

Marquette University

e-Publications@Marquette

Master's Theses (2009 -)

Dissertations, Theses, and Professional
Projects

The Role of Hostile and Benevolent Sexism on Women's Career Aspirations and Self-Doubt in Masculine and Feminine Majors

Mary Tait
Marquette University

Follow this and additional works at: https://epublications.marquette.edu/theses_open



Part of the [Psychology Commons](#)

Recommended Citation

Tait, Mary, "The Role of Hostile and Benevolent Sexism on Women's Career Aspirations and Self-Doubt in Masculine and Feminine Majors" (2021). *Master's Theses (2009 -)*. 683.
https://epublications.marquette.edu/theses_open/683

THE ROLE OF HOSTILE AND BENEVOLENT SEXISM ON WOMEN'S CAREER
ASPIRATIONS AND SELF-DOUBT IN MASCULINE AND FEMININE MAJORS

by
Mary Tait, B.A.

A Thesis submitted to the Faculty of the Graduate School, Marquette University, in
Partial Fulfillment of the Requirements for the Degree of Master of Science

Milwaukee, Wisconsin

December 2021

ABSTRACT

THE ROLE OF HOSTILE AND BENEVOLENT SEXISM ON WOMEN'S CAREER ASPIRATIONS AND SELF-DOUBT IN MASCULINE AND FEMININE MAJORS

Mary Tait, B.A.

Marquette University, 2021

Women experience hostile sexism and benevolent sexism in various aspects of their lives and the effects of these experiences have been shown to greatly affect their performance in career-related domains. Researchers have posited that this reduction in performance is related to self-doubt (Dardenne et al., 2007; Kuchynka et al., 2018) which can affect women's careers long-term. However, the effects of self-doubt on women's careers may vary depending on the stereotyped context of the environment. The current study examined if the relationship between experiences with sexism and career aspirations is mediated by self-doubt. Further, it was examined if the relationships changed based on type of sexism experienced and type participants' type of major (feminine or masculine). Results did not support the presence of a mediation relationship across all forms of sexism in both feminine and masculine majors. Additional analysis indicated that experiences of heterosexual intimacy were positively associated with career aspirations in feminine majors and negatively associated with self-doubt in both types of majors. Protective paternalism experiences were associated with greater self-doubt in masculine and feminine majors. Experiences with protective paternalism were also associated with higher odds of being in a masculine major. We discuss implications of these results for understanding factors which affect women's choice in major.

TABLE OF CONTENTS

LIST OF TABLES.....	iii
CHAPTER	
I. INTRODUCTION.....	1
A. Current Study.....	7
II. METHODS.....	9
A. Participants.....	9
B. Feminine And Masculine Career Fields.....	11
C. Experiences Of Benevolent Sexism Scale.....	12
D. Schedule Of Sexist Events.....	12
E. Career Aspiration Scale.....	13
F. Self-Doubt.....	13
G. Procedure.....	13
III. RESULTS.....	14
A. Correlation Analyses.....	14
B. Supplemental Regression Analyses.....	16
IV. DISCUSSION.....	19
A. Limitations and Future Directions.....	22
B. Conclusion.....	24
V. REFERENCES.....	26

VI. APPENDICES.....	32
A. Appendix A.....	32
B. Appendix B.....	34
C. Appendix C.....	35
D. Appendix D.....	37

LIST OF TABLES

I. Participant Demographics.....	9
II. Correlations of Lifetime Sexist Experiences, Career Aspirations, and Self-Doubt.....	14
III. Logistic Regression Predicting Feminine (coded as 1) or Masculine (coded as 0)	
Major.....	18

The role of hostile and benevolent sexism on women's career aspirations and self-doubt in masculine and feminine majors

In recent decades, the depiction of the stereotypical woman has moved away from the dotting housewife of the 1950s towards a depiction of greater equality to men. However, even with this change in perception of what it is to be a woman and legal strides towards gender equality, women still experience sexism daily. Berg (2006) found that 100% of American women reported experiences of sexism within the past year. The most reported incidents include 98% of women had heard a sexist joke and 94% had been sexually harassed in their lifetime, with most incidents occurring at work. Sexist experiences are particularly present for women in college; 75% of women in male-dominated majors and 72.5% of women in gender-neutral majors reported experiences of sexism within a two-week period (Lawson, 2020). This prevalence of sexist experiences is concerning as it has the potential to discourage women at a crucial time in their professional development. Given the prevalence of experiencing sexism in career contexts, understanding this relationship is essential to building understanding of systemic barriers to women's career attainment. This research examines how young adult women's experiences with sexism is related to their self-doubt and career aspirations.

Sexist events can take a variety of forms. Ambivalent sexism theory proposes that modern day sexism consists of both hostile and benevolent components (Glick & Fiske, 1996). Hostile sexism reflects overtly derogatory attitudes toward women while benevolent sexism is paternalistic attitudes toward women. Hostile sexism, being the more abrasive of the two, is directed at women who break the status quo of womanhood or who reject the prescribed role or stereotype attached to womanhood. Hostile sexist

events include things such as being called a sexist name, being treated unfairly by others, and experiencing discrimination due to being a woman (Klonoff & Landrine, 1995). Experiences of hostile sexism have been associated with greater depression and anxiety symptoms (Klonoff & Landrine, 1995; Lehavot et al., 2019) as well as decreased self-esteem (Swim et al., 2001). Similar associations have been found within women in male-dominated majors such that women who reported experiencing hostile sexist events also reported experiencing negative effects of physical health and social belongingness (Lawson et al., 2018). These findings suggest that experiencing hostile sexist events leads to negative effects on women broadly, but may have particularly concerning effects on women in male-dominated fields or college majors.

Sexist events can also take a less hostile form, which is referred to as benevolent sexism. Benevolent sexism is rooted in rewarding women for maintaining strict gender roles and assumes women are weak and in need of protection from men (Glick & Fiske, 1996). Given the often seemingly warm nature of benevolently sexist behaviors, women have difficulty identifying benevolently sexist behaviors as sexist making it more difficult to address and counter (Dardenne et al., 2007; Oswald et al., 2019). Benevolent sexism can take three forms: protective paternalism, complementary gender differentiation, and heterosexual intimacy. Protective paternalism comprises attitudes and behaviors which assume/imply that women are in need of a protective man as a result of their incompetence. Examples of protective paternalistic events include women having their ability to handle situations themselves questioned, being prohibited from doing things such as carry heavy items even when they are capable of such tasks, and being suggested she is in need of a protector (Oswald et al., 2019). Complementary gender

differentiation suggests that women have set roles which are specific to being a woman. These roles are based in traditional feminine roles and thus “complement” men who take on the corresponding masculine role tasks. For example, sexist experiences that are grounded in complementary gender differentiation include women being praised for engaging in caretaking tasks, given advice to consider a career that allows her to also be a good mother, and being told she will be a good mother due to being caring (Oswald et al., 2019). The final form of benevolent sexism is heterosexual intimacy and assumes that men are incomplete and in need of fulfillment from a woman’s love. These types of sexist experiences include women being praised for “completing” their male partner through the satisfaction of his emotional, physical, and sexual needs (Glick & Fiske, 1996).

Women report experiences of hostile and benevolent sexism at varying rates. In a study of American women’s experiences of sexism, women reported experiencing benevolent sexism at higher frequencies than hostile sexism (Oswald et al., 2019). Further analysis of the three forms of benevolent sexism suggested women experience complementary gender differentiation most frequently followed by protective paternalism then heterosexual intimacy. In comparing a college sample ($M_{age} = 19$) to a national sample ($M_{age} = 36.38$), no difference in frequency of hostile sexist experiences was observed. However, college-aged women reported a greater frequency in experiences of complementary gender differentiation and protective paternalism (Oswald et al., 2019). Given the high rates of experiences in college-aged women, understanding the effects of these experiences may be particularly important.

Although women reported experiencing benevolent sexism more frequently in their lifetime, women reported greater distress from their experiences with hostile sexism

and viewed hostile sexist events as more sexist (Oswald et al., 2019). This is consistent with research that people do not perceive benevolent sexism to be as sexist as the more hostile events (Reimer et al., 2014; Bohner et al., 2009; Kirkman & Oswald, 2019; Reimer et al., 2014). Although people may not perceive benevolently sexist events to be as sexist or distressing as the hostile sexist events, these experiences appear to still have a negative impact on women. Protective paternalism appears to be an especially problematic component of benevolent sexism. Protective paternalistic events have been rated as the most distressing and sexist of the three forms of benevolent sexism (Oswald et al., 2019). Women's frequency of experiences with protective paternalism have been associated with greater self-doubt, judgmental self-doubt, and lower self-esteem (Oswald et al., 2019). This increase in self-doubt and reduction in perceived competence is consistent with other literature on hostile sexism (Gervais et al., 2012; Shepherd et al., 2011) and benevolent sexism broadly (Jones et al., 2014).

A study conducted by Dardenne et al. (2007) suggested benevolent sexism to be particularly insidious in its effect on women's cognitive performance. In this study, women participants engaged in a simulated job interview for a job in a male-dominated environment. Within the interview, the interviewer suggested her potential future co-workers were hostile or benevolently sexist. Results indicated that women who were exposed to benevolent sexism (specifically, protective paternalism and complementary gender differentiation) scored significantly lower on a cognitive task compared to those exposed to hostile sexism. Additionally, when women in masculine career contexts were exposed to paternalism, they experienced greater self-doubt which was shown by an increase in doubtful mental intrusions (Dardenne et al., 2007). The increase in self-doubt

can be attributed to the implicit assumptions made by benevolent sexist remarks, namely, women are incompetent and in need of help by men (e.g., Barreto & Ellemers, 2005). Thus, when confronted with behaviors suggesting she is incompetent, instead of externalizing blame on the sexist individual as is done in hostile sexism (e.g., Vescio et al., 2005), she internalizes blame. This internalization of blame may have particularly negative effects on women who are in training for their future careers (i.e., women in college).

It is crucial to obtain a greater understanding of the effects of protective paternalism and complementary gender differentiation within a career context. Women undergraduate students who are majoring in STEM majors report experiencing more complementary gender differentiation and protective paternalism than hostile sexism (Kuchynka et al., 2018). The effects of these experiences have been shown to be especially detrimental to women in STEM; protective paternalistic events negatively predicted STEM self-efficacy, the perception one has about their abilities in STEM. This relationship was not observed with hostile sexist events, suggesting protective paternalism specifically is an important factor for women's success in STEM majors (Kuchynka et al., 2018).

Further, women in STEM who are in a male stereotyped environment experience changes in career aspirations after experiencing sexism. Reductions in career aspirations, or the amount to which an individual wants to work within a specified occupation, have previously been observed in women following stereotype-activating cues (Davies et al., 2002; Murphy et al., 2007; Smith et al., 2013). These stereotype activating cues can take various forms and can occur in different environments. For example, women who

watched a commercial that portrayed women in stereotypic ways expressed greater preference for feminine stereotyped careers/majors and reduced preferences of masculine stereotyped careers/majors (Davies et al., 2002). In a study of college students, women were provided a stereotype activating experience; specifically, women read a scenario describing a private oral math exam in front of a male professor. Following this stereotype activation, women reported lower STEM career aspirations (Schuster & Martiny, 2017). These results suggest changes in career aspirations as a result of stereotype activation can occur in various contexts including while at home or in school.

Given benevolent sexism praises feminine traditional behaviors and hostile sexism punishes women engaging in non-stereotypic behaviors, different experiences with sexism may impact women differently based on gendered career contexts. Previous literature has focused on expression of stereotypes in masculine domains (e.g., Dardenne et al., 2007, Kuchynka et al., 2018). However, in feminine domains, sexist experiences, especially benevolently sexist experiences which praise women for their feminine traditional roles, may serve as a boost to self-esteem and reduction of self-doubt. For example, being told one is caring might negatively impact a woman in a masculine field that does not value that trait (such as engineering); however, if a woman is in a traditionally feminine field that does value the trait (such as nursing), the praise experienced for acting in gender stereotypical way may be affirming. This affirmation may then lead to a reduction of self-doubt within that feminine field. Additionally, in undergraduate women, when gender stereotypes are activated, a boost in perceived ability to succeed in feminine fields is observed (Oswald, 2008). Thus, results from previous

studies that have suggested self-doubt arises from experiencing benevolent sexism may not generalize to women whose career regards feminine stereotyped behaviors.

Current Study

The current study seeks to better understand how experiences of different forms of sexism are associated with college women's career aspirations in typically masculine and typically feminine majors. The study will expand the existing literature in two ways. First, this study examined the differences in the associations of experiences of benevolently sexist experiences as well as hostile sexism with women's career aspirations. Few studies look at the unique relationship of each of the benevolently sexist experiences even though there are varied theories and observed outcomes for each type (Oswald et al., 2019). Second, the demographics of the study allowed for a unique look on female students who are pursuing typically masculine careers and those who are pursuing typically feminine careers. By utilizing responses from students, the study allowed for a unique perspective on budding career-women and the associations that hostile and benevolently sexist events may have with their career aspirations.

The study utilized archival data that was collected from undergraduate female students. Participants completed several self-report measures including a rating of the frequency of experiences of sexist events (hostile and benevolent), self-doubt, and career aspirations.

There are two proposed hypotheses. First, in masculine majors, experiences of hostile sexism will be associated with decreases in career aspirations, which will be mediated by self-doubt (1a). All three forms of benevolent sexism are hypothesized to be

associated with decreases in career aspirations in masculine majors (1b). Similarly, this relationship will be mediated by self-doubt.

In feminine majors, experiences of hostile sexism will be associated with decreases in career aspirations, which will be mediated by self-doubt (2a). Experiences of protective paternalism will be associated with decreases in career aspirations in feminine fields, which will be mediated by self-doubt (2b). However, complementary gender differentiation experiences will be positively associated with career aspirations in feminine fields. Complementary gender differentiation will be negatively associated with self-doubt in feminine fields; self-doubt will mediate this relationship between career aspirations and experiences of complementary gender differentiation (2c). No relationship is hypothesized between heterosexual intimacy and career aspirations given these events occur through the context of romantic relationships.

Methods

Participants

Two hundred and fifty six U.S. women were recruited from Marquette University's psychology undergraduate student pool. 14 participants were excluded from analyses due to not reporting a major and 14 were excluded due to inability to categorize their major (e.g., communications, fine arts, theology) leaving 228 participants included in analysis. A *post hoc* power analysis was performed using G*Power 3.1 (Faul et al., 2009). With effect size F^2 set at 0.15, $\alpha = .05$, two-tailed, sample size for feminine careers set at 149, and 2 predictors (career aspirations and self-doubt), power ($1 - \beta$) was found to be 0.99 which is considered strong. With effect size F^2 set at 0.15, $\alpha = .05$, two-tailed, sample size for masculine careers set at 79, and 2 predictors, power ($1 - \beta$) was found to be 0.87.

Among the women included in the study most identified as Caucasian/White (71.9%) followed by Latina (18.0%). The mean age of participants was 18.79 ($SD = .95$, $Mdn = 19$) and ranged from 18-23 years. Participants' year in school ranged from first year (Freshman) to fourth year (Senior); most participants indicated they were in their first year (70.6%). See Table 1 for additional participant demographics including percentages of masculine and feminine majors.

Table 1

Participant Demographics

	Overall Sample ($n = 228$)	Masculine Majors ($n = 79$)	Feminine Majors ($n = 149$)
Race			

White	164 (71.9%)	46 (58.2%)	118 (79.2%)
Latina	41 (18%)	17 (21.5%)	24 (16.1%)
Asian American	29 (12.7%)	11 (13.9%)	18 (12.1%)
African American	10 (4.4%)	7 (8.9%)	3 (2%)
Bi-racial	8 (3.5%)	3 (3.8%)	5 (3.4%)
“Citizen from country...”	6 (2.6%)	5 (6.3%)	1 (.7%)
Native American	3 (1.3%)	2 (2.5%)	1 (.7%)
Arab American	1 (.4%)	0 (0%)	1 (.7%)
Other	1 (.4%)	1 (1.3%)	0 (0%)
Age	18.76 (.94)	18.68 (.95)	18.71 (.93)
Year in College			
First Year (Freshman)	161 (70.6%)	57 (72.2%)	104 (69.8%)
Second Year (Sophomore)	45 (19.7%)	12 (15.2%)	33 (22.1%)
Third Year (Junior)	17 (7.5%)	8 (12.1%)	9 (6%)
Fourth Year (Senior)	5 (2.2%)	2 (2.5%)	3 (2%)
Sexual Orientation			
Heterosexual	212 (93.4%)	74 (93.7%)	138 (92.6%)
Homosexual	1 (.4%)	2 (2.5%)	1 (.7%)
Bisexual	8 (3.5%)	1 (1.3%)	6 (4%)

Other	1 (.4%)	1 (1.3%)	0 (0%)
Prefer not to answer	5 (2.2%)	2 (2.5%)	3 (2%)

Note. Participants were able to pick multiple race identities which allowed for the percentage to exceed 100%. One participant did not report their sexual orientation.

Feminine and Masculine Career Fields

Participants indicated what their current major in school was. Participants' majors were coded as masculine or feminine. Feminine fields were determined to be careers which are stereotypically associated with women. This included majors which are considered social and behavioral sciences (e.g., psychology) and/or non-STEM careers (e.g., nursing, elementary education). Social and behavioral science and non-STEM careers were obtained via the National Science Foundation (NSF; National Science Foundation, 2014, Table 3-2).

Masculine fields included career fields which are stereotypically associated with men. This included majors that are considered STEM or have previously been shown to be associated with masculine stereotypes. STEM careers (e.g., biology, computer engineering, physics) were obtained via the NSF (National Science Foundation, 2014, Table 3-2). Although classified as social and behavioral sciences by the NSF, criminology and political science were coded as masculine given their associations with masculine stereotypes (Liben et al., 2002; Beyer, 1999). Similarly, history and advertising were also coded as masculine given their associations with masculine stereotypes (Beyer, 1999; Beutel et al., 2019).

In the instance of participants listing double majors, those which indicated at least one masculine major were coded as masculine (e.g., biology and psychology). However, participants who reported double majors in education and a masculine field (e.g., education and physics) were coded as feminine given their primary majors as being feminine. Therefore, 65.4% ($n = 149$) of majors reported fell into the feminine category and 34.6% ($n = 79$) fell into the masculine category.

Experiences of Benevolent Sexism Scale

The Experiences of Benevolent Sexism Scale (EBSS; Oswald et al., 2019) was used to assess women's experiences of benevolent sexism in the last year. Participants responded to 25 items on a scale of 1 (*the event never happened*) to 6 (*the event happened almost all of [$>70\%$] of the time*). Higher scores correspond to a higher frequency of experiencing benevolent sexism across three domains including Complementary Gender Differentiation (7 items), Protective Paternalism (8 items), and Heterosexual Intimacy (10 items). The EBSS demonstrated good reliability in the current study ($\alpha = .91$) and subscale reliabilities were also good (Complementary Gender Differentiation $\alpha = .81$, Protective Paternalism $\alpha = .83$, Heterosexual Intimacy $\alpha = .82$).

Schedule of Sexist Events

The Schedule of Sexist Events (SSE; Matteson & Moradi, 2005) was used to assess women's experiences of hostile sexism in the last year; total scores were used. Participants responded to 19 items on a scale of 1 (*the event never happened*) to 6 (*the event happened almost all of [$>70\%$] of the time*). The SSE demonstrated good reliability in the current study ($\alpha = .92$).

Career Aspiration Scale

The Career Aspiration Scale (CAS; Gray & O'Brien, 2007) was used to assess the participant's career related aspirations including aspirations in leadership, education, and achievement; total scores were used. Participants responded to 24 items on a scale of 0 (*not at all true of me*) to 4 (*very true of me*). The CAS demonstrated good reliability in the current study ($\alpha = .92$).

Self-Doubt

Self-doubt items from the Subjective Overachievement Scale (Oleson et al., 2000) were used to assess the participants' own sense of their competence. Participants responded to 8 items on a scale of 1 (*disagree very much*) to 6 (*agree very much*). The self-doubt scale demonstrated good reliability in the current study ($\alpha = .85$).

Procedure

Participants were undergraduate students recruited from a private Catholic University in the American Midwest. Participants were told the present study was about social attitudes and behaviors as they relate to the self and completed all measures in a private testing room on a computer. The EBSS and SSE were presented first, counterbalancing which appeared first, then all other measures were presented randomly. Upon completion participants were thanked for their time, debriefed, and provided course credit for participation.

Results

Correlation Analyses

All statistical analyses were conducted using SPSS version 28 (IBM, 2021). For masculine majors, all lifetime sexist experiences were correlated positively ($p < .001$), ranging from $r = .40$ to $r = .71$ (see Table 2). For feminine majors, all measures of lifetime sexist experiences were also positively correlated ($p < .001$), ranging from $r = .39$ to $r = .71$ (see Table 2).

Table 2

Correlations of Lifetime Sexist Experiences, Career Aspirations, and Self-Doubt

Masculine Majors							
	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Hostile Sexism	2.37	.89					
2. PP	3.47	1.27	.66**				
3. CGD	3.27	1.29	.60**	.71**			
4. HI	2.96	1.12	.40**	.58**	.50**		
5. Career Aspirations	3.25	.52	.21	.03	.13	.04	
6. Self-Doubt	3.75	.87	.18	.35**	.21	.003	-.22
Feminine Majors							
	<i>M</i>	<i>SD</i>	1	2	3	4	5

1. Hostile Sexism	2.21	.70					
2. PP	2.94	1.02	.65**				
3. CGD	2.85	1.05	.50**	.71**			
4. HI	2.64	1.01	.39**	.54**	.53**		
5. Career Aspirations	3.10	.58	.05	.01	.31	.24**	
6. Self-Doubt	3.67	.91	.21*	.25**	.15	-.04	-.30**

Note. PP = protective paternalism; CGD = complementary gender differentiation; HI = heterosexual intimacy. * indicates $p < .05$. ** indicates $p < .01$.

Prior to conducting regression analyses, correlations between the type of sexist experience (independent variable) and career aspirations (dependent variable) were conducted to determine if regression analyses were necessary. In masculine majors no significant correlations were observed between career aspirations and any type of sexist experience (see Table 1). Given no correlations were observed between any type of sexist experience and career aspirations, no mediation analyses were performed and hypotheses 1a and 1b were rejected. In feminine majors only experiences of heterosexual intimacy were positively associated with career aspirations, $r = .24$, $p < .01$ (see Table 1). Given this, an additional correlation analysis was conducted to assess if a relationship could be observed between experiences of heterosexual intimacy and self-doubt; no relationship was observed, $r = -.04$, $p = .66$, denying the presence of a mediation relationship. Thus, hypotheses 2a, 2b, and 2c were rejected. A correlation analysis was also conducted to examine if any association was present between self-doubt and career aspirations. In

masculine fields a small to medium effect was observed, $r = -.22, p = .06$. A medium negative association, $r = -.30, p < .001$, was observed between self-doubt and career aspirations in feminine fields.

Supplemental Regression Analyses

Given the consistent lack of correlation between the independent variable (type of sexist experience) and dependent variable (career aspiration) necessary for mediation analyses (Baron & Kenny, 1986), we did not have evidence to pursue mediation analyses. Instead, alternative regression analyses were conducted to explore the relationship between sexist experiences, career aspirations, self-doubt, and major type. Instead of utilizing several separate linear regression models as mediation analyses do, four multiple linear regression models were conducted to assess how each type of sexist experience predicts career aspirations and self-doubt in masculine and feminine majors. Similar to above, analyses were split between masculine and feminine majors.

In masculine majors, two multiple linear regressions were conducted. First, a multiple linear regression was conducted to predict self-doubt based on women's experiences of hostile sexism, protective paternalism, complementary gender differentiation, and heterosexual intimacy. A significant regression equation was found, $F(4, 73) = 4.13, p < .05$, with an R^2 of .18. Self-doubt was negatively associated with experiences of heterosexual intimacy, $\beta = -.23, p < .05$, and positively associated with experiences of protective paternalism, $\beta = .39, p < .05$. Experiences of complementary gender differentiation, $\beta = -.001, p = .99$, and hostile sexism, $\beta = -.07, p = .61$, were not significant predictors. Then, a second multiple linear regression model was conducted to predict career aspirations based on women's experiences of hostile sexism, protective

paternalism, complementary gender differentiation, and heterosexual intimacy. The regression equation was not significant $F(4, 74) = 1.79, p = .14$, with an R^2 of .09.

The same analyses were then conducted for feminine majors. Similar to in masculine fields, when a multiple linear regression was conducted to predict self-doubt based on women's experiences of sexism, a significant regression equation was found $F(4, 144) = 4.29, p < .05$, with an R^2 of .11. Self-doubt was negatively associated with experiences of heterosexual intimacy, $\beta = -.22, p < .05$, and positively associated with experiences of protective paternalism, $\beta = .27, p < .05$. Experiences of complementary gender differentiation, $\beta = .02, p = .88$, and hostile sexism, $\beta = .12, p = .38$, were not significant predictors. The multiple linear regression predicting career aspirations based on women's experiences of sexism was also significant, $F(4, 144) = 3.39, p < .05$, with an R^2 of .09. The only significant predictor was heterosexual intimacy, $\beta = .19, p < .01$, which was positively associated with career aspirations. Protective paternalism, $\beta = -.15, p = .05$, complementary gender differentiation, $\beta = .03, p = .60$, and hostile sexism experiences, $\beta = .06, p = .51$, were not significant predictors of career aspirations.

Finally, a binary logistic regression was conducted to analyze if experiences of different types of sexism predicted women's major (masculine coded as 0 and feminine coded as 1). The predictor variables included experiences of hostile sexism, protective paternalism, complementary gender differentiation, and heterosexual intimacy. The logistic regression model predicting major was significant, $\chi^2(4) = 12.59, p < .05$, $-2LL = 281.65$, Cox & Snell $R^2 = .05$, Nagelkerke $R^2 = .07$, percentage correctly classified 67.1%. Among the variables in the model, experiences of protective paternalism were

significantly associated with lower odds of being in a feminine major, $B = -.45$, $p < .05$.

No other predictors were significant (see Table 3).

Table 3

Logistic Regression Predicting Feminine (coded as 1) or Masculine (coded as 0) Major

	B	S.E.	Wald	<i>p</i>	Odds Ratio (Exp(B))
Hostile Sexism	.26	.24	1.15	.28	1.30
PP	-.45	.21	4.57	.03	.64
CGD	-.07	.18	.17	.68	.93
HI	-.06	.17	.12	.73	.94

Note. PP = protective paternalism; CGD = complementary gender differentiation; HI = heterosexual intimacy.

Discussion

It was hypothesized that the associations of experiences of hostile sexism and benevolent sexism with self-doubt and career aspirations would vary by stereotyped environment. Consistent with previous literature, experiences of hostile sexism, protective paternalism, complementary gender differentiation, and heterosexual intimacy were all meaningfully associated with one another. These associations have previously been observed in college-aged women and an older national sample (Oswald et al., 2019). Unsurprisingly, experiences of protective paternalism were consistently associated with greater self-doubt in women across majors. These results add to the literature base that documents self-doubt increases following paternalistic comments when in a masculine domain (Dardenne et al., 2007). Contrary to our hypotheses, the frequencies of sexist experiences were generally not associated with career aspiration in masculine and feminine majors. Only heterosexual intimacy experiences were found to increase career aspirations in feminine majors. Interestingly, experiences of heterosexual intimacy were found to decrease women's self-doubt in women regardless of their major. These findings are inconsistent with recent literature which has shown no association between heterosexual intimacy and self-doubt in college-age women (Oswald et al., 2019).

The negative association between experiences of heterosexual intimacy and self-doubt observed in this sample may be related to boosters in self-esteem. Increased self-esteem has previously been observed in women in positive romantic relationships (e.g., Murray et al., 2001). This may be related to positive affirmations women receive from their partners in which they internalize to their self-concept. For example, Marigold et al. (2007) found that affirmations women received from their romantic partner led to

increased self-esteem, particularly in women who have low self-esteem. Although the experiences of heterosexual intimacy included in the Experiences of Benevolent Sexism Scale (Oswald et al., 2019) do not include affirmations exclusively, the items which include gender-congruent affirming behaviors (e.g., “how often has your romantic partner praised your ability to take care of their emotional needs?”) may have led to the observed reductions in self-doubt in this study. However, it should be noted, items on the Experiences of Benevolent Sexism Scale are based in traditional gender roles in which not all women prescribe to or find affirmation from.

Further, the positive association observed between experiences of heterosexual intimacy and career aspirations in feminine majors may be understood through romantic affirmations as well. Similar as described about benevolent sexism broadly, heterosexual intimacy acts as praise for acting in gender stereotyped ways associated within romantic relationships. This praise may act as a boost in women’s career aspirations for feminine careers should it act as an aid in her gendered expectations in a romantic relationship. For example, career aspirations may be higher if a specific feminine career can help maintain a woman’s gender roles of satisfying the emotional needs of her partner.

Considering gender roles in heterosexual relationships, specifically motherhood, can also aid in understanding the positive association observed between experiences of heterosexual intimacy and career aspirations in feminine majors. Several papers have discussed how the stereotypes associated with motherhood can lead women to be pushed out of STEM majors/careers and into more female-dominated majors/careers (e.g., Gisler et al., 2018; Morgan et al., 2013). This push into feminine majors is particularly strong for women who conform to feminine norms such as caring for children and being

relationship oriented (Beutel et al., 2018). The push into feminine majors may be in part due to reduced perceived career barriers in feminine majors as opposed to masculine majors (Gnilka & Novakovic, 2017). Some of the perceived barriers women face in masculine majors discussed in the literature include sexist discrimination and a sexist environment (e.g., Smith & Gayles, 2018). In the present study, experiences of protective paternalism predicted in the likelihood for women to be in masculine majors, which suggests these barriers are present in college women. For women in feminine majors, fewer perceived barriers may lead them to more readily be able to hold high career aspirations as observed in this study.

In this sample, self-doubt was only weakly correlated with career aspirations. Previous literature has demonstrated a relationship between women's self-concept (e.g., self-doubt, self-esteem, self-efficacy) and career intentions (Deemer et al., 2014). Further, both stereotype-activation and sexist experiences have consistently been associated with career aspirations within the literature. This association has been shown in college students (Kuchynka et al., 2018; Rudman & Phelan, 2010) and in adolescent students (Mendez & Crawford, 2002; Schuster & Martiny, 2017). Given this, it is likely the lack of associations observed with career aspiration are a function of the high career aspirations of women in college. The present study demonstrated college-aged women have extremely high career aspirations regardless of major choice. The university where this study occurred is also considered a selective institution which may have resulted in the high career aspirations observed. Therefore, it is possible a ceiling effect led to null associations with the Career Aspiration Scale (Gray & O'Brien, 2007) in this study.

Limitations and Future Directions

Although this is one of the first studies to look at all three forms of benevolent sexism as they relate to college women's self-doubt and career aspirations across masculine and feminine majors, several limitations need to be taken into consideration. First, it was not possible to determine causality due to the correlational design of the study. Future studies should utilize an experimental design where women experience the forms of sexism in a controlled setting and are then asked about their career aspirations. Several studies have successfully utilized paradigms in a career context including Dardenne et al. (2007) where they were able to manipulate sexist experiences, including protective paternalistic behaviors. Their manipulation allowed for the evaluation of the causal effect of different sexist experiences on self-doubt.

Additionally, given the high career aspirations observed in this study, future studies should aim to study the career aspirations of children and adolescents. Several studies have previously assessed the career aspirations of children and adolescents and found career aspirations to vary by gender (Mendez & Crawford, 2002) and associated with self-doubt/self-efficacy (Bandura et al., 2001; Schuster & Martiny, 2017). However, experimental manipulation of sexist experiences has yet to be studied within this sample. Utilization of an experimental manipulation of sexist experiences in a younger sample would allow for a better understanding of the mechanisms involved with women's occupational choices. This is imperative in the understanding of the current gap in STEM and the implementation of interventions to reduce this disparity.

It is important to note that mediation analyses have recently been criticized. The correlational nature of mediation analyses as described by Baron and Kenny (1986) have

been utilized in research as a causal model. However, Fielder et al. (2011) noted the proposed mediator in analyses may not be the “true mediator”, but rather a “spurious mediator”, “correlate”, or “manipulation check” (p. 1232). Put simply, the statistical nature of mediation analyses and the Sobel test are unable to determine if the mediator is causal, a third mediator, a correlate of the dependent variable, or another measure of the independent variable. Although more likely to occur in correlational designs, the misattribution of *mediator* can occur within experimental designs as well (Fielder et al., 2011). To better determine what variables should be utilized in mediation analyses, the *Hyman-Tate conceptual timing criterion* states, “mediation requires a conceptual time-ordering of the predictor, mediator, and outcome” (Tate, 2015; p. 237). This criterion requires for mediators to occur after the predictor; thus, trait variables cannot be mediators. Self-esteem broadly is often categorized as a trait variable, but some facets, like self-doubt, may be considered a state variable. However, this ambiguity further compounds the statistical concerns of mediation analyses and as such, future research should consider testing self-doubt as a moderating variable.

The recruitment of this study is another limitation. First, recruitment occurred on a Midwest, Catholic college campus. It is possible greater gender role adherence related to heterosexual relationships was present in this sample given the Catholic environment of the students. This may have inflated the heterosexual intimacy experiences the participants reported. The effects of self-doubt on career aspirations of women who are religiously affiliated compared to those who are not religiously affiliated should be evaluated. Second, recruitment utilized a psychology undergraduate pool which is likely why more feminine majors were recruited than masculine majors. The low number of

masculine majors led to lower power for analyses. Future studies should aim to recruit participants directly from their specified major instead of through a psychology undergraduate pool. This can also allow for greater distinction between masculine and feminine majors including analyses specifically about differences between STEM, non-STEM, and social/behavioral sciences. Third, the present study was predominantly White. Future studies should aim to understand the unique challenges women of various racial identities experience as they relate to self-doubt and career aspirations.

Conclusion

Women's experiences of hostile and benevolent sexism have been associated with various negative outcomes including greater self-doubt and reduced career aspirations. Researchers conceptualize self-doubt as a byproduct of mental intrusions following experiences of sexism. Given the effects of sexism vary by type of sexism and the stereotyped environment in which the woman is in, the current study sought to examine how experiences of hostile and benevolent sexism vary in their associations with self-doubt and career aspirations in college students majoring in feminine or masculine majors. Although no mediation relationship was found to exist between type of sexism, self-doubt, and career aspirations, experiences of heterosexual intimacy were found to be positively associated with career aspirations in feminine majors. Heterosexual intimacy experiences were also associated with reduced self-doubt in women regardless of major. Consistent with previous literature, experiences of protective paternalism were associated with greater self-doubt. These findings suggest that experiences of protective paternalism are particularly impactful for college-age women. The results further our understanding of the associations of experiences of heterosexual intimacy on women's belief in

themselves and their career aspirations. While increases in self-doubt in women have been demonstrated following paternalistic events in previous studies, further research is necessary to establish to what extent heterosexual intimacy experiences effect women's self-doubt.

REFERENCES

- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-Efficacy Beliefs as Shapers of Children's Aspirations and Career Trajectories. *Child Development, 72*(1), 187–206. <https://doi.org/10.1111/1467-8624.00273>
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173–1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Barreto, M., & Ellemers, N. (2005). The burden of benevolent sexism: How it contributes to the maintenance of gender inequalities. *European Journal of Social Psychology, 35*(5), 633–642. <https://doi.org/10.1002/ejsp.270>
- Berg, S. H. (2006). Everyday Sexism and Posttraumatic Stress Disorder in Women: A Correlational Study. *Violence Against Women, 12*(10), 970–988. <https://doi.org/10.1177/1077801206293082>
- Beutel, A. M., Burge, S. W., & Borden, B. A. (2018). Femininity and Choice of College Major. *Gender Issues, 35*(2), 113–136. <https://doi.org/10.1007/s12147-017-9195-8>
- Beutel, A., Burge, S., & Borden, A. (2019). Masculinity and Men's Choice of College Major. *Gender Issues, 36*. <https://doi.org/10.1007/s12147-019-09236-0>
- Beyer, S. (1999). The Accuracy of Academic Gender Stereotypes. *Sex Roles, 40*(9), 787–813. <http://dx.doi.org/10.1023/A:1018864803330>
- Dardenne, B., Dumont, M., & Bollier, T. (2007). Insidious Dangers of Benevolent Sexism: Consequences for Women's Performance. *Journal of Personality and Social Psychology, 93*(5), 764. <http://dx.doi.org/10.1037/0022-3514.93.5.764>

- Davies, P. G., Spencer, S. J., Quinn, D. M., & Gerhardstein, R. (2002). Consuming Images: How Television Commercials that Elicit Stereotype Threat Can Restrain Women Academically and Professionally. *Personality and Social Psychology Bulletin*, 28(12), 1615–1628. <https://doi.org/10.1177/014616702237644>
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160.
- Gervais, S. J., Vescio, T. K., & Allen, J. (2012). When What You See Is What You Get: The Consequences of the Objectifying Gaze for Women and Men. *Psychology of Women Quarterly*, 35(1), 5–17. <https://doi.org/10.1177/0361684310386121>
- Gisler, S., Kato, A. E., Lee, S., & Leung, D. W. (2018). One Size Does Not Fit All: Gender Inequity in STEM Varies Between Subfields. *Industrial and Organizational Psychology*, 11(2), 314–318. <https://doi.org/10.1017/iop.2018.21>
- Glick, P. & Fiske, S.T. (1996). The ambivalent sexism inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, 70, 491-512, <http://dx.doi.org/10.1037/0022-3514.70.3.491>
- Gnilka, P. B., & Novakovic, A. (2017). Gender Differences in STEM Students' Perfectionism, Career Search Self-Efficacy, and Perception of Career Barriers. *Journal of Counseling & Development*, 95(1), 56–66. <https://doi.org/10.1002/jcad.12117>
- Gray, M. P., & O'Brien, K. M. (2007). Advancing the Assessment of Women's Career Choices: The Career Aspiration Scale. *Journal of Career Assessment*, 15(3), 317–337. <https://doi.org/10.1177/1069072707301211>
- Hayes, A. F. (2018). *Introduction to Mediation, Moderation, and Conditional Process Analysis, Second Edition: A Regression-Based Approach* (2nd ed.). Guilford Press.
- IBM Corp. Released 2019. IBM SPSS Statistics for Windows, Version 26.0. Armonk, NY: IBM Corp.

- Jones, K., Stewart, K., King, E., Botsford, M. W., Gilrane, V., & Hylton, K. (2014). Negative consequence of benevolent sexism on efficacy and performance. *Gender in Management: An International Journal*, 29(3), 171–189. <https://doi.org/10.1108/GM-07-2013-0086>
- Kirkman, M. S., & Oswald, D. L. (2020). Is it just me, or was that sexist? The role of sexism type and perpetrator race in identifying sexism. *The Journal of Social Psychology*, 160(2), 236–247. <https://doi.org/10.1080/00224545.2019.1634505>
- Klonoff, E.A. & Landrine, H. (1995). The schedule of sexist events: A measure of lifetime and recent sexist discrimination in women's lives. *Psychology of Women Quarterly*, 19, 439-472.
- Kuchynka, S.L., Salomon, K., Bosson, J.K., El-Hout, M., Kiebel, E., Cooperman, C., & Toomey, R. (2018). Hostile and benevolent sexism and college women's STEM outcomes. *Psychology of Women Quarterly*, 41(1). <https://doi.org/10.1177/0361684317741889>
- Lawson, K. M., Kooiman, L. Y., & Kuchta, O. (2018). Professors' Behaviors and Attributes that Promote U.S. Women's Success in Male-Dominated Academic Majors: Results from a Mixed Methods Study. *Sex Roles*, 78(7), 542–560. <https://doi.org/10.1007/s11199-017-0809-0>
- Lawson, K. M. (2020). An Examination of Daily Experiences of Sexism and Reactivity among Women in U.S. Male-Dominated Academic Majors Using Experience Sampling Methodology. *Sex Roles*, 83(9), 552–565. <https://doi.org/10.1007/s11199-020-01135-z>
- Lehavot, K., Beckman, K. L., Chen, J. A., Simpson, T. L., & Williams, E. C. (2019). Race/Ethnicity and Sexual Orientation Disparities in Mental Health, Sexism, and Social Support among Women Veterans. *Psychology of Sexual Orientation and Gender Diversity*, 6(3), 347–358. <https://doi.org/10.1037/sgd0000333>
- Liben, L. S., Bigler, R. S., Ruble, D. N., Martin, C. L., & Powlishta, K. K. (2002). The Developmental Course of Gender Differentiation: Conceptualizing, Measuring, and Evaluating Constructs and Pathways. *Monographs of the Society for Research in Child Development*, 67(2), i–183.

- Marigold, D.C., Holmes, J.G., & Ross, M. (2007). More than words: Reframing compliments from romantic partners fosters security in low self-esteem individuals. *Journal of Personality and Social Psychology, 92*(2), 232-248. <https://doi.org/10.1037/0022-3514.92.2.232>
- Matteson, A. V., & Moradi, B. (2005). Examining the Structure of the Schedule of Sexist Events: Replication and Extension. *Psychology of Women Quarterly, 29*(1), 47–57. <https://doi.org/10.1111/j.0361-6843.2005.00167.x>
- Mendez, L. M. R., & Crawford, K. M. (2002). Gender-Role Stereotyping and Career Aspirations: A Comparison of Gifted Early Adolescent Boys and Girls. *Journal of Secondary Gifted Education, 13*(3), 96–107. <https://doi.org/10.4219/jsge-2002-375>
- Morgan, S. L., Gelbgiser, D., & Weeden, K. A. (2013). Feeding the pipeline: Gender, occupational plans, and college major selection. *Social Science Research, 42*(4), 989–1005. <https://doi.org/10.1016/j.ssresearch.2013.03.008>
- Murphy, M. C., Steele, C. M., & Gross, J. J. (2007). Signaling Threat: How Situational Cues Affect Women in Math, Science, and Engineering Settings. *Psychological Science, 18*(10), 879–885. <https://doi.org/10.1111/j.1467-9280.2007.01995.x>
- Murray, S. L., Bellavia, G., Feeney, B., Holmes, J. G., & Rose, P. (2001). The Contingencies of Interpersonal Acceptance: When Romantic Relationships Function as a Self-Affirmational Resource. *Motivation and Emotion, 25*(2), 163–189. <https://doi.org/10.1023/A:1010618010115>
- Oleson, K. C., Poehlmann, K. M., Yost, J. H., Lynch, M. E., & Arkin, R. M. (2000). Subjective Overachievement: Individual Differences in Self-Doubt and Concern With Performance. *Journal of Personality, 68*(3), 491–524. <https://doi.org/10.1111/1467-6494.00104>
- Oswald, D. L. (2008). Gender Stereotypes and Women's Reports of Liking and Ability in Traditionally Masculine and Feminine Occupations. *Psychology of Women Quarterly, 32*(2), 196–203. <https://doi.org/10.1111/j.1471-6402.2008.00424.x>

- Oswald, D. L., Baalbaki, M., & Kirkman, M. (2019). Experiences with Benevolent Sexism: Scale Development and Associations with Women's Well-Being. *Sex Roles, 80*(5), 362–380. <https://doi.org/10.1007/s11199-018-0933-5>
- Report—*S&E Indicators 2014 | NSF - National Science Foundation*. (2014). Retrieved May 24, 2021, from <https://www.nsf.gov/statistics/seind14/index.cfm/chapter-3/tt03-02.htm>
- Rudman, L. A., & Phelan, J. E. (2010). The effect of priming gender roles on women's implicit gender beliefs and career aspirations. *Social Psychology, 41*(3), 192–202. <https://doi.org/10.1027/1864-9335/a000027>
- Schuster, C., & Martiny, S. E. (2017). Not Feeling Good in STEM: Effects of Stereotype Activation and Anticipated Affect on Women's Career Aspirations. *Sex Roles, 76*(1–2), 40–55. <https://doi.org/10.1007/s11199-016-0665-3>
- Shepherd, M., Erchull, M. J., Rosner, A., Taubenberger, L., Forsyth Queen, E., & McKee, J. (2011). “I’ll Get That for You”: The Relationship Between Benevolent Sexism and Body Self-Perceptions. *Sex Roles, 64*(1), 1–8. <https://doi.org/10.1007/s11199-010-9859-2>
- Smith, K. N., & Gayles, J. G. (2018). “Girl Power”: Gendered Academic and Workplace Experiences of College Women in Engineering. *Social Sciences, 7*(1), 11. <https://doi.org/10.3390/socsci7010011>
- Smith, J. L., Lewis, K. L., Hawthorne, L., & Hodges, S. D. (2013). When Trying Hard Isn't Natural: Women's Belonging With and Motivation for Male-Dominated STEM Fields As a Function of Effort Expenditure Concerns. *Personality and Social Psychology Bulletin, 39*(2), 131–143. <https://doi.org/10.1177/0146167212468332>
- Swim, J. K., Hyers, L. L., Cohen, L. L., & Ferguson, M. J. (2001). Everyday sexism: Evidence of its incidence, nature and psychological impact from three daily diary studies. *Journal of Social Issues, 57*, 31–53. <https://doi.org/10.1111/0022-4537.00200>

Valiquette-Tessier, S.-C., Gosselin, J., Young, M., & Thomassin, K. (2019). A Literature Review of Cultural Stereotypes Associated with Motherhood and Fatherhood. *Marriage & Family Review*, 55(4), 299–329. <https://doi.org/10.1080/01494929.2018.1469567>

Vescio, T. K., Gervais, S. J., Snyder, M., & Hoover, A. (2005). Power and the Creation of Patronizing Environments: The Stereotype-Based Behaviors of the Powerful and Their Effects on Female Performance in Masculine Domains. *Journal of Personality and Social Psychology*, 88(4), 658–672. <https://doi.org/10.1037/0022-3514.88.4.658>

Appendix A

Experiences of benevolent sexism scale (Oswald et al., 2019)

1. You been put on a pedestal by your romantic partner?
2. People assumed that you will interrupt your career or educational plans to take care of family needs (such as a sick family member or provide childcare)?
3. People questioned your ability to handle situations by yourself?
4. You been told that your love “completes” your partner?
5. You been told that you are (or will be) a good mother because you are so caring?
6. Men felt the need to explain a topic to you that you were already very knowledgeable about?
7. Romantic partners praised your ability to take care of their emotional needs?
8. You been advised to consider a career or job that allows the time to also be a good mother?
9. Men felt the need to tell you how you should run your life, do your job, etc?
10. Romantic partners expected you to please them through physical intimacy?
11. You been praised for performing domestic tasks, such as cooking, cleaning, and taking care of small children?
12. You been prohibited from doing something because others (such as parents or romantic partners) thought that you might get hurt?
13. You been made to feel that you “owed” a date something after being taken out to an expensive restaurant or event?
14. People expected you to display “purity” in your behaviors?

15. Men insisted on lifting or carrying heavy things for you, even when you didn't ask or need the help?
16. You experienced your date act in a way that protected you from being harassed by other people?
17. People assumed that you have strong "morals" simply because you are a woman?
18. You been on a date and your date makes the decision where to go for dinner?
19. People reminded you to look for a romantic partner who can provide financially?
20. Other assumed that you will sacrifice your needs if it benefits your romantic partner in some way?
21. You been informed that as a woman, you have a more refine sense of culture and tastes than do men?
22. Your date asked you out, rather than you asking out your date?
23. People said that you need to be protected or have a "protector" in your life?
24. Others provided you with financial support (e.g., assist with bills, pay for vacation, buy drinks, pay for dates, etc.)?
25. You been offered an escort, even though you didn't feel it was necessary, when walking alone at night?

Appendix B

Schedule of sexist events (Matteson & Moradi, 2005)

1. Treated unfairly by teachers or professors
2. Treated unfairly by your employer, boss, or supervisors
3. Treated unfairly by coworkers, fellow students, or colleagues
4. Treated unfairly by people in service jobs
5. Treated unfairly by strangers
6. Treated unfairly by people in helping jobs
7. Treated unfairly by neighbors
8. Treated unfairly by your boyfriend, husband, or other important man
9. Denied a raise, promotion, tenure, ... or other such thing at work
10. Treated unfairly by your family
11. Made inappropriate/unwanted sexual advances to you
12. Failed to show you the respect you deserve
13. Wanted to tell someone off for being sexist
14. Been really angry about something sexist
15. Forced to take drastic steps such as filing a grievance or lawsuit, quitting
16. Been called a sexist name
17. Gotten into an argument or fight about something sexist
18. Been made fun of, picked on, pushed, shoved, hit, or threatened with harm
19. Heard people making sexist jokes or degrading sexual jokes

Appendix C

Career aspiration scale (Gray & O'Brien, 2007)

1. I want to be among the very best in my field
2. I want my work to have a lasting impact on my field
3. I aspire to have my contributions at work recognized by my employer
4. Being outstanding at what I do at work is very important to me
5. I know that I will be recognized for my accomplishments in my field
6. Achieving in my career is not at all important to me **(R)**
7. Being one of the best in my field is not important to me **(R)**
8. I plan to obtain many promotions in my organization or business
9. I hope to become a leader in my career field
10. I do not plan to devote energy to getting promoted to a leadership position in the organization or business in which I am working **(R)**
11. Becoming a leader in my job is not at all important to me **(R)**
12. When I am established in my career, I would like to manage other employees
13. I want to have responsibility for the future direction of my organization or business
14. Attaining leadership status in my career is not that important to me **(R)**
15. I hope to move up to a leadership position in my organization or business
16. I plan to rise to the top leadership position of my organization or business
17. I plan to reach the highest level of education in my field
18. I will pursue additional training in my occupational area of interest

19. I will always be knowledgeable about recent advances in my field
20. I know I will work to remain current regarding knowledge in my field
21. I will attend conferences annually to advance my knowledge
22. Even if not required, I would take continuing education courses to become more knowledgeable
23. I would pursue an advanced education program to gain specialized knowledge in my field
24. Every year, I will prioritize involvement in continuing education to advance my career

Appendix D

Self-doubt measure (Oleson et al., 2000)

1. When engaged in an important task, most of my thoughts turn to bad things that might happen (e.g., failing) than to good.
2. For me, avoiding failure has a greater emotional impact (e.g., sense of relief) than the emotional impact of achieving success (e.g., joy, pride).
3. More often than not I feel unsure of my abilities.
4. I sometimes find myself wondering if I have the ability to succeed at important activities.
5. I often wish that I felt more certain of my strengths and weaknesses.
6. As I begin an important activity, I usually feel confident in my ability. **(R)**
7. Sometimes I feel that I don't know why I have succeeded at something.
8. As I begin an important activity, I usually feel confident in the likely outcome.
(R)