2(3, N = 156) = 4.70$, $p = .20$, Cramér's $V = .17$. This means that participants' physical gender was not related to their sex role. Table 9 shows the count and percentages of gender by sex role.

Table 9

Crosstab Table of Gender and Sex Role (N = 156)

			Masculine	Feminine	Androgynous	Undifferentiated	Total
Gender	Male	Number	23	12	25	22	82
		Percent	60.5%	36.4%	55.6%	55%	52.6%
	Female	Number	15	21	20	18	74
		Percent	39.5%	63.6%	44.4%	45%	47.4%
Total		Number	38	33	45	40	156
		Percent	100%	100%	100%	100%	100%

Note: Percent = % within sex role

Additional analyses were then performed to further explore the data. A multiple regression analysis was also conducted to determine how much of an effect the religiosity variables had on gender role socialization. The predictors were religious commitment and religious fundamentalism, and the criterion variable was masculinity and femininity. The religiosity variables were not significantly related to masculinity, $F_{(2, 153)} = 2.03$, $p = .14$. However, these variables were significantly related to femininity, $F_{(2, 153)} = 7.31$, $p < .05$. They produced a R^2 of .09 and an adjusted R^2 of .08, indicating that 8% of the variance in femininity could be predicted by these religiosity variables. Religious commitment had an unstandardized regression coefficient of .01, a standard error of .01, and a Beta weight of .17, $t = 1.44$, $p = .15$. Religious fundamentalism had an unstandardized regression coefficient of .00, a standard error of .00, and a Beta weight of .15, $t = 1.30$, $p = .20$.

An independent-samples t-Test was performed to compare males' and females' scores on career self-efficacy. There were no significant differences between males and females on factor one- verbal self-efficacy. There was a significant difference between males and females on factor two- quantitative self-efficacy, $t(154) = -4.02$, $p = .00$. Males ($M = 57.60$, $SD = 9.60$) had higher scores on quantitative self-efficacy than females ($M =$

51.28, *SD* = 10.05). The 95% confidence level of the difference between the two means ranged from -9.43 to -3.21. There was a significant difference between males and females on factor three- physical self-efficacy, $t(154) = -6.32$, $p = .00$. Males ($M = 61.62$, $SD = 9.22$) had higher scores on physical self-efficacy than females ($M = 51.97$, $SD = 9.86$). The 95% confidence level of the difference between the two means ranged from -12.67 to -6.63. There were no significant differences between males and females on factor four- aesthetic self-efficacy.

Independent-samples t-Tests were also conducted to determine if there was a difference between males and females on the religiosity variables and the gender role socialization variable. Neither religious commitment nor religious fundamentalism revealed significantly different mean scores for males and females. Males and females also did not differ significantly on their scores on the masculinity scale; however, they did differ significantly on the femininity scale, $t(154) = .204$, $p = .04$. Females ($M = 5.89$, $SD = .82$) had higher scores on the femininity scale than males ($M = 5.64$, $SD = .74$). The 95% confidence level of the difference between the two means ranged from .01 to .50. Therefore, gender was related to gender role socialization as measured by the masculinity and femininity scales of the s-BSRI, despite a lack of relation between gender and the sex role categories.

Finally, a discriminant analysis was performed in order to determine if there were significant differences on any of the variable scores, when separating those participants who had chosen masculine, feminine, and gender-neutral careers. This procedure tries to predict group membership; the question being asked was: can career choice be predicted

based on gender, gender role socialization, career-self efficacy, and/or religiosity? This question was important in determining whether any of these variables were associated with career choice because it was previously hypothesized that they all would be related to career choice.

Box's M test was 91.65, $F(90, 59465.52) = .93$, $p = .66$, indicating that the null hypothesis that the variance-covariance matrices for the groups do not differ could be accepted. The overall Wilks' lambda (for both functions) was significant, $\Lambda = .71$, $\chi^2(18, N = 156) = 51.79$, $p < .01$. This means that overall there was a significant difference among the groups on the linear combination of predictor variables created by the discriminant analysis. However, the Wilks' lambda for the second function was not significant, $\Lambda = .95$, $\chi^2(8, N = 156) = 7.18$, $p = .52$. This means that the predictor variables were not significantly different among the three career choices after partialling out the effects of the first discriminant function. Therefore, only the first discriminant function was interpreted.

The first discriminant function had an eigenvalue of .35 and a canonical correlation of .51. When this canonical correlation was squared ($.51^2 = .26$), the result was the eta square which revealed that 26% of the variance in scores of the predictor variables was due to the differences among the three career choice groups. The standardized canonical discriminant function coefficients and the structure matrix for the two discriminant functions are shown in Table 10. In the first discriminant function, both gender and femininity had large positive coefficients, .71 and .62 respectively for the standardized canonical discriminant function coefficients, and .72 and .59 respectively for

the structure matrix. This indicates that the significant difference among predictor variables lies primarily in the gender and gender role socialization variables. Thus, both gender and femininity are predictive of career choice. The structure matrix for function one also reveals that factor 2, quantitative self-efficacy, is also somewhat predictive of career choice with a coefficient of -.36.

Table 10
Standardized Canonical Discriminant Function Coefficients and Structure Matrix

	Standardized Coefficients			Structure Matrix	
Predictors	Function 1	Function 2	Predictors	Function 1	Function 2
Gender	.71	.28	Gender	.72*	-.01
Factor 1	-.12	-.26	Femininity	.59*	.28
Factor 2	-.22	.03	Factor 2	-.36*	.09
Factor 3	.19	.62	Factor 3	-.23	.47*
Factor 4	.13	-.45	Masculinity	-.25	.41*
Relig. Com.	-.26	.91	Relig. Com.	-.01	.33*
Relig. Fund.	.13	-.89	Factor 4	.15	-.24*
Masculinity	-.20	.40	Factor 1	-.05	.14*
Femininity	.62	.31	Relig. Fund.	.07	-.10*

*Largest absolute correlation between each variable and discriminant function.

Group centroids for function 1 were -.60 for career choice 1 (masculine), -.30 for career choice 2 (neutral), and .73 for career choice 3 (feminine), and for function 2, group centroids were .24 for career choice 1 (masculine), -.31 for career choice 2 (neutral), and .06 for career choice 3 (feminine). Based on the interpretation of the first discriminant function, the group centroids for function one reveal that the feminine career choice group had the highest mean score on the gender and femininity dimensions (M = .73). The gender-neutral career choice group had the next highest mean score (M = -.30), and the masculine career choice group had the lowest mean score (M = -.60) on the gender and

femininity dimensions.

The classification results showed that 27 cases of 48 (56.3%) in the masculine career choice group were correctly classified. In the gender-neutral career choice group, 14 of 48 (29.2%) cases were correctly classified. In the feminine career choice group, 43 of 60 (71.7%) cases were correctly classified. Of the total sample of 156 cases, 84 cases or 53.8% of the sample was classified correctly. The leave-one-out technique was used in order to predict how well the classifications would work in a new sample. These results showed that 20 (41.7%) cases in the masculine career choice group, 12 (25%) cases in the gender-neutral career choice group, and 40 (66.7%) cases in the feminine career choice group were correctly classified. This means that 72 cases or 46.2% of the sample was classified correctly.

CHAPTER 5

DISCUSSION

Based on the initial correlations, it was shown that factor one- verbal self-efficacy- was related to factors two through four- quantitative, physical, and aesthetic self-efficacy. Also, factors two and three- quantitative and physical self-efficacy- were related to each other. Masculinity was related to factor one- verbal self-efficacy, as well as factor three- physical self-efficacy. Femininity was related to both religiosity variables- Religious Commitment and Religious Fundamentalism. The religiosity variables were related to each other, but they were not related to any of the career self-efficacy factors. This lack of

correlation between religiosity and career self-efficacy negates the primary hypothesis that religiosity may predict self-efficacy over and above gender role socialization. Thus, the regression analyses used to look for support for this primary hypothesis were performed merely as a formality, and the interaction analyses were added as another way to search for support for this hypothesis.

From the hierarchical regression analyses, it was shown that gender role socialization, as measured by the masculinity and femininity scores, predicted factor one (verbal self-efficacy), factor three (physical self-efficacy), and factor four (aesthetic self-efficacy). Gender role socialization predicted 29% of the variance for verbal self-efficacy, 9% of the variance for physical self-efficacy, and 6% of the variance for aesthetic self-efficacy. High scores on the masculinity and femininity variables were predictive of high scores on verbal, physical, and aesthetic self-efficacy factors. For these factors, masculinity had a slightly higher predictive weight than the femininity scores, indicating that masculinity may play more of a role in self-efficacy than femininity. Therefore, gender role socialization is predictive of one's career self-efficacy; both masculine and feminine traits lead to higher self-efficacy, but being higher in masculine traits may increase one's self-efficacy slightly.

Results from an independent-samples t-Test showed that males had higher scores on factors two and three, quantitative and physical self-efficacy. This means that males had higher self-efficacy in regards to the mathematical/logical/business and physical strength/agility tasks. This supports previous research suggesting that girls have lower confidence in their mathematical abilities than boys. While higher physical self-efficacy

among males may be expected, their higher mathematical self-efficacy is consistent with previous findings that there is still a problem in regards to females underestimating themselves in the mathematical domain.

This quantitative self-efficacy was the only self-efficacy factor that did not appear to be predicted by the masculinity and femininity scores of gender role socialization. This may indicate that quantitative self-efficacy operates as a function of one's gender, regardless of the masculine or feminine traits one develops later on. Perhaps, this is why the tendency for girls to have lower math confidence has been so hard to change- because it rests primarily on the basis of being male or female.

As expected, these regression analyses showed no significance when the religiosity variables were added. This means religiosity was not able to predict career self-efficacy in this sample. The finding that neither religious commitment nor religious fundamentalism was related to career self-efficacy contradicts the primary hypothesis of this study. However, this does not mean that this hypothesis is wrong. The majority of participants were not highly religious; for both religious variables, only 20% of the participants had scores that indicated high religious commitment or high religious fundamentalism. Perhaps with a greater range of scores on the religiosity variables, a different finding may emerge.

Furthermore, other measures of religiosity may produce differing results. Perhaps, commitment and fundamentalism have no relation to career self-efficacy, but other aspects of religion may still be important. Also, it could be of interest to look at measures of spirituality. Certain researchers of spirituality (Frey, Daaleman, & Peyton, 2005) claim

that spirituality involves high self-efficacy beliefs which lead to a personal agency- the idea that one actively constructs one's own life through one's own actions. Perhaps those who demonstrate high spirituality would also show greater career self-efficacy beliefs.

A cross tabs analysis showed that gender is related to career choice. Males were more likely to choose typically masculine and gender-neutral careers than typically feminine careers. Females were more likely to choose typically feminine careers than either typically masculine or gender-neutral careers. Therefore, gender is very useful in predicting career choice. Hierarchical regression analyses showed that gender role socialization predicted career self-efficacy for participants who chose careers that were consistent with their gender. For females who chose feminine careers, 36% of the variance in verbal self-efficacy, 15% of the variance in physical self-efficacy, and 13% of the variance in aesthetic self-efficacy was due to gender role socialization. High scores on the masculinity and femininity variables were predictive of high scores on the verbal, physical, and aesthetic self-efficacy factors, with masculinity holding more predictive weight than the femininity scores. For males who chose masculine careers, 29% of the variance in verbal self-efficacy was due to gender role socialization, with high scores on masculinity and low scores on femininity predicting high scores on verbal self-efficacy. Therefore, it seems that gender role socialization plays a larger role in career self-efficacy for females who choose feminine careers than males who choose masculine careers. For females choosing feminine careers, higher masculine traits improved verbal, physical, and aesthetic self-efficacy slightly more than higher feminine traits. For males choosing masculine careers, masculine traits helped more than feminine traits for verbal self-

efficacy, with feminine traits actually leading to lower verbal self-efficacy scores.

A cross tab analysis also showed gender role socialization, based on the masculine, feminine, androgynous, and undifferentiated sex role designation, is related to career choice. Typical feminine careers are more likely to be chosen by those with feminine sex roles than by those with masculine sex roles. Typical masculine careers are more likely to be chosen by those with masculine sex roles than by those with feminine sex roles. Gender-neutral careers were more likely to be chosen by those with masculine sex roles than by those with feminine sex roles. Therefore, those with a masculine sex role are more likely to be in typically masculine and gender-neutral careers, while those with a feminine sex role are more likely to be in typically feminine careers.

While, both gender and sex role were related to career choice, gender and sex role were not related to each other. Therefore, because gender and sex role were not related, it seems that they must operate independent of each other to influence career choice. However, based on an independent-samples t-Test, gender was shown to be related to the gender role socialization variable of femininity. Females had higher scores on the femininity scale than males. Yet, although females had higher scores on femininity than males, being female did not predict which sex role participants were assigned. Being male and having a masculine sex role are both more likely to lead one towards choosing a masculine or gender-neutral career. Being female and having a feminine sex role are both more likely to lead one towards choosing a feminine career. However, being male does not mean one will have a masculine sex role and being female does not mean one will have a feminine sex role.

A multiple regression analysis revealed that the religiosity variables were related to the femininity variable. Religious commitment and religious fundamentalism predicted 8% of the variability in femininity scores. Higher religious scores were thus predictive of higher scores on femininity. Therefore, religiosity does have an impact on gender role socialization. It seems as though those with higher religious commitment and religious fundamentalism tend to be more feminine-typed. This may be because religion teaches some values that are similar to the personality traits associated with the femininity scale, such as sensitivity to the needs of others, understanding, and compassion. However, gender itself was not related to the religiosity variables.

Finally, a discriminant analysis was used to determine if membership in one of the three career choice groups- feminine, masculine, or gender-neutral- could be predicted by any of the variables in this study. It was determined that the variables of gender and gender role socialization were most important, having the highest weights in predicting career choice. In addition, quantitative self-efficacy was somewhat predictive of career choice. However, quantitative self-efficacy was negatively related to career choice. The interpretation of this leads to the prediction that females, those with higher femininity scores, and those with lower quantitative self-efficacy scores are most likely to choose a typically feminine career. Males, those with lower femininity scores, and those with high quantitative self-efficacy are most likely to choose a typically masculine career.

The finding in this study that quantitative self-efficacy may play a role in predicting a masculine, feminine, or gender-neutral career choice is of interest. Self-efficacy for mathematical/logical/business tasks seems to be the most important type of

self-efficacy for entering masculine careers. This coincides with previous research that demonstrates a low math self-efficacy leads to the avoidance of math-related careers. Because males have higher scores on quantitative self-efficacy, it only makes sense that these types of careers are thus male-dominated careers. It therefore becomes crucial to focus on increasing this type of self-efficacy in young females.

While the prediction that higher masculinity scores would be related to higher quantitative self-efficacy scores was shown to be true, this was not the case for the prediction that higher femininity scores would be related to higher verbal self-efficacy scores. In fact, it was higher masculinity scores that were also related to higher verbal self-efficacy. Why was this the case when, according to research, it is females who are suppose to have higher verbal and interpersonal skills? After examining the items on factor 1, verbal self-efficacy, it became apparent that this subscale was not specifically measuring verbal skills. Rather, it was more of a catch-all category, containing a variety of job skills not related to the other three factors. It included not only verbal skills, but also such skills as writing, decision-making, organizing, and supervising others. Items such as "Work under pressure or extreme circumstances" and "Separate out work that does not meet standards" are not necessarily related to the verbal skills for which females tend to have higher ability.

Neither males nor females actually had higher scores on verbal self-efficacy; it was those with higher masculinity scores who had higher scores on verbal self-efficacy. Higher masculinity scores also predicted higher scores on physical and aesthetic self-efficacy, but less so than for verbal self-efficacy. This means that so-called masculine

traits may be more important for verbal self-efficacy, or rather, the types of tasks associated with factor 1. Because this factor included such a variety of tasks which are of high importance in a large number of jobs, it can be concluded that it is extremely vital to promote masculine traits in both males and females in order to increase this type of self-efficacy.

In summary, gender and gender role socialization both seem to play a role in career self-efficacy and career choice. One's gender, masculinity and femininity scores, and sex role designation are individually predictive of career self-efficacy and a masculine, feminine, or gender-neutral career choice. One's religiosity is not predictive of career self-efficacy or career choice, at least within this sample. However, religiosity does have some effect on the femininity variable of gender role socialization.

This present study therefore provides more support to the literature on gender role socialization and its effects on self-efficacy for careers. It shows evidence that both gender and gender role socialization contribute to career self-efficacy and eventual career choice. In this way it brings more support for the Social Cognitive Theory being used as a model for career choice, and thus for the Social Cognitive Career Theory (SCCT, Lent, Brown, & Hackett, 1994). Unfortunately, it fails to support the hypothesis that religiosity plays a role in career-self efficacy and career choice.

Future studies should continue exploring this rarely-examined factor of religion, perhaps using other measures of self-efficacy and religiosity, as well as different religious samples. Using participants from religious institutions may present a wider range of religiosity scores on the religious scales, providing more participants who fall under the

highly religious category. Also, with larger samples, individual religions can be analyzed separately, allowing for differences between religions to be studied as well. In this way, the effects of religiosity on these important variables may be better determined. Moreover, it may be of benefit to also look at spirituality to try to discover if this variable plays a role in career self-efficacy and career choice.

It is obvious from the results of this study that this topic is extremely important. Based on the answers to the gender scenarios, one can see that gender stereotypes are still prominent in terms of certain occupations and the assumptions about gender within these occupations. These gender stereotypes prevent men and women from considering a full range of academic subjects and career choices. In order to open these pathways so that it is interests and abilities that are used to determine choices and not gender, it is important to change the socialization of boys and girls and increase their self-efficacy for various tasks.

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APPENDIX A
Demographic Questionnaire

Gender: Male ___ Female ___

Ethnic Background: _____

Citizenship: _____

Family Socioeconomic Status:
Less than $24,999 ___
$25,000 to $34,999 ___
$35,000 to $49, 999 ___
$50,000 to $74, 999 ___
$75,000 to $99,999 ___
$100,000 or more ___
Don't know ___

Year of Study: 1 ___ 2 ___ 3 ___ 4 ___ 5 ___ Other: _____

Present or Predicted Major: _____

Mother's Occupation: _____

Father's Occupation: _____

Family or Childhood Religion: _____

Current Religious Affiliation: _____

Please give your top 5 career choices, and indicate how confident or certain you are in these choices. The confidence rating scale is as follows: 1 = very certain, 2 = somewhat certain, 3 = neutral, 4 = somewhat uncertain, and 5 = very uncertain. Please check only 1 of the 5 boxes.

Career Choice	1 Very Certain	2 Somewhat Certain	3 Neutral	4 Somewhat Uncertain	5 Very Uncertain
1					
2					
3					
4					
5					

:

APPENDIX B
Decision-Making Scenario

Instructions: Please read the following occupational scenarios, and answer the question asked in each scenario regarding why the decision was made. Make sure your answer is between 2-3 sentences in length.

Scenario #1:

Dr. Jones has been overworked all week, seeing extra patients in a busy downtown hospital. Dr. Jones decides to stay at home instead of going out with friends for coffee on Friday night. Why was this decision made?

Scenario #2:

Nurse Smith can't wait until quitting time. It has been a very tiring day with lots of demands from patients, as well as doctors. However, at the very end of the shift, Nurse Smith is asked and agrees to stay an extra hour to cover the shift of someone who will be coming in late. Why was this decision made?

APPENDIX C

Task-Specific Occupational Self-Efficacy Scale (TSOSS)

Instructions: Below is a list of activities. Indicate your confidence in your ability to perform each activity by circling the appropriate answer next to each question according to the scale defined below:

A	B	C	D	E
No Confidence				Absolute Certainty

A B C D E 1. Gain the trust and confidence of people.

A B C D E 2. Apply mathematical and engineering properties to problem solving.

A B C D E 3. Lift and carry items.

A B C D E 4. Memorize theatrical dialogue.

A B C D E 5. Work under pressure or extreme circumstances.

A B C D E 6. Use math to measure and estimate quantities.

A B C D E 7. Work outdoors.

A B C D E 8. Perceive three-dimensional forms.

A B C D E 9. Negotiate with people in different work situations.

A B C D E 10. Keep financial and production records and reports.

A B C D E 11. Use physical coordination to control equipment.

A B C D E 12. Render drawings, designs, and layout of items.

A B C D E 13. Speak convincingly.

A B C D E 14. Organize research logically.

Remember:

A	B	C	D	E
No Confidence				Absolute Certainty

A B C D E 15. Tend various machines.

A B C D E 16. Draw sketches.

A B C D E 17. Separate out work that does not meet standards.

A B C D E 18. Apply math skills to interpret reports.

A B C D E 19. Do active physical work.

A B C D E 20. Interpret theatrical roles.

A B C D E 21. Make decisions based on personal experiences.

A B C D E 22. Work to precise measurements.

A B C D E 23. Coordinate body motions skillfully.

A B C D E 24. Use my hands to draw, sculpt, or paint.

A B C D E 25. Be firm and courteous.

A B C D E 26. Think logically to analyze information quickly.

A B C D E 27. Move heavy objects.

A B C D E 28. Direct performers in theatrical productions.

A B C D E 29. Make on the spot decisions in emergency situations.

A B C D E 30. Use a personal computer.

A B C D E 31. Perform strenuous indoor and/or outdoor activities.

A B C D E 32. Arrange shapes, forms, and colors artistically.

Remember:

A	B	C	D	E
No Confidence				Absolute Certainty

A B C D E 33. Direct the work of others.

A B C D E 34. Operate data processing equipment.

A B C D E 35. Work in hazardous conditions.

A B C D E 36. Know music, tonal qualities, symbols, and scoring.

A B C D E 37. Review work for accuracy.

A B C D E 38. Budget.

A B C D E 39. Keep physically fit.

A B C D E 40. Be familiar with colors and tones.

A B C D E 41. Write convincingly.

A B C D E 42. Interpret statistical information.

A B C D E 43. Be physically able to endure long periods of driving time.

A B C D E 44. Use brushes, pens, tools, etc., to follow designs.

A B C D E 45. Write accurately.

A B C D E 46. Know how to calculate dimensions.

A B C D E 47. Be physically alert and active.

A B C D E 48. Produce attractive crafts.

A B C D E 49. Supervise others.

A B C D E 50. Operate calculating instruments

Remember:

A	B	C	D	E
No Confidence				Absolute Certainty

A B C D E 51. Use an assortment of tools and equipment for various jobs.

A B C D E 52. Use creativity to enhance my appearance.

A B C D E 53. Organize assorted materials.

A B C D E 54. Apply logic to identify problems.

A B C D E 55. Climb and balance on poles and ladders.

A B C D E 56. Know music theory.

A B C D E 57. Make judgments on gathered information.

A B C D E 58. Keep records and reports.

A B C D E 59. Work in a noisy environment.

A B C D E 60. Know about hair and skin care.

APPENDIX D

Religious Commitment Inventory-10 (RCI-10)

Instructions: Please rate the following 10 statements on this 5-point scale: 5 = totally true of me, 4 = mostly true of me, 3 = moderately true of me, 2 = somewhat true of me, and 1 = not at all true of me. Please circle the number on the scale below each question that represents the most accurate response.

1. I often read books and magazines about my faith.

5	4	3	2	1
Totally true of me	Mostly true of me	Moderately true of me	Somewhat true of me	Not at all true of me

2. I make financial contributions to my religious organization.

5	4	3	2	1
Totally true of me	Mostly true of me	Moderately true of me	Somewhat true of me	Not at all true of me

3. I spend time trying to grow in understanding of my faith.

5	4	3	2	1
Totally true of me	Mostly true of me	Moderately true of me	Somewhat true of me	Not at all true of me

4. Religion is especially important to me because it answers many questions about the meaning of life.

5	4	3	2	1
Totally true of me	Mostly true of me	Moderately true of me	Somewhat true of me	Not at all true of me

5. My religious beliefs lie behind my whole approach to life.

5	4	3	2	1
Totally true of me	Mostly true of me	Moderately true of me	Somewhat true of me	Not at all true of me

6. I enjoy spending time with others of my religious affiliation.

5	4	3	2	1
Totally true of me	Mostly true of me	Moderately true of me	Somewhat true of me	Not at all true of me

7. Religious beliefs influence all my dealings in life.

5	4	3	2	1
Totally true of me	Mostly true of me	Moderately true of me	Somewhat true of me	Not at all true of me

8. It is important to me to spend periods of time in private religious thought and reflection.

5	4	3	2	1
Totally true of me	Mostly true of me	Moderately true of me	Somewhat true of me	Not at all true of me

9. I enjoy working in the activities of my religious organization.

5	4	3	2	1
Totally true of me	Mostly true of me	Moderately true of me	Somewhat true of me	Not at all true of me

10. I keep well informed about my local religious group and have some influence in its decisions.

5	4	3	2	1
Totally true of me	Mostly true of me	Moderately true of me	Somewhat true of me	Not at all true of me

APPENDIX E

Religious Fundamentalism Scale (RF)

Instructions: Please rate the following 20 statements on this 9-point scale: 9 = strongly agree, 5 = neutral, and 1 = strongly disagree. Please circle the number on the scale below each question that represents the most accurate response.

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

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

2. *All* of the religions in the world have flaws and wrong teachings.*

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

3. Of all the people on this earth, one group has a special relationship with God because it believes the most in his revealed truths and tries the hardest to follow his laws.

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

4. The long-established traditions in religion show the best way to honour and serve God, and should never be compromised.

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

5. Religion must admit all its past failings, and adapt to modern life if it is to benefit humanity.*

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

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

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

7. Different religions and philosophies have different versions of the truth, and may be equally right in their own way.*

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

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

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

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

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

10. No one religion is especially close to God, nor does God favor any particular group of believers.*

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

11. God will punish most severely those who abandon his true religion.

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

12. No single book of religious writings contains all the important truths about life.*

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

13. It is silly to think people can be divided into "the Good" and "the Evil". Everyone does some good, and some bad things.*

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

14. God's true followers must remember that he requires them to *constantly* fight against Satan and Satan's allies on this earth.

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

15. Parents should encourage their children to study all religions without bias, then make up their own minds about what to believe.*

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

16. There *is* a religion on this earth that teaches, without error, God's truth.

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

17. "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.*

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

18. Whenever science and sacred scripture conflict, science must be wrong.

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

19. There is *no* body of teachings, or set of scriptures, which is completely without error.*

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

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

9	8	7	6	5	4	3	2	1
Strongly Agree				Neutral				Strongly Disagree

* Item should be reversed-scored

APPENDIX F

Short Form of the Bem Sex Role Inventory (S-BSRI)

Instructions: Please rate yourself on the following 30 items with this 7-point scale: 7 = always or almost always true, and 1 = never or almost never true. Please circle the number on the scale below each item that represents the most accurate response for you.

1. Defends own beliefs

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

2. Moody

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

3. Independent

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

4. Conscientious

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

5. Affectionate

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

6. Assertive

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

7. Strong personality

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

8. Forceful

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

9. Reliable

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

10. Sympathetic

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

11. Jealous

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

12. Has leadership abilities

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

13. Sensitive to the needs of others

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

14. Truthful

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

15. Willing to take risks

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

16. Understanding

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

17. Secretive

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

18. Compassionate

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

19. Eager to soothe hurt feelings

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

20. Conceited

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

21. Dominant

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

22. Warm

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

23. Willing to take a stand

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

24. Tender

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

25. Aggressive

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

26. Adaptable

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

27. Loves children

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

28. Tactful

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

29. Gentle

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

30. Conventional

7	6	5	4	3	2	1
Always or almost always true						Never or almost never true

VITA AUCTORIS

NAME:	Karen Vyn
PLACE OF BIRTH:	London, Ontario
YEAR OF BIRTH:	1981
EDUCATION:	Chatham Christian High School, Chatham, Ontario 1995-1999
	Redeemer University College, Ancaster, Ontario 1999-2003 B.A.
	University of Windsor, Windsor, Ontario 2003-2005 M.A.