UNDERSTANDING WOMEN’S LEADERSHIP INTERESTS AND GOALS USING
SOCIAL COGNITIVE CAREER THEORY

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UNDERSTANDING WOMEN’S LEADERSHIP INTERESTS AND GOALS USING
SOCIAL COGNITIVE CAREER THEORY

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Dissertation

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ABSTRACT

Despite the recent increase of women as leaders and managers, women remain underrepresented in key leadership roles in the United States (Barreto, Ryan, & Schmitt, 2009; Catalyst, 2008; Center for American Women & Politics, 2009; Eagly, 2007). Researchers claim that women are underrepresented in leadership because they face a “labyrinth path” towards leadership (Eagly & Carli, 2007). This study examines women’s interests and goals for leadership to extend the research on women’s leadership development. Social Cognitive Career Theory (SCCT; Lent, Brown, & Hackett, 1994) is used as a framework to examine a complex path model that includes person input variables (conformity of feminine norms, conformity to masculine norms, feminine personal attributes of leaders, and masculine personal attributes of leaders), contextual influence variables (perceived lifetime sexist experiences and race-related stress) and the key social cognitive variables of women’s leadership self-efficacy, women’s leadership outcome expectations, women’s leadership interests and women’s leadership goals. Path analysis was used to examine the fit of the data for all female, college student participants (N= 224) and for only ethnic minority, female college student participants (N= 170). The proposed models for all participants and for only ethnic minority participants were not a good fit for the data, but there were several significant correlations between the primary variables that did fit within the SCCT model. An examination of the correlations between variables revealed most notably a lack of significant correlations for the moderator variables of perceived lifetime sexist events and race-related stress and the primary
variables. Thus, an exploratory model was tested for all participants and only ethnic minority participants that included all the primary variables, but trimmed these moderator variables. These exploratory models for all participants and for only ethnic minority participants were a good fit for the data. Study limitations and recommendations for future research are discussed.
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CHAPTER I

STATEMENT OF THE PROBLEM

There has been a great deal of attention in both the public arena and psychological literature regarding women and leadership (Chin, Lott, Rice, & Sanchez-Hucles, 2007; Eagly, 2007; Eagly & Sczesny, 2009; Ridgeway, 2001). This attention is in part due to the presence of high profile women leaders such as Sonia Sotomayor, Sarah Palin, Hillary Clinton, Condoleezza Rice, and Nancy Pelosi (Myers, 2008; Waisman & Tietjen, 2008). These female leaders are an outcome of the dramatic social, cultural, and political changes that have occurred over the past 50 years regarding women, work, and family life in the United States (Barnett & Hyde, 2001). Indeed, the psychological literature indicates that there are several advantages that women leaders bring to organizations, including introducing innovative ideas, the ability to expand marketplace capabilities, and a style of leadership that is democratic and enhances participation among followers (Eagly, 2007; Eagly & Johannesen-Schmidt, 2001; Eagly & Johnson, 1990; Kilian, Hukai, & McCarty, 2005). Increasing the number of women in leadership positions is also one way to operationalize equality between the sexes.

The research literature further suggests an increase in the number of women leaders and managers (Barreto, Ryan, & Schmitt, 2009; Eagly & Carli, 2003a; Eagly &
Carli, 2003b). Women have increased their participation in the workforce, gained access to lower-level managerial positions, and some women have obtained senior level positions (Barnett & Hyde, 2001; Barreto, Ryan, & Schmitt; Catalyst, 2010a; Killeen, López-Zafra, & Eagly, 2006). Despite some success, though, women leaders remain underrepresented in key leadership roles (Barreto, Ryan, & Schmitt; Eagly, 2007; Eagly & Carli, 2004; Heilman, 2001; Killeen, López-Zafra, & Eagly; Webb & Macdonald, 2007).

*The White House Project Report: Benchmarking Women’s Leadership (The Report, 2009)* found women to be significantly underrepresented in the following 10 sectors: academia (23%), business (16%), film and television (16%), journalism (22%), law (18%), military (11%), nonprofit (21%), politics (17%), religion (15%), and sports (21%). On average women hold 18% of the leadership positions in these fields, with the highest leadership representation in academia (23%) and the lowest leadership representation in the military (11%). More specifically, in academia, women made up 26% of full professors, 23% of university presidents, and less than 30% of university board members (*The Report, 2009*).

With regards to business, women made up 3% of CEOs, 6% of top earner positions, 14% executive officers, 15% of board members, and 16% of corporate officer positions at *Fortune 500* companies (Catalyst, 2010a). The statistics are only slightly better for women in nonprofit organizations. For instance, for all nonprofit companies, women made up 45% of CEOs, but only 21% of CEOs for nonprofits with a budget of at least 25 million (*The Report, 2009*). Regarding board members for all nonprofits, women made up 43%, but only 33% for nonprofit companies with budgets of at least 25 million
dollars (The Report, 2009). Therefore, organizations with large budgets have fewer women leaders.

In U.S. political leadership positions, 17% of senators, 17% of congressional representatives, and 23% of statewide elected executive offices across the country were women (Center for American Women and Politics, 2010a). Women leaders are also underrepresented in the field of journalism, with 18% serving as newspaper publishers, 20% acting as radio station news directors, and 28% serving as television station news directors (The Report, 2009). According to The Report (2009), only one in four judges is female and only 18% of law partners in the U.S. are women. With regards to U.S. military leadership, 11% of officers in the top five categories are women, and only 15% of all military officers are women (The Report, 2009).

Likewise, women are underrepresented in religious and sports leadership positions (The Report, 2009). For instance, the number of women leaders in organized religious practices is dependent on the rules for women and the particular religious doctrine. It is estimated that only 15% of Protestant clergy and rabbis are women. In sports leadership, The Report (2009) found women to be underrepresented as well. For instance, The Report noted that only 21% of college athletic directors are women, and only 15% of the International Olympic Committee members are women.

Similarly, Women of Color are underrepresented in leadership positions in the U.S. (Catalyst, 2010b; Center for American Women and Politics, 2010b) and they face additional challenges to leadership (Chin, 2010; Sanchez-Hucles & Davis, 2010). For instance, in the 111th U.S. Congress only 4% are Women of Color, and only 5% of all state legislators are Women of Color (Center for American Women and Politics, 2010b).
According to Catalyst (2010b), Women of Color held only 3% of all board seats in 
Fortune 500 companies in 2009. Of these positions, African American women held 63%, 
Latina’s held 26%, and Asian American women held 11% (Catalyst, 2010b). Women of 
Color also make up less than 2 percent of partners in major law firms and of Fortune 500 
general counsels (The Report, 2009). Overall, these facts demonstrate that women and 
especially Women of Color are severely underrepresented in leadership positions across 
various domains in the United States.

During the past three decades, researchers primarily have examined 
environmental (e.g., social, political, organizational) factors that contribute to the 
underrepresentation of women in leadership positions. These external factors include a 
lack of opportunities for advancement; lack of significant line experience and visible 
assignments; stereotypes about the roles and abilities of women; family and home 
responsibilities; and the lack of female mentors, role models, and personal networks 
Perriton, 2006). Examining the impact of external factors on women’s leadership 
representation is essential and this research has assisted women in advocating for societal 
changes to remove discrimination against women leaders. However, it is also important 
to examine the internal or psychological factors that contribute to the underrepresentation 
of women leaders.

Psychological factors such as self-efficacy for leadership and gender role 
orientation are important factors related to women’s leadership development and may 
contribute to women’s underrepresentation in leadership positions. In the past decade, 
scholars have started to explore the internal and psychological factors that influence
women’s leadership development (Boatwright & Egidio, 2003; Dickerson & Taylor, 2000; Gray & O’Brien, 2007; Hoyt & Blascovich, 2007; Killeen, Lopez-Zafra & Eagly, 2006; Lips 2000; 2001; Yeagley, Subich, & Tokar, 2010). Understanding the impact of internal factors on women’s leadership representation can allow researchers and advocates to empower women to become leaders and better navigate the external environments in which they lead.

Most extant literature has examined women and leadership in terms of women’s leadership styles, women’s effectiveness as leaders, women’s performance evaluations, and women’s emergence as leaders in laboratory studies (Eagly, 2007; Eagly & Johannesen-Schmidt, 2001; Eagly, Johannesen-Schmidt, & van Engen, 2003; Eagly & Johnson, 1990; Eagly & Karau, 1991, Eagly, Karau, & Makhijani, 1995; Eagly, Makhijani, & Klonsky, 1992; Hogue & Lord, 2007; Hogue, Yoder, & Ludwig, 2002; Ritter & Yoder, 2004; Yoder, 2001). Eagly and Carli (2007) summarized the extensive research on women and leadership in their book, Through the labyrinth: The truth about how women become leaders. They discussed the complexity of understanding women’s leadership development and advancement, and highlighted how external factors impact women leaders. This book and the research literature, however, have neglected examination of how women come to aspire to leadership positions or develop interests and goals for these positions. The decision to pursue a leadership position takes into account many internal factors, and may provide opportunities for early interventions to increase the number of women leaders in the pipeline.
Women’s Interests and Goals for Leadership

There are several definitions of “leader” and “leadership” in the research literature. For instance, Eagly and Carli (2007) described a leader as “a person who exercises authority over other people,” and stated that leadership “entails being in charge of other people in multiple ways” (p. 8). These authors also stated that being a leader involves influencing, motivating, organizing, and coordinating the work of others, bringing people together to work on shared goals, and motivating people to work together and set aside narrow self-interests (Eagly & Carli, 2007). Only a handful of studies have explored how women decide to pursue leadership positions (Boatwright & Egidio, 2003; Gray & O’Brien, 2007; Killeen, Lopez-Zafra, & Eagly, 2006; Lips, 2000, 2001; Yeagley, Subich, & Tokar, 2010). These studies suggest women do not express leadership aspirations as often as do men.

Researchers hypothesize that internal beliefs about leadership roles such as low self-efficacy, low self-esteem, perceived consequences of occupational advancement, incongruence between the female gender role and leadership role, and fear of failure and/or success, contribute to women’s lesser aspirations to become leaders (Boatwright & Egidio; Chan & Drasgow, 2001; Dickerson & Taylor, 2000; Eagly & Karau, 2002; Killeen, Lopez-Zafra & Eagly; Lips, 2000, 2001). According to the Merriam-Webster Dictionary (2010), aspiration is defined as “a strong desire to achieve something high or great.” Given the “labyrinth” that women must navigate to become successful leaders (Eagly & Carli, 2007), it is important to understand the process of how women develop aspirations for future leadership positions.
Research has shown that women’s pursuit of leadership is complex (Eagly & Carli, 2007). Often, authors have focused on constructs that relate to leadership aspirations, including self-efficacy expectations (Dickerson & Taylor, 2000), concerns about relationships (Killeen, Lopez- Zafra, & Eagly, 2006; Lips, 2000, 2001), and stereotype threat (Davies et al., 2005). These studies, however, typically lacked an overarching theoretical model that could integrate the numerous factors and interactions between factors that explain how women decide to pursue leadership opportunities.

More recently, Yeagley, Subich, and Tokar (2010) addressed this concern by applying Social Cognitive Career Theory (SCCT; Lent, Brown, & Hackett, 1994) to women’s perceptions of elite leadership positions and these authors explored how internal factors contributed to women’s leadership interests and goals. Interests are defined as “people’s pattern of likes, dislikes, and indifferences regarding various occupations and career-relevant activities” (Lent, Brown, & Hackett, 2002, p. 264). Goals are described as “the determination to engage in a particular activity or to effect a particular future outcome” (Lent, Brown, & Hackett, 2002, p. 263). Women’s leadership interests and goals are different from, but related to women’s leadership aspirations. Women’s leadership interests and goals are specific and concrete variables whereas aspirations are a broad hope to excel at leadership, which could include the development of interests and goals for leadership. Much of the extant literature on women’s leadership development has focused on women’s aspirations for leadership, whereas the current study focuses on women’s leadership interests and goals. The research literature on all three variables is discussed here.
Yeagley, Subich, and Tokar (2010) assessed whether women’s self-efficacy and outcome expectations for positions of elite leadership were related to women’s formation of interests and goals for elite leadership positions. They recruited 156 undergraduate women and had them answer questionnaires about their elite leadership self-efficacy expectations, outcome expectations, interests, and goals. Following best practice guidelines (Fouad & Guillen, 2006), these researchers created new measures to test their research hypotheses.

Consistent with SCCT, Yeagley, Subich, and Tokar (2010) found several interesting relationships. First, self-efficacy and outcome expectations for elite leadership positions correlated positively to interests and goals for positions of elite leadership. These researchers found that 47% of the unique variance in elite leadership interests was predicted by women’s self-efficacy and outcome expectations, and 35% of the unique variance in elite leadership goals was predicted by the combination of elite leadership self-efficacy, outcome expectation, and interests (Yeagley, Subich, & Tokar, 2010). In further support of SCCT predictions, Yeagley, Subich, and Tokar (2010) reported that women’s outcome expectations for elite leadership positions partially mediated the relation of elite leadership self-efficacy and interests. Similarly, interest in elite leadership positions partially mediated the relationship between outcome expectation and goals for elite leadership. Finally, interest and outcome expectations for elite leadership completely mediated the relationship between self-efficacy and goals for elite leadership. By extending the understanding of women’s interests and goals for leadership through theory-based research such as this, it is hoped that researchers, advocates, and counselors
will be able to create interventions to increase women’s representation in leadership positions.

Social Cognitive Career Theory as a Framework

The SCCT was created by Lent, Brown, and Hackett (1994) as a theoretical model that examines the complex relationships between person, contextual, and sociocognitive factors related to career and educational goals. More specifically, this model explains how individuals develop interests, make choices, and accomplish goals in connection with career and education activities (Lent, Brown, & Hackett, 1994). SCCT considers the impact of both person inputs and background contextual affordances on career relevant self-efficacy beliefs and outcome expectations through career relevant learning experiences.

The ability of SCCT to estimate the impact of internal and contextual variables is essential to making connections in the extant research literature on women’s leadership development. Further, SCCT proposes that self-efficacy beliefs and outcome expectations contribute to a person’s career interests, and career interests impact career choice goals, choice actions, and accomplishments. Finally, the theory predicts that proximal contextual factors (e.g., perceived supports, perceived barriers) influence the development of career choice goals and choice actions (Lent, Brown, & Hackett, 1994).

Research has shown empirical support for using SCCT to explain how individuals develop interests, make decisions, and accomplish goals connected to career and education activities (Lent, Brown, & Hackett, 2002). For instance, several researchers have found support for the positive relationship between self-efficacy and outcome expectations and for the positive relationships of both self-efficacy and outcome
expectations to career interests (e.g., Fouad & Smith, 1996; Lent, et al., 2003; Lent, et al., 2005; Lopez, Lent, Brown, & Gore, 1997; Rottinghaus, Larson, & Borgen, 2003; Schaub & Tokar, 2005). Past research also has supported the positive relationships of career interests to choice goals and choice behaviors (e.g., Fouad & Smith, 1996; Lapan, Shaughnessy, & Boggs, 1996; Lent, Brown, Nota, & Soresi, 2003; Lent, et al., 2003; Lent, et al., 2005). The current study utilizes SCCT to examine how women develop interests and goals for future leadership positions. The sections that follow highlight the constructs within SCCT that are of interest in this research, and connect these constructs to the extant literature on women and leadership.

**Self-Efficacy and Women’s Leadership.** Self-efficacy is an important variable in SCCT. According to Bandura (1986), self-efficacy is an individual’s judgment of her or his abilities to accomplish a goal. Self-efficacy can impact a person’s choices, the amount of effort a person uses to accomplish a goal, how much a person persists despite facing obstacles, and a person’s performance (Bandura, 1977). Wood and Bandura (1989) stated that individuals tend to avoid situations they believe will exceed their coping capabilities, but individuals pursue challenging activities they believe they are capable of managing. Lent, Brown, and Hackett (2002) noted that self-efficacy is a widely accepted and empirically validated predictor of individual behavior. Self-efficacy has been studied abundantly by SCCT scholars (Lent, Brown, & Hackett, 2002), and it is becoming popular among leadership researchers (Chan & Drasgow, 2001; Hannah, Avolio, Luthans, & Harms, 2008).

Self-efficacy is a variable of interest within the literature on women and leadership (Dickerson & Taylor, 2000; Hoyt, 2005; Hoyt & Blascovich, 2007; Mellor,
Barclay, Bulger, & Kath, 2006), but there is limited research on the role that self-efficacy plays in women’s interests and goals for future leadership positions. For example, Dickerson and Taylor (2000) conducted an experiment to examine the impact of task specific self-efficacy on college women’s tendencies to participate in certain leadership tasks. These researchers found that women who had high self-efficacy for leadership tasks were more likely to choose to participate in their leadership task. Dickerson and Taylor (2000) also reported that women with high self-efficacy for leadership tasks had greater interest in completing a leadership task rather than a follower task. Similarly, their results demonstrated that women who had low self-efficacy for leadership were less likely to choose to complete a leadership task. The findings of this study are consistent with the SCCT framework. Thus, it seems important to examine the role of self-efficacy in predicting women’s leadership interests and goals for leadership.

*Outcome Expectations and Women’s Leadership.* According to Lent, Brown, and Hackett (2002), outcome expectations are personal beliefs about the imagined consequences of completing a specific task. These potential costs and benefits result from several experiences including direct past life experiences, watching other individuals experience positive or negative results (i.e., vicarious learning, modeling), and from listening to other individuals describe their own experiences (Lent, Brown, & Hackett, 1994). SCCT further posits that a person has positive outcome expectations for tasks when they anticipate being successful at the tasks and negative outcome expectations for tasks at which they anticipate failing (Lent, Brown, & Hackett, 2002). Outcome expectations are an important variable in SCCT, but outcome expectations have not been given enough attention by researchers (Fouad & Guillen, 2006).
Recently, researchers have decided to spend more time examining the role of outcome expectations within SCCT (Diegelman & Subich, 2001; Fouad & Guillen, 2006; Swanson & Gore, 2000). Consistent with SCCT principles, researchers have found support for the role of outcome expectations in predicting women’s career aspirations for non-traditional careers in math and science (Lent et al., 2005; Nauta & Epperson, 2003), as well as the major interests and pursuit intentions of undergraduate non-psychology majors (Diegelman & Subich, 2001). Yeagley, Subich, and Tokar (2010) also found support for outcome expectations as predictors of interests and goals for elite leadership positions, but more research is needed to understand further the role of outcome expectations on women’s interests and goals for leadership.

The women and leadership literature also has provided evidence that women’s leadership interests and goals can be impacted by outcome expectations, especially expectations regarding work-family balance (Halpern & Cheung, 2008; Sullivan & Mainiero, 2006). Many researchers have reasoned that women have low aspirations for leadership because they perceive negative consequences or outcomes from balancing a leadership position with family responsibilities (Halpern & Cheung, 2008; Killeen, Lopez-Zafra & Eagly, 2006; Lips, 2000, 2001). The “mommy track” provides an example of the potential negative outcomes that might arise for women who want to balance their work and family life.

Halpern and Cheung (2008) explained that the “mommy track” was established for women who wanted to divide their time between raising children and working outside the home; however, women on this track are often viewed as being less committed to their work. Halpern and Cheung (2008) reported that the highly successful women they
interviewed were often told: “You can choose either a baby or a briefcase” (p. 5). The idea of having to choose between having a successful career or raising children was a consistent message described by many participants. Therefore, it is logical to assume that other successful women leaders may also expect to have difficulty in balancing a leadership position and family responsibilities.

Research findings by Lips (2000) are consistent with the findings of Halpern and Cheung (2008). Lips (2000) found that college women perceived potential relationship problems when asked to imagine themselves as powerful people like political leaders and chief executive officers. In a follow-up study, Lips (2001) asked college students to again imagine themselves in a series of powerful roles and to rate how possible each role would be to achieve. Participants also were asked to describe “what they would be like” in the particular position (Lips, 2001). The qualitative responses again revealed that women foresaw relationship problems as more likely than did men, especially with regards to their relationships with other employees as well as family members. Women in this study rated themselves as less likely than men to achieve positions such as a political leader or a chief executive officer (Lips, 2001). Thus, Lips’ research (2000, 2001) provided empirical support that young college women expect difficulty with balancing a leadership position and/ or powerful career with their family and friendships.

Subsequently, Killeen, Lopez-Zafra, and Eagly (2006) directly asked male and female college students about their outcome expectations for leadership positions. This study examined several other variables including the gender context of the leadership positions. The feminine gender context was being a leader in a clothing manufacturing context and the masculine gender context was being a leader in an auto manufacturing context.
context. Killeen and colleagues (2006) conducted their research in the United States and Spain. Female and male participants in the US had more positive perceptions for the leadership positions in the context that was matched to their gender rather than the other gender. Both female and male participants in the US identified positive outcomes for serving in these roles, but men saw more positive outcomes than did women regarding establishing and maintaining close relationships as leaders. These findings complement prior research (Lips, 2000, 2001) and provide evidence that women’s perceptions of leadership opportunities are not as positive as are men’s perceptions. Collectively, these findings provide preliminary support for the value of assessing the role of outcome expectations in predicting women’s interests and goals for leadership positions.

*Proximal Contextual Influences and Women’s Leadership.* According to Lent, Brown, and Hackett (1994), proximal contextual influences are environmental factors such as perceived supports and barriers. These researchers proposed that proximal contextual influences moderate the relationship between interests and goals and goals and actions. More specifically, Lent et al. (1994) predicted that more barriers and fewer supports may prevent a person from translating their career interests into career goals. These authors also predicted that more supports and fewer barriers could help a person translate their interest into goals. Several researchers have examined the impact of supports and barriers to career development, career choice, and other career behaviors (Lent et. al, 2001; Lent et al., 2002; Lent, Brown, & Hackett, 2000; Lent, et. al, 2003; Lent, Lopez, Lopez, & Sheu, 2008; Lindley, 2005).

These studies have found mixed results in support of direct and indirect effects on goals and the relationship between interest and goals. For instance, Lent et al. (2001)
tested their predictions by comparing the correlations of interests to goals for college students in high- and low-barrier and high- and low-support environments. They found that interests were related more strongly to goals when barriers were low, but not when supports were high. Lindley (2005) examined the relationships between self-efficacy, outcome expectations, perceived barriers, and career choice. She found support for hypothesized relationships between self-efficacy, outcome expectations, and career choice; however, contrary to SCCT predictions, she found that outcome expectations for careers were positively related to perceived career/educational barriers for women. More research is needed to understand the moderating role of proximal contextual influences on interest and goals.

Although there are several barriers that prevent women from realizing their leadership potential, one pronounced barrier is the experience of sexism (Barreto, Ryan, & Schmitt, 2009; Chin, Lott, Rice, & Sanchez-Hucles, 2007; Eagly & Carli; 2007; Halpern & Cheung, 2008). Sexism is pervasive and it has a negative impact on women’s mental and physical health (Corning, 2002; Dardenne, Dumont, & Bollier, 2007; Glick & Fiske, 1996, 2001; Landrine, Klonoff, Gibbs, Manning, Lund, 1995; Moradi & Subich, 2002, 2003, 2004). Research further suggests that gender discrimination negatively impacts women’s leadership style, leadership self-efficacy, leadership opportunities, and leadership aspirations (Davies, Spencer, & Steele, 2005; Eagly, 2007; Halpern & Cheung; Hoyt & Blascovich, 2007; Morgan & Lynch, 2006; Myers, 2008).

Davies, Spencer, and Steele (2005) and Hoyt and Blascovich (2007) provided empirical evidence that sexism (i.e., stereotype activation) can negatively impact women’s leadership aspirations. Specifically, Davies, et al. (2005) found that women
who watched gender-stereotypic commercials had a strong and significant preference to be a follower instead of a leader in an impending leadership task. Hoyt and Blascovich (2007) assessed stereotype activation and women’s leadership perceived performance, rated performance, and domain identification. These researchers found that women with high scores on leadership self-efficacy were more likely to rate themselves as good leaders, be rated by observers as good leaders, and to show stronger leadership domain identification than women who had low scores.

Another barrier to women’s leadership interests and goals is race-related stress or racism (Eagly & Chin, 2010; Sanchez-Hucles & Davis, 2010). Ayman and Korabik (2010) proclaimed that both gender and culture matter, and both factors have a significant impact on several aspects of leadership, including leadership development. Sanchez-Hucles and Davis (2010) stated that women of color are underrepresented in leadership positions, and women of color have been ignored in the leadership research literature. These researchers declared racism and the stress that results from racism to be a huge barrier to the advancement of women of color, describing it as a concrete wall or sticky floor. Sanchez-Hucles and Davis attributed the underrepresentation of women of color leaders as due to a lack of line experience, inadequate career opportunities, racial differences in speech and socialization, ethnosexual stereotypes, “old boy networks,” tokenism, stereotyping, and stereotype threat. Halpern and Cheung (2008) also found the experience of sexism and racism to be prominent themes in their qualitative study of several international women leaders. Thus, a double jeopardy effect may be at play in understanding women of color leadership development.
To summarize, both gender and culture matter when understanding how women develop interests and goals for leadership. Several women leaders have described the negative impact of sexism in their books (Morgan & Lynch, 2006; Myers, 2008). Women of color have reported sexist and racist experiences that have caused stress and distress in their leadership journeys (Hall, Garrett-Akinsanya, & Hucles, 2007; Kawahara, Esnil, & Hsu, 2007; Porter & Henderson Daniel, 2007; Vasquez & Comas-Dias, 200). Sexism and racism are realistic and unavoidable hurdles in understanding women’s leadership development. Given the available research, it is reasonable to assert that the experience of sexism and racism can have a negative impact on women’s leadership interests and goals. Therefore, the current study uses SCCT to explore the impact of barriers such as perceived sexist experiences and race-related stress on the relation between women’s leadership interests and goals.

**Person Inputs and Women’s Leadership.** Finally, in SCCT, person inputs (e.g., gender, gender role conformity, race/ethnicity) are individual difference variables that impact career interests, choice, and performance (Lent, Brown, & Hackett, 1994). Specifically, person inputs are proposed to impact self-efficacy and outcome expectations indirectly; their impact is mediated by learning experiences. Researchers have found empirical support for these predicted relationships with the following person inputs: gender, gender role socialization, conformity to gender role norms, race/ethnicity, and personality (Lent et al., 2005; Rogers, Creed, & Glendon, 2008; Tokar, Fischer, & Subich, 1998; Tokar, Thompson, Plaufcan, & Williams, 2007; Turner & Lapan, 2003; Turner, Steward, & Lapan, 2004). In SCCT, person inputs also are hypothesized to be related directly to background contextual affordances and proximal contextual influences.
The inclusion in SCCT of person inputs in predicting an individual’s interests and goals is an asset of the theory.

One important person input variable relevant to the present project is gender role orientation or general role norm conformity (Ayman & Korabik, 2010; Parent & Moradi, 2010). Gender role norms are normative expectations for how women and men should think and behave (Mahalik, Morray, Coonerty-Femiano, Ludlow, Slattery, & Smiler, 2005). These lessons are learned at an early age and are relevant for several life domains (Parent & Moradi, 2010; Smiler & Epstein, 2010). Individuals who engage in nontraditional behaviors experience pressure from society to alter their behavior (Mahalik, et al., 2005; Smiler & Epstein, 2010).

Leadership is often associated with traditional masculine gender role norms (Ayman & Korabik, 2010; Eagly & Carli, 2007). Because traditional masculine and feminine role norms are different and sometimes opposite, women who want to become leaders face a double-bind (Ayman & Korabik, 2010; Eagly & Carli, 2007; Smiler & Epstein, 2010). The double-bind these women face includes how to conform to both the leadership (i.e., masculine role) norms and the feminine role norms without being socially punished and excelling at their leadership goals.

Researchers have hypothesized that conformity to feminine role norms impacts women’s decisions to emerge as leaders in group settings (Eagly & Karau, 1991), as well as causing others to evaluate female leaders less favorably than male leaders in experimental studies (Eagly, Makhijani, & Klonsky, 1992). A few studies have explored the relationship between aspects of traditional feminine role norms and leadership aspirations and found a negative association between conformity to feminine norms and
leadership aspirations (Boatwright & Egidio, 2003; Lips, 2000; 2001). Based on this conceptualization and study findings, it seems that women who hold traditional gender role norms may be reluctant to develop interests and goals for leadership positions. However, more research is needed, to understand how conformity to both feminine and masculine role norms impacts the early formation of women’s leadership goals and interests. This study measures both conformity to feminine and masculine role norms within the SCCT context. In addition, this study also examines how participants view leadership with respect to traditional feminine and masculine role norms. This is important to understand as people may have different views of what leadership entails.

Summary of the Current Study

In order to understand why women are underrepresented in leadership positions, we must first understand how women develop interests and goals to become leaders. We must also understand how gender role conformity to feminine and masculine norms and experiences with sexism and racism impact women’s leadership interests and goals. The current study seeks to expand the research on women’s leadership interests and goals by utilizing Social Cognitive Career Theory (SCCT; Lent, Brown, & Hackett, 1994), an established and empirically validated theoretical model. To date, only one research study (Yeagley, Subich, & Tokar, 2010) has used SCCT to predict women’s leadership interests and goals and more research on this topic is needed. The current study tests the key relationships proposed by SCCT, by using women’s leadership self-efficacy and outcome expectations to predict women’s interests and goals for leadership.

This study extends the literature by testing two additional aspects of SCCT. The roles of two perceived barriers relevant to women and leadership (i.e., perceived
experiences of sexism and race-related stress) and some person input variables relevant to women and leadership (i.e., conformity to feminine and masculine role norms as well as gender role norms attributed to leaders) are examined. These variables have not been explored in the literature, despite past literature which indicates that sexism, racism are barriers and that gender role norms and gender role norm attributions for leaders may impact women’s leadership interests and goals (e.g., Ayman & Korabik, 2010; Boatwright & Egidio, 2003; Davies, Spencer, & Steele, 2005; Eagly, 2007; Eagly & Chin, 2010; Halpern & Cheung, 2008; Hoyt & Blascovich, 2007; Morgan & Lynch, 2006; Myers, 2008; Lips, 2000; 2001; Sanchez-Hucles & Davis, 2010).
CHAPTER II

REVIEW OF THE LITERATURE

This chapter provides a review of the relevant research literature on how women develop interests and goals for leadership. It includes vital research about the variables under examination in the current study including women’s self-efficacy for leadership, women’s outcome expectations for leadership, and women’s interests and goals for becoming leaders. The impact of barriers such as sexism and racism on women’s leadership interests and goals is discussed. The impact of feminine and masculine gender role norm conformity, as well as gender role norms attributed to leaders, on women’s leadership interests and goals is also discussed. A review of Social Cognitive Career Theory (SCCT) is provided to demonstrate its utility in the current study and it is used to generate the hypotheses. Finally, a description of the specific hypotheses to be examined is provided.

Women’s Interests and Goals for Leadership

A review of the research literature regarding women’s interests and goals for leadership revealed two primary approaches for examining how women develop interests and goals for leadership. The first approach includes asking young women, primarily
college students, questions about their interests, aspirations, and goals to become leaders (Boatwright & Egidio, 2003; Killeen, Lopez-Zafra, & Eagly, 2006; Lips, 2000, 2001; Yeagley, Subich, & Tokar, 2010). The second approach consists of interviewing or surveying current, successful women leaders and asking them to reflect about how they developed and accomplished their interests and goals to become leaders (Hall, Garrett-Akinsanya, & Hucles, 2007; Halpern & Cheung, 2008; Kawahara, Esnil, & Hsu, 2007; Morgan & Lynch, 2006; Myers, 2008; Porter & Henderson Daniel, 2007; Vasquez & Comas-Dias, 2007). Both approaches have contributed to the growing research literature on women’s leadership development. Both approaches are discussed to highlight the small literature that examines the early aspects of women’s leadership development, but also the more advanced literature that brings in key factors that experienced women leaders have shared with women who are interested in developing goals for leadership.

The first approach focuses on asking young women, who are often college students, questions about their interests, aspirations, and goals to become leaders. An empirical study that first looked at women’s leadership aspirations and the complexity of variables correlated with women’s leadership aspirations was conducted by Boatwright and Egidio in 2003. These researchers explored how connectedness needs, gender role orientation, self-esteem levels, and fear of negative evaluation impacted women’s aspirations for leadership positions. According to Boatwright and Egidio (2003), past researchers have neglected to study how women develop aspirations for leadership experiences. These researchers argued that “women must intrinsically possess an interest in aspiring for leadership roles before they can take full advantage of emerging
opportunities: glass ceilings are broken by opportunity accompanied by desire” (Boatwright & Egidio, 2003, p. 654).

Boatwright and Egidio (2003) conducted their research study with 213 European-American (94%), undergraduate women. They recruited women from different majors and different classes who were first-year students (51%), sophomores (12%), juniors (18%), and seniors (19%; Boatwright & Egidio, 2003). The mean age of the participants was 19.6, with a range between 17 and 25 years. Students were given extra credit and a candy bar for completing the study (Boatwright & Egidio, 2003). Boatwright and Egidio (2003) had participants complete a demographic questionnaire, the Leadership Aspiration Subscale of the Career Aspiration Scale (CAS, O’Brien, Gray, Tourajdi, & Eigenbrode, 1996), the Bem Sex Role Inventory (BSRI; Bem, 1974, 1981), the Connectedness Scale (CS; Welch, 1997), the Rosenberg Self-Esteem Scale (Rosenberg, 1965; Silber & Tippet, 1965), and a revised version of the Fear of Negative Evaluation Scale (FNE; Watson & Friend, 1969). The measures used by the researchers are important because they operationalize some key variables under review in this research study.

Boatwright and Egidio (2003) found that women who reported traditional feminine gender roles were less likely to report leadership aspirations, and women with high self-esteem were more likely to report leadership aspirations. The authors also reported that women who had a need to connect with others were more likely to report leadership aspirations. This result is different from other research which found women to be less interested in leadership because they expected to have difficulty maintaining their connections with coworkers and family (Lips, 2000, 2001). Fear of negative evaluation was not significantly related to leadership aspirations, but this variable did explain some
of the variance in the proposed model. Connectedness needs, gender role orientation, self-esteem levels, and fear of negative evaluation explained 16% of the variance in the model; this tells us that these are important factors to consider when explaining how women develop aspirations, and perhaps the related interests and goals, for leadership.

Boatwright and Egidio (2003) identified four important variables that impact women’s leadership aspirations. Their study provided empirical evidence for how internal factors impact a woman’s decision making process about pursuing future leadership opportunities. However, there are several limitations to the study. First, the sample was homogenous and this raises doubts about generalizing the study findings to other samples. This is particularly important given the largely European American (94%) sample used in the study. It is important to use a more diverse group of college women to see if these findings apply to women from different cultures. Another limitation for the study is the use of the BSRI to measure gender role orientation or femininity. There has been considerable concern regarding the validity and reliability of the BSRI (Mahalik, Morray, Coonerty-Femiano, Ludlow, Slattery, & Smiler, 2005; Smiler & Epstein, 2010).

In conclusion, the Boatwright and Egidio (2003) study helped provided a foundation of knowledge that may be useful to an examination of how women develop interests and goals for leadership, but more research is needed to make better predictions.

A qualitative study that looked at women’s leadership aspirations was conducted by Lips (2000). She explored how college students perceived themselves in potential powerful roles. Lips created questions based on the possible selves methodology. Possible selves are “personalized representations of one’s self in various future states and may serve as motivators, providing a specific image or vision attached to an individual’s
desire for competence, affiliation, and success” (Lips, 2000, pp. 39). This is a unique and creative method that other researchers have replicated to study leadership aspirations.

There were 63 undergraduate (33 female, 30 male) students in this study. The sample was primarily European-American (78%), and had a mean age of 21 years (Lips, 2000). Participants were asked to imagine and describe themselves as powerful people such as a political leader, chief executive officer (CEO), and director of a scientific research center (Lips, 2000). They also were told to describe what they would like and dislike about these positions.

Lips (2000) found that women in this study did not aspire to become political leaders, CEOs, or scientific directors (Lips, 2000). Compared to men, women in this sample rated all leadership roles as less possible and less positive. Women expressed concerns about relationship problems if they were to become these powerful leaders and this is perhaps why they aspired less to these leadership positions (Lips, 2000). This finding contradicts the findings by Boatwright and Egidio (2003) regarding the positive correlation between connectedness needs and leadership aspirations. The different findings could be related to the different measures used to assess relationships in the Lips (2000) and Boatwright and Egidio (2003) studies, with Lips using a qualitative and direct approach and Boatwright and Egidio using a quantitative and general measure of relationships. Lips (2000) also noted that young women do not have successful role models of women leaders who negotiate their leadership positions and relationships. According to Lips (2000) this lack of vicarious learning leads women to aspire to leadership positions less often than do men. Lips went on to state that: “If young women have shown a reluctance to step into roles that they view as forcing them into distasteful
modes of relating to others, it is not the women who must change—it is power and our construction of it” (Lips, 2000, p. 42).

In 2001, Lips conducted a follow-up study using the same methodology with two different samples. In this study she explored the role of physical appearance in the participant’s responses to the questions. Participants were college students from a university in Virginia and a university in Puerto Rico. Both samples reported diverse majors and were recruited from upper level courses. There were 65 women and 21 men in the sample from Virginia, and 34 women and 12 men in the sample from Puerto Rico. The age range for the sample from Virginia was 19 to 29 years; and the age range for the sample from Puerto Rico was 18 to 26 years. All participants completed the survey in English.

Lips (2001) found that women in both samples rated the political leader, CEO, and scientific director positions as more problematic than did men. Consistent with her past findings, women in the Virginia sample were more likely than were men to expect relationship problems with the political leader and CEO roles (Lips, 2001). However, women in the Puerto Rican sample expected less conflict between holding positions of power and their personal relationships than did the Virginia sample women (Lips, 2001). Given the methodology used in this study, it is difficult to say why this difference was found between the two samples. The fact that Puerto Rican women expected less conflict between balancing leadership roles and relationship patterns may be connected to cultural differences. These mixed findings also echo the other contradictions in the literature (Boatwright & Egidio, 2003; Lips, 2000). The different findings could be related to cultural factors or measurement differences. Researchers need to study the development
of women’s interests and goals for leadership in diverse samples of women. Similarly, more research is needed to understand how relationship expectations impact women’s interest and goals for future leadership opportunities.

In addition, women in the Virginia sample mentioned physical appearance in their responses more often than did men (Lips, 2001). Seventy-seven percent of women mentioned appearance at least once when describing themselves in positions of leadership (Lips, 2001). According to Lips (2001), women used their physical appearance to maintain their authority. For example, one woman stated: “I would be a leader, decision-maker, and not a follower. I would dress conservatively. Funny, I keep picturing myself like a man” (Lips, 2001, p. 808). Women also mentioned physical appearance as one way to negotiate the contradiction between femininity and power (Lips, 2001). For example, two women noted the following: “I would wear expensive clothes that would look sexy yet professional. I would feel like I could conquer the world and do anything;” and “Business-like, yet sexy. A woman not to be messed with. Everyone knows this, but doesn’t consider me a bitch. I’m respected” (Lips, 2001, p. 809). It is clear from these statements that physical appearance/sexuality and power needed to be negotiated for these women to see themselves as leaders.

In both studies, Lips (2000, 2001) used a creative approach to studying women’s interests and goals for leadership by asking participants to imagine themselves in various powerful roles. She incorporated mixed methods to understand how female and male university students aspire to leadership positions. However, there are several limitations to both research studies that should be noted. First, the sample sizes for both studies are very small overall and especially for the male Puerto Rico sample (n=12). Small samples
limit the generalizability of the study findings and limit the confidence in the research findings. Also, there were no questions that addressed the cultural differences between the two samples. Asking the participants a few questions about the role that cultural plays in their decision making process may have provided data to help explain the differences found between the two groups. Third, a good portion of the qualitative data was coded into limited categories that lost much of the richness of the participants’ data. By categorizing the data into these basic categories, the researcher lost the participants’ actual descriptions of themselves as future leaders.

Furthermore, in the second study, Lips noted that a thematic approach was used to identify the types of leadership problems anticipated by respondents; however, the process for selecting themes was not clearly articulated. The responses to the open-ended questions could have been examined using a qualitative theory with clear techniques such as grounded theory (Strauss & Corbin, 1998). Finally, this study lacked an overarching theory or model to connect the hypotheses to the data of the research. Instead, Lips presented vague generalizations about the difficulty of negotiating a powerful position and femininity. These limitations need to be addressed in future research on women’s leadership aspirations.

Subsequently, Killeen, Lopez-Zafra, and Eagly (2006) conducted a research study to extend Lips’ (2000, 2001) research findings. Most relevant for the current literature review is the portion of this project on outcomes expectations. In this study, 224 (109 men, 115 women) college students were asked to imagine themselves as a chief executive officer (CEO), vice president, or mid-level manager in a large company. Participants also rated how positive and possible the role would be, and they estimated the outcomes that
they expected from holding these positions (Killeen, Lopez-Zafra, & Eagly, 2006). Participants were recruited from two different universities, one from the United States and the other from a university in Spain (Killeen, Lopez-Zafra, & Eagly, 2006). Only the U.S. based data are discussed because they are related to the proposed research study. The US based sample was mostly Caucasian (59%), with a median age of 20 years (Killeen, Lopez-Zafra, & Eagly, 2006).

Killeen, Lopez-Zafra, and Eagly (2006) found that women and men had positive feelings about being leaders; however, men were more likely than were women to think that they could attain these leadership positions. With regards to outcome expectations, men and women had different outcome expectations for holding leadership positions. Consistent with past research findings (Lips, 2000, 2001), men who imagined themselves as leaders did not see difficulty in holding leadership positions and maintaining their friendships or family responsibilities (Killeen, Lopez-Zafra, & Eagly, 2006). However, women who imagined themselves as leaders did see challenges in holding a leadership position and maintaining their friendships and family responsibilities (Killeen, Lopez-Zafra, & Eagly, 2006). An interesting finding is that women who imagined themselves as holding a leadership position did see more humanitarian benefits than did men who imagined themselves as leaders (Killeen, Lopez-Zafra, & Eagly, 2006). It is clear that men and women have different outcome expectations for holding leadership roles and more research is needed to understand both the negative and positive outcome expectations that women have regarding holding leadership positions.

Overall, this study extended the research literature by providing empirical evidence that men and women hold different outcome expectations for leadership
positions. However, there are also some limitations to the study. One limitation is the use of role incongruity theory of prejudice toward female leaders. Killeen, Lopez-Zafra, and Eagly (2006) used this theory to guide the research project and it was ineffective based on findings for several of the proposed hypotheses. Discussion of these failed hypotheses is beyond the goal of this study, but the findings demonstrate that the lack of a coherent and effective theoretical model makes predicting women’s leadership aspirations difficult. Another limitation is the measurement used in the study. Perceived positivity and possibility of the leadership roles were each assessed with one item (Killeen, Lopez-Zafra, & Eagly, 2006). It would have been better for the researchers to use a more sophisticated questionnaire to assess these variables. In summary, Killeen, Lopez-Zafra, and Eagly (2006) advanced the literature on women’s perceptions and expectations for leadership, but an overarching theoretical model is still needed to assess the complex question about how women aspire to become leaders.

The second approach to researching women and leadership uses qualitative, narrative, and case study methods to understand women’s leadership development. These are common methods used to understand women who are currently serving in leadership positions (Cheung & Halpern, 2010). Cheung and Halpern (2010) stated that there are so few women at the top of leadership positions, that researchers have used in-depth interviews and analysis to better understand the leadership development of women. In these studies, successful women leaders reflect back on their experiences and share how their experiences have helped them accomplish their goals of becoming leaders (Halpern & Cheung, 2008; Morgan & Lynch, 2006; Myers, 2008). This literature is reviewed to
illustrate realistic, potential outcomes of leadership and barriers to the advancement of women’s interests and goals.

Several women leaders have addressed the intersection of their identities as women and leaders who are also racially/ethnically diverse (Sanchez-Hucles & Davis, 2010). For instance, Hall, Garrett-Akinsanya, and Hucles (2007) and Porter and Henderson Daniel (2007) described the history of Black women leaders and how they worked to make space for themselves and other women of color in leadership roles. Vasquez and Comas-Dias (2007) highlighted the unique strengths of Latina leaders and outlined several barriers to their leadership development. Kawahara, Esnil, and Hsu (2007) described how the stereotypes about Asian women as passive, exotic, and victims of patriarchy conflict with the stories told by contemporary Asian American women leaders interviewed in their qualitative study. These examples are important given the value of learning from role models who match mentees on important characteristics. These studies also provide unique insight into women’s leadership since most of the empirical research on women’s leadership has not examined a diverse sample of women.

Adding to this literature, Halpern and Cheung (2008) conducted a qualitative, cross-cultural study of women leaders who were identified as leading dually-successful personal and professional lives. These researchers interviewed 62 high-achieving women from the United States and China. All of the participants had been married and were providing care for family members (i.e., children or sick parents/ siblings; Halpern & Cheung, 2008). Participants mostly were in their 50s and 60s, with a range from about 40 to 85 (Halpern & Cheung, 2008). These women had long-term careers with years of experience. Halpern and Cheung (2008) identified women leaders from different areas of
work and diverse occupations including chairpersons of large organizations, presidents of large organizations, several university presidents, chiefs of police, and judges. These women were selected for this study because they were top women leaders with family responsibilities (Halpern & Cheung, 2008). These women were selected to serve as role models for other women who would like to balance their personal and professional lives.

The participants were interviewed by Halpern or Cheung. The interviews focused on the decisions that the women leaders made about their work and family roles and responsibilities (Halpern & Cheung, 2008). The participants were asked about the strategies they used at different points in their lives to manage work and family demands, about the cultural meaning of work-family balance, and about their leadership style (Halpern & Cheung, 2008). Several themes emerged from the interviews that are relevant to the current research project. For example, all of the participants talked about having mothers, fathers, teachers, or other role-models who helped them develop their interests and skills in leadership at an early age (Halpern & Cheung, 2008). Participants reported that their mothers made huge sacrifices so that their children could have the opportunity to become educated and pursue leadership positions in various fields (Halpern & Cheung, 2008).

Halpern and Cheung (2008) also found that the participants had formal and informal mentors who provided career-related support and psychological support. These researchers discussed the concept of power mentoring, which is when a mentee can have several different types of mentoring relationships with different people to navigate a complex work environment (Halpern & Cheung, 2008). Also, many Chinese women talked about the values they learned from their schools and how these values and lessons
helped them succeed in their careers (Halpern & Cheung, 2008). Having role models and mentors was a common theme for participants. Within the SCCT, role-models and mentors are seen as providing vicarious learning and verbal persuasion as these individuals often provide encouraging words and share their experiences.

Another theme was that the participants worked hard to balance their career and leadership positions with their family life (Halpern & Cheung, 2008). According to Halpern and Cheung (2008), these women were able to accomplish work-family balance or integration by asking for help from their social support networks, which included their spouses, relatives, and outside agencies. The women also talked about navigating potential problems with their romantic partners and the need to be sensitive to power differences between themselves and their romantic partners (Halpern & Cheung, 2008). For instance, one woman described how she convinced her husband to move and change jobs when she got a promotion that required her to relocate to a new city. The need for women to balance both their careers and families stems from gender role norms that expect women to care for children and home.

Similarly, participants discussed the need for realistic expectations for themselves regarding domestic chores and time spent with their children (Halpern & Cheung, 2008). The participants established life management strategies in order to meet the expectations that they had for themselves (Halpern & Cheung, 2008). This theme is important as some women assume that the demands of holding a position of leadership conflict with the demands of having healthy relationships with romantic partners and children. Halpern and Cheung (2008) noted that their women demonstrated that it is possible to have a healthy life balance and integrate both work and family responsibilities. Again, the
pressure these women faced to perform domestic chores and be available for their romantic partner seems based in feminine gender norms. Thus, these women were successful because they were able to manage the responsibilities connected to being female as well as successfully maintain the responsibility of work and leadership.

Despite the important findings discussed by Halpern and Cheung (2008), their study has several limitations. First, these women were atypical in their leadership accomplishments. The researchers indicated that successful women leaders often are not married and do not have intensive caregiving responsibilities. It is unclear, too, how well the themes identified generalize to other women, especially younger women who are part of a different age cohort. Also, the reflections are retrospective and are limited by hindsight bias. Finally, the qualitative nature of the data makes it difficult to ground these data directly in psychological theory. Halpern and Cheung stated that: “It has been a half-century since the start of the women’s movement, and women have only moved closer to the half-way mark in the corporate world and other organizations; most are stuck in middle management” (p. 3). In conclusion, it is essential to have a comprehensive theory and empirical data if we are to understand better why women are only hitting the half-way mark in organizations and why they continue to be stuck in middle management.

Morgan and Lynch (2006) provided their inspiring story in the form of a case study in their book titled: *Leading From the Front: No Excuse Leadership Tactics for Women*. In this book they described their personal experiences as Marines and successful military leaders. They highlighted several leadership principles that helped them navigate their leadership roles in the masculine environment of the U.S. military. Some of these principles include: “meet and exceed the standards you ask of others,” “make timely
decisions,” “seek to take responsibility before you begin to place blame,” “true leaders dedicate themselves to service” (i.e., “take care of those you lead”), and “think before you act…especially before you overreact” (Morgan & Lynch, 2006). The remaining principles are as follows: “when forced with a crisis: aviate, navigate, and communicate,” “courage + initiative + perseverance + integrity = success,” “don’t cry over something that won’t cry over you,” “say you’re sorry only when you’re at fault,” and “always lead as you are” (Morgan & Lynch).

Some of these principles are based on core military concepts and some are based on the authors’ unique perspectives as women who successfully navigated leadership in a masculine environment. Part of their success strategy related to overcoming traditional feminine gender roles. For instance, two of the principles, “think before you act…especially before you overreact” and “don’t cry over something that won’t cry over you” relate to the feminine gender role and stereotype that women are too emotional and cannot handle stressful situations. Similarly, the principle “say you’re sorry only when you’re at fault” relates to the feminine gender norm that women are overly apologetic in order to be nice and maintain good relationships with others. However, two principles also seem to be consistent with traditional feminine gender role norms. These leadership principles are: “true leaders dedicate themselves to service (i.e., take care of those you lead),” and “when forced with a crisis: aviate, navigate, and communicate.” The first relates to the traditional feminine role norm of caretaking and the other principle relates to the feminine gender role norm that values communication as a way to resolve problems. In conclusion, Morgan and Lynch (2006) used a variety of principles to accomplish their leadership goals and some of the principles they described are
consistent, but others are inconsistent, with traditional feminine gender role norms. Additional research is needed to understand the impact of conformity to gender role norms for women leaders.

Similarly, in another case study, Myers (2008) described her personal experiences as she navigated her appointment as the first, female, White House press secretary to President Bill Clinton. In her book titled, *Why Women Should Rule the World*, she described several barriers that she faced during her tenure. These barriers began at her appointment to this prestigious position. She described her invitation as follows:

George [Stephanopoulos] and Ricki [Seidman] pulled me aside in a hallway and told me the plan: I would have the title of White House press secretary. But the job would be a little different. George would be director of communications; he would handle the daily briefings, as he had during the transition, and I would be the backup briefer. He would take the press secretary’s office in the West Wing; I’d have a smaller office in the same suite. He’d carry the highest rank of assistant to the president (as all previous press secretaries had); I’d be a deputy assistant—a lower rank that came with a smaller salary (Myers, 2008, p. 19).

Despite her protests, she accepted the position with these conditions. The position of White House press secretary had been given to a woman, but stripped of the power, authority, and money that usually accompanied this position. Myers stated that she sometimes had the support of the president and the senior staff to do her job well and sometimes she did not. Myers explained,

I didn’t have as much experience as some of the men who came before me…that became the justification for limiting my role, which…guaranteed that I’d be less effective. The circular logic…was infuriating, and at times I struggled to control my anger (2008, p. 23).

In addition, Myers described another upsetting experience when she found out that a male colleague in a similar ranked position, with less responsibility, made more money than she did. He had been given the maximum pay allowed for the position title.
and she had been given $10,000 less than him. She talked with the chief of staff at the
time and demanded a raise. The male chief told her that he did not have enough money to
give her a raise and he justified the salary difference by saying that her male colleague
had a family to support and had taken a pay cut to join the staff. Thus, she was denied her
raise and equal pay. This is an unfortunate situation that is one example of sex
discrimination.

Myers also described the double bind of women leaders who are expected to act
like men, but get punished for acting like men. She creatively described traditional
gender role norms as contributing to this double bind. She explained:

For, oh, several millennia, women were confined to private life, where they raised
children and managed domestic matters. Public life was the province of men,
created by and for men. When women started moving into this traditionally male
bastion, they had to take that world as they found it. From the earliest days,
women succeeded by adopting the rituals of men, by going native. But women
aren’t men. So accepting the idea that they should behave like men—but don’t—
has created this sense that they’re a cheaper model, that they’re a Toyota to the
male Lexus—same manufacturer, but without all the extra horsepower, fancy
upholstery, and state-of-the art electronics (Myers, 2008, p. 41)

She noted that women are still perceived as being better at “caretaking” and men
as being better at “taking charge.” Myers stated that “When women in positions of
authority conform to traditional female stereotypes [norms], they are too often perceived
as ‘too soft’ to be effective. And when they defy those norms, they are considered ‘too
tough’ unnaturally masculine, out of sync” (p. 41-42). She concluded that women who
act like men (i.e., women who do not conform to the feminine gender role norms) and
women who act like women (i.e., women who conform to the feminine gender role
norms) in leadership positions are “Damned if they do, damned if they don’t” (p. 41-42).
In summary, Myers (2008) provided a personal narrative and exemplar of a woman leader in a high profile position. In particular, she described several barriers related to sex discrimination. These barriers included being hired for a position that was reduced in status because she was a woman (the first woman in this position), a lack of support from her colleagues, less pay than her male colleague, and the double bind women leaders face regarding conforming to traditional feminine gender norms. Myers provided a compelling and candid story of her leadership experiences, and thereby contributed to the growing body of research literature on women’s leadership development. However, this is one woman’s story and it is unclear how much of her experiences generalize to other women.

Ayman and Korabik (2010) proclaimed that both gender and culture are important variables to understanding women’s leadership development. Sanchez-Hucles and Davis (2010) described the importance of examining the impact of race-related stress for women of colors’ leadership development. Other researchers have also stressed the importance of looking at race-related stress or racism for women of color leaders (Chin, 2010; Eagly & Chin, 2010). Several women of color have discussed the double-jeopardy that they face for being both a woman and an ethnic minority person who also happens to be a leader.

For instance, Hall, Garrett-Akinsanya, and Hucles (2007) provided a history of Black women leaders and described how Black women have worked to make space for themselves and other women of color in leadership roles. These authors described how sexism and racism work to marginalize Black women leaders. Hall, Garrett-Akinsanya, and Hucles (2007) reported that “Black women are under pressure in the Black
community to remain silent about sexism. Similarly, Black women are denied a full voice in the feminist and lesbian communities where the focus has been on White middle-class women” (p. 281). These women described four barriers to the success of Black women leaders: racism, sexism, classism, and heterosexism. These authors emphasized that Black women leaders have several strengths they use to overcome these barriers, including a connection with other people of African descent and a system of mentoring from Black women and White allies.

Similarly, Porter and Henderson Daniel (2007) stressed the importance of developing women of color leaders using a feminist and multicultural perspective. These two women are psychologists, educators, and scholars who have served in many different leadership positions. The authors described how they developed their leadership skills and encouraged other women of color to become leaders. Porter and Henderson Daniel identified themselves as “leaders in process” (p. 245) and stated that becoming a leader is a lifelong process that is actualized through “self-reflection, mentoring, supervising, and peer learning” (p. 246).

These authors described the development of a leadership training program for women of color and stated that “WOC [women of color] are often confronted directly and indirectly by stereotypes that can undermine their self-confidence and others’ perceptions of them as leaders” (p. 258). The authors explained that women of color who are leaders experience an intense scrutiny because of their race/ethnicity and feel as though they have limited room to make mistakes. This seems particularly strong when a woman of color leader is in a “first and only” (p. 260) position, that is, when a woman of color is the first and only woman of color to serve in a particular leadership role.
Porter and Henderson Daniel also stated that the “pressure associated with acculturation and assimilation can be constants for WOC [women of color]” (p. 258). A solution for dealing with these particular barriers includes having senior women of color leaders serve as mentors who can model coping strategies for managing racial and ethnic group stereotyping. Other solutions for emerging women of color leaders include talking about power differences when they occur and having knowledge about the accomplishments and contributions of leaders from their same ethnic group. The authors of this chapter emphasized that women of color leaders face barriers related to their gender and race/ethnicity.

Moreover, Vasquez and Comas-Dias (2007) highlighted the unique strengths of Latina leaders and outlined several barriers to their leadership development. The authors described the unique strengths of Latina leaders as personalismo, familismo, promotoras, and comadres. Personalismo and familismo are cultural values that represent a tendency to value personal relationships and a focus on interdependence over independence respectively (Vasquez & Comas-Dias). Promotoras are female peer advocates who promote causes in the Latino/a community such as good health behaviors (Vasquez & Comas-Dias). These women serve as community organizers and leaders. Comadres originally stood for the relationship between a mother and her child’s godmother, but it has been extended to represent a value of mentoring and friendship between established women leaders and younger women (Vasquez & Comas-Dias).

Vasquez and Comas-Dias (2007) also described several barriers for Latina leaders that result from their identities as women and Latinos. These barriers included devaluation of women’s work, aversive racism, societal expectation, role restrictions for
women of color, and stereotype threat (Vasquez & Comas-Dias). The authors recommended several strategies that Latina leaders could employ to overcome these barriers including: assess fit between them and the organization environment, allow for mistakes, find constructive outlets for hurt feelings, be persistent, take risks, embrace the positive aspects of Latino/a culture, and seek mentors. Despite the numerous barriers that Latina women leaders face, using these success strategies can be helpful for overcoming them. These barriers and the respective coping strategies seem to be related to both the racial/ethnic and gender identities of Latina women.

Like Black and Latina women leaders, Asian American women leaders face barriers that prevent them from holding positions of leadership. Kawahara, Esnil, and Hsu (2007) described how the stereotypes about Asian women as passive, exotic, and victims of patriarchy conflict with the stories told by contemporary Asian American women leaders interviewed in their qualitative study. Kawahara and colleagues interviewed 12 Asian women leaders to identify strengths and challenges they faced. Interviews ranged from 45 minutes to 2 hours and 30 minutes; these interviews were transcribed and analyzed by the authors. The following six themes were generated from the data: knowing oneself and doing something you believe in, having a vision and inspiring others to work on that vision, relational and collaborative relationship styles, taking on challenges, struggles, and conflicts, dominant culture efficacy and biculturalism, and support and encouragement (Kawahara, Esnil, & Hsu, 2007).

The first theme revealed that these Asian American women followed their interests and that led naturally to developing leadership positions. This theme seems consistent with the SCCT prediction that interests lead to goals for women’s leadership.
Themes four and five are tied to the participants’ ethnic identities as Asian Americans.

For instance, a participant stated:

I think just seeing a need that, especially in the Asian American community that there’s so few people willing to step up to the plate really, so few people willing to take a leadership role. It’s almost like if we don’t do it, nobody’s gonna do it… (Kawahara, Esnil, & Hsu, 2007, p. 307).

One Asian American, woman leader described her dominant culture efficacy and biculturalism beautifully. She noted:

I mean I’m glad that I’m in a key position to help Asian Americans because quite a few programs that were going to be cut originally, that would have affected Asian Americans. Yet, at the same time, I’m really honored and feel just so happy to be able to help a wider range of people. And I’m happy to be able to present a positive image of an Asian American leader to these people, who probably have not seen an Asian American woman this way before. (Kawahara, Esnil, & Hsu, 2007, p. 307).

Themes two, three, and six seem consistent with the experiences of other women leaders across ethnic/racial groups (Eagly & Carli, 2007; Halpern & Cheung, 2008; Porter & Henderson Daniel, 2007; Vasquez & Comas-Dias, 2007). In particular, themes three and six seem consistent across women leaders. That is, using a relational and collaborative style of leadership and benefiting from the support, encouragement, and mentoring of other women. One participant stated: “Leadership, I think, reflects that sort of concern (co-operation, collaboration) for really bringing the group together and achieving the cohesiveness of the group to really move on some issues that we can really achieve consensus” (Kawahara, Esnil, & Hsu, 2007, p. 306).

Another participant reported: “I’ve been very fortunate in my entire career I’ve had tremendous role models and mentors throughout every stage of my development and from [my university] alumni to individuals in the Asian American community…” (Kawahara, Esnil, & Hsu, 2007, p. 309). Interestingly, one participant reported: “If you
don’t have family support, you’ve got to create a surrogate family and don’t just go looking for people that look like you ‘cause you might not find it there…” (Kawahara, Esnil, & Hsu, 2007, p. 309). It seems that there are some experiences that women leaders share across ethnic/racial groups.

This research on diverse women leaders suggests that women leaders from different ethnic and racial backgrounds may have different developmental paths, strengths, barriers, and coping strategies. These inspiring stories provide novice women leaders with role models from whom to learn, and this may increase their self-efficacy for leadership. Of note is that despite the different personal backgrounds, leadership positions, and careers, there is one barrier that is repeated across all these stories. Each woman described experiencing sexism in her leadership position and described it as a barrier to overcome. These women also discussed how they overcame these obstacles and provided directions for other women who wish to navigate the leadership labyrinth.

These qualitative, narrative, and case study methods of inquiry provide a snapshot into the lives and minds of powerful women leaders. These stories offer opportunities for vicarious learning and modeling for younger women who are aspiring towards leadership. Although these studies provide models of how individual women developed interest in and accomplished their goals to be leaders, they are largely retrospective and provide limited empirical evidence about how women in general develop interests and goals for leadership. Examination of the key themes in these studies within a framework such as Social Cognitive Career Theory may provide a more practical understanding of women’s interests and goals for leadership.
To summarize, there is a growing research literature on women’s perceptions of, and aspirations, interests and goals for, leadership. These studies are diverse and consist of two primary approaches. The first approach samples college students and asks them about their leadership aspirations, interests and/or goals (Boatwright & Egidio, 2003; Killeen, Lopez-Zafra & Eagly, 2006; Lips, 2000, 2001; Yeagley, Subich, & Tokar, 2010), whereas the second approach samples current women leaders who are asked to reflect on their leadership experiences, including the barriers they experienced (Hall, Garrett-Akinsanya, & Hucles, 2007; Halpern & Cheung, 2008; Kawahara, Esnil, & Hsu, 2007; Morgan & Lynch, 2006; Myers, 2008; Porter & Henderson Daniel, 2007; Vasquez & Comas-Dias, 2007). The types of research methods used in these studies include quantitative, qualitative, and mixed methods. In essence, these approaches to studying women’s leadership interests and goals start from the beginning and the end. The studies provide a foundation for this area of research, but further research is needed to extend and connect the body of current research on women and leadership. One way to build onto this foundation of literature is to apply a theoretical model that can be used to understand the entire process of women’s development of leadership aspirations and goals. The next section applies Social Cognitive Career Theory (SCCT) to women’s leadership interests and goals to deepen our understanding of these phenomena as it seems well-suited to this area of inquiry.

SCCT and Women’s Interests and Goals for Leadership

SCCT is a theoretical model that examines the relationships between person, contextual, and sociocognitive factors (Lent, Brown, & Hackett, 1994). Figure 1 illustrates the original SCCT model. According to Lent, Brown, and Hackett (1994),
SCCT can be used to predict a person’s interests, choices, accomplishments, and perseverance for career and educational activities. In SCCT, person inputs and background contextual affordances shape self-efficacy beliefs and outcome expectations through learning experiences (Lent, Brown, & Hackett, 1994). Learning experiences can occur by direct personal experiences, vicarious learning experiences, verbal persuasion, and physiological states related to the variable of interest (Lent, Brown, & Hackett, 1994). SCCT posits that self-efficacy beliefs and outcome expectations lead to the development of interests, which then impact a person’s career goals and actions (Lent, Brown, & Hackett, 1994). Also, SCCT proposes that proximal contextual factors (e.g., perceived supports, perceived barriers) influence the development of career goals and actions.

Figure 1: Original Social Cognitive Career Theory Model. Reprinted from Lent, Brown, and Hackett, 2002.

Research supports the use of SCCT to explain how individuals develop interests, make decisions, and accomplish their goals. Studies have found support for the positive relationship between self-efficacy and outcome expectations and for the positive relationships between self-efficacy and outcome expectations and career interests (e.g.,
Researchers also have found considerable support for the positive relationships of career interests to career goals and behaviors (e.g., Fouad & Smith; Lapan, Shaughnessy, & Boggs, 1996; Lent, Brown, Nota, & Soresi, 2003; Lent, et al., 2003; Lent, et al., 2005). The strong empirical support for SCCT and the parallels between career development and leadership development make this theory attractive for examining how women develop interests and goals for leadership.

Indeed, Yeagley, Subich, and Tokar (2010) used SCCT to explain how women develop interests and aspirations for elite leadership positions. Elite leadership positions were operationalized as CEOs, Presidents, and Vice-Presidents of large companies (Yeagley, Subich, & Tokar). A total of 156 undergraduate women participated in their study. The mean age for the sample was 21 years, and most students were in their first year (58%; Yeagley, Subich, & Tokar). Approximately 80% of the participants identified as European-American, 11% identified as African American, 3% as Asian American, with the remaining 6% identifying as American Indian, Biracial, or other ethnicity (Yeagley, Subich, & Tokar). The students also had diverse majors (Yeagley, Subich, & Tokar). Each participant completed questionnaires about their self-efficacy expectations, outcome expectations, interests, and the goals for elite leadership. Yeagley, Subich, and Tokar (2010) created the measures and tested them with a pilot study. Pilot data showed the measures to be reliable with internal consistency estimates above .92 for the self-efficacy and interests measures, and .65 for the outcome expectations measure (Yeagley, Subich, & Tokar).
This was the first study to explicitly apply SCCT to an examination of women’s interests and goals for leadership, and the construction of reliable measures was an important step in testing SCCT predictions. All the measures were self-report and asked participants to rate items on a 1-4 scale (Yeagley, Subich, & Tokar, 2010). The researchers created the content for the self-efficacy expectations scale by examining 26 tasks relevant to an elite leadership position as listed in the Occupational Information Network. These positions included titles such as Chief Executive Officer, President, Chief Financial Officer, and Vice President, and sample tasks found under these position titles included implementing policies, negotiating contracts, and monitoring employees (Yeagley, Subich, & Tokar).

The authors created their interest scale items from the tasks related to the elite leadership positions described above. The items for the goals measure were created by the researchers with the scale format borrowed from past research. Students were asked to indicate how much they agreed with statements on a Likert scale. A sample item from the goals measure is “I plan on pursuing a position as a CEO in a large company” (Yeagley, Subich, & Tokar, 2010). The leadership position titles used in this measure were listed in the Occupational Information Network under the title of Chief Executive Officer (Yeagley, Subich, & Tokar). The content for the outcome expectations questionnaire was created based on past research on women’s expectations regarding the experience of holding positions of elite leadership (Yeagley, Subich, & Tokar).

Yeagley, Subich, and Tokar (2010) tested two models, a partially mediated model and a modified model with the direct path from self-efficacy to goals for elite leadership set to zero. These researchers found support for several of the relationships proposed.
within SCCT. For instance, they found that self-efficacy and outcome expectations were positively and significantly correlated with interests and goals for positions of elite leadership. Yeagley, Subich, and Tokar found that 47% of the unique variance in elite leadership interests was predicted by women’s self-efficacy and outcome expectations for elite leadership. Also, 35% of the unique variance in elite leadership goals was predicted by the combination of elite leadership self-efficacy, outcome expectations, and interests (Yeagley, Subich, & Tokar).

The authors also reported that women’s outcome expectations for elite leadership positions partially mediated the relation of elite leadership self-efficacy and interests. Similarly, interest in elite leadership positions partially mediated the relationship between outcome expectation and goals for elite leadership (Yeagley, Subich, & Tokar, 2010). Another finding was that interest and outcome expectations for elite leadership completely mediated the relationship between self-efficacy and goals for elite leadership (Yeagley, Subich, & Tokar). In sum, these findings provide empirical evidence that SCCT can be used to understand and predict women’s interests and goals for leadership.

However, there are some limitations to this study that must be addressed in order to better understand how college women develop interests and goals for future leadership positions. First, the definition of elite leadership, which the authors defined as positions that include chief executive officer, president, chief financial officer, vice president, general manager, and operations vice president, is quite narrow when compared to other definitions of leadership (Ayman & Korabik, 2010), and this may have impacted participant responses on several of the questionnaires. In contrast to the elite definition of leadership, Eagly and Carli (2007) provided the following definition of a leader: “a
person who exercises authority over other people” (p. 8). This definition is general and broad and might have been more appropriate given the developmental stage (i.e., mostly first-year students) of the participants.

Second, the measures used to assess the variables of self-efficacy, interests, and goals for elite leadership were all based on the elite definition of leadership described above. More specifically, the items were created from tasks found under the elite leader job categories in the Occupational Information Network (e.g., implementing policies, negotiating contracts, directing activities, and monitoring employees). Again, it is unlikely that many first year college students would have either direct or indirect knowledge of these types of tasks. A more general definition of leadership such as the one provided by Eagly and Carli (2007) and use of more general leader tasks may be a better way to assess college women’s interests and goals for leadership.

Third, the sample was homogeneous in terms of ethnic background and school level; and this makes generalizing the study findings challenging. Finally, and as recommended by the authors, more research on women’s interests and goals for leadership is needed that addresses key person inputs and contextual influences. In summary, Yeagley, Subich, and Tokar (2010) provided an excellent starting point for using SCCT to examine women’s leadership interests and goals, and their work should be extended to include other theoretical constructs from SCCT. Two such important extensions include understanding more about contextual factors as well as person inputs that serve as important precursors in SCCT. The leadership research literature on two barriers (i.e., perceived sexism, and race-related stress) and the person input variables of feminine and masculine gender role norms is presented next.
Sexism: A Barrier to Women’s Leadership Interests and Goals

The literature identifies sexism as one barrier to women’s leadership aspirations (Ayman & Korabik, 2010; Eagly & Carli, 2007). Despite this fact, prior research has neglected the role that sexism plays in the development of women’s leadership interests and goals (Ayman & Korabik, 2010; Yeagley, Subich, & Tokar, 2010). Women leaders and scholars, however, have reported experiences of sexism in their leadership journeys (Halpern & Cheung, 2008; Morgan & Lynch, 2006; Myers, 2008). Sexism has been reported by women in a variety of contexts including the US military (Loughlin & Arnold, 2007; Morgan & Lynch, 2006), politics/government (Halpern & Cheung, 2008; Myers, 2008), academia (King & Cubic, 2005; Porter & Henderson Daniel, 2007; Settles, Cortina, Malley, & Stewart, 2006), and corporate organizations (Sanchez, Hucles, Sanchez-Hucles, & Mehta, 2007).

Sexism is a barrier that aspiring women leaders also experience as they navigate the labyrinth of leadership (Barreto, Ryan, & Schmitt, 2009; Chin, Lott, Rice, & Sanchez-Hucles, 2007; Eagly & Carli, 2007; Halpern & Cheung, 2008). According to Klonoff and Landrine (1995), sexist discrimination includes: being sexually harassed, being treated unfairly by family and others, being called sexist names, being discriminated against by people and institutions, being perceived as “aggressive” for normal assertive behaviors, and being discriminated against at work by co-workers and/or with salary or promotions. The experience of sexism is pervasive and it has a negative impact on women’s health and well-being (Corning, 2002; Dardenne, Dumont, & Bollier, 2007; Glick & Fiske, 2001; Glick & Fiske, 1996; Landrine, Klonoff, Gibbs, Manning, Lund, 1995; Moradi & Subich, 2004; Moradi & Subich, 2003; Moradi & Subich, 2002).
Sex discrimination can negatively impact women’s professional aspirations and career decisions through long-term processes like gender socialization and short-term processes like stereotype threat (Zhang, Schmader, & Forbes, 2009). Stereotype threat occurs when women avoid and/or underperform in male-dominated career fields or contexts because of the stereotypes that they will do poorly (Zhang, Schmader, & Forbes, 2009). Davies, Spencer, and Steele (2005) conducted two laboratory studies that explored the effect of stereotype threat on women’s leadership aspirations, which they operationalized as a woman’s interests in volunteering for a future leadership position.

In the first study, these researchers recruited 61 male and female undergraduate students and exposed them to either a gender-stereotypic or neutral commercial condition. The neutral condition consisted of students who viewed 4 commercials about inanimate objects (i.e., phone, insurance company) and the gender-stereotypic condition consisted of the 4 neutral commercials plus two others. The first showed a young female who was excited about a new acne medication and the other showed a female college student who wanted to become a homecoming queen. Next, participants read a description of an alleged impending leadership task, where they had to rate how much they wanted to be a leader or a problem-solver (i.e., follower). The written instructions for the leadership task were:

We would appreciate your participation in a study being conducted on the effectiveness of various leadership strategies. You can either choose to be a leader or a problem solver, but there will only be one leader assigned per group. Both the problem solvers and the leader will be given a written description of a series of complex problems to be solved. The leader, however, will also be supplied with the answers to those problems. It’s the leader’s job to guide the problem solvers to the solutions without explicitly telling them the answers. Previous research has demonstrated that the most effective leaders in these situations have the ability to facilitate cooperative interaction among the problem solvers, which requires excellent interpersonal skills; whereas the most effective problem solvers are
good team players and have excellent communication skills (Davies, Spencer, & Steele, 2005, p. 279).

Results showed that women who watched the gender-stereotypic commercials had a strong and significant preference for the problem-solver role rather than the leader position (i.e., lesser leadership aspirations). Women who watched the neutral commercials and all the men in the study had no significant preference for either position. Thus, women who were exposed to the female stereotype by watching the gender-stereotypic commercials lowered their leadership aspirations for the future leadership position.

The second study by Davies, Spencer, and Steele (2005), expanded on the first study by measuring the amount of stereotype activation and by varying the identity-vulnerability condition. Participants consisted of 116 undergraduate male and female students. Again, students were randomly assigned to watch either the gender-stereotypic or neutral commercials. Afterwards participants completed a lexical-decision task to assess the level of stereotype activation. Next, participants were randomly assigned to read one of two descriptions about an alleged impending leadership task. Note, in both studies the researchers concluded the experiment and debriefed the participant after they rated how much they wanted to be the leaders or problem-solvers. No leadership task was ever completed.

The leadership task instructions consisted of an identity-vulnerable condition, which was used in study 1, or an identity-safe condition, which included the following additional sentence: “There is a great deal of controversy in psychology surrounding the issue of gender-based differences in leadership and problem-solving ability; however, our research has revealed absolutely no gender differences in either ability on this particular
task” (Davies, Spencer, & Steele, 2005, p. 281). This additional sentence reduced the stereotype threat that women experienced for the leadership selection task. Finally, the participants rated their preference for being the leader or problem-solver for the alleged impending leadership task.

Results revealed that women who viewed the gender-stereotypic commercials and read the identity-vulnerable instructions preferred the problem-solving role over the leader role (i.e., lesser leadership aspirations). Women in the other two conditions had no significant preference for either role. Also, women with high stereotype activation levels, as demonstrated by their response time on the lexical-decision task, had a decreased preference in serving as the leader (i.e., less leadership aspirations). Furthermore, the researchers found that the identity-safety condition moderated the relationship between stereotype activation and leadership aspirations.

As predicted, women who read the identity-safe instructions had their leadership aspirations protected from the negative effects of stereotype activation, regardless of the level. These results provide empirical evidence that stereotype threat (i.e., a type of sex discrimination) can reduce women’s leadership aspirations. The study is encouraging because it showed that interventions such as providing identity-safe environments for women can protect them from one of the negative effects that sexism has on women’s leadership aspirations. Davies, Spencer, and Steele (2005) extended the literature on women’s leadership aspirations and provided causal evidence for the negative impact of barriers (i.e., stereotype threat) on women’s leadership aspirations.

There are several limitations, however, to the above studies by Davies, Spencer, and Steele (2005). First, stereotype threat is just one form of sex discrimination that
women experience. Women experience various forms of sexism each day and these diverse experiences may have different effects on women’s aspirations. The researchers provided a good example of how to examine the impact of sexism on women’s leadership aspirations, but more research is needed to understand the relationships between these variables.

Second, the stereotype activation condition used in both studies (i.e., gender-stereotypic commercials) was subtle and covert. In a non-laboratory environment, women experience both covert and overt sexist experiences with varying levels of stereotype activation. The studies were well done, but provided limited data that could be applied to a non-laboratory environment. Finally, the researchers did not provide much demographic data about the men and women in these studies beyond the fact that they were undergraduate students enrolled in an introduction to psychology course. Without additional demographic information about the race/ethnicity, age, or social class of the participants, it is difficult to evaluate the generalizability of these findings to other populations.

Similarly, Hoyt and Blascovich (2007) conducted two experimental studies that examined the impact of stereotype activation on women’s leadership perceived performance, rated performance, and domain identification. Participants were female undergraduate students who were asked to serve as a president of a human resource company. They were asked to lead a virtual conference call with two other vice-chairs regarding a selection committee decision. In the stereotype activation condition, the women were given written information regarding the gender gap in various leadership positions. Hoyt and Blascovich (2007) found that women with high scores on leadership
self-efficacy were more likely to rate themselves as good leaders, to be rated by observers as good leaders, and to show stronger leadership domain identification than women who had low scores. Also, despite the negative influence of stereotype activation, participants with high leadership self-efficacy were able to perform successfully.

As with all experimental studies the external validity of this study is low when compared to the environment in which women leaders are expected to perform. For instance, the stereotype-activation condition was initiated by having women read about how their gender is underrepresented in leadership. Although the information was accurate, this situation is highly unlikely in the real world. A more valid reminder of women’s underrepresented numbers could be a quick glance around the table at most executive committee meetings. Likewise, the experiment used a virtual conference call where communication flowed from the female president to her vice presidents. This one-way, top-down, style of communication allowed limited opportunity for feedback from subordinates, which seems to fall short of the dynamic and complex environment in which women lead. Finally, the researchers did not describe the ethnic background of the 53 women who participated in the study or of the experimenters who greeted the participants or of the virtual vice presidents, which prevents us from speculating about other stereotypes and or barriers that could have been activated during the experiment.

To summarize, scholars have conceptualized sex discrimination as a barrier to women’s leadership aspirations (Barreto, Ryan, & Schmitt, 2009; Chin, Lott, Rice, & Sanchez-Hucles, 2007; Eagly & Carli, 2007). Halpern and Cheung (2008) provided qualitative data to support the notion that sexism is a barrier for prominent women leaders. Their analysis is also consistent with the reported experience of numerous,
diverse women leaders who identified sexism as a primary barrier that needed to be overcome in order for them to maintain their interests and accomplish their leadership goals (Hall, Garrett-Akinsanya, & Hucles, 2007; Kawahara, Esnil, & Hsu, 2007; Porter & Henderson Daniel, 2007; Vasquez & Comas-Dias, 2007).

Finally, the two experimental studies by Davies et al. (2005) and Hoyt and Blascovich (2007) provided quantitative evidence that sexism (i.e., stereotype activation) negatively impacts women’s leadership aspirations. Also highlighted in the work of Hoyt and Blascovich was the importance of leadership self-efficacy for women’s leadership performance. The current study, thus, seeks to extend the theoretical and empirical literature on sexism and women’s leadership aspirations, goals and performance by examining some of these variables within the model proposed by SCCT.

Racism: A Barrier to Women of Color’s Leadership Interests and Goals

Sanchez-Hucles and Davis (2010) stated that racism is a barrier to women of color leaders, and that women of color have been ignored in the research literature on leadership. The tendency to neglect women of color in the leadership literature has been widely acknowledged and criticized by scholars (Ayman & Korabik, 2010; Chin, 2010; Chin, Lott, Rice, & Sanchez-Hucles, 2007; Eagly & Chin, 2010; Sanchez-Hucles & Davis, 2010). This criticism is particularly true of the handful of articles that have examined how women develop interests and goals for leadership (Boatwright & Egidio, 2003; Killeen, Lopez-Zafra, & Eagly, 2006; Lips, 2000, 2001; Yeagley, Subich, & Tokar, 2010). Only the study by Lips (2001) specifically included a sample of Puerto Rican women, and her sample was very small (n= 34). None of the other studies specifically recruited ethnically and culturally diverse women who live in the U.S. The
other studies were largely conducted with a European American sample, and no separate conclusions were provided about the women of color in the samples (Boatwright & Egidio, 2003; Killeen, Lopez- Zafra, & Eagly, 2006; Lips, 2000; Yeagley, Subich, & Tokar, 2010).

Despite the lack of research on how women of color develop interests and goals for leadership, there has been a significant amount of research about the impact of racism on people of color (Bryant-Davis, & Ocampo, 2005; Carter, 2007; Landrine & Klonoff, 1996; Sue & Sue, 2003; Sue, et al., 2007). The negative impact of racism on the mental health and functioning of people of color has been acknowledged and it is known to be wide-spread (Carter, 2007; Sue & Sue, 2003; Sue, et al., 2007). Some researchers claim that racism is not only a daily life stressor for people of color, but a traumatic event that can have negative consequences on the health and functioning of people of color (Bryant-Davis, & Ocampo, 2005; Carter, 2007; Landrine & Klonoff, 1996; Sue & Sue, 2003; Sue, et al., 2007). Thus, understanding the stress that racism has on people of color or the race-related stress is important (Utsey, 1999).

Further, for women of color, the negative impact of racism is compounded by the negative impact of sexism (Hall, Garrett-Akinsanya, & Hucles, 2007; Halpern & Cheung, 2008; Kawahara, Esnil, & Hsu, 2007; Sanchez-Hucles & Davis, 2010; Vasquez & Comas-Dias, 2007). Racism and race-related stress is clearly a barrier to the advancement of women of color in leadership (Sanchez-Hucles & Davis). Women of color leaders have described their experiences as a concrete wall or sticky floor, in contrast to the glass ceiling metaphor used by European American women (Sanchez-Hucles & Davis). Sanchez-Hucles and Davis (2010) outlined the challenges for women of color to become
leaders as follows: a lack of line experience, inadequate career opportunities, racial differences in speech and socialization, ethnosexuality stereotypes, “old boy networks,” tokenism, stereotyping, and stereotype threat. These barriers have also been highlighted by other women of color as they described their leadership journeys (Hall, Garrett-Akinsanya, & Hucles; Halpern & Cheung; Kawahara, Esnil, & Hsu; Vasquez & Comas-Dias). The current study examines the barrier of race-related stress for an ethnically diverse college student population.

Gender Role Norms and Women’s Interests and Goals for Leadership

Consideration of gender role norms in relation to women’s leadership interests and goals offers yet another direction in which to extend the extant research literature. Gender role norms are normative expectations that are learned at an early age (Mahalik, Morray, Coonerty-Femiano, Ludlow, Slattery, & Smiler, 2005; Smiler & Epstein, 2010). These norms represent consensually shared beliefs that manifest themselves across a variety of contexts and are socially approved (Vogel, Wester, Heesacker, & Madon, 2003; Smiler & Epstein, 2010). Mahalik and colleagues (2005) stated that gender role norms “provide guidance for women and men about how they are supposed to act, think, and feel, as well as constrain women and men from certain behaviors that are off limits” (p. 417). Individuals who engage in behaviors that are considered “off limits” by their society, can often experience social pressures until they conform to their appropriate gender role norms. It is important to understand how gender role norms may impact women’s interests and goals for leadership, because leadership has and continues to be thought of as a masculine activity (Ayman & Korabik, 2010; Eagly & Carli, 2007).
Because leadership is still associated with the male gender role norm, women who aspire to or pursue leadership positions are seen as engaging in roles that are incongruent with and nonconforming to the traditional feminine role norms. Eagly and Karau (2002) stated that women who engage in leadership behaviors, which are behaviors outside of the traditional feminine role norm, are seen as less likable than male leaders and they experience greater difficulty in attaining and being recognized as good leaders. Ridgeway (2001) and Yoder (2001) claimed that leadership itself is gendered and that leadership is a process that occurs within a social context that is gendered. Given the gendered nature of leadership, it is important to understand how traditional feminine and masculine role norms relate to women’s leadership aspirations.

Gender role norms appear to have an impact on current and aspiring women leaders as well as on how others see current and aspiring women leaders. For instance, Eagly and Karau (1991) conducted a meta-analysis of approximately 60 laboratory studies and found that women were less likely than men to emerge as leaders in groups. Eagly and Karau hypothesized that this pattern is consistent with gender role theory, which assumes that “sex differences in social behaviors are in part caused by the tendency of people to behave consistently with their gender roles” (p. 686). The authors explained that the different expectations of men and women can be described by agentic and communal dimensions. Agentic qualities are associated with men and include independence, assertiveness and competition, whereas, communal qualities are associated with women and include being friendly, concerned with others, kind, and emotionally expressive (Eagly & Karau, 1991).
Agentic and communal dimensions are consistent with traditional gender role norms for men and women. Further, the agentic qualities are more often associated with leadership role norms than are communal qualities. The incongruity between the social role norms of being a leader and being a woman creates a double bind for women leaders (Ayman & Korabik, 2010; Eagly & Johannesen-Schmidt, 2001; Morgan & Lynch, 2006; Myers, 2008). The double bind occurs when women leaders behave in an agentic manner which is not consistent with the feminine gender role norm. Consequently, some women believe that they must behave like men (i.e., agentic qualities) in order to be successful leaders; however, women who behave in nonconforming ways are judged harshly and sometimes punished (Eagly & Johannesen-Schmidt; Morgan & Lynch; Myers).

A meta-analysis of 61 laboratory studies found that women leaders were evaluated less favorably than were male leaders, when all other characteristics of the leaders were held constant except for sex (Eagly, Makhijani, & Klonsky, 1992).

Eagly and Johannesen-Schmidt (2001) explained the double bind as follows:

Female leaders’ efforts to accommodate their behaviors to the sometimes conflicting demands of the female gender role and their leader role can foster leadership styles that differ from those of men. Gender roles thus have different implications for the behaviors of female and male leaders, not only because the female and male roles have different content, but also because there is often inconsistency between the predominantly communal qualities that perceivers associate with women and the predominantly agentic qualities that they believe are required to succeed as a leader. People thus tend to have similar beliefs about leaders and men but dissimilar beliefs about leaders and women… (p. 785).

Given these findings, it seems logical that gender role norms may impact the early formation of leadership goals and interests for women. Three studies (Boatwright & Egidio, 2003; Lips, 2000; 2001) specifically addressed gender role conformity and leadership aspiration. Each approached the topic differently, but all three found empirical
evidence to support the notion that women who identify with traditional notions of femininity are less likely to aspire to or be interested in becoming leaders. For instance, Boatwright and Egidio (2003) found that female participants who scored high on the BSRI femininity scale were less likely to report leadership aspirations.

In Lips’ (2000, 2001) research studies, she found that women reported less positive feelings about leadership positions that they perceived might negatively impact their personal relationships. Since interpersonal relationships are important to the notion of traditional femininity, these two studies can be interpreted as supporting the link between traditional gender role norms for women and reduced aspirations for leadership. Together, these three studies provide initial evidence that women who conform to the traditional feminine gender role norm are less likely to aspire to leadership positions. However, it is unclear exactly how conformity to the feminine gender role relates to women’s leadership self-efficacy and outcome expectations—mechanisms in SCCT that lead directly to interests and goals.

Furthermore, no studies have examined the impact of traditional masculine role norms (i.e., emotional control, winning, self-reliance, risk-taking, and primacy of work) on how women develop interests and goals for leadership. Given the overlap in traditional masculine role norms and traditional leadership role norms, it may be valuable to examine how women’s conformity to masculine role norms impact how women develop interests and goals for leadership (Ayman & Korabik, 2010; Eagly & Carli, 2007). This study uses the relevant masculine role norms identified by Mahalik and colleagues (2003) and adjusted by Parent and Moradi (2009) to understand how conformity to masculine role norms impacts women’s interests and goals for leadership.
Another variable that is related to gender role orientation is how women view the
gendered role of “leader.” Leaders have traditionally been associated with masculine role
norms; however, some research has shown that the roles associated with leaders maybe
changing (Eagly & Chin, 2010). This change may be related to the type of leadership task
or leadership style such as transformational leaders (Ayman & Korabik, 2010; Eagly &
Carli, 2007). The nature of leadership is changing and the world in which leaders operate
and are judged is also changing (Ayman & Korabik, 2010; Chin, 2010; Eagly & Chin,
2010; Sanchez-Hucles & Davis, 2010). Because of these changes, it is important to
understand how women who are developing interests and goals for leadership see
leadership. More specifically, this study considers the perceptions of feminine and
masculine attributes of leaders held by an ethnically and culturally diverse sample of
college women.

In summary, conformity to feminine and masculine role norms appear likely to be
important variables in understanding women’s leadership aspirations, and understanding
the feminine and masculine attributes women associate with leaders may be important
related information. Researchers have theorized that conformity to gender role norms
impacts women’s decisions to become leaders in laboratory group settings (Eagly &
Karau, 1991). Conformity to gender role norms is also conceptualized to be the reason
women leaders are evaluated less favorably than are male leaders in experimental studies
where all other leadership characteristics have been held constant (Eagly, Makhijani, &
Klonsky, 1992). In addition, three studies explicitly addressed the relationship between
aspects of traditional feminine role norms and leadership aspirations and found a negative
association between feminine role conformity and leadership aspirations (Boatwright &
No studies, however, have looked at the impact of conformity to masculine role norms on how women develop interests and goals for leadership. Clearly, more research is needed to understand the importance of gender role norms in the development of women leaders. The current research study examines how conformity to the feminine and masculine role norms (as well as one’s perceptions of the feminine and masculine attributes of a leader) predict women’s interests and goals for future leadership positions.

Current Research Study and Hypotheses

The current study extends the research literature by assessing Social Cognitive Career Theory’s (SCCT; Lent, Brown, & Hackett, 1994) ability to frame a reliable and valid model of women’s leadership interests and goals. It builds directly on the research conducted by Yeagley, Subich and Tokar (2010) who examined SCCT as a framework for understanding women’s interests and goals for elite leadership positions. It also builds on the research findings of Boatwright and Egidio (2003), Lips (2000, 2001), and Killeen, Lopez-Zafra, and Eagly (2006) who examined how outcome expectations and traditional feminine role norms relate to women’s leadership aspirations. This study is the first to examine how conformity to masculine role norms (i.e., emotional control, winning, self-reliance, risk-taking, and primacy of work) relates to the development of women’s interests and goals for leadership.

Further, this research complements the work by Hoyt and Blascovich (2007) and Davies, Spencer, and Steele (2005) on how exposure to sexism and leadership self-efficacy impact women’s leadership aspirations. The current study also expands the literature by exploring how race-related stress serves as a barrier to the development of
women’s leadership interests and leadership goals, especially for women of color. Finally, this study improves on the established literature by recruiting a more diverse ethnic sample from a Hispanic serving university and by improving on the measurement methods from past studies.

Based on the extant literature on women and leadership (Boatwright & Egidio, 2003; Hoyt & Blascovich, 2007; Killeen, Lopez-Zafra, & Eagly, 2006; Lips, 2000; 2001, Yeagley, Subich, Tokar, 2010), the current study examines a complex path model with several variables. The full path model includes person input variables (i.e., conformity of feminine norms, conformity to masculine norms, and perception of the personal attributes of leaders), contextual influence variables (i.e., perceived sexist experiences and race-related stress) and the key social cognitive variables of women’s leadership self-efficacy, women’s leadership outcome expectations, women’s leadership interests and women’s leadership goals (Lent, Brown, & Hackett, 1994).

The literature suggests that both sexism and racism have a negative impact on women’s leadership goals (Boatwright & Egidio, 2003; Chin, 2010; Davies, Spencer, & Steele, 2005; Eagly, 2007; Halpern & Cheung, 2008; Hoyt & Blascovich, 2007; Morgan & Lynch, 2006; Myers, 2008; Lips, 2000; 2001; Sanchez-Hucles & Davis, 2010). The extant literature (Boatwright & Egidio, 2003; Lips, 2000; 2001) also suggests that conformity to traditional feminine role norms relates negatively to women’s leadership self-efficacy and outcome expectations. The present path model proposes that conformity to relevant traditional masculine role norms (i.e., emotional control, winning, self-reliance, risk-taking, and primacy of work) relates positively to women’s leadership self-efficacy and outcome expectations. Conformity to traditional masculine role norms is
also hypothesized to positively and indirectly relate to women’s leadership interests and goals through leadership self-efficacy and outcome expectations. These hypotheses are predicted because of the overlap between the traditional (and relevant) masculine role norms and the traditional leader role norms (Ayman & Korabik, 2010; Eagly & Carli, 2007).

Exploratory analyses of demographic variables (i.e., sex, race/ethnicity, sexual orientation, relationship status, highest degree achieved, current occupation, expected occupation after graduating, major, level in college, socioeconomic status, family/household income, number of children, number of current and past leadership experiences, number of female and male role-models/mentors, and parents’ education level, parent’s occupation, and birth order) and the complete set of subscales for the Conformity to Feminine Norms Inventory (i.e., Sweet and Nice, Relational, Thinness, Modesty, Domestic, Care for Children, Romantic Relationship, Sexual Fidelity, and Investment in Appearance) and Conformity to Masculine Role Norms Inventory (i.e., Emotional Control, Winning, Risk-taking, Self-Reliance, Primacy of Work, Violence, Playboy, Power Over Women, and Heterosexual Self-presentation) also are examined.

Hypotheses. The primary goal of this study, then, is to examine whether the predicted model, illustrated in Figure 2, is an adequate fit for data from a diverse sample of female college students. The model is based on SCCT (Lent et al., 1994) and some of the findings of Yeagley, Subich, and Tokar (2010). The specific relationships (i.e., direct, indirect, and mediators) in the full path model are listed below (Lent, Brown, & Hackett, 1994).
The specific hypotheses for this research are detailed as follows:

*Hypothesis 1:* The proposed full path model which includes relationships among person input variables (i.e., conformity to feminine norms, conformity to masculine norms, and perceived personal attributes of leaders), contextual moderator variables (i.e., perceived sexist experiences and race-related stress) and the key social cognitive variables of women’s leadership self-efficacy, women’s leadership outcome expectations, women’s leadership interests and women’s leadership goals fits the data from a diverse sample of female college students (Lent, Brown, & Hackett, 1994).

Hypotheses 1A through 1N specify the proposed direct relationships among variables (these are labeled on Figure 2) in the model. Hypotheses 1O through 1TT specify the indirect/mediated relationships, and Hypotheses 1UU and 1VV (also labeled on Figure 2) specify the moderator relationships.

*Hypothesis 1A:* There is a direct and positive relationship between women’s leadership self-efficacy expectations and women’s leadership outcome expectations.

*Hypothesis 1B:* There is a direct and positive relationship between women’s leadership self-efficacy expectations and woman’s leadership interests.

*Hypothesis 1C:* There is a direct and positive relationship between women’s leadership self-efficacy expectations and woman’s leadership goals.
Hypothesis 1D: There is a direct and positive relationship between women’s leadership outcome expectations and woman’s leadership interests.

Hypothesis 1E: There is a direct and positive relationship between women’s leadership outcome expectations and woman’s leadership goals.

Hypothesis 1F: There is a direct and positive relationship between women’s leadership interests and woman’s leadership goals.

Hypothesis 1G: There is a direct and negative relationship between conformity to feminine role norms and women’s leadership self-efficacy expectations.

Hypothesis 1H: There is a direct and negative relationship between conformity to feminine role norms and women’s leadership outcome expectations.

Hypothesis 1I: There is a direct and positive relationship between conformity to relevant masculine role norms and women’s leadership self-efficacy expectations.

Hypothesis 1J: There is a direct and positive relationship between conformity to relevant masculine role norms and women’s leadership outcome expectations.

Hypothesis 1K: There is a direct and positive relationship between perceptions of more feminine attributes of leaders and women’s leadership self-efficacy.
Hypothesis 1L: There is a direct and negative relationship between perceptions of more masculine attributes of leaders and women’s leadership self-efficacy.

Hypothesis 1M: There is a direct and positive relationship between perceptions of more feminine attributes of leaders and women’s leadership outcome expectations.

Hypothesis 1N: There is a direct and negative relationship between perceptions of more masculine attributes of leaders and women’s leadership outcome expectations.

Hypothesis 1O: Women’s leadership self-efficacy expectations relate indirectly to women’s leadership goals via women’s leadership interests.

Hypothesis 1P: Women’s leadership self-efficacy expectations relate indirectly to women’s leadership interests via women’s leadership outcome expectations.

Hypothesis 1Q: Women’s leadership outcome expectations relate indirectly to women’s leadership goals through women’s leadership interests.

Hypothesis 1R: Women’s leadership self-efficacy expectations relate indirectly to women’s leadership goals through women’s leadership outcome expectations and interests.

Hypothesis 1S: Conformity to feminine role norms relates indirectly to women’s leadership interests via women’s leadership self-efficacy.
**Hypothesis 1T:** Conformity to feminine role norms relates indirectly to women’s leadership interests via women’s leadership outcome expectations.

**Hypothesis 1U:** Conformity to feminine role norms relates indirectly to women’s leadership goals via women’s leadership self-efficacy and interests.

**Hypothesis 1V:** Conformity to feminine role norms relates indirectly to women’s leadership outcome expectations via women’s leadership self-efficacy.

**Hypothesis 1W:** Conformity to feminine role norms relates indirectly to women’s leadership interests via women’s leadership self-efficacy and outcome expectations.

**Hypothesis 1X:** Conformity to feminine role norms relates indirectly to women’s leadership goals via women’s leadership outcome expectations and interests.

**Hypothesis 1Y:** Conformity to relevant masculine role norms relates indirectly to women’s leadership interests via women’s leadership self-efficacy.

**Hypothesis 1Z:** Conformity to relevant masculine role norms relates indirectly to women’s leadership interests via women’s leadership outcome expectations.
Hypothesis 1AA: Conformity to relevant masculine role norms relates indirectly to women’s leadership goals via women’s leadership self-efficacy and interests.

Hypothesis 1BB: Conformity to relevant masculine role norms relates indirectly to women’s leadership outcome expectations via women’s leadership self-efficacy.

Hypothesis 1CC: Conformity to relevant masculine role norms relates indirectly to women’s leadership interests via women’s leadership self-efficacy and outcome expectations.

Hypothesis 1DD: Conformity to relevant masculine role norms relates indirectly to women’s leadership goals via women’s leadership outcome expectations and interests.

Hypothesis 1EE: Perceived feminine attributes of leaders relate indirectly to women’s leadership interests via women’s leadership self-efficacy.

Hypothesis 1FF: Perceived masculine attributes of leaders relate indirectly to women’s leadership interests via women’s leadership self-efficacy.

Hypothesis 1GG: Perceived feminine attributes of leaders relate indirectly to women’s leadership interests via women’s leadership outcome expectations.

Hypothesis 1HH: Perceived masculine attributes of leaders relate indirectly to women’s leadership interests via women’s leadership outcome expectations.
Hypothesis III: Perceived feminine attributes of leaders relate indirectly to
women’s leadership outcome expectations via women’s leadership self-
efficacy.

Hypothesis IJJ: Perceived feminine attributes of leaders relate indirectly
to women’s leadership interests via women’s leadership self-efficacy and
outcome expectations.

Hypothesis IKK: Perceived masculine attributes of leaders relate
indirectly to women’s leadership outcome expectations via women’s
leadership self-efficacy.

Hypothesis ILL: Perceived masculine attributes of leaders relate indirectly
to women’s leadership interests via women’s leadership self-efficacy and
outcome expectations.

Hypothesis IMM: Perceived feminine attributes of leaders relate indirectly
to women’s leadership goals via women’s leadership self-efficacy and
interests.

Hypothesis INN: Perceived masculine attributes of leaders relate
indirectly to women’s leadership goals via women’s leadership self-
efficacy and interests.

Hypothesis I00: Perceived feminine attributes of leaders relate indirectly
to women’s leadership goals via women’s leadership outcome
expectations and interests.
Hypothesis 1PP: Perceived masculine attributes of leaders relate indirectly to women’s leadership goals via women’s leadership outcome expectations and interests.

Hypothesis 1QQ: Conformity to feminine role norms relates indirectly to women’s leadership goals via women’s leadership self-efficacy expectations, outcome expectations, and interests.

Hypothesis 1RR: Conformity to relevant masculine role norms relates indirectly to women’s leadership goals via women’s leadership self-efficacy expectations, outcome expectations, and interests.

Hypothesis 1SS: Perceived feminine attributes of leaders relate indirectly to women’s leadership goals via women’s leadership self-efficacy, outcome expectations, and interests.

Hypothesis 1TT: Perceived masculine attributes of leaders relate indirectly to women’s leadership goals via women’s leadership self-efficacy, outcome expectations, and interests.

Hypothesis 1UU: The relationship between women’s leadership interests and women’s leadership goals is moderated by experiences with sexism, with more frequent perceived experiences of sexism weakening the relationship between women’s leadership interests and goals.

Hypothesis 1VV: The relationship between women’s leadership interests and women’s leadership goals is moderated by race-related stress, with more frequent reports of race-related stress weakening the relationship between women’s leadership interests and goals.
Figure 2. The Proposed Path Model for the Study Hypotheses.
CHAPTER III

METHODOLOGY

Participants and Procedure

The sample was recruited from a Hispanic serving, four-year university located in the south. Female college students who were at least 18 years old and enrolled in a psychology course at the university were recruited. A minimum sample size of 200 participants was recruited because Kline (2005) recommended that the ratio of the number of cases to the number of free parameters be 10:1 for a moderate sample size in path analysis. The full path model being tested has 20 parameters; resulting in a minimum sample size of 200.

Two hundred thirty-one female participants completed the online survey after giving informed consent. Seven participants were removed from the final data analysis because more than 50 percent of their data was missing. The final sample consisted of participants received class participation credit or extra credit for completing the study. Most of the participants were seniors (42%) or juniors (35%); 11% were freshman and 12% were sophomores. Participants reported a variety of majors across different schools; however, most participants identified their major as Psychology (43%), Interdisciplinary Studies (13%), Criminal Justice (7%), Nursing (4%), Education (4%), Communications
(3%), Biology (2%), Social Science (2%), and Social Work (2%). Other majors listed by participants were Accounting, Bilingual Education, Business, Chemistry, Cognitive Science, English, Health Care Administration, History, Law, Mathematics, Sociology, Spanish, and Speech Pathology (for a combined 10%). Another 10% of participants were Undecided about their major.

The sample was ethnically diverse, with 37% identifying as Latina, 33% identifying as African American, 23% identifying as European American, 3% identifying as Asian American, 1% identifying as Native American, 1% identifying as Middle Eastern, 1% identifying as Bicultural/ Multicultural, and 1% identifying as other. The participants had diverse ages that ranged from 18 to 56 years of age; the mean age was 28 years ($SD = 7.95$). Ninety-three percent of the sample identified as heterosexual, 4% identified as bisexual, 2% identified as other, and 1% identified as lesbian/ gay. In terms of relationship status, 38% were single, 28% were seriously dating, 26% were married/ partnered, and 8% were divorced/ separated.

Most students had a high school diploma (52%) or an associate’s degree (28%) as their highest educational credential. Some students reported having a bachelor’s degree (6%), master’s degree (1%), or other degree (2%). Many of the participants were first generation college students. Participants in this study reported their mother’s highest degree as follows: 40% had high school diplomas, 14% had associates degrees, 13% had bachelor’s degrees, 5% had master’s degrees, and 1% had doctorates. Twelve percent had some other type of education level, and 15% had an unknown degree level. The participants’ fathers had educations levels as follows: 35% had high school diplomas, 8% had associates degrees, 10% had bachelor’s degrees, 5% had master’s degrees, and 4%
had doctorates. Sixteen percent had some other type of education level and 22% had an unknown education level. Overall, most of the parents did not have a college degree (i.e., associates, bachelors, masters or doctorate).

The participants were asked to describe their mother’s and father’s occupation. The qualitative responses were categorized into common themes. Mothers’ occupations consisted of the following: Business (19%), Homemaker (14%), Health Care (13%), Education (8%), Legal Field (5%), Housekeeper (5%), Food Service (3%), and Other Jobs (10%). Many participants’ mothers held jobs in Business (i.e., accountant, real estate agent), Health Care (i.e., registered nurse, physical therapist), and Education (i.e., elementary teacher, school bus driver). Participants’ mothers also worked in the Legal Field (i.e., attorney, paralegal, correctional officer), Housekeeping (i.e., janitors, house cleaner), and Food Service (i.e., kitchen manager, cook, hostess). The Homemaker category consisted of mothers whose occupation was taking care of their families, and the final category consisted of occupations that did not fit into the above categories (i.e., hair stylist, musician). Some participants reported that their mothers were retired (4%), deceased (2%), unemployed (2%), or disabled (1%). Fourteen percent of participants did not describe their mother’s occupation. Table A-1 provides a complete list of mother occupations and it is located in Appendix O.

Additionally, fathers’ occupations were categorized as follows: Blue Collar (28%), Business (19%), Engineer (4%), Education (3%), Professional (2%), Health Care (2%), Legal Field (2%), and Food Service (2%). Many participants described their father’s occupation as Blue Collar (i.e., plumber, mechanic) or Business (i.e., financial advisor, accountant). Some participants’ fathers held jobs in Engineering (i.e., petroleum
engineer, railroad engineer), Education (i.e., teacher, district superintendent), Health Care (i.e., physician, psychology tech), Professional careers (i.e., sociologist, journalist), the Legal Field (i.e., police officer, security guard) and Food Service (i.e., butcher, chef).

About 20% of participants did not describe their father’s occupation, and a few reported that they did not know their father’s occupation (4%). Finally, 8% of fathers were retired, 5% were deceased, 2% had military careers, 1% was unemployed, and 1% was disabled. Table A-2 provides a complete list of father occupations (see Appendix O).

Participants described their socioeconomic status as largely middle class (44%) or lower middle class (38%). Some participants described their socioeconomic status as low class (7%), upper middle class (10%), and upper class (1%). Participants reported their current yearly income level as ranging from under $20,000 to over $100,000, with most participants reporting their income as between $20,000 to 40,000 (28%) or $40,001 to 60,000 (28%). Some participants reported their yearly income as under $20,000 (16%), between $60,001 to 80,000 (12%), between $80,001 to 100,000 (9%), and over $100,000 (7%). Participants reported having between 0 to 6 children, with the majority of the sample reporting no children (59%). Seventeen percent of participants had one child, 13% had 2 children, 6% had 3 children, 2% had 4 children, 2% had 5 children, and 1% had 6 children. Participants described their birth order as follows: first-born (27%), second-born (7%), third-born (4%), fourth-born (4%), last child/baby (29%), middle child (19%), only child (7%), and other (3%).

Participants reported both their past leadership experiences as well as their current leadership positions. Participant’s past leadership experiences ranged from 0 to 10, with a mean of 1.55 (SD= 1.89). Sadly, 38% of participants reported having no past leadership
experience. Another 22% reported having only 1 past leadership experience, 16% had 2 past leadership experiences, and 11% had 3 past leadership experiences. Four percent of participants had 4 past leadership experiences, 5% had 5 past leadership experiences, 2% had 6 past leadership experiences, 1% had 7 past leadership experiences and 1% had 10 past leadership experiences. Participants’ current leadership experiences ranged from 0 to 5, with a mean of .58 (SD=.94). Further, 63% of participants had no current leadership experiences. Twenty-three percent had 1 current leadership experience, 9% had 2 current leadership experiences, 3% had 3 current leadership experiences, 1% had 4 current leadership experiences, and 1% had 5 current leadership experiences.

In addition, participants were asked to explain their leadership positions. More than half of the participants (55%) completed this question and some provided more than one leadership experience. The qualitative responses were examined and categorized into relevant themes. The themes that emerged are Business, Religious, Community, Politics, Education, Athletic, Arts, Military and Mother. Business (35%) was the most frequent leadership experience category, and it was divided into the following three subcategories: Manager (13%, i.e., shift manager, airline manager), supervisor (6%, i.e., office supervisor, data entry supervisor), and other business (16%, i.e., real estate broker, president of a non-profit organization). The business category included paid leadership experiences related to working in various organizations.

The next most frequent leadership experience categories were Religious (12%), Community (12%), and Politics (11%). The Religious leadership experience category consisted of volunteer and/or paid leadership experiences that were related to religious education, ministry, and celebration. Sample leadership experiences from this category
included Sunday school teacher, church music director, and youth minister. The Community leadership experience category consisted of volunteer and paid positions that focused on community development and service. Sample leadership experiences from this category are Red Cross team leader, volunteer coordinator, and Victoria immigration and refugee centre volunteer. The Politics category included volunteer leadership positions related to politics and peer group leadership experiences in high school and college organizations. Sample leadership experiences were for this category is Black Student Association Social Events Coordinator, president of Bilingual Education Student Organization, and president of National Honors Association.

Moreover, the remaining leadership categories were Education (7%), Athletics (6%), Arts (5%), and Military (3%). The Education category is made up of leadership experience related to being a student, teacher, or parent; sample leadership experience included: first generation college student, teacher assistant, and vice president of PTA. The Athletics leadership experience category consisted of volunteer and paid leadership experiences in sports. Captain of the golf team, swim captain, and captain of cheerleading squad in college are all sample responses given by participants. The Arts category is made up of volunteer or paid leadership positions that are related to music, art, and dance such as orchestra vice-president, dance instructor, and band captain. The Military leadership experience category consisted of participant responses related to experiences in the United Stated military such as captain in navy, squad leader in the US army, and squadron commander of an Air Force JROTC Unit.

Finally, the last leadership experience category was Mother, which constituted 8% of participants’ responses. This category included all “mother” responses by participants.
As one participant reported, “I am leading my daughter into a successful future.” Another participant described her mother leadership experience as “nurture and care for my children and prepare them to be productive citizen.” This is interesting as mother was also listed as a common mentor for the college women in this sample. Each of these leadership experiences is diverse in terms of location, type, and status; however, all fit the definition of leadership in that they require the individual to be in a position of power and authority. A complete list of participant leadership experiences is provided in Table A-3 (see Appendix O).

With regards to mentors, participants reported having a range of 0 to 30 female mentors, with a mean of 1.74 (SD=2.35). Approximately, 1 in 5 participants reported not having a female mentor (21%). However, 34% of participants reported having one female mentor. Another 21% of participants reported having 2 female mentors, 17% reported having 3 female mentors, 5% reported having 4 female mentors, 1% reported having 5 female mentors, and 1% reported having 30 female mentors. Participants were asked to describe their female mentors. Interestingly, 27% of participants who had mentors described their mother as their female mentor.

Another 12% of participants who had mentors described their female mentors as another family member such as grandmothers, great grandmothers, sisters, aunts, cousins, and sister-in-laws. Twenty percent of participants who had a mentor listed teachers and professors as their female mentors. The remaining 9% of participants who had mentors listed their female mentors as friends, counselors/therapists, co-workers, political figures (i.e., Michelle Obama, Hillary Clinton), and religious women from church (i.e., Pastor’s
Thirty-two percent of participants who had mentors did not describe their female mentor.

Regarding the number of male mentors, the range was 0 to 30, with a mean of 1.09 ($SD=2.26$). Approximately, 40% of participants reported having no male mentors. However, 38% of participants reported having 1 male mentor, 12% reported having 2 male mentors, 6% reported having 3 male mentors, 1% reported having 5 male mentors, 1% reported having 8 male mentors, and 1% reported having 30 male mentors. Half of the participants who had male mentors described their male mentors. Of the participants who had male mentors, 30% described their mentors as family members such as fathers, grandfathers, brothers, uncles, husbands, and sons. Six percent of participants who had male mentors described their male mentor as pastors, and the remaining participants who had male mentors described their male mentors as teachers/professors, individuals at their work (i.e., boss, coworker), and political figures (i.e., President Obama).

Instruments

Appendix P provides a code book with measure names and abbreviations for all instruments.

*Self-Efficacy for Leadership (SEL; Murphy, 1992).* Leader self-efficacy was measured with the SEL, which is a rationally developed, self-report, 8-item scale that assesses individuals’ confidence in their general leadership abilities. It uses a 5-point Likert-type scale, which has participants indicate how much they agree or disagree with statements on a 1 (strongly disagree) to 5 (strongly agree) continuum. Sample scale items include: “In general, I am very good at leading a group of my peers,” “I know what it
takes to make a work group accomplish its tasks,” and “I am confident of my ability to influence a work group that I lead.”

Researchers have found the SEL to be reliable, with Cronbach alpha scores ranging from .75 to .86; and convergent and discriminant validity for the measure have been established using measures of self-esteem and self-ratings of perceived leadership experience (Hoyt & Blascovich, 2007; Murphy, 1992; Murphy & Ensher, 1999; Murphy et al., 2003). In these studies, the samples were college students and SEL scores were found to predict leadership, group, and organizational outcomes. A total score is produced by adding each item’s score and then averaging the score by 8. The final score ranges from 1 to 5, with higher scores indicating higher self-efficacy for leadership. The complete measure can be found in Appendix A.

*Outcome Expectations for Women’s Leadership Questionnaire (OEWLQ).* This scale is a revision of the Outcome Expectations for Elite Leadership Questionnaire created by Yeagley, Subich, and Tokar (2010) to assess women’s perceived outcome expectations for elite leadership. Adjustments were made to the original measure so that it could be used in the current study to measure women’s perceived outcome expectations for leadership in general rather than for elite leadership. A description of the original measure is provided and this is followed by a description of the revised measure as it was used in the current study.

The original instrument was a self-report measure with twenty-two positive and sixteen negative outcomes for elite leadership positions. Respondents report their expectations for each item using a four-point Likert scale, with 1 indicating *not very much* and 4 indicating *very much.* As recommended by other researchers (Fouad &
Guillen, 2006), Yeagley, Subich, and Tokar (2010) created both positive and negative items to assess an individual’s physical outcome expectations (e.g., “If I am in an elite leadership position, I will feel stressed/ anxious”), social reaction outcome expectations (e.g., “If I am in an elite leadership position, people at work will disrespect me”), and self-evaluative outcome expectations (e.g., “If I am in an elite leadership position, I will feel good about my relationships”).

Yeagley, Subich, and Tokar (2010) used the research literature to develop item content about what women expect to happen if or when they hold positions of elite leadership. Their items include themes such as developing and maintaining romantic relationships and friendships (Boatwright & Egidio, 2003; Chin, Lott, Rice, & Sanchez-Hucles, 2007; Eagly & Carli, 2007; Halpern & Cheung, 2008; Lopez-Zafra, & Eagly, 2006; Lips 2000, 2001) and challenges in achieving work-life balance (Chin, Lott, Rice, & Sanchez-Hucles, 2007; Eagly & Carli, 2007). Other themes are the effects of sexism and prejudice (Eagly & Karau, 2002; Heilman, 2001; McDonald, Toussaint, & Schweiger, 2004) and opportunities for humanitarian efforts or ways to give back to others (Killeen, Lopez-Zafra & Eagly, 2006). The questionnaire produces a total outcome expectation score that is a result of reverse scoring the negative items and then averaging them with the positive items. Yeagley, Subich, and Tokar (2010) found the measure to have good internal consistency reliability and reported a Cronbach’s alpha of .93 for their sample of 156 college women.

The revised questionnaire was altered in three ways. First, the instructions and title were changed so that the instrument could assess women’s perceived outcome expectations for leadership in general and not just elite leadership. The original
instructions stated: “If I obtained a high level leadership position in a large organization…” and were changed to “If I held a leadership position…” Second, a few items that specifically referred to elite leadership were adjusted to refer to leadership more generally. For example, the language for items 23 and 35 that refers to “other high level executives” was replaced with “other leaders.” The majority of the original items were retained, however, as originally stated. Finally, the item response range was adjusted to 1 (strongly disagree) to 5 (strongly agree) to match the other measures in the current study and to provide respondents with more options to report their experiences.

The complete revised measure can be found in Appendix B.

**Interest in Leadership Scale (ILS).** This scale was created for the current study to assess an individual’s general interest in leadership. The scale is based on the Self-Efficacy for Leadership (SEL; Murphy, 1992) scale described above. The ILS item content was changed to ask about a respondent’s interests in leadership instead of their confidence in their skills to become a leader. Item content was also changed to reduce redundancy and method variance, which can be an issue when questions have similar wordings. For example item 3 from the SEL scale was changed from “In general, I am very good at leading a group of my peers,” to “I am interested in leading a group of persons who are similar to me in status.” Similarly item 5 from the SEL was changed from “I know what it takes to keep a work group running smoothly,” to “I am interested in facilitating the functioning of a work group.” Participants indicate how much they agree or disagree with statements on a 1 (strongly disagree) to 5 (strongly agree) Likert-type scale. A total score is produced by adding each item’s score and then averaging the
score by 8. The final score ranges from 1 to 5, with higher scores indicating more interest in leadership. The complete measure can be found in Appendix C.

*Goals for Leadership Scale (GLS).* This seven-item self-report measure was created for the current study to assess an individual’s goals for leadership. The items were created using Eagly and Carli’s (2007) description of leadership. These researchers described a leader as an individual who possesses authority over other people, and as an individual who influences, motivates, organizes, and coordinates the work of others. Eagly and Carli also noted that leaders bring people together to work on shared goals and motivate people to work together and set aside narrow self-interests. Sample items from the GLS, thus, include: “I intend to obtain a position where I direct employees and oversee their work,” “I intend to obtain a position where I influence my peers,” and “I intend to obtain a position where I bring people together to work on shared goals.”

Participants indicate how much they agree or disagree with statements on a 1 (*strongly disagree*) to 5 (*strongly agree*) Likert-type scale. Item 7 is reverse scored. A total score is produced by adding each item’s score and then averaging the score by 7. The final score may range from 1 to 5, with higher scores indicating that individuals have stronger plans to become a leader. The complete measure can be found in Appendix D.

The GLS was administered, in pilot fashion, to 56 female college students to examine its internal consistency reliability. The students’ ages ranged from 17 to 50 years. Approximately, 74 percent of the students were between the ages of 18 and 25. The ethnic/racial identities of the participants were African American (47%), Hispanic or Latino/a (30%), Caucasian (20%), Asian (2%), and other (1%). The pilot data showed the measure to have moderate internal consistency reliability with a Cronbach’s alpha of .85.
Item content was slightly modified subsequent to the pilot to reduce redundancy between the self-efficacy, interest, and goal measures.

*Career Aspiration Scale (CAS, O’Brien, et al., 1996).* Leadership goals also were measured with the CAS so as to connect the present research to the body of literature that has focused on women’s aspirations for leadership. The CAS was created to measure career aspirations or the degree to which women aspire to leadership positions and continued education within their careers (O’Brien, et al., 1996). This definition of career aspiration includes the variable of women’s leadership aspirations. There are 10 items on the measure, and they are rated on a 5-point Likert-type scale. Respondents indicate how true each statement is for them on a scale ranging from *not at all true of me* (0) to *very true of me* (4).

Four items are reverse scored (i.e., 3, 4, 7, and 10), and all items are summed and averaged to obtain a total score, with a higher score indicating greater aspiration within a given career (Gray & O’Brien, 2007). The CAS has two subscales: the Leadership and Achievement Aspirations Scale (LAAS; items 1, 2, 4, 5, 6 and 10) and the Educational Aspirations Scale (EAS; items 7 and 9; Gray & O’Brien, 2007). A sample item from the Leadership and Achievement Aspirations Scale is, “I hope to become a leader in my career field,” and a sample question from the Educational Aspirations Scale is, “I think I would like to pursue graduate training in my occupational area of interest.” Only the Leadership and Achievement Aspirations Subscale was used in this study.

Gray and O’Brien (2007) conducted five research studies that found the CAS to have excellent psychometric properties when used with (predominantly white) adolescent, college, and post-college female samples. These researchers completed four
studies to examine the factor structure, reliability, and validity of the CAS. Gray and O’Brien (2007), found strong test-retest reliability over a 2-week period (CAS = .84, LAAS = .84, EAS = .71) and moderate internal consistency (CAS = .75, LAAS = .78, EAS = .56). In addition, Gray and O’Brien (2007) found the CAS to have good convergent validity as demonstrated by positive correlations between the CAS and the attitudes toward women’s roles, multiple role self-efficacy, occupational self-efficacy, instrumentality, and career decision self-efficacy. The authors also found negative correlations between the scales of the CAS and the relative importance of career versus family. Gray and O’Brien (2007) found small to strong positive relationships between the CAS total scale and its subscales. Discriminant validity was indicated through the absence of relationship between the CAS total score and measures of attachment to parents (Gray & O’Brien, 2007). Finally, the Leadership and Achievement Aspirations Scale and the Educational Aspirations Scale accounted for 62 % of the variance in predicting career aspirations (Gray & O’Brien, 2007). The Leadership and Achievement Aspirations Subscale can be found in Appendix E.

The Schedule of Sexist Events (SSE; Klonoff & Landrine, 1995). The frequency of experiences with perceived sexist events was measured using the SSE. The SSE was developed rationally and is made up of 20 self-report items. Klonoff and Landrine (1995) created this measure to assess the perceived frequency and appraisal of sexist events. Participants complete each item twice; once for perceived sexist events in the past year (Recent Sexist Events) and once for perceived sexist events during their lifetime (Lifetime Sexist Events; Klonoff & Landrine, 1995). The SSE uses a 6-point Likert-type
scale, with 1 = never, 2 = once in a while, 3 = sometimes, 4 = a lot, 5 = most of the time, 6 = almost all of the time. Scores are added across items and can range from 20 to 120 (Klonoff & Landrine, 1995). Total scores were averaged in this research, with higher scores indicating greater frequency of perceived sexist events. Sample items from the SSE include, “How many times have you been treated unfairly by employers, bosses or supervisors because you are a woman?” and “How many times were you denied a raise, a promotion, tenure, a good assignment, a job, or other such thing at work that you deserved because you are a woman?”

The SSE is a valid and reliable measure that is widely used with college students and community samples of ethnically diverse women (Klonoff & Landrine, 1995; Landrine, Klonoff, Gibbs, Manning, & Lund, 1995; Klonoff, Landrine, & Campbell, 2000; Moradi & Funderburk, 2006; Moradi & Subich, 2002; Moradi & Subich, 2003; Moradi & Subich, 2004; Szymanski, 2005; Zucker & Landry, 2007). Klonoff and Landrine (1995) reported that total SSE Lifetime scores had a Cronbach’s alpha of .92 and split-half reliability of .87; SSE Recent scores had a Cronbach’s alpha of .90 and split-half reliability of .83. Similarly, Moradi and Subich (2002) reported alpha coefficients of .90 for SSE Recent and .91 for SSE Lifetime scales.

The scale authors (Klonoff & Landrine, 1995) reported convergent validity evidence in that the SSE Recent and SSE Lifetime scores correlated positively with the frequency of major stressful life events reported on the Psychiatric Epidemiology Research Interview Life Events Scale (Dohrenwend, Krasnoff, Askensay, & Dohrenwend, 1978) and the frequency of daily hassles reported on the Hassles-Frequency Scale (Kanner, Coyne, Schaeffer, & Lazarus, 1981). Also, Fischer et al. (2000) reported
good discriminant validity, as demonstrated by nonsignificant correlations between SSE
scores and self-deceptive enhancement and impression management dimensions of social
desirability. The current study used only the Lifetime Sexist Events Subscale because of
the redundancy found between the Lifetime and Recent Subscales (Klonoff & Landrine,
1995; Moradi & Subich, 2002). The Lifetime Sexist Events Subscale can be found in
Appendix F.

*Modified version of The Index of Race-Related Stress–Brief Version (IRRS-B;*
*Utsey, 1999).* The original IRRS-B is a 22-item measure of the race-related stress
experienced by African Americans in their daily lives (Utsey, 1999). The IRRS-B
consists of a total or global scale score and three subscales (Utsey, 1999). The measure
was created by Utsey (1999) using Jones’s tripartite model of racism. The three subscales
are: Cultural Racism, Institutional Racism, and Individual Racism. The Cultural Racism
subscale is assessed by 10 items and examines the stress related to denigration of one’s
culture (Utsey, 1999). Institutional Racism is assessed by 6 items, and measures stress
caused by racism embedded in institutional policies and practices (Utsey, 1999).
Individual Racism is assessed by 6 items and is focused on the racism experienced
interpersonally by African Americans (Utsey, 1999).

For the current study, the IRRS-B was modified to include Hispanic Americans
and other ethnic minority individuals. Respondents were asked to evaluate several race-
related situations that they or someone close to them experienced and to report how
upsetting these experiences were to them. Sample questions are “You notice that crimes
committed by White people tend to be romanticized, whereas the same crime committed
by a Black, Hispanic, or other ethnic minority person is portrayed as savagery” and “You...
seldom hear or read anything positive about Black/Hispanic/other ethnic minority people on radio, TV, in newspapers, or history books”. Reactions to these experiences are then recorded on a 5-point Likert-type scale (0 this never happened to me, 4 events happened and I was extremely upset). The global score was produced by averaging the unweighted scores.

Utsey (1999) found adequate internal consistency for the IRRS-B, with Cronbach alphas of .78 for the Cultural Racism subscale, .69 for the Institutional Racism subscale, .78 for the Individual Racism subscale. No alpha is available for the total brief scale score. Utsey also reported moderate to high intercorrelations between subscales (e.g., .56 to .90), which demonstrated that the subscales measured related but perhaps distinct aspects of race-related stress. Exploratory and confirmatory factor analysis supported the three factor structure of the measure (Utsey, 1999). Convergent validity was supported by positive and significant correlations between the IRRS-B and other measures of race-related stress including the total and subscale scores from the Racism and Life Experiences Scale-Revised (Utsey, 1999). The complete IRRS-B requires a 9th grade reading level, and takes approximately 15 minutes to complete. For the purpose of this study, the total scale was used to assess the participant’s general experiences of race-related stress. The complete measure can be found in Appendix G.

Conformity to Feminine Norms Inventory-45 (CFNI-45; Parent & Moradi, 2010). The CFNI-45 is a short form of the Conformity to Feminine Norms Inventory created by Mahalik and colleagues (2005) to measure the degree to which an individual’s behaviors, feelings, and thoughts are consistent with norms about behavior traditionally defined as feminine in North America. The short form was recently created by Parent and Moradi
who conducted confirmatory factor analysis to examine the factor structure and reduce the total number of items. The new brief form of the CFNI-45 was found to have a nine-factor structure and 45 items; this is different from the original measure that had an eight-factor structure and 84 items (Parent & Moradi, 2010). The nine factors represent the following nine subscales: Sweet and Nice, Relational, Thinness, Modesty, Domestic, Care for Children, Romantic Relationship, Sexual Fidelity, and Investment in Appearance (Parent & Moradi, 2010).

Participants use a four-point scale, ranging from 0 (strongly disagree) to 3 (strongly agree), to rate how much they agree or disagree with each statement (Parent & Moradi, 2010). According to Parent and Moradi (2010) the following items need to be reverse-scored: 4, 6, 8, 10, 15, 16, 18, 20, 21, 22, 26, 27, 29, 30, 34, 35, 37, 38, 39, 40, and 44. A total score is produced by adding all the item responses and dividing them by the total number of questions (Parent & Moradi, 2010). The CFNI-45 total score is used in this research to assess a participant’s conformity to feminine role norms, with higher scores representing greater conformity to feminine role norms. The total scale score is used in this study so as to examine the impact of many different aspects of femininity on women’s leadership development. Sample items from the CFNI-45 include: “I believe that my friendships should be maintained at all costs,” “I am always trying to lose weight,” and “Taking care of children is extremely fulfilling” (Parent & Moradi, 2010).

Parent and Moradi (2010) reported that there is a “substantial consistency” between the CFNI-45 and the original CFNI subscales, with correlations ranging from .87 to .97. Thus, the reliability data for the original CFNI is presented here along with the information from the Parent and Moradi (2010) study. Mahalik and colleagues (2005)
reported a coefficient alpha of .88 for the total CFNI score, and Parent and Moradi (2010) reported a coefficient alpha of .79 for the total CFNI-45. Regarding the subscales, Mahalik and colleagues (2005) reported respectable coefficients with a range from .77 for the Romantic Relationship subscale to .92 for the Caring for Children subscale. Similarly, Parent and Moradi (2010) found respectable coefficient alphas for shorter the CFNI-45 subscales, which ranged from .68 from the Sweet and Nice subscale to .89 for the Care for Children subscale.

There are no published data on the validity of the CFNI-45 so the information for the original CFNI is presented (Parent & Moradi, 2010). Mahalik and colleagues (2005) provided evidence of convergent and discriminant validity for the CFNI. Specifically, these researchers found that the total CFNI score related significantly and positively to similar constructs including the Bem Sex Role Inventory Femininity subscale and the Feminist Identity Composite passive acceptance subscale. Conversely, the CFNI total score significantly and negatively correlated with the Bem Sex Role Inventory Masculinity subscale. Sample items for the CFNI-45 can be found in Appendix H and the complete measure is available from the authors.

Conformity to Masculine Norms Inventory-46 (CMNI-46; Parent & Moradi, 2009) is a short form of the Conformity to Masculine Norms Inventory (Mahalik, et al., 2003). Mahalik and associates (2003) created the original CMNI to measure the degree to which an individual’s behaviors, feelings, and thoughts are consistent with norms about behavior that are traditionally defined as masculine in North America. Parent and Moradi (2009) used confirmatory factor analysis to create the revised, brief version of the CMNI-46, which has nine-factors and 46 items. This is different from the original measure
created by Mahalik and colleagues (2003), which consisted of 11 factors and 94 items (Parent & Moradi, 2009).

The nine factors in the new version represent the following nine subscales: Emotional Control, Winning, Risk-taking, Self-Reliance, Primacy of Work, Violence, Playboy, Power Over Women, and Heterosexual Self–presentation (Parent & Moradi, 2009). The two factors/subscales that were deleted from the new version were Dominance and Pursuit of Status (Parent & Moradi, 2009). Parent and Moradi (2009) reported that the Dominance factor was subsumed by other factors and the Pursuit of Status factor did not differentiate between women and men for various age groups. Thus, the new brief version of the CMNI-46 provides a better assessment tool for measuring aspects of masculinity.

The research literature provides evidence of the overlap between leadership characteristics and certain masculine (i.e., instrumental/agentic) characteristics (Ayman & Korabik, 2010; Eagly & Carli, 2007). Participants thus completed the entire CMNI-46, but only relevant masculine characteristics or subscales for aspiring women leaders were examined. A score was calculated using the following relevant subscales: Emotional Control, Winning, Risk-taking, Self-Reliance, and Primacy of Work. The aspects of masculinity (or subscales) that were not seen to be relevant to women’s leadership development are Violence, Playboy, Power Over Women, and Heterosexual Self–presentation. There is no research to support that these latter aspects of masculinity are relevant to women’s leadership development, and thus these scales were removed from the total relevant CMNI-46 score.
Participants used a four-point response scale, ranging from 0 (strongly disagree) to 3 (strongly agree), to rate how much they agreed or disagreed with each statement (Parent & Moradi, 2009). According to Parent and Moradi (2009), the following items are reverse-scored: 4, 5, 6, 7, 9, 10, 12, 13, 15, 17, 23, 25, 27, 33, 34, 38, 40, and 41. The total scores are summed and averaged, with higher scores representing greater conformity to masculine roles norms. Sample items from the CFNI-46 relevant subscales include: “In general, I will do anything to win,” “In general, I do not like risky situations,” and “I ask for help when I need it” (Parent & Moradi, 2009).

Parent and Moradi (2009) reported that the Cronbach alpha for the CMNI-46 total score as .88 and the subscales ranged from .77 to .91. Regarding the subscales of interest in this study the Cronbach alphas were: .86 for Emotional Control, .83 for Winning, .84 for Risk-taking, .84 for Self-Reliance, and .77 for Primacy of Work (Parent & Moradi, 2009). According to Parent and Moradi (2009) the new and old versions of the CMNI-46 are comparable. Thus, psychometric data for the original scale are also presented.

Mahalik and colleagues (2003) reported Cronbach’s alphas for the original CMNI total score as .92, and alphas ranged from .72 to .91 for the 11 original subscales. These researchers also reported good test-retest reliability (i.e., range from .51 to .96) for 2-3 weeks. The 11 subscales had low to moderate intercorrelations with each other, with coefficients ranging from .01 to .58. According to Mahalik et al., (2003) and the total CMNI score was moderately correlated with other measures of masculinity including the Brannon Masculinity Scale ($r = .79$, $p < .001$), Gender Role Conflict Scale (GRCS; $r = .56$, $p < .001$), and the Masculine Gender Role Stress (MGRS; $r = .40$, $p < .001$). There are no published data on the validity of the CMNI-46 (Parent & Moradi, 2009). See
Appendix I for additional sample items for the CMNI-46, and the complete measure is available from the authors.

*Personal Attributes Questionnaire-Leadership (PAQ; Spence & Helmreich, 1978).* The original PAQ is a 24-item measure that assesses how strongly individuals rate themselves as having stereotypical masculine (instrumentality–agency) and stereotypical feminine (expressivity–nurturance) personality traits (Smiler & Epstein, 2010; Spence & Helmreich, 1978). For this study, the assessment was modified so that participants rated a leader rather than themselves. This was intended to provide a measure of how participants viewed leaders in respect to traditional gender roles. There are three different 8-item subscales to the PAQ: Masculinity (M), Femininity (F), and bipolar Masculinity-Femininity (M-F; Smiler & Epstein, 2010; Spence & Helmreich, 1978). Smiler and Epstein (2010) reported that factor analyses across multiple samples showed single factor solutions for each subscale.

Smiler and Epstein (2010) described the original PAQ Masculine and Feminine Subscales as valid and reliable measures; however, most researchers do not use the third subscale, the M-F subscale. Helmreich, Spence, and Wilhelm (1981) reported that the original PAQ has good internal consistency, with alpha coefficients for the Masculine subscale ranging from .71 for female high school students, .73 for female college students, and .77 for female parents. The Feminine Subscale had alpha coefficients ranging from .73 for female high school students, .73 for female college students, and .79 for female parents (Helmreich, Spence, & Wilhelm, 1981). Yoder, Rice, Adams, Priest, and Prince (1982) reported adequate two and a half month test-retest reliability for the PAQ M and PAQ F Subscales, with alpha coefficients for female cadets at .62 and .68
respectively. Construct validity was shown by comparing the original samples with other samples including female varsity athletes and male and female academic scientists, and with predicted correlations with achievement and motivation scale scores (Smiler & Epstein, 2010).

Sample questions for the adjusted Femininity scale used in the current study include: “Leaders are: not at all emotional to very emotional” and “Leaders are: very rough to very gentle.” Sample questions for the adjusted Masculinity scale used in the current study include: “Leaders are: very passive to very active” and “Leaders are: not at all competitive to very competitive.” Participants rated leaders on a 5-point scale (i.e., A, B, C, D, and E) anchored by two dichotomous personality attributes. Items are scored so that higher scores indicate higher femininity or masculinity, depending on the subscale. The means of the F subscale total score and the M subscale total score are used separately in the current study. By using both of these different subscales, this study helps to clarify the role of gendered aspects attributed to leaders within women’s leadership development. A copy of the adjusted PAQ-Leadership is available in Appendix J.

Demographic Variables. Participants completed a demographic questionnaire that assessed: sex, race/ethnicity, sexual orientation, relationship status, highest degree achieved, current occupation, expected occupation after graduating, major, level in college, socioeconomic status, family/household income, number of children, parents’ education level, parents’ occupation, and birth order. Appendix K contains a complete list of these demographic questions. These items were chosen to provide basic demographic information about the sample.
Additional items (i.e., number of current and past leadership experiences, number of female and male role-models/mentors) were chosen to gather data about key variables discussed in the research literature on women and leadership (Hall, Garrett-Akinsanya, & Hucles, 2007; Halpern & Cheung, 2008; Kawahara, Esnil, & Hsu, 2007; Lips 2000; 2001; Morgan & Lynch, 2006; Myers, 2008; Porter & Henderson Daniel, 2007; Vasquez & Comas-Dias, 2007). Exploratory analyses examined the relations of these variables to women’s leadership interests and goals.
CHAPTER IV

RESULTS

This chapter reviews missing data and data cleaning techniques, descriptive statistics and correlations for the primary variables of interest, and the results for the proposed and exploratory path analysis models. The data were first examined for missing values, outliers, and normality. Next, descriptive statistics (i.e., means, standard deviations), a correlation matrix and other basic statistics were examined to explore whether some of the demographic variables (i.e., age, mentoring/role-model experience, current or past leadership experience) correlated with the primary variables of interest (i.e., leadership self-efficacy, outcome expectations for leadership, interests in leadership, goals for leadership, perceived experiences of sexism, experiences of race-related stress, conformity to feminine and masculine norm roles, and feminine and masculine attributes of leaders). Finally, path analysis was used to test the fit of the data to the proposed model for this sample of diverse college women (Kline, 2005). The original path model and a number of exploratory models were examined to test the study hypotheses.
Missing Data and Data Screening

The data were screened to locate, describe, and deal with missing data values using best practice techniques (Schlomer, Bauman, & Card, 2010). Next, the data were screened for outliers using Mahalanobis distance, Cook’s distance, and leverage values (Kline, 2005; Tabachnick & Fidell, 2001). Then the data were examined for normality using the skewness, kurtosis, and scatter plot charts (Kline, 2005; Tabachnick & Fidell, 2001).

*Missing Data Values.* The data were screened and cleaned for missing data and outliers (Kline, 2005). Schlomer, Bauman, and Card (2010) described the best practices for missing data management, which include reporting the amount, source, and pattern of missing data as well as the method for dealing with missing data. In line with these recommendations, the following topics are discussed. Seven participants were missing more than 50% of their data, and listwise deletion was used to remove these cases before data analysis began. Three of these participants were men and four were women who started the survey, but decided not to complete it. After these 7 participants were removed from data analysis, the final sample size was 224. The remaining cases were reviewed to check for the amount and type of missing data.

The percentage of missing data for the remaining participants was .004, with 22 actual missing data points. The missing data was for the following items: CFNI 7, CFNI 19, CFNI 22, CFNI 24, CFNI 33, CFNI 36, CMNI 1, CMNI 2, CMNI 5, CMNI 9, CMNI 19, CMNI 21, CMNI 23, CMNI 29, CMNI 31, CMNI 37, CMNI 45, OEWLQ 1, OEWLQ 17, OEWLQ 38, PAQ 1, and LSE 10. Each of these items was missing just once and none were from the same participant. Therefore, the missing data was determined to be
missing completely at random (Schlomer, Bauman, & Card, 2010). The low amount of missing data is attributed to the fact that the online survey program required students to select an option for each question before moving to the next section. In accord with the Human Subjects and Institution Review Board regulations, each question had an option that allowed participants to decide not to answer the question. The above missing data points were marked as “decide not to answer.” Schlomer, Bauman, and Card (2010) recommended multiple imputation and full information maximum likelihood as best practices to resolve missing data when the amount of missing data is between 5 and 20 percent. Given the small amount of missing data in this research, mean substitution for each variable was calculated and inserted for each missing data point (Tabachnick & Fidell, 2001).

**Screening for Data Outliers.** According to Tabachnick and Fidell, an outlier “is a case with such an extreme value on one variable (a univariate outlier) or such a strange combination of scores on two or more variables (multivariate outlier) that they distort statistics” (2001, p. 66). The final data were examined for univariate and multivariate outliers using the strategy outlined by Tabachnick and Fidell (2001). First, the scales for each measure in the study were reviewed and determined to be within the normal scale ranges.

Next, the values for Mahalanobis distance, Cook’s distance, and leverage were estimated and examined using SPSS. Mahalanobis distances for the sample ranged from 1.54 to 34.69, with a mean score of 8.96 and a standard deviation of 5.52. Tabachnick and Fidell (2001) recommend that researchers compare Mahalanobis distance to the critical values of a Chi square ($\chi^2$) distribution chart with n-1 degrees of freedom. These
authors also encouraged researchers to compare their Mahalanobis distance values against the $p < .001$ values. The degrees of freedom are equal to the numbers of predictors – 1; which is 10 for the current study. Thus, according to the critical values of Chi square ($x^2$) distribution chart, the critical value is 29.588. Tabachnick and Fidell (2001) also report, however, that Mahalanobis distances should be used with caution because alone these values are not reliable. In fact, Mahalanobis distances sometimes identify values as outliers even though the values are not influential. These authors recommend that researchers combine this technique with Cook’s distances and leverage techniques, and look for values that are consistently identified as outliers on all three techniques.

Cook’s distance is an influence measure that accounts for both leverage and discrepancy to examine which values actually affect the dataset (Tabachnick & Fidell, 2001). The Cook’s distances in this study ranged from .00 to .07, with a mean of .00 and a standard deviation of .01. According to Tabachnick and Fidell (2001) the critical value for Cook’s distance is a value that is greater than 1. The leverage scores ranged from .00 to .15, with a mean of .04 and a standard deviation of .01. According to the UCLA, Academic Technology Services, Statistical Consulting Group (2007) the leverage critical value is a value greater than $(2k+2)/n$, with $k$ representing the number of predictors and $n$ representing the number of observations. In this study, none of the values for Cook’s distance exceeded the critical values and only 5 leverage values exceeded the critical value cut off. Because no values were consistently identified as outliers on all three outlier techniques, the values did not suggest undue influence by one individual. Thus, there appeared to be no univariate or multivariate outliers.
Examining Data Normality. Normality of the data was examined by reviewing the skewness and kurtosis of each scale as well as using histograms plotted against the normal curve (Tabachnick & Fidell, 2001). The skewness, standard error of skewness, kurtosis, and standard error of kurtosis were calculated using SPSS; these values are presented in Table 1. Skewness measures the symmetry of the distribution, with a skewed variable having a mean that is not in the center of the distribution (Tabachnick & Fidell, 2001). Kurtosis measures the peakedness of a distribution, and it can be too peaked or too flat (Tabachnick & Fidell, 2001). Examination of the values for skew and kurtosis for each measure relative to their standard errors suggests a number of scales were slightly skewed (skews of twice the value of the standard error) and that the SEL in particular was somewhat kurtotic.

Tabachnick and Fidell (2001) reported that with large samples, like the current study sample, “it is a good idea to look at the shape of the distribution instead of using formal inference tests” (pp. 74). This is “because the standard errors for both skewness and kurtosis decrease with large N, the null hypothesis is likely to be rejected with large samples when there are only minor deviations from normality” (Tabachnick & Fidell, 2001, pp. 74). Based on Tabachnick and Fidell’s recommendation, a review of the histograms for each scale was plotted against the normal curve and visually examined. These graphical methods revealed the study distributions to be within normal levels of skewness and kurtosis. Based on this information and the fact that most variables produced significant correlations, no other steps were taken.
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Note: Self-Efficacy for Leadership Scale (SEL), Outcome Expectations for Women’s Leadership Questionnaire-Adjusted (OEWLQ), Interest in Leadership Scale (ILS), Goals for Leadership Scale (GLS), Leadership and Achievement Aspirations Subscale (LAA), Lifetime Sexist Events Subscale (LSE), Modified Index of Race Related Stress-Brief Version (IRRS-B), Conformity to Feminine Norms Inventory-45 (CFNI-45), Conformity to Masculine Norms Inventory-46 Relevant Total (CMNI-46), Personal Attributes Questionnaire: Adjusted for Leaders Masculinity Subscale (PAQ-LM), and Femininity Subscale (PAQ-LF)
Table 2. Correlations Means, Standard Deviations, and Coefficient Alphas for Primary Variables of Interest.

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Note: *p < 0.05, two-tailed, **p < 0.01, two-tailed. (N=224 for all scales except IRRS-B, which had N=170). Self-Efficacy for Leadership Scale (SEL), Outcome Expectations for Women’s Leadership Questionnaire-Adjusted (OEWLQ), Interest in Leadership Scale (ILS), Goals for Leadership Scale (GLS), Leadership and Achievement Aspirations Subscale (LAA), Lifetime Sexist Events Subscale (LSE), Modified Version of the Index of Race Related Stress-Brief Version (IRRS-B), Conformity to Feminine Norms Inventory-45 (CFNI-45), Conformity to Masculine Norms Inventory-46 Relevant Total (CMNI-46), Personal Attributes Questionnaire: Adjusted for Leaders Masculinity Subscale (PAQ-LM), Personal Attributes Questionnaire: Adjusted for Leaders Femininity Subscale (PAQ-LF).
Descriptive Statistics and Correlations Between Primary Variables

Table 2 provides descriptive statistics and a correlation table for the primary variables of interest. Descriptive statistics included the means, standard deviations, and coefficient alphas. The coefficient alphas for the scales were adequate to good with a range from .72 to .93. The reliability estimates for the person input variables are discussed first. The Personal Attributes Questionnaire-Adjusted for Leadership, Masculine (PAQ-LM) and Feminine (PAQ-LF) subscales were created for this study to measure perceived gender attributes of leaders. The internal consistency reliability coefficients for these subscales were .81 for the PAQ-LM and .72 for the PAQ-LF. These reliability coefficients are similar to the reliability coefficients reported for the original PAQ M and F Subscales, which were both .73 for female college students (Helmreich, Spence, & Wilhelm, 1981).

The coefficient alpha for the Conformity to Feminine Norms Inventory-45 (CFNI-45) was .76 for the current sample, and .79 for the participants in the Parent and Moradi (2010) study. The coefficient alpha for the Conformity to Masculine Norms Inventory-46 (CMNI-46) was .76 for this sample. There is no published reliability information for women who have taken the CMNI-46 (short version), but Tokar, Thompson, Plaufcan, and Williams (2007) reported an alpha of .93 for the full CMNI with their mixed gender sample (144 women and 113 men).

Next, the reliability estimates for the key social cognitive variables are discussed. The coefficient alpha for the Self-Efficacy for Leadership (SEL) Scale was .89, whereas, past research found a range of .75 to .86 (Hoyt & Blascovich, 2007; Murphy, 1992; Murphy & Ensher, 1999; Murphy et al., 2003). The Outcome Expectations for Women’s
Leadership Questionnaire (OEWLQ) had a coefficient alpha of .93, which is the same as the Cronbach alpha value reported by Yeagley, Subich, and Tokar (2010) for their sample of 156 college women. For the Goals for Leadership Scale (GLS), the coefficient alpha was .87, which is comparable to the pilot GLS coefficient alpha of .85 for the 56 diverse, female college students sampled. The coefficient alpha was .92 for the Interest in Leadership Scale (ILS). There is no past reliability data for the ILS because it was created for this study. In addition, the Leadership and Achievement Aspirations scale had a coefficient alpha of .77 and this is similar to that found by Gray and O’Brien (2007) in their study (.78).

Finally, the coefficient alphas for the moderator variables are discussed. The Lifetime Sexist Events subscale was .93 in this study, which is comparable to the values reported by other researchers. For instance, Klonoff and Landrine (1995) reported a Cronbach’s alpha of .92 for their study, and Moradi and Subich (2002) reported an alpha coefficient of .91 for their study. The coefficient alpha for the adjusted Index of Race-Related Stress-Brief version was .92 in this study, which is larger than the subscale alphas’ that ranged from .69 to .78 (Utsey, 1999). Each of the reliability estimates are comparable, if not better, than coefficient alphas found in the research literature. Note that the sample size for all scales was 224 women, except for the IRRS-B scale, which had a sample size of 170 ethnic minority women.

Bivariate correlations for the variables of interest were examined and are displayed in Table 2. The key social-cognitive variables (i.e., leadership self-efficacy, leadership outcome expectations, leadership interests, leadership goals) correlated as predicted in SCCT. Self-efficacy for leadership was significantly and positively
correlated with most variables of interest, but not correlated with lifetime sexist events, race-related stress, or conformity to masculine norms. Outcome expectations for women’s leadership were significantly and positively related to several variables of interest for leadership, but were not significantly correlated to race-related stress or conformity to masculine norms. Interests for leadership were significantly and positively correlated with most variables, except for lifetime sexist events, race-related stress, or conformity to masculine norms. Goals for leadership were significantly and positively correlated with most variables of interest, except for lifetime sexist events, race-related stress, or conformity to masculine norms.

The correlations for the person input and moderator variables are discussed next. Conformity to feminine role norms was correlated with all the social-cognitive variables, but conformity to masculine role norms did not correlate with any variables except race-related stress. Perceived feminine attributes of leaders were positively correlated with all social-cognitive variables and perceived masculine attributes of leaders, and it was also negatively correlated with lifetime sexist events and race-related stress. However, perceived feminine attributes of leaders were not related to conformity to masculine norms or conformity to feminine norms. Perceived masculine attributes of leaders were positively correlated with all social-cognitive variables and perceived feminine attributes of leaders, but were not correlated with lifetime sexist events, race-related stress, conformity to masculine norms or conformity to feminine norms. Thus, the moderator variables of lifetime sexist experiences and race-related stress did not correlate with several of the primary variables of interest.
Finally, the correlation between the leadership and achievement aspirations subscale and the goals for leadership measure was examined. These two measures were significantly and positively correlated, with a Pearson correlation coefficient of .71 (p < .01). This correlation between these variables indicates that these two measures are highly related to each other. Both measures also were significantly correlated with the social-cognitive variables, conformity to feminine norms, and perceived feminine and masculine attributes of leaders. The internal reliability estimates for these measures were .87 for the goals for leadership scale and .77 for the leadership and achievement aspirations subscale. Given that the goals for leadership scale was created to measure the specific study concepts and has the better internal consistency estimate, the goals for leadership scale was used to assesses leadership goals in the path models.

Correlations Between Primary and Demographic Variables

This section provides information about the bivariate correlations between primary variables and demographic variables as well as the demographic variables with other demographic variables. There were several demographic variables in this study. They were examined to ascertain whether any of these demographic variables warranted being used as covariates in the path models. These correlations are reported in Table 6. Only a few of the demographic variables were significantly correlated with primary variables of interest; further, these correlations were relatively modest. In particular, the number of past and current leadership experiences correlated with the key social cognitive variables, but these correlations would be expected according to social cognitive theory as behavior and social cognitive attitudes should be related. No other
clear pattern of correlations between demographic variables and the primary variables of interest were noted, so no covariate variables were added to the path models.
Table 3. Correlations for Demographic Variables and Key Variables of Interest.

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<th>SES</th>
<th>Income</th>
<th>Level of College</th>
<th>Participant Degree</th>
<th># of Kids</th>
<th>Mom Degree</th>
<th>Dad Degree</th>
<th>Birth Order</th>
<th>Past Leadership Experience</th>
<th>Current Leadership Experience</th>
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Note: *p < 0.05, two-tailed,** p < 0.01, two-tailed. (N=224 for all variable except for IRRS-B, which had N=170). Level of College: freshman, sophomore, junior, graduate student, and post-baccalaureate. Degree: High School Diploma or equivalent, Associates Degree, Bachelor’s, Master’s, Doctorate, and Other.
Additionally, the bivariate correlations between demographic variables were examined to better understand the sample, and these relationships are displayed in Table 4. There were some significant correlations between demographic variables, but only a handful of relationships were strong and significantly correlated. These correlations are logical and provide some general information about the sample and support for the coherence of the present data. For instance, a participant’s socioeconomic status was positively and significantly correlated with income level ($r = .67$, $p < .01$). Also, the number of past leadership experiences was positively and significantly correlated with the number of current leadership experiences ($r = .58$, $p < .01$); the number of female mentors also was positively and significantly correlated with the number of male mentors ($r = .86$, $p < .01$).

Similarly, age was positively and significantly correlated with the number of children reported ($r = .62$, $p < .01$), level of college ($r = .29$, $p < .01$), and degree ($r = .29$, $p < .01$). Mother and father degrees were significantly and positively correlated ($r = .45$, $p < .01$). Another interesting finding is that both past and current leadership experiences were correlated to the number of female and male mentors reported by participants. As the number of leadership experiences increased, the number of female and male mentors also increased. The correlations for these relationships, though, were low to moderate. Overall, these correlations are logical and provide some support for the validity of the data.
### Table 4. Correlations Between Demographic Variables.

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<td>.18**</td>
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<td>-.16*</td>
<td>-.13*</td>
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<td>10. Past Leadership Experiences</td>
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<td>.17*</td>
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<td>11. Current Leadership Experiences</td>
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<td>12. Female Role Model</td>
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<tr>
<td>13. Male Role Model</td>
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</tbody>
</table>

Note: * p < 0.05, two-tailed, ** p < 0.01, two-tailed. (N=224 for all variables). Level of College: freshman, sophomore, junior, graduate student, and post-baccalaureate. Degree: High School Diploma or equivalent, Associates Degree, Bachelor’s, Master’s, Doctorate, and Other.
Test of Hypotheses: Proposed Models

Path analysis is a statistical technique used to estimate presumed causal relationships among observed variables (Kline, 2005). The indicators of the observed variables in the path model were the total scores from the following measures: Self-Efficacy for Leadership (SEL), Outcome Expectations for Women’s Leadership Questionnaire (OEWLQ), Interest in Leadership Scale (ILS), Goals for Leadership Scale (GLS), Lifetime Sexist Events (LSE), Conformity to Feminine Norms Inventory-45 (CFNI-45), selected subscales from the Conformity to Masculine Norms Inventory-46 (CMNI), a modified version of the Index of Race-Related Stress-Brief Version (IRRS-B), and the Masculine (PAQ-LM) and Feminine Personal Attributes Questionnaire Subscales (PAQ-LM). Perceived lifetime sexist events and race-related stress were examined as moderators between women’s leadership interests and women’s leadership goals. Path analysis with maximum likelihood estimation was used to examine if the data from the female college student sample is an adequate fit to the model proposed by Social Cognitive Career Theory (SCCT).

The proposed model was examined first for all female participants in the study ($N=224$) and then just for ethnic minority women ($N=170$). The first model with all participants included the following variables: leadership self-efficacy, leadership outcome expectations, leadership interests, leadership goals, conformity to feminine norms, conformity to masculine norms, perceived masculine attributes of leaders, perceived feminine attributes of leaders, and the moderator of perceived sexist experiences. This model did not include the moderator variable of race-related stress. This moderator variable was excluded from this model because European American
women did not complete the IRRS-B, as it is a measure of race-related stress that conceptually is not relevant to European-Americans.

Likewise, the proposed model for only ethnic minority female participants (N=170) included the following variables: leadership self-efficacy, leadership outcome expectations, leadership interests, leadership goals, conformity to feminine norms, conformity to masculine norms, perceived masculine attributes of leaders, perceived feminine attributes of leaders, and the moderators of perceived sexist experiences and race-related stress. The sample of ethnic minority women was smaller than that required to have optimal power. Nevertheless, the model was run to examine the study hypotheses with ethnic minority women.

The Mplus software program (Muthén & Muthén, version 5) was used to conduct the path analyses. A nonparametric bootstrapping statistical technique was used to examine the indirect relationships proposed in the model (Kline, 2005). The overall model fit was assessed with the four most popular fit indices: the model chi-square goodness-of-fit ($x^2$), comparative fit index (CFI), the standardized root-mean square residual (SRMR), and the root-mean square error of approximation (RMSEA, Kline, 2005). Kline (2005) states that a good fit occurs when the model Chi-square statistic is small or close to zero and nonsignificant, which represents “failure to reject the null hypothesis that supports the researcher’s model” (p.136). Kline also recommends that CFI be above .95, SRMR be .08 or lower, and RMSEA be below .06. Acceptable fits for these statistics are as follows: CFI between .90 and .94, SRMR of .09 to .10, and RMSEA of .07 to .10 (Kline, 2005).
The proposed model with a single moderator of lifetime sexist experiences, for all female participants was examined first. The proposed model is illustrated in Figure 3. The overall fit indices for this proposed model were as follows: chi-square goodness-of-fit statistic of 87.69 (11, \( N = 224 \)), \( p < .001 \), CFI was .86, SRMR was .09, and RMSEA was .18 with a 90 percent confidence interval of .14 to .21. Applying Kline’s recommendations for fit indices, the overall proposed model was not a good fit for the data of diverse college women. These findings were unexpected and contrary to the proposed study hypotheses.

Although, the overall model was not a good fit for the data, several of the direct and indirect paths within this proposed model were significant and consistent with SCCT and the study hypotheses. There were 9 significant direct paths (out of 14 proposed) and 16 significant indirect paths (out of 32 proposed) observed in this model. The direct paths are illustrated in Figure 3 and in Table A-4 (see Appendix O). The indirect paths for this model are displayed in Table A-5 (see Appendix O). The moderator of perceived lifetime sexist events was not significant in this proposed model (see Figure 3). Given that several direct and indirect paths were significant, an exploratory model was run subsequently to see if the model would be a good fit for the data once the moderator of lifetime sexist events was removed.
Figure 3. The Proposed Path Model (with Moderator) for All Participants, with Direct Paths Estimates.

Note: One asterisk (*) indicates a significant value at $p < .05$ and two asterisks (**) indicates a significant value at $p < .001$. 
The proposed model for ethnic minority female participants was examined and included both moderator variables: perceived lifetime sexist events and race-related stress. Figure 4 illustrates this proposed model. The overall fit indices for this model were as follows: chi-square goodness-of-fit statistic was 72.69 (14, \( N = 170 \)), \( p < .001 \), CFI was .86, SRMR was .10, and RMSEA was .16 with a 90 percent confidence interval of .12 to .19. Applying Kline’s recommendations for fit indices, the overall proposed model was not a good fit for the data of these ethnic minority female college students. Again, these findings were unexpected and contrary to the proposed study hypotheses.

Although the overall model was not a good fit for the data, there were several significant direct and indirect paths in this model that are consistent with SCCT and the study hypotheses. Table A-4 (see Appendix O) and Figure 4 show the direct path estimates for the sample of Ethnic Minority participants. Table A-6 (see Appendix O) displays the indirect paths for the sample of Ethnic Minority participants. Overall, there were 10 significant direct paths (out of 14 proposed) and 10 significant indirect paths (out of 32 proposed) observed in this model. However, both moderators, perceived lifetime sexist events and race-related stress, were not significant in this proposed model (see Figure 4).

In summary, both proposed models did not fit the data, but several paths within the proposed models did support the study hypotheses and SCCT predictions. For instance, the paths between the key social cognitive variables seemed to support the study hypotheses in both proposed models. The paths between person inputs and the key social cognitive variables seem to show mixed support for the study hypotheses. The moderators of perceived lifetime sexist events and race-related stress, however, were not
significant in either of the proposed models. Due to these observed patterns of findings, it was decided that an exploratory model would be run without the moderator variables, in order to understand women’s leadership development better.
Figure 4. The Proposed Path Model (with Moderators) for Ethnic Minority Participants, with Direct Paths Estimates.

Note: One asterisk (*) indicates a significant value at $p < .05$ and two asterisks (**) indicates a significant value at $p < .01$. 
Exploratory Path Model: Overall Model Fit

An exploratory path model with all participants in the study (N=224) was examined. This model is shown in Figure 5 and included the following variables: leadership self-efficacy, leadership outcome expectations, leadership interests, leadership goals, conformity to feminine norms, conformity to masculine norms, perceived masculine attributes of leaders, and perceived feminine attributes of leaders. The overall fit indices for the exploratory model demonstrated that the data were a good fit for the sample of diverse female college students. The chi-square goodness-of-fit statistic was 12.41 (8, N = 224) and it was not significant. The CFI was .99, SRMR was .03, and RMSEA was .05, with a 90 percent confidence interval of .00 to .10.

A second exploratory model was run with just the ethnic minority female college students (N=170); this model is shown in Figure 6 and included the same variables listed above. The overall fit indices for this model revealed that the data from only the ethnic minority college women also demonstrated a good fit to the data. The chi-square goodness-of-fit statistic was 7.47 (8, N = 170) and it was not significant. The other fit indices were: CFI = 1.0, SRMR = .03, and RMSEA = .00 with a 90 percent confidence interval of .00 to .09. The sample of only ethnic minority women was slightly smaller than that required to have optimal power. Given that the total sample (N =224) was ethnically diverse and both models were a good fit to the data, the exploratory model with all college women and no moderators is the primary focus of this section and Chapter 5.
Figure 5. The Exploratory Path Model (without Moderator) for All Participants, with Direct Paths Estimates.

Note: One asterisk (*) indicates a significant value at \( p < .05 \) and two asterisks (**) indicates a significant value at \( p < .01 \).
Figure 6. The Exploratory Path Model (without Moderators) for Ethnic Minority Participants, with Direct Paths Estimates.

Note: One asterisk (*) indicates a significant value at \( p < .05 \) and two asterisks (**) indicates a significant value at \( p < .01 \).
Exploratory Path Model: Direct and Indirect Paths

This section reviews the direct and indirect paths for the exploratory model with all participants. The original study hypotheses are compared to the individual paths because most hypotheses were tested in the exploratory model, excluding the moderator hypotheses that have already been discussed as unsupported.

The direct path estimates for the exploratory model with all participants are illustrated in Figure 5, and all the indirect paths for this model are reported in Table 5. Note that Table A-7 (see Appendix O) lists the direct path estimates for both of the exploratory models, and Table A-8 (see Appendix O) displays the indirect path model estimates for the ethnic minority sample. A review of the direct and indirect paths for the two models, revealed a mostly similar pattern of findings. However, one interesting difference between the two exploratory models was that only the ethnic minority sample had a significant path between leadership self-efficacy and leadership goals, whereas the exploratory model for all participants did not find a significant path. Nevertheless, given the good fit of both models, the model with all participants is the focus of the rest of this section.
Table 5. *Indirect Paths for the Exploratory Path Model with All Participants.*

<table>
<thead>
<tr>
<th>Indirect Paths</th>
<th>Standardized Estimates</th>
<th>SE</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFNI-45→SEL→ILS</td>
<td>0.39**</td>
<td>0.10</td>
<td>3.86</td>
</tr>
<tr>
<td>CFNI-45→SEL→ILS→GLS</td>
<td>0.25**</td>
<td>0.07</td>
<td>3.81</td>
</tr>
<tr>
<td>CFNI-45→SEL→OEWLQ</td>
<td>0.20**</td>
<td>0.05</td>
<td>3.94</td>
</tr>
<tr>
<td>CFNI-45→SEL→OEWLQ→ILS</td>
<td>0.05*</td>
<td>0.02</td>
<td>2.28</td>
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<tr>
<td>CFNI-45→SEL→OEWLQ→ILS→GLS</td>
<td>0.03*</td>
<td>0.01</td>
<td>2.36</td>
</tr>
<tr>
<td>CFNI-45→OEWLQ→ILS</td>
<td>0.03</td>
<td>0.03</td>
<td>1.10</td>
</tr>
<tr>
<td>CFNI-45→OEWLQ→ILS→GLS</td>
<td>0.02</td>
<td>0.02</td>
<td>1.12</td>
</tr>
<tr>
<td>CMNI→SEL→ILS</td>
<td>0.09</td>
<td>0.08</td>
<td>1.19</td>
</tr>
<tr>
<td>CMNI→SEL→ILS→GLS</td>
<td>0.06</td>
<td>0.05</td>
<td>1.20</td>
</tr>
<tr>
<td>CMNI→SEL→OEWLQ</td>
<td>0.05</td>
<td>0.04</td>
<td>1.20</td>
</tr>
<tr>
<td>CMNI→SEL→OEWLQ→ILS</td>
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<td>0.01</td>
<td>1.02</td>
</tr>
<tr>
<td>CMNI→SEL→OEWLQ→ILS→GLS</td>
<td>0.01</td>
<td>0.01</td>
<td>1.03</td>
</tr>
<tr>
<td>CMNI→OEWLQ→ILS→GLS</td>
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<td>0.02</td>
<td>-1.00</td>
</tr>
<tr>
<td>PAQ-LF→SEL→ILS</td>
<td>0.11*</td>
<td>0.05</td>
<td>2.30</td>
</tr>
<tr>
<td>PAQ-LF→SEL→ILS→GLS</td>
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<td>0.03</td>
<td>2.25</td>
</tr>
<tr>
<td>PAQ-LF→SEL→OEWLQ</td>
<td>0.06*</td>
<td>0.03</td>
<td>2.07</td>
</tr>
<tr>
<td>PAQ-LF→SEL→OEWLQ→ILS</td>
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<td>0.01</td>
<td>1.44</td>
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<td>0.01</td>
<td>1.44</td>
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<td>PAQ-LF→OEWLQ→ILS</td>
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<td>0.02</td>
<td>2.37</td>
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<tr>
<td>PAQ-LF→OEWLQ→ILS→GLS</td>
<td>0.03*</td>
<td>0.02</td>
<td>2.31</td>
</tr>
<tr>
<td>PAQ-LM→SEL→ILS</td>
<td>0.08*</td>
<td>0.04</td>
<td>2.00</td>
</tr>
<tr>
<td>PAQ-LM→SEL→ILS→GLS</td>
<td>0.05</td>
<td>0.03</td>
<td>1.97</td>
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<td>PAQ-LM→SEL→OEWLQ</td>
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<td>0.02</td>
<td>2.16</td>
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<td>PAQ-LM→SEL→OEWLQ→ILS</td>
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<td>0.01</td>
<td>1.63</td>
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<td>PAQ-LM→SEL→OEWLQ→ILS→GLS</td>
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<td>0.00</td>
<td>1.65</td>
</tr>
<tr>
<td>PAQ-LM→OEWLQ→ILS→GLS</td>
<td>-0.02</td>
<td>0.01</td>
<td>-1.36</td>
</tr>
<tr>
<td>PAQ-LM→OEWLQ→ILS→GLS</td>
<td>-0.01</td>
<td>0.01</td>
<td>-1.36</td>
</tr>
<tr>
<td>SEL→ILS→GLS</td>
<td>0.44**</td>
<td>0.07</td>
<td>6.10</td>
</tr>
<tr>
<td>SEL→OEWLQ→ILS</td>
<td>0.08*</td>
<td>0.04</td>
<td>2.28</td>
</tr>
<tr>
<td>SEL→OEWLQ→ILS→GLS</td>
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<td>0.02</td>
<td>2.27</td>
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<tr>
<td>OEWLQ→ILS→GLS</td>
<td>0.15**</td>
<td>0.05</td>
<td>2.70</td>
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</table>

Note: *p < 0.05, two-tailed,**p < 0.01, two-tailed. (N=224). Self-Efficacy for Leadership Scale (SEL), Outcome Expectations for Women’s Leadership Questionnaire-Adjusted (OEWLQ), Interest in Leadership Scale (ILS), Goals for Leadership Scale (GLS), Conformity to Feminine Norms Inventory-45 (CFNI-45), Conformity to Masculine Norms Inventory-46 Relevant Total (CMNI-46), Personal Attributes Questionnaire: Adjusted for Leaders Masculinity Subscale (PAQ-LM), Personal Attributes Questionnaire: Adjusted for Leaders Femininity Subscale (PAQ-LF).
For the exploratory model with all participants, 9 of the 14 direct paths were significant and those coefficients ranged from .12 to .69. The indirect paths for this model revealed 16 of the 32 paths to be significant, and those coefficients ranging from .03 to .44. The direct and indirect paths between the key social-cognitive variables of leadership self-efficacy, leadership outcome expectations, leadership interests, and leadership goals are presented first. Then the direct and indirect paths for the person input variables of conformity to feminine norms, conformity to masculine norms, perceived masculine attributes of leaders, and perceived feminine attributes of leaders are reported next. These results are presented in the context of the original proposed hypotheses, which were presented in Chapter 2.

There were 6 direct paths (Hypotheses A-F) and 4 indirect paths (Hypotheses O-R) that involved only the key social-cognitive variables of leadership self-efficacy, leadership outcome expectations, leadership interests, and leadership goals. The direct and indirect paths involving the key social-cognitive variables are presented in Table 6. All but one of these paths was significant, and this is consistent with the proposed hypotheses and predictions derived from SCCT. The direct relationship between leadership self-efficacy and leadership goals (Hypothesis C) was not significant, but the following direct paths were significant: leadership self-efficacy to leadership outcome expectations (Hypothesis A), leadership self-efficacy to leadership interest (Hypothesis B), leadership outcome expectations to leadership interest (Hypothesis D), leadership outcome expectations to leadership goals (Hypothesis E), and leadership interest to leadership goals (Hypothesis F). Overall, the direct paths between social-cognitive
variables support the study hypotheses and the use of SCCT in understanding college women’s interests and goals.

Table 6. **Study Hypotheses for Key Social-Cognitive Variables (Exploratory Model with All Participants)**

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Paths</th>
<th>Path Estimates</th>
<th>Resolution</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Direct Paths</strong></td>
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<tr>
<td>1A</td>
<td>SEL → OEWLQ</td>
<td>.35**</td>
<td>Supported</td>
</tr>
<tr>
<td>1B</td>
<td>SEL → ILS</td>
<td>.69**</td>
<td>Supported</td>
</tr>
<tr>
<td>1C</td>
<td>SEL → GLS</td>
<td>.13</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1D</td>
<td>OEWLQ → ILS</td>
<td>.23**</td>
<td>Supported</td>
</tr>
<tr>
<td>1E</td>
<td>OEWLQ → GLS</td>
<td>.25**</td>
<td>Supported</td>
</tr>
<tr>
<td>1F</td>
<td>ILS → GLS</td>
<td>.64**</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td><strong>Indirect Paths</strong></td>
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<td></td>
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<tr>
<td>1O</td>
<td>SEL → ILS → GLS</td>
<td>.44**</td>
<td>Supported</td>
</tr>
<tr>
<td>1P</td>
<td>SEL → OEWLQ → ILS</td>
<td>.08*</td>
<td>Supported</td>
</tr>
<tr>
<td>1R</td>
<td>SEL → OEWLQ → ILS → GLS</td>
<td>.05*</td>
<td>Supported</td>
</tr>
<tr>
<td>1Q</td>
<td>OEWLQ → ILS → GLS</td>
<td>.15**</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Note: * p < 0.05, two-tailed, ** p < 0.01, two-tailed. (N=224). Self-Efficacy for Leadership Scale (SEL), Outcome Expectations for Women’s Leadership Questionnaire-Adjusted (OEWLQ), Interest in Leadership Scale (ILS), and Goals for Leadership Scale (GLS).

In addition, all 4 of the indirect paths involving the key social-cognitive variables were significant and supported the study hypotheses. Women’s leadership self-efficacy related indirectly to women’s leadership goals through women’s leadership interests (Hypothesis O). Women’s leadership self-efficacy also related indirectly to women’s leadership interests through women’s leadership outcome expectations (Hypothesis P). Women’s leadership self-efficacy related indirectly to women’s leadership goals through women’s leadership outcome expectations and interests (Hypothesis R). Finally, women’s leadership outcome expectations related indirectly to women’s leadership goals through women’s leadership interests (Hypothesis Q). Again, the indirect paths involving
the social cognitive variables supported the proposed study hypotheses and are consistent with the predictions of SCCT.

Next I discuss the direct and indirect paths involving the person input variables of conformity to feminine norms, conformity to masculine norms, perceived masculine attributes of leaders, and perceived feminine attributes of leaders. The direct and indirect paths involving conformity to feminine and masculine role norms are reviewed first, then the direct and indirect paths involving the perceived masculine and feminine attributes of leaders are discussed. Table 7 illustrates the direct and indirect path estimates for the paths involving conformity to gender role norms.

There were 2 direct and 7 indirect paths relating to conformity to feminine role norms and the other variables of interest. All of the paths failed to support the proposed hypotheses. Hypothesis G proposed a direct and negative relationship between conformity to feminine role norms and women’s leadership self-efficacy expectations, but the results revealed a positive and significant relationship between conformity of feminine role norms and women’s leadership self-efficacy. Hypothesis H proposed a direct and negative relationship between conformity to feminine role norms and women’s leadership outcome expectations, but the results showed this path not to be significant.

Moreover, 5 of the 7 indirect paths between conformity to feminine role norms and the other variables of interest were significant and positive. This is inconsistent with the proposed study hypotheses because these paths were also assumed to be negative. Note that although not explicitly stated in the hypotheses, it is implied that the indirect paths would be negative. Conformity to feminine role norms related indirectly to women’s leadership interests through women’s leadership self-efficacy (Hypothesis S). It
also related indirectly to women’s leadership goals through women’s leadership self-efficacy and interests (Hypothesis U). Conformity to feminine role norms related indirectly to women’s leadership outcome expectations via women’s leadership self-efficacy (Hypothesis V). This variable also related indirectly to women’s leadership interests via women’s leadership self-efficacy and outcome expectations (Hypothesis W). It also related indirectly to women’s leadership goals via women’s leadership self-efficacy expectations, outcome expectations, and interests (Hypothesis QQ).

There were two indirect paths that were not significant. Hypothesis T, which proposed that conformity to feminine role norms, related indirectly to women’s leadership interests via women’s leadership outcome expectations. The other was Hypothesis X, which proposed that conformity to feminine role norms related indirectly to women’s leadership goals via women’s leadership outcome expectations and interests.
Table 7. Study Hypotheses for Conformity to Gender Role Norm Variables 
(Exploratory Model with All Participants)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Paths</th>
<th>Path Estimates</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conformity to Feminine Norms</strong></td>
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</tr>
<tr>
<td>1G</td>
<td>CFNI→SEL</td>
<td>.57**</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1H</td>
<td>CFNI→OEWLQ</td>
<td>.15</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1S</td>
<td>CFNI-45→SEL→ILS</td>
<td>.39**</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1U</td>
<td>CFNI-45→SEL→ILS→GLS</td>
<td>.25**</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1V</td>
<td>CFNI-45→SEL→OEWLQ</td>
<td>.20**</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1W</td>
<td>CFNI-45→SEL→OEWLQ→ILS</td>
<td>.05*</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1QQ</td>
<td>CFNI-45→SEL→OEWLQ→ILS→GLS</td>
<td>.03*</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1T</td>
<td>CFNI-45→OEWLQ→ILS</td>
<td>.03</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1X</td>
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<tr>
<td><strong>Conformity to Masculine Norms</strong></td>
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<tr>
<td>1I</td>
<td>CMNI→SEL</td>
<td>.14</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1J</td>
<td>CMNI→OEWLQ</td>
<td>-.10</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1Y</td>
<td>CMNI→SEL→ILS</td>
<td>.09</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1AA</td>
<td>CMNI→SEL→ILS→GLS</td>
<td>.06</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1BB</td>
<td>CMNI→SEL→OEWLQ</td>
<td>.05</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1CC</td>
<td>CMNI→SEL→OEWLQ→ILS</td>
<td>.01</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1RR</td>
<td>CMNI→SEL→OEWLQ→ILS→GLS</td>
<td>.01</td>
<td>Not Supported</td>
</tr>
<tr>
<td>1Z</td>
<td>CMNI→OEWLQ→ILS</td>
<td>-.02</td>
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</tr>
<tr>
<td>1DD</td>
<td>CMNI→OEWLQ→ILS→GLS</td>
<td>-.02</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

Note: * p < 0.05, two-tailed,** p < 0.01, two-tailed. (N=224). Self-Efficacy for Leadership Scale (SEL), Outcome Expectations for Women’s Leadership Questionnaire-Adjusted (OEWLQ), Interest in Leadership Scale (ILS), Goals for Leadership Scale (GLS), Conformity to Feminine Norms Inventory-45 (CFNI-45), and Conformity to Masculine Norms Inventory-46 Relevant Total (CMNI-46).

There were 2 direct and 7 indirect paths relating to conformity to masculine role norms and the other variables of interest. Both of the direct paths failed to support the proposed hypotheses (I and J) as the paths were found to be nonsignificant. Hypothesis I, which proposed a direct and positive relationship between conformity to masculine role norms and women’s leadership self-efficacy expectations, was found to not be significant. Hypothesis J, which proposed a direct and positive relationship between conformity to masculine role norms and women’s leadership outcome expectations, was also found to not be significant.
Similarly, none of the 7 indirect paths between conformity to relevant masculine role norms and the other variables of interest supported the proposed study hypotheses. More specifically, conformity to relevant masculine role norms did not relate indirectly to women’s leadership interests via women’s leadership self-efficacy (Hypothesis Y). Conformity to relevant masculine role norms did not relate indirectly to women’s leadership interests via women’s leadership outcome expectations (Hypothesis Z). This variable did not relate indirectly to women’s leadership goals through women’s leadership self-efficacy and interests (Hypothesis AA). It also did not relate indirectly to women’s leadership outcome expectations via women’s leadership self-efficacy (Hypothesis BB).

In addition, conformity to relevant masculine role norms did not relate indirectly to women’s leadership interests via women’s leadership self-efficacy and outcome expectations (Hypothesis CC). Nor did it relate indirectly to women’s leadership goals via women’s leadership outcome expectations and interests (Hypothesis DD). Conformity to relevant masculine role norms did not relate indirectly to women’s leadership goals through women’s leadership self-efficacy expectations, outcome expectations, and interests (Hypothesis RR). Overall, the results revealed no support for the proposed role of conformity to relevant masculine role norms in this model.

For the feminine attributes of leaders’ variable, there were 2 direct and 7 indirect paths examined. Table 8 illustrates the direct and indirect paths involving feminine and masculine attributes of leaders’ variables. Both of the direct paths were consistent with the proposed hypotheses (K and M). Hypothesis K, proposed a direct and positive relationship between perceptions of more feminine attributes of leaders and women’s
leadership self-efficacy, and this relationship was found to be significant and positive.

Hypothesis M, proposed a direct and positive relationship between perceptions of more feminine attributes of leaders and women’s leadership outcome expectations, and this relationship was also supported by the study findings.

Five of the seven indirect paths between perceived feminine attributes of leaders and the other variables of interest were significant and consistent with the study hypotheses. Perceived feminine attributes of leaders related indirectly to women’s leadership interests via women’s leadership self-efficacy (Hypothesis EE). This variable also related indirectly to women’s leadership interests through women’s leadership outcome expectations (Hypothesis GG), and to women’s leadership outcome expectations through women’s leadership self-efficacy (Hypothesis II). Perceived feminine attributes of leaders related indirectly to women’s leadership goals via women’s leadership self-efficacy and interests (Hypothesis MM). It also related indirectly to women’s leadership goals via women’s leadership outcome expectations and interests (Hypothesis OO).

There were two indirect paths that failed to support the study hypotheses. Hypothesis JJ, which proposed that perceived feminine attributes of leaders related indirectly to women’s leadership interests through women’s leadership self-efficacy and outcome expectations, was not significant. Hypothesis SS, which proposed that perceived feminine attributes of leaders related indirectly to women’s leadership goals via women’s leadership self-efficacy, outcome expectations, and interests. In sum, most but not all of the direct and indirect paths involving perceived feminine attributes of leaders and the other variables of interest were as expected per the study hypotheses.
Table 8. Study Hypotheses for Feminine and Masculine Attributes of Leader Variables (Exploratory Model with All Participants)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Feminine Attributes of Leaders</th>
<th>Masculine Attributes of Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1K</td>
<td>PAQ-LF→SEL</td>
<td>PAQ-LM→SEL</td>
</tr>
<tr>
<td>1M</td>
<td>PAQ-LF→OEWLQ</td>
<td>PAQ-LM→OEWLQ</td>
</tr>
<tr>
<td>1EE</td>
<td>PAQ-LF→SEL→ILS</td>
<td>PAQ-LM→SEL→ILS</td>
</tr>
<tr>
<td>1MM</td>
<td>PAQ-LF→SEL→ILS→GLS</td>
<td>PAQ-LM→SEL→ILS→OEWLQ→GLS</td>
</tr>
<tr>
<td>1I</td>
<td>PAQ-LF→SEL→OEWLQ</td>
<td>PAQ-LM→SEL→OEWLQ</td>
</tr>
<tr>
<td>1JJ</td>
<td>PAQ-LF→SEL→OEWLQ→ILS</td>
<td>PAQ-LM→SEL→OEWLQ→ILS→GLS</td>
</tr>
<tr>
<td>1SS</td>
<td>PAQ-LF→SEL→OEWLQ→ILS→GLS</td>
<td>PAQ-LM→SEL→OEWLQ→ILS→GLS</td>
</tr>
<tr>
<td>1GG</td>
<td>PAQ-LF→OEWLQ→ILS</td>
<td>PAQ-LM→OEWLQ→ILS</td>
</tr>
<tr>
<td>1OO</td>
<td>PAQ-LF→OEWLQ→ILS→GLS</td>
<td>PAQ-LM→OEWLQ→ILS→GLS</td>
</tr>
</tbody>
</table>

Path Estimates

- .17* Supported
- .23** Supported
- .11* Supported
- .07* Supported
- .06* Supported
- .01 Not Supported
- .01 Not Supported
- .05* Supported
- .03* Supported
- .12* Not Supported
- -.07 Not Supported
- .08* Not Supported
- .05 Not Supported
- .04* Not Supported
- .01 Not Supported
- .01 Not Supported
- -.02 Not Supported
- -.01 Not Supported

Resolution

- Supported
- Supported
- Supported
- Supported
- Supported
- Supported
- Supported
- Not Supported
- Not Supported
- Not Supported
- Not Supported
- Not Supported
- Not Supported

Note: * p < 0.05, two-tailed, ** p < 0.01, two-tailed. (N=224). Self-Efficacy for Leadership Scale (SEL), Outcome Expectations for Women’s Leadership Questionnaire-Adjusted (OEWLQ), Interest in Leadership Scale (ILS), Goals for Leadership Scale (GLS), Personal Attributes Questionnaire: Adjusted for Leaders Masculinity Subscale (PAQ-LM), Personal Attributes Questionnaire: Adjusted for Leaders Femininity Subscale (PAQ-LF).

Regarding the masculine attributes of leaders’ variable, there were 2 direct and 7 indirect paths examined. All of the direct and indirect paths related to masculine attributes of leaders failed to support the proposed hypotheses. Hypothesis L proposed a direct and negative relationship between perceptions of more masculine attributes of leaders and women’s leadership self-efficacy; however, this relationship was found to be significant and positive. Hypothesis N proposed a direct and negative relationship
between perceptions of more masculine attributes of leaders and women’s leadership outcome expectations, and this relationship was revealed to be nonsignificant.

Two of the seven indirect paths between perceived masculine attributes of leaders and the other variables of interest were significant and positive, which is inconsistent with the proposed study hypotheses that predicted these values would be negative. Perceived masculine attributes of leaders related indirectly to women’s leadership interests through women’s leadership self-efficacy (Hypothesis FF). Perceived masculine attributes of leaders also related indirectly to women’s leadership outcome expectations through women’s leadership self-efficacy (Hypothesis KK).

Five of the seven indirect paths were not significant, contrary to the proposed hypotheses. More specifically, perceived masculine attributes of leaders did not relate indirectly to women’s leadership interests through women’s leadership outcome expectations (Hypothesis HH). This variable also did not relate indirectly to women’s leadership interests through women’s leadership self-efficacy and outcome expectations (Hypothesis LL), and was not indirectly related to women’s leadership goals through women’s leadership self-efficacy and interests (Hypothesis NN). Perceived masculine attributes of leaders did not relate indirectly to women’s leadership goals through women’s leadership outcome expectations and interests (Hypothesis PP). It did also not relate indirectly to women’s leadership goals through women’s leadership self-efficacy, outcome expectations, and interests (Hypothesis TT). In sum, none of the paths involving perceived masculine attributes of leaders and the other variables of interests supported the study hypotheses, but a few paths were significant.
Summary

In conclusion, the two original path models were shown not to be a good fit for the data. These two models are illustrated in Figures 3 and 4 and the direct and indirect paths are reported in Tables A-4, A-5, and A-6 (see Appendix O). Although the overall models were not good fits for the data, several of the direct and indirect paths within these models were significant and consistent with the hypotheses. However, the moderators were not significant in either model, which was contrary to the study hypotheses (UU and VV).

Thus, an exploratory model without the moderators was examined with all participants and then just for ethnic minority participants. The exploratory model included the following variables: leadership self-efficacy, leadership outcome expectations, leadership interests, leadership goals, conformity to feminine norms, conformity to masculine norms, perceived masculine attributes of leaders, and perceived feminine attributes of leaders. Given the large percentage of participants who identified as ethnic minorities in the overall sample and the similar data patterns produced by both exploratory models, the exploratory model with all participants was selected as the primary focus.

The exploratory model with all participants was deemed a good fit to the data of these diverse, female, college students. There were 9 (of 14 proposed) significant direct paths and 16 (of 32 proposed) significant indirect paths. Almost all of the direct and indirect paths involving the key social-cognitive variables supported the study hypotheses (A through F; O through R) and SCCT predictions; only the direct path between women’s leadership self-efficacy and women’s leadership goals (hypothesis C) was not significant.
The direct and indirect paths for the person input variables showed more mixed support for the study hypotheses with the most support garnered for the role of perceived feminine attributes of leaders.
CHAPTER V

DISCUSSION

This chapter reviews the study objectives, discusses the results of the study hypotheses, and compares the current study findings with the past research literature. The proposed path models that were not a good fit to the data are discussed first, and then the exploratory path model that was a good fit for the data is discussed. The barriers, key social-cognitive relationships, and person input relationships within the models are also discussed and compared to the past research literature. Finally, the limitations of the study, recommendations for future research, and practical implications are discussed.

Review of the Study Objectives

The primary objective of this research study was to expand the research literature on how diverse college women develop interests and goals to become leaders. This study builds on past research conducted by Boatwright and Egidio (2003), Killeen, Lopez-Zafra, and Eagly (2006), Lips (2000, 2001) and Yeagley, Subich, and Tokar (2010). Like Yeagley, Subich, and Tokar (2010), the current study applied Social Cognitive Career Theory (Lent, Brown, & Hackett, 1994), an established theoretical model, to understand college women’s leadership self-efficacy, outcome expectations, interests, and goals. This study expanded the use of SCCT in this area, by including additional variables that
contribute to women’s leadership interests and goals, including barriers and person input variables. By examining these variables within the established theoretical model of SCCT, this study attempted to advance the literature by identifying factors that contribute to the development of female college student’s leadership interests and goals.

Based on past research, two barriers were proposed to moderate the relationship between women’s leadership interest and women’s leadership goals. Perceived lifetime sexist events and self-reported race-related stress were selected as potential barriers that might prevent women from translating their interest in leadership into goals for leadership. Davies, Spencer, and Steele (2005) and Hoyt and Blascovich (2007) conducted experimental studies that demonstrated that once sexism was introduced into a leadership experiment, women were less likely to volunteer for a leadership position. Halpern and Cheung (2008) conducted a qualitative study that revealed the barrier of sexist experiences to be a common theme for a group of diverse and successful women leaders. Morgan and Lynch (2006) and Myers (2008) both provided anecdotal evidence or narratives about sexist experiences being a barrier for their leadership journeys. Given that diverse methodologies had shown experiences with sexism to be a barrier to women’s leadership development, this variable was examined in the path model.

In addition, the research literature revealed another common barrier to women’s leadership development, experiences of racism or race-related stress (Chin, 2010; Chin, Lott, Rice, & Sanchez-Hucles, 2007; Halpern & Cheung, 2008; Sanchez-Hucles & Davis, 2010; Vasquez & Comas-Dias, 2007). Several researchers identified race-related stress as a barrier for women of color, including African American women (Hall, Garrett-Akinsanya, & Hucles, 2007), Latinas (Vasquez & Comas-Dias, 2007), Asian American
women (Kawahara, Esnil, & Hsu, 2007), and international women leaders (Halpern & Cheung, 2008). Past research in this area has largely been anecdotal or narrative in that successful women of color have often described this barrier in their leadership journeys. Sanchez-Hucles and Davis (2010) described the importance of examining both race and sex related discrimination as barriers to women of color’s leadership development. These authors highlighted the lack of empirical research on women of color’s leadership development as a problem in understanding how racism impacts the leadership process. Given the common theme that race-related stress (or racism) is a barrier, this variable was added into the path model to understand the role that race-related stress plays in the development of ethnically diverse college student’s leadership interests and goals.

Another theme from the research literature was that leadership is commonly seen as consistent with traditional masculine role norms (Ayman & Korabik, 2010; Eagly & Carli, 2007). This association often puts women leaders in a double-bind, where women are pressured to conform to both the leadership or masculine role norms in addition to feminine role norms in order to accomplish their leadership goals (Ayman & Korabik, 2010; Eagly & Carli, 2007; Smiler & Epstein, 2010). Three studies examined the relationship between traditional feminine role norms and leadership aspirations and found a negative association between conformity to feminine norms and leadership aspirations (Boatwright & Egidio, 2003; Lips, 2000; 2001). However, two of the three studies were qualitative and the other used a basic correlational method with a questionable measure for femininity. Given this small amount of empirical evidence, conformity to gender roles was added to the path model, and measured using a psychometrically improved questionnaire.
Moreover this study examined how participants viewed leaders with respect to traditional feminine (expressive) and masculine (instrumental) role norms. Two variables were added to the path model so that participants’ views about traits associated with the construct of a leader could be examined in the overall model as person input variables. It was hoped that these variables would clarify the impact of gender role norms in women’s leadership development.

Discussion of Path Models and Study Hypotheses

The proposed path models described relationships among person input variables (i.e., conformity to feminine norms, conformity to masculine norms, perceived masculine attributes of leaders, and perceived feminine attributes of leaders), key social cognitive variables (i.e., leadership self-efficacy, leadership outcome expectations, leadership interests, leadership goals), and contextual influence variables (i.e., perceived sexist experiences and race-related stress). Figures 3 and 4 illustrated the proposed path models with the moderator variables. Overall fit of the proposed models was tested, as well as hypotheses that related directly to the specific relationships (i.e., direct, indirect, and moderators) between variables that were theoretically guided by SCCT.

Unfortunately, both proposed models were not a good fit for the data of these ethnically diverse college students. However, a look at the direct and indirect paths within the proposed models revealed several significant paths. Thus, these specific paths were examined to identify adjustments that would improve the overall fit of the model. As noted in Chapter 4, the barriers of perceived lifetime sexist events and race-related stress did not moderate the relationship between women’s leadership interests and women’s leadership goals. Although these finding are contrary to the proposed study
hypotheses and seem inconsistent with the past research literature, removing these barriers from the model resulted in a better fitting model.

The exploratory path model (i.e., the model without moderators) then was run with all women and with only ethnic minority women to clarify how the remaining variables related to each other and the SCCT-based predictions. The exploratory model was a good fit for these data from ethnically diverse, female, college students, thus supporting the overall utility of SCCT for understanding how women develop interests and goals for leadership. Given the complexity of the proposed and exploratory models, they are discussed in three sections: the barriers of sexism and racism, key social-cognitive constructs, and the person input constructs.

*The Barriers of Sexism and Racism.* These ethnically diverse female college students reported experience with lifetime sexist events and race-related stress; however, these barriers did not moderate the relationship between these women’s leadership interests and leadership goals. These results are contrary to study predictions and inconsistent with past research literature that identified sexism (Davies, Spencer, & Steele, 2005; Eagly & Carli, 2007; Halpern & Cheung, 2008; Hoyt & Blascovich, 2007; Morgan & Lynch, 2006; Myers, 2008) and racism (Chin, 2010; Chin, Lott, Rice, & Sanchez-Hucles, 2007; Halpern & Cheung, 2008; Sanchez-Hucles & Davis, 2010; Vasquez & Comas-Dias, 2007) as barriers to women’s leadership development. For this sample, interests continued to predict goals regardless of the women’s reported experiences of sexist events and race-related stress. Perhaps the present participants were resilient despite the challenges of sexist experiences and race-related stress. Unfortunately, participants’ resiliency in the face of such challenges was not assessed.
Alternatively, the participants’ general lack of leadership experiences may be important to consider as some of the prior literature surveyed adult women with greater life experience. Approximately 38% of participants reported having no past leadership experience, and 63% of participants had no current leadership experiences. Participants, who reported leadership experience, reported only 1 or 2 experiences. Thus, it is possible that for a young sample with minimal leadership experience, experiences of perceived sexism and race-related stress do not weaken the translation of leadership interests into goals for leadership.

It is important to discuss possible methodological reasons why the barriers of perceived lifetime sexist events and race-related stress did not impact the women’s ability to translate their leadership interests into leadership goals in the proposed models. Three potential issues may explain why these barriers did not moderate the relation between women’s interests into goals. First, there is an issue regarding the level of analysis of perceived lifetime sexist events and race-related stress. Both measures used in the current study assessed general barriers of perceived lifetime sexist experiences and perceived race-related stress, and they were used to get a general sense of how frequently sexist events happened and how stressful various racist events were to participants. In hindsight, a more specific measure that assessed perceived sexism and racism as barriers to women’s leadership development may have produced different results.

Another issue to consider is the potential impact of a suppressor variable(s); perhaps another factor that allowed these women to cope with the barriers of sexism and racism within the leadership development process was not assessed and considered. For example, if participants had developed strong support systems (e.g., faculty mentors, peer
role models) or coping efficacy, they might not feel overwhelmed by race-related stress or perceived sexist experiences. Meaning that, the effect of these two barriers may have been hidden or suppressed by another support variable that was not examined in the current study. Given that the participants were recruited from a four-year Hispanic serving institution that aims to empower and advance ethnically diverse students, this may be a reasonable conclusion (Lent, Brown, & Hackett, 2002). Social Cognitive Career Theory does allow for supports to be included in the theoretical model as a moderator variable, but no support moderators were included in the current model.

Finally, it is possible that the current study did not clearly operationalize the barriers of sexism and racism to women’s leadership interests and goals. The research literature on contextual barriers is complex, so researchers must carefully operationalize barriers within SCCT. Lent, et al. (2001) described the important role that contextual barriers and supports play within SCCT, but they reported that these variables have not been examined as much as have other relationships within the SCCT. Indeed, no studies have examined the impact of barriers on women’s leadership development using SCCT. Further, more general studies of career interest and choice have found mixed support for the direct and moderating paths proposed in SCCT among barriers and other social cognitive variables (Lent, et al., 2001; Lent, et al., 2003).

Indeed, Lent and colleagues (2001, 2003) have identified several considerations deemed important when examining barriers within SCCT so as to better operationalize the barriers, and the resulting relationships between barriers and other social cognitive variables. For instance, they recommended that barriers be domain specific and not general. These researchers also suggested that both contextual supports and barriers be
measured because these two constructs are different, with some supports being able to compensate for certain barriers (Lent, et al., 2001).

Lent, Brown, and Hackett (2000) indicated that barriers prevent individuals from pursuing some career related actions, but not all actions. These researchers recommended that the following questions about potential barriers be considered: “what types of barriers, encountered by which persons and at what stage in the career process, will have what kinds of impact (p.40).” Lent, Brown, and Hackett (2000) also indicated the importance of clarifying barrier perceptions and coping efficacy, which is a belief in one’s ability to manage the barrier they are facing. Unfortunately, coping efficacy was not measured in the current study.

In summary, the current study expanded the literature on the relation of barriers to women’s leadership development by using psychometrically sound measures to assess perceived sexist experiences and race-related stress. It appears that in the present sample of young ethnically diverse college women functioning in a very supportive Hispanic serving institution, these barriers did not moderate the relation of leadership interests to leadership goals. However, it is also possible that the measures used may have been too general and at a different level of analysis than the other study constructs. This may have resulted in a limited answer to the present question about the role of these barriers in women’s leadership development. A more rigorous understanding of specific forms of sexism and racism as barriers in women’s leadership development (e.g. creating a specialized measure) with attention to specific contextual variables may have produced different results, and adding related variables like supports and coping efficacy may have
clarified the complex relationships of contextual variables and women’s leadership development.

*Key Social-Cognitive Constructs.* The relationships among the key social-cognitive variables in the exploratory model that included all participants were very consistent with predictions. Almost all of the findings were consistent with the study predictions, Social Cognitive Career Theory research in general, and a past research study that used SCCT to examine women’s leadership interests and goals for elite leadership (Yeagley, Subich & Tokar, 2010).

The current study found that women’s leadership self-efficacy was related to women’s leadership outcome expectations, both of these constructs related directly to women’s leadership interests, and women’s leadership interest was related to women’s leadership goals. These significant positive relationships add support to the research literature regarding the strong links between self-efficacy expectations and outcome expectations as well as interests and goals (e.g., Fouad & Smith, 1996; Lapan, Shaughnessy, & Boggs, 1996; Lent, et al., 2003; Lent, et al., 2005; Lopez, Lent, Brown, & Gore, 1997; Rottinghaus, Larson, & Borgen, 2003; Schaub & Tokar, 2005). The magnitude of the significant relationships between the key social cognitive variables ranged from .23 to .69 in this study, which is similar and slightly larger than the pattern of magnitudes reported by Yeagley, Subich and Tokar (2010). These researchers described the magnitude of the significant relationships of their sample to range from .14 to .61.

In the context of the current study, these findings indicated that women with high self-efficacy for leadership are likely to hold more positive expectations for their
experiences in potential leadership positions. Similarly women with low self-efficacy were likely to hold more negative expectations for potential leadership positions. These results also indicated that these expectations predict interest in leadership and women who reported higher interests in leadership positions were more likely to have goals to become leaders, whereas, women who reported lower interests in leadership were less likely to have goals to become leaders. These results are intuitive, as well as consistent with past research on SCCT (e.g., Fouad & Smith, 1996; Lent, et al., 2003; Lent, et al., 2005; Rottinghaus, Larson, & Borgen, 2003; Schaub & Tokar, 2005; Turner, Steward, & Lapan, 2004). The results suggest that interventions aimed at increasing female college students’ self-efficacy for leadership and interests in leadership could result in female college students having more positive outcome expectations for leadership as well as increased interests and goals for leadership.

In addition, as expected, women’s leadership outcome expectations partially mediated the relationship between women’s leadership self-efficacy and women’s leadership interest. These results are consistent with SCCT and were also found by Yeagley, Subich and Tokar (2010) in their examination of elite leadership interests for female college students. The present results suggest that women with higher self-efficacy for leadership are more likely to be interested in leadership positions than are women with lower self-efficacy for leadership, but that the outcome expectations that women hold about leadership play a role in the relationship between their self-efficacy and interests for leadership. Unexpectedly, however, women’s leadership self-efficacy was not directly related to women’s leadership goals. This was the only hypothesis not supported for the key social-cognitive variables that included all participants. Note that
this relationship was found for the exploratory model run with just the ethnic minority women (see Figure 6), with a significant path coefficient of .28. This was one of the only differences between the two exploratory models, and it perhaps indicates that when only ethnic minority women are considered, confidence in leadership ability related directly and indirectly to goals for leadership. Self confidence for leadership seemed to play a more important role among the ethnic minority sample than it did for the overall sample of participants.

For the overall sample, leadership interests and leadership outcome expectations completely mediated the relationship between women’s leadership self-efficacy and women’s leadership goals. Women who were confident in their leadership ability were more likely to report goals for leadership, but only as a function of their interests in leadership and positive outcome expectations for leadership. Again, these results are similar to those reported by Yeagley, Subich and Tokar (2010), who examined similar relationships for elite leadership positions using a sample of female college students.

Women’s leadership outcome expectations, however, were directly related to both women’s leadership interests and women’s leadership goals as expected. Women’s leadership interests only partially mediated the relationship between women’s outcome expectations and women’s leadership goals. That outcome expectations have a direct effect on goals over and above other variables may suggest they are important to consider for a more complete understanding of women’s goals for leadership. These results are also consistent with the findings of Yeagley, Subich and Tokar (2010), and with other past research that identified outcome expectations for leadership as impacting directly women’s leadership interests (Boatwright & Egidio, 2003; Killeen, Lopez-Zafra, &
Eagly, 2006; Lips, 2000; 2001). However, these latter studies did not use SCCT to test these proposed relationships.

In the context of this study, women with more positive and fewer negative expectations regarding leadership roles were more likely to have stronger interests and goals for leadership. These findings are consistent with anecdotal and qualitative work that found expectations for more benefits of leadership (e.g., Boatwright & Egidio, 2003; Killeen, Lopez-Zafra, & Eagly, 2006; Lips, 2000, 2001) related to stronger interests in leadership. Expectations that leadership roles are not necessarily excessively stressful or incompatible with other roles may be associated with increased goals for leadership, especially for women who are interested in leadership.

In conclusion, the results from the test of this exploratory model applying SCCT to the relations between women’s leadership self-efficacy, women’s leadership outcome expectations, women’s leadership interests, and women’s leadership goals are consistent with most of the study hypotheses and the past research literature, especially the work of Yeagley, Subich and Tokar (2010). Thus, the current study results provide strong evidence to support conceptualizing diverse women’s leadership interest and goals using SCCT. These findings illustrated the utility of SCCT as a general model for understanding the present phenomena.

**Person Input Constructs.** There were four person input variables considered in this research: conformity to feminine role norms, conformity to masculine role norms, perceived feminine attributes of leaders, and perceived masculine attributes of leaders. For the exploratory model that included all participants, the results for the person input variables revealed mixed support for the study hypotheses, Social Cognitive Career
Theory, and the past research literature. The past research literature, however, did not examine these person input variables using empirical methods and a well-supported model such as SCCT. Therefore, the current study is the first to incorporate these four person input variables into a theoretical model (e.g. SCCT) that seeks to understand women’s leadership development.

Conformity to feminine and masculine role norms represented the extent to which the female college students in the current sample subscribed to traditional feminine and masculine role norms. In contrast, the perceived feminine and masculine attributes of leaders reflected how strongly these female college students rated leaders as having stereotypical masculine (i.e., instrumentality–agency) and stereotypical feminine (i.e., expressivity–nurturance) personality traits. These findings are discussed with regards to their relation to self-efficacy and outcome expectations. The important role that these latter variables play in impacting women’s leadership interest and goals already has been established in this research.

In this study, greater leadership self-efficacy was predicted strongly by women’s conformity to feminine norms and weakly by views of leaders as having masculine and feminine traits. Among this ethnically diverse female sample, those who thought leaders had a mix of traits (i.e., perhaps androgynous) and who themselves were more strongly identified with feminine norms had more confidence in their ability to lead. This pattern was not fully expected, but suggests that adhering to traditionally feminine norms is not incompatible with confidence in one’s ability to lead if one also holds an androgynous view of leaders.
Positive outcome expectations about leadership, however, were modestly predicted by only perceived feminine leader attributes. Participants who saw leaders as more feminine were likely to expect good outcomes from being a leader regardless of personal conformity to gender role norms. This finding highlights the importance of media portrayals of women leaders for women’s expectations of the consequences of leadership. The present data may suggest that more masculine images of leaders are likely to foster a view among women that being a leader has more negative than positive consequences.

It is important to note that within SCCT these relationships are filtered through learning experiences which were not measured directly or comprehensively in the current study. Although data about women’s leadership performance accomplishments were gathered on the demographic form no information about vicarious learning or verbal persuasion were gathered. For example, it is possible that women who identify more with feminine norms notice more role models, and receive more opportunities and recognition by their community and as a result these women may feel more confident at leading. Similarly, women who hold certain views of leaders may open themselves to different learning experiences related to leading (e.g., volunteering to head up a project) than do women with other views of leaders, thereby enhancing their self-efficacy for leadership. It is also unclear what type of leadership positions the participants had in mind when completing the questionnaires. These participants could have been envisioning leadership roles that are associated with traditional feminine roles such as being a mother. The type of leadership role envisioned may impact the function of conforming to traditional feminine norms.
It is also important to interpret these findings, especially the role of conformity to feminine norms, within the context of the ethnically diverse sample of participants in the current study. Approximately 37% of the participants identified as Latinas, which was the largest ethnic group category. Of the remaining participants 33% identified as African American, 23% identified as European American, 3% identified as Asian American, 1% identified as Native American, and 3% identified as another ethnicity. The two largest ethnic groups were Latinas and African American women. It is important to discuss the different norms and values for women within these ethnic groups.

Latinas made up the largest ethnic subgroup and research suggests that they often subscribe to traditional feminine norms (Santiago-Rivera, Arredondo, & Gallardo-Cooper, 2002; Sue & Sue, 2003; Vasquez & Comas-Dias, 2007) as part of their cultural values and norms. Santiago-Rivera, Arredondo, and Gallardo-Cooper (2002) reported that Latinas often hold a cultural value called marianismo that “suggests that girls must grow up to be women and mothers who honor the model of the Virgin Mary” (p. 49). The community encourages Latinas to be pure, nurturing, pious, virtuous and humble. These cultural values may clarify why participants who conformed to traditional feminine norms were more likely to have confidence in their leadership ability as well as report interest and goals for leadership. These young women’s gender role norm adherence would likely have been consistent with and well supported by their community. Femininity and the cultural norms associated with this concept will be different for the Latinas and African American participants. It is important to consider the appreciate cultural norm for the appropriate group.
African American women made up a significant portion of the participants as well. It is important to highlight specific cultural norms and values that African American women hold about femininity and how these values may have impacted the relationship between conformity to traditional feminine norms and the key social cognitive variables. Hall, Garrett-Akinsanya, and Hucles (2007) described African American women as holding a “positive marginality,” which allows African American women to use psychological and political tools to teach coping skills to the next generation. Some African American women define themselves as womanist who emphasize equality with regards to sex/ gender and race (Hall, Garrett-Akinsanya, Hucles, 2007). These values are specific to African American women, but these aspects are not discussed in the measure of conformity to feminine norms. Thus, the results related to the conformity to feminine norms may not include essential elements of femininity for African American women.

Furthermore, these results, especially the findings about conformity to feminine norms, could point to a new mentality among female college students who identify with traditional feminine norms and feel empowered by being women. It is possible that female college students in this sample may be reclaiming traditional feminine role norms and may be thinking more positively about the outcomes of becoming leaders, as well as reporting interests and goals for leadership. In support of this interpretation, recall that viewing leaders as possessing feminine attributes was related to positive self-efficacy and outcome expectations for leading. This is a new and different perspective on conforming to traditional feminine role norms, which had predominantly been seen as a barrier to women’s development in general and especially to women’s career and leadership goals (Boatwright & Egidio, 2003; Lips, 2000, 2001; O’Brien, et al., 1996).
The relationships between conformity to feminine role norms and the key social cognitive variables were primarily significant and positive (see Table 7). The hypotheses were based on work such as that of Boatwright and Egidio (2003) who found that female college students who reported traditional feminine roles were less likely to report leadership aspirations; however, participants who had a need to connect with others (an aspect of traditional feminine role norms) were more likely to report leadership aspirations. It is difficult to compare these findings to those of the current study, though, because SCCT predicts that conformity to feminine norms impacts leadership interests and goals indirectly through leadership self-efficacy and outcome expectations and not directly. It is important to consider that the different results observed may be related to the different models and methods used, or to the ethnically diverse sample of participants that was recruited in the current study, but not in the study conducted by Boatwright and Egidio.

An important difference between the current study and the research conducted by Boatwright and Egidio is the improved measurement tools used to assess traditional feminine role norms. The Conformity to Feminine Norms Inventory-45 (CFNI-45; Parent & Moradi, 2010) was used in the current study; whereas, Boatwright and Egidio used the Bem Sex Role Inventory-Femininity subscale (BSRI). Some researchers have reported concern regarding the validity and reliability of the BSRI (Mahalik, Morray, Coonerty-Femiano, Ludlow, Slattery, & Smiler, 2005; Smiler & Epstein, 2010). However, the CFNI-45 is a newer instrument that is based on a complex and more modern conceptualization of traditional feminine role norms. For instance, the CFNI-45 has nine unique factors that represent traditional feminine role norms (Mahalik et al., 2005; Parent
Parent and Moradi (2010) confirmed nine themes within traditional feminine role norms: sweet and nice, relational, thinness, modesty, domestic, care for children, romantic relationship, sexual fidelity, and investment in appearance. Therefore, the current study results may provide a better picture of how conformity to traditional feminine roles relate to women’s leadership development.

It is also challenging to compare the current study findings and the study findings of Lips (2000, 2001) because of the different methodologies used. Lips conducted two qualitative studies that examined female college students’ career aspirations and aspects of traditional femininity such as the importance of personal relationships (e.g., coworkers, family) and physical appearances (e.g., dress). Lips (2000, 2001) found that female students did not aspire to leadership positions, and they reported leadership positions to be more problematic than did male students. Female college students expressed concerns about relationship problems if they were to become powerful leaders, and some reported that they would want to alter their outward appearance in order to become a powerful leader (Lips, 2000, 2001).

Overall, Lips’ research revealed the theme that female college students who conformed to aspects of traditional feminine roles did not want to aspire or become powerful leaders (e.g., political leader, chief executive officer). Lips’ research finding is different from that of the current study, which revealed that the more female college students conformed to traditional feminine role norms, the more this (directly and indirectly) positively impacted their leadership self-efficacy, outcome expectations, interests, and goals. It is possible that the different results between the current study and Lips’ research are related to the types of leadership roles that the participants were
envisioning. Lips instructed her participants to focus on specific leadership roles such as political leader and chief executive officer, but the current study did not instruct participants to envision a specific type of leadership role. Thus, the different results may be accurate for the different types of leadership roles that participants imagined.

The current findings expand the research literature on conformity to traditional feminine role norms and women’s leadership development by challenging some of the themes in the past research literature and presented results that were opposite of what some past researchers have found. This study corrected some of the limitations from the past literature. Limitations from past studies included small sample size, questionable qualitative research tools, questionnaires with poor psychometrics, primarily white samples, and lack of a theoretical model to explain results (Boatwright & Egidio, 2003; Lips, 2000, 2001). The current study improved on these limitations, and contributed a different pattern of relations to the literature.

The results regarding conformity to traditional masculine role norms (i.e., emotional control, winning, self-reliance, risk-taking, primacy of work) as a predictor of the key social-cognitive variables in the study were wholly inconsistent with expectations. This study is the first to empirically examine the role of conformity to traditional masculine role norms within women’s leadership development. It is also one of the first studies to administer the Conformity to Masculine Norms Inventory-short form (CMNI-46) to women. This measure was included to examine some of the themes in qualitative/ narrative reports that suggested pressure on women leaders to behave in traditionally masculine ways (Morgan & Lynch, 2006; Myers, 2008).
Despite the past research literature that suggested women leaders may experience pressure to conform to traditional masculine norms that are seen as being more consistent with leadership (Ayman & Korabik, 2010; Eagly & Carli, 2007), conforming to masculine role norms was not associated with any key variables in the current study. None of the study hypotheses that involved conformity to traditional masculine role norms and the key social-cognitive variables were supported. The pattern of results indicated that female college students’ conformity to traditional masculine role norms did not relate to their leadership attitudes or intentions. These results suggest that for the current diverse sample of women, conformity to male norms is unrelated to favorable expectations about leadership and interest and goals towards leadership. These results contradict researchers who claim that women who are more like men (in behavior and personality traits) often pursue leadership roles (Ayman & Korabik, 2010; Eagly & Carli, 2007). Although these findings are different than expected, these results may indicate a changing landscape with regard to female college student’s leadership development.

It is important to explore some reasons why conformity to traditional masculine role norms did not contribute to the key social cognitive variables in the present model. First, these results may be an issue of measurement. Although the CMNI-46 was reliable in the study, this measure may not be a valid measure to use with women. This measure was originally created to measure men’s conformity to traditional masculine role norms and only a few studies have administered the original survey to women (Tokar, Thompson, Plaufcan, & Williams, 2007). To date this is the only study that administered and examined the short form of this questionnaire solely to women. More data are needed to examine the validity of using this specific measure with women.
Another measurement issue is the level of analysis in assessing the construct of conformity to traditional masculine role norms. The CMNI-46 examines an individual’s conformity to traditional masculine role norms across different life domains. Perhaps a better measurement tool for the current study would have assessed conformity to traditional masculine role norms in regards to women’s leadership development. For instance, one of the questions from the CMNI-46 was “It is important for me to win.” Adjusting this question to read, “If I was a leader, it would be important for me to win,” may have resulted in a more specific measure that examined the role of conformity to traditional masculine role norms for women’s leadership development.

According to the participant’s mean scores on the PAQ M and F, participants rated leadership as slightly more consistent with traditional masculine traits rather than with traditional feminine traits. This finding is consistent with the past research literature that has also shown that the concept of “leader” and “traditional masculine traits” to be associated (Ayman & Korabik, 2010; Eagly & Carli, 2007). This study was the first to examine, however, how the perceived gendered (feminine and masculine) attributes of leaders relate to women’s leadership interests and goals. Most of the study hypotheses that involved perceived feminine attributes of leaders were supported, but most of the relationships that involved perceived masculine attributes of leaders were not supported.

Perhaps participants’ perceptions of leaders as having traditional feminine traits made it easier for them to see themselves pursuing and obtaining (with beneficial outcomes) leadership positions. This seems logical because women who identify the concept of “leader” as encompassing traits consistent with their identity as a woman, would likely find it easier to believe that they could become leaders and that there would
be positive outcomes to becoming leaders, leading to stronger interests and goals for leadership. This pattern of findings supports literature that suggests that the male schema for “leader” is part of what inhibits women from pursuing such roles (Ayman & Korabik, 2010; Eagly & Carli, 2007).

Perceived masculine attributes of leaders seemed to operate differently in the present data in that they were directly related to leadership self-efficacy (in conjunction with feminine attributes), but not leadership outcome expectations. Further, leadership self-efficacy mediated the relationship between perceived masculine attributes of leaders and outcome expectations. Perceived masculine attributes of leaders only indirectly related to women’s leadership interests through self-efficacy, and none of the relationships between perceived masculine attributes of leaders and leadership goals were significant. This is an interesting and positive finding. Overall, these results suggest that perceptions of leaders as holding masculine traits does not facilitate nor suppress women’s leadership development.

Limitations and Future Directions

This study expanded the research literature on women’s leadership interests and goals by applying SCCT to an examination of several variables of interest in the research literature as well as using the best available measurement tools to operationalize these variables. Nevertheless, there are some limitations to the current study that should be discussed. These limitations include measurement concerns, the role of contextual barriers and supports, generalizability of the current study findings, and the impact of learning experiences on women’s leadership development. A brief discussion of these
limitations is provided as well as recommendations for future research to resolve these limitations.

First, the limitations regarding the study’s measurement tools are discussed. This study contributed to the research literature by utilizing the best available quantitative measures; ones with strong psychometrics and face validity. Some of the measures, however, were created specifically for this study (i.e., Interest in Leadership Scale and the Goals for Leadership Scale) and others were adjusted to measure the primary variables of interest (i.e., Outcome Expectations for Women’s Leadership Questionnaire, Personal Attributes Questionnaire, Adjusted for Leaders-Masculine and Feminine Subscales). It is important to note, too, that four of the constructs were measured in a general manner across different life domains; this was true, for example, for the measure of lifetime sexist experiences which tapped different parts of a woman’s life (i.e., with family, at work, in romantic relationships), and not only the context of leadership.

These four constructs were the two moderators, lifetime sexist experiences and race-related stress, as well as the conformity to feminine and masculine role norm variables. All of these variables did not produce results that were consistent with the proposed study hypotheses. It is recommended that future research in this area include specific measures to examine all constructs in relation to women’s leadership development. Although experiences of sexism and race-related stress across domains are important, in order to understand how sexism and race-related stress impact women’s leadership development specifically, more refined questionnaires are needed.

Additionally, it must be noted that the Conformity of Feminine Norms Inventory was created based on the dominant or European American view of femininity (Mahalik et
al., 2005). The current study findings may be due to the different cultural views and norms regarding femininity that ethnic minority women hold (Hall, Garrett-Akinsanya, & Hucles, 2007; Santiago-Rivera, Arredondo, & Gallardo-Cooper, 2002; Sue & Sue, 2003; Vasquez & Comas-Dias, 2007). A limitation of the larger research literature, and subsequently the current study, is that established measures of conformity to feminine norms exclude culturally relevant concepts of femininity.

Second, the manner in which contextual barriers and supports were operationalized and tested is discussed as a limitation. Although the current study identified two key barriers (e.g., lifetime sexist experiences, race-related stress) from the research literature, these barriers were not found to impact the overall SCCT model of women’s leadership development. Indeed, these measures were uncorrelated or only weakly correlated with most other variables in the model. These findings are surprising and contrary to the research literature (e.g., Chin, 2010; Chin, Lott, Rice, & Sanchez-Hucles, 2007; Davies, Spencer, & Steele, 2005; Eagly & Carli, 2007; Halpern & Cheung, 2008; Hoyt & Blascovich, 2007; Morgan & Lynch, 2006; Myers, 2008; Sanchez-Hucles & Davis, 2010; Vasquez & Comas-Dias, 2007).

Future research should be conducted to examine exactly how and what types of sexism and racism operate as barriers to leadership within SCCT. It may be that the current model is incorrect, or perhaps inaccurate for a diverse sample of young women in a context that is highly supportive of them. A qualitative study that explores how diverse female college students in different contexts identify and cope with barriers such as sexism, racism, and any other potential barriers would help determine how these variables impact women’s leadership development. A contextually sensitive quantitative
questionnaire then could be created so that sexist and racist experiences within women’s leadership development could be effectively measured.

Another direction for future research should be to conduct a longitudinal study to measure the impact of the barriers of sexism and race-related stress over time. The current study design captured only a snapshot of the experiences of these ethnic minority women, and it is possible that these experiences may change in regards to the functioning of the barriers of sexism and race-related stress. This potential research study could also serve to examine important changes in ethnic minority women’s leadership development throughout students’ maturation on campus and in their career track.

Moreover, future research should explore contextual supports in addition to contextual barriers since supports also are theorized to moderate the relationship between women’s leadership interest and women’s leadership goals (Lent, Brown, & Hackett, 2002). Contextual supports might include mentoring experiences with parents or faculty members and strong peer support systems. The proposed and exploratory models were complex and measured several aspects of SCCT, but clarifying the roles of barriers for women who are not currently leaders and exploring supportive contextual variables may lead to other intervention opportunities to increase female college student’s interests and goals for leadership.

Third, the generalizability and comparability of the current study findings are also potential limitations as well as strengths. The current study recruited a diverse sample, with approximately 77 percent of participants identifying as ethnic minority individuals. This diverse sample expands the research literature because past research in this area primarily used European American samples (Boatwright & Egidio, 2003; Lips, 2000;
2001; Yeagley, Subich, & Tokar, 2010). It also may account for some differences in the present findings as compared to this past literature.

Further, the current sample was recruited from a Hispanic serving institution from an urban area with a heavy concentration of ethnic minority individuals. The ethnic minority women in the sample were the majority group on this particular campus in terms of numbers. Ethnic minority college women who attend an ethnic minority serving institution may differ from, and are likely to have a different experience from, the female college students more typically studied. For instance, these women may have developed coping efficacy or supportive outlets to handle race-related stress and lifetime sexist experiences within their current context. This is supported by the large percentage of participants who reported having at least 1 female (79%) and 1 male (60%) mentor/role-model.

Future research could compare findings related to ethnic minority women and leadership development at predominately minority serving institutions and predominantly white institutions. As well, it could compare differences between ethnic groups on the current study variables. For instance, with larger numbers the current models could be run for Latinas, African American women, and European women to examine if there are any significant cultural differences between groups. These potential findings could help to clarify the impact of ethnic group membership and women’s leadership development.

Finally, the impact of learning experiences on women’s leadership development was not examined directly or comprehensively in the current model and this is a limitation. Despite the complexity of the current model, SCCT includes other variables such as learning experiences that could help to explain women’s leadership development.
Learning experiences happen by direct personal experiences, vicarious learning experiences, verbal persuasion, and physiological states related to the variable of interest (Lent, Brown, & Hackett, 1994). Measuring learning experiences within SCCT could contribute to the present model’s specificity and explanatory power, and thereby provide counselors, psychologists, and educators with potential opportunities to enhance female college student’s leadership development. The demographic variables of past and current leadership experiences could be considered proxies for learning experiences and they did produce low, but significant, correlations with several primary variables of interest. Future research would benefit from creating questionnaires that measure leadership learning experiences that could potentially contribute to women’s leadership interests and goals.

Practical Implications

There are several practical implications to the current study findings. The overall study objective was to apply SCCT to understand women’s leadership interests and goals so that interventions could be created to increase the number of women leaders. Female college students are in a developmental stage of life where they are open to new ideas and actively planning their careers. Thus, short and long-term interventions occurring on university campuses could work to increase women’s interests and goals for leadership, which would in turn impact their actions and performance attainments for leadership (Lent, Brown, & Hackett, 2002).

Based on the overall study findings, it would make sense to intervene at three strategic points within the overall model. The interventions could be focused on the following variables: leadership self-efficacy, leadership outcome expectations, and
feminine norms in relation to leadership. Lent, Brown, and Hackett (1994, 2002) described several methods to impact self-efficacy and outcome expectations including direct personal experiences, vicarious learning experiences, verbal persuasion, and physiological states related to the variable of interest. In addition, educational campaigns to leverage the observed relation of feminine gender role norms to leadership could be instituted. Applying these interventions within the university environment could increase women’s leadership interests and goals.

First, universities could create applied leadership experiences for female students on campus. Applied leadership experiences on campus could be with student organizations or positions within the university governance structure. For example, female students could be appointed to serve on search committees for new faculty or staff members. Universities could also develop shared governance structures where students, staff, and faculty all work together to make decisions about and manage university business. Female college students could be incorporated throughout the various university committees and governance structures so that they gain a wide variety of leadership experiences.

Second, universities could develop and maintain applied leadership experiences in the community with local businesses, community groups, and professional associations. For example, female students could be appointed to different leadership roles within local business. Target is one company that has a management training program for students, which allows students to gain leadership experiences by working alongside store managers. A similar program could be established with local businesses in the community that have good relationships with the university. Female students could also
be appointed to leadership positions of community organizations such as domestic violence and sexual assault prevention agencies. Also, universities could encourage students to get involved in professional association student groups in the female college students’ areas of interests (i.e., American Psychological Association of Graduate Students).

Creating leadership positions specifically for women within the university system and in the community would allow female college students to gain direct leadership experiences, receive verbal encouragement about their leadership skills, and learn vicariously about leadership by observing established leaders. These experiences would in turn increase female college student’s leadership self-efficacy and outcome expectations. Direct experience is an important learning experience for women’s leadership development. The more opportunities that women have to gain direct experiences, the more likely these experiences are to increase their leadership self-efficacy and outcome expectations for leadership.

Third, another intervention could be to establish an annual conference that focuses on women’s leadership development. Such an annual conference could provide educational information about leadership as well as short-term leadership experience if female college students were responsible for organizing the event. Part of the educational information could focus on outcome expectations for leadership and include strategies for reducing barriers and maximizing supports. Presentations and workshops designed to help female students see women and leadership as congruent would help to increase women’s leadership interests and goals as well.
Fourth, a university initiative and marketing campaign that focuses on the new view of reclaiming traditional feminine role norms as empowering women to develop interests and goals for leadership could be established. The goal of this initiative would be to help female college students to see “leaders” as a concept that is consistent with traditional feminine roles. The marketing campaign could publicize women leaders on and off campus who engage in traditionally feminine behaviors such as reading bedtime stories to small children or organizing non-profit activities for breast cancer prevention. As part of this university initiative, educational materials (i.e., brochures, handouts) and workshops that teach college women how mothers are leaders and how they can translate these particular leadership skills to become effective leaders in the classroom, on campus, or in a boardroom would be helpful. Providing trainings for college women about leadership styles that are consistent with traditional feminine norms (i.e., transformational leadership, servant leadership) also may facilitate the development of interests and goals for leadership (Chin, Lott, Rice, & Sanchez-Hucles, 2007).

Finally, organizing these programs or interventions within a specific office or department within the university (i.e., Women’s Leadership Office or Women’s Leadership Development and Advancement Office) would help maintain these programs and give all women on campus a place to network. These are only a handful of ways to practically apply the current study findings. Therefore, creating interventions that increase women’s leadership self-efficacy, outcome expectations for leadership, and conformity to feminine role norms would eventually lead to increases in diverse college women’s interests and goals.

Summary
In conclusion, this chapter discussed the study hypotheses, the results of the current study, and then compared these results to the past research literature. The proposed path models did not fit the data, but the exploratory path model was a good fit for the data. Moreover, the model was mostly consistent with SCCT and its supporting research. The barriers, key social-cognitive, and person input relationships within the models were discussed and compared to the past research literature. Some of the current study findings are different from the past literature. For instance, sexism experiences and race-related stress did not seem to be barriers for the diverse college women who were successfully able to translate their interest in leadership into goals for leadership. Conformity to feminine norms also was surprisingly and strongly positively related to women’s self-efficacy for leadership and conforming to feminine norms was indirectly connected to greater interests and goals for leadership. Other study findings were consistent with the past research literature, for instance, the strong and positive relationships between leadership self-efficacy, leadership outcome expectations, leadership interests, and leadership goals. These relationships were consistent with SCCT predictions. The limitations of the study, recommendations for future research, and practical implications were reviewed. Overall, this study contributed to an improved understanding of women’s leadership development.
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APPENDICES
APPENDIX A

SELF-EFFICACY FOR LEADERSHIP SCALE
(SEL; Murphy, 1992)

Please circle the number that indicates how much you agree or disagree with the following statements.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree Nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel that I know a lot more than most leaders about what it takes to be a good leader.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I know what it takes to make a work group accomplish its tasks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. In general, I am very good at leading a group of my peers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I am confident of my ability to influence a work group that I lead.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I know what it takes to keep a work group running smoothly.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I know how to encourage good work group performance.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I feel comfortable allowing most group members to contribute to the task when I am leading a work group.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Overall, I believe that I can lead a work group successfully.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
APPENDIX B

OUTCOME EXPECTATIONS FOR WOMEN’S LEADERSHIP QUESTIONNAIRE (OEWLQ)

Instructions: Please circle the number that indicates how much you agree or disagree with the following statements using the sentence stem: *If I held a leadership position…*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree Nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. …I would be emotionally stable.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. …my relationship with family members would suffer.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. …I would feel out of place or like I didn’t belong.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. …I would be less healthy than I am now.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. …my ideas would be valued.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. …I would have to work harder than my male-colleagues to be successful.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. …I would be evaluated unfairly by my coworkers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. …I would not have enough time to spend with family members.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. …the men I lead would respect me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. …I would be happy with my salary.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. …I would have time for other activities that I enjoy.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. …I would feel good about my relationships with family members.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td></td>
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<td></td>
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<tr>
<td>---</td>
<td>------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>13.</td>
<td>The women I lead would respect me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14.</td>
<td>I would not be paid as much as my male coworkers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15.</td>
<td>I would be able to have the family life that I desire.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16.</td>
<td>I would feel successful.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17.</td>
<td>My family would be proud of me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18.</td>
<td>My colleagues would expect me to be good at my job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19.</td>
<td>Overall, I would be satisfied with my life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20.</td>
<td>I would be evaluated fairly by my coworkers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21.</td>
<td>I would be paid as much as my male colleagues.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22.</td>
<td>I would have to work harder than men in the same position.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>23.</td>
<td>Other leaders would listen to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>24.</td>
<td>I would experience less physical stress than I do now.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>25.</td>
<td>I would be healthier than I am now.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>26.</td>
<td>I would have energy for activities other than work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>27.</td>
<td>The people who I lead would not respect me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>28.</td>
<td>I would be emotionally unstable.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>29.</td>
<td>I would feel good about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>30.</td>
<td>Overall, I would be dissatisfied with my life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>31.</td>
<td>My family would disapprove.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>32.</td>
<td>I would not have time for other activities that I enjoy.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>33.</td>
<td>I would experience discrimination because I am a woman.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>34.</td>
<td>I would experience a lot of physical stress.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>35.</td>
<td>Other leaders would not listen to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
36. …I would have more opportunities to help others.  
37. …I would be able to have and raise children.  
38. …I would be able to get married.
### APPENDIX C

**INTEREST IN LEADERSHIP SCALE (ILS)**

Please circle the number that indicates how much you agree or disagree with the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree Nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am interested in being a leader.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I am interested in directing a work group so that it accomplishes its tasks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I am interested in leading a group of persons who are similar to me in status.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I am interested in persuading those involved in a work group that I may lead.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I am interested in facilitating the functioning of a work group.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I am interested in promoting good performance in a work group.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I am interested in encouraging group members to contribute to the task when I am leading a work group.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Overall, I am interested in successfully leading a work group.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
APPENDIX D

GOALS FOR LEADERSHIP SCALE (GLS)

Please circle the number that indicates how much you agree or disagree with the following statements.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree Nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I intend to obtain a position of leadership and be good at my role.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I intend to obtain a position where I direct employees and oversee their work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I intend to obtain a position where I influence my peers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I intend to obtain a position where I motivate and inspire my peers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I intend to obtain a position where I create teams and coordinate their work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I intend to obtain a position where I bring people together to work on shared goals</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I do not intend to obtain a position of leadership.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
APPENDIX E

CAREER ASPIRATION SCALE-
LEADERSHIP AND ACHIEVEMENT ASPIRATIONS SUBSCALE
(CAS; O’Brien, 1996)

INSTRUCTIONS: In the space next to the statements below please circle a number from “0” (not at all true of me) to “4” (very true of me). If the statement does not apply, circle “0”. Please be completely honest. Your answers are entirely confidential and will be useful only if they accurately describe you.

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at All True of me</td>
<td>Slightly True of me</td>
<td>Moderately True of me</td>
<td>Quite a Bit True of me</td>
<td>Very True of me</td>
<td></td>
</tr>
</tbody>
</table>

1. I hope to become a leader in my career field.
   0   1   2   3   4

2. When I am established in my career, I would like to manage other employees.
   0   1   2   3   4

3. I do not plan to devote energy to getting promoted in the organization or business I am working in.
   0   1   2   3   4

4. When I am established in my career, I would like to train others.
   0   1   2   3   4

5. I hope to move up through any organization or business I work in.
   0   1   2   3   4

6. Attaining leadership status in my career is not that important to me.
   0   1   2   3   4
APPENDIX F

LIFETIME SEXIST EVENTS SUBSCALE: SCHEDULE OF SEXIST EVENTS
(SSE; Klonoff & Landrine, 1995)

INSTRUCTIONS: Please think carefully about your life as you answer the questions below. For each question, read the question and then answer it once for what your ENTIRE LIFE (from when you were a child to now) has been like. Circle the number that best describes events in YOUR ENTIRE LIFE.

Circle 1= If this has NEVER happened to you
Circle 2= If this has happened ONCE IN A WHILE (less than 10% of the time)
Circle 3= If this has happened SOMETIMES (10% - 25% of the time)
Circle 4= If this has happened A LOT (26% - 49% of the time)
Circle 5= If this has happened MOST OF THE TIME (50% - 70% of the time)
Circle 6= If this has happened ALMOST ALL OF THE TIME (more than 70% of the time)

1. How many times have you been treated unfairly by teachers or professors because you are a woman? How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

2. How many times have you been treated unfairly by employers, bosses or supervisors because you are a woman? How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

3. How many times have you been treated unfairly by your coworkers, fellow students or colleagues because you are a woman? How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

4. How many times have you been treated unfairly by people in service jobs (store clerks, waiters, bartenders, waitresses, bank tellers, mechanics and others) because you are a woman? How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

5. How many times have you been treated unfairly by strangers because you are a woman? How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6
6. How many times have you been treated unfairly by people in helping jobs (by doctors, nurses, psychiatrists, case workers, dentists, school counselors, therapists, pediatricians, social principals, gynecologists, and other) because you are a woman?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

7. How many times have you been treated unfairly by neighbors because you are a woman?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

8. How many times have you been treated unfairly by your boyfriend, husband, or other important man in your life because you are a woman?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

9. How many times were you denied a raise, a promotion, tenure, a good assignment, a job, or other such thing at work that you deserved because you are a woman?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

10. How many times have you been treated unfairly by your family because you are a woman?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

11. How many times have people made inappropriate or unwanted sexual advances to you because you are a woman?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

12. How many times have people failed to show you the respect that you deserve because you are a woman?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

13. How many times have you wanted to tell someone off for being sexist?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

14. How many times have you been really angry about something sexist that was done to you?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

15. How many times were you forced to take drastic steps (such as filing a grievance, filing a lawsuit, quitting your job, moving away, and other actions) to deal with some sexist thing that was done to you?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

16. How many times have you been called a sexist name like bitch, cunt, chick, or other names?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6
17. How many times have you gotten into an argument or a fight about something sexist that was done or said to you or done to somebody else?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

18. How many times have you been made fun of, picked on, pushed, shoved, hit, or threatened with harm because you are a woman?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

19. How many times have you heard people making sexist jokes, or degrading sexual jokes?
How many times IN YOUR ENTIRE LIFE? 1 2 3 4 5 6

20. How different would your life be now if you HAD NOT BEEN treated in a sexist and unfair way:

<table>
<thead>
<tr>
<th>THROUGHOUT YOUR ENTIRE LIFE:</th>
<th>Same as now</th>
<th>A little different</th>
<th>Different in a few ways</th>
<th>Different in a lot of ways</th>
<th>Different in most ways</th>
<th>Totally different</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
APPENDIX G

MODIFIED VERSION OF THE INDEX OF RACE RELATED STRESS (IRRS-BRIEF VERSION)

This survey questionnaire is intended to sample some of the experiences that people of color have in this country because of their race. There are many experiences that an African American, Hispanic, or other ethnic minority person can have in this country because of his/her race. Some events happen just once, some more often, while others may happen frequently. Below you will find listed some of these experiences, for which you are to indicate those that have happened to you or someone very close to you (i.e., a family member or loved one). It is important to note that a person can be affected by those events that happen to people close to them; this is why you are asked to consider such events as applying to your experiences when you complete this questionnaire. Please circle the number on the scale (0 to 4) that indicates the reaction you had to the event at the time it happened. Do not leave any items blank. If an event has happened more than once, refer to the first time it happened. If an event did not happen circle 0 and go on to the next item.

0 = This never happened to me.
1 = This event happened, but did not bother me.
2 = This event happened and I was slightly upset.
3 = This event happened and I was upset.
4 = This event happened and I was extremely upset.

1. You notice that crimes committed by White people tend to be romanticized, whereas the same crime committed by a Black, Hispanic, or other ethnic minority person is portrayed as savagery.

2. Sales people/clerks did not say thank you or show other forms of courtesy and respect (e.g., put your things in a bag) when you shopped at some White owned businesses.

3. You notice that when people of color are killed by the police, the media informs the public of the victim’s criminal record or negative information in their background, suggesting they got what they deserved.

4. You have been threatened with physical violence by an individual or group of Whites.
5. You have observed that White kids who commit violent crimes are portrayed as "boys being boys," while Black/Hispanic/other ethnic minority kids who commit similar crimes are wild animals.

6. You seldom hear or read anything positive about Black/Hispanic/other ethnic minority people on radio, TV, in newspapers, or history books.

7. While shopping at a store the sales clerk assumed that you couldn't afford certain items (e.g., you were directed toward the items on sale).

8. You were the victim of a crime and the police treated you as if you should just accept it as part of being Black/Hispanic/other ethnic minority.

9. You were treated with less respect and courtesy than Whites while in a store, restaurant, or other business establishment.

10. You were passed over for an important project although you were more qualified and competent than the White person given the task.

11. Whites have stared at you as if you didn't belong in the same place with them; whether it was a restaurant, theater, or other place of business.

12. You have observed the police treat Whites with more respect and dignity than they do Blacks/Hispanics/other ethnic minorities.

13. You have been subjected to racist jokes by Whites in positions of authority and you did not protest for fear they might have held it against you.

14. While shopping at a store, or when attempting to make a purchase, you were ignored as if you were not a serious customer or didn't have any money.

15. You have observed situations where other Blacks/Hispanics/other ethnic minorities were treated harshly or unfairly by Whites due to their race.

16. You have heard reports of White people who have committed crimes and in an effort to cover up their deeds falsely reported that a Black/Hispanic/other ethnic minority man was responsible for the crime.

17. You notice that the media plays up those stories that cast Blacks/Hispanics/other ethnic minorities in negative ways (child abusers, rapists, muggers, etc.), usually accompanied by a large picture of a Black/Hispanic/other ethnic minority person looking angry or disturbed.

18. You have heard racist remarks or comments about Black/Hispanic/other ethnic minority people spoken without fear of punishment by White public officials or other influential White people.
19. You have been given more work, or the most undesirable jobs at your place of employment while the White person of equal or less seniority and credentials is given less work, and more desirable tasks.

20. You have heard or seen other Black/Hispanic/other ethnic minority people express a desire to be White or to have White physical characteristics because they disliked being Black/Hispanic/other ethnic minority or thought it was ugly.

21. White people have treated you as if you were unintelligent and needed things explained to you slowly or numerous times.

22. You were refused an apartment or other housing; you suspect it was because you're Black/Hispanic/other ethnic minority.
APPENDIX H

CONFORMITY TO FEMININE NORMS INVENTORY-45
(CFNI-45; Parent & Moradi, 2010)

Sample Items

The following questions contain a series of statements about how women might think, feel or behave. The statements are designed to measure attitudes, beliefs, and behaviors associated with both traditional and non-traditional feminine gender roles. Thinking about your own actions, feelings and beliefs, please indicate how much you personally agree or disagree with each statement by circling SD for "Strongly Disagree", D for "Disagree", A for "Agree," or SA for "Strongly agree" to the left of the statement. There are no right or wrong responses to the statements. You should give the responses that most accurately describe your personal actions, feelings and beliefs. It is best if you respond with your first impression when answering.

1. I would be happier if I was thinner
   SD D A SA

2. It is important to keep your living space clean
   SD D A SA

3. I spend more than 30 minutes a day doing my hair and make-up
   SD D A SA

4. I tell everyone about my accomplishments
   SD D A SA

5. I clean my home on a regular basis
   SD D A SA

6. I feel attractive without makeup
   SD D A SA
APPENDIX I

CONFORMITY TO Masculine Norns Inventory-46
(CMNI-46; Parent & Moradi, 2010)

Sample Items

The statements are designed to measure attitudes, beliefs, and behaviors associated with both traditional and non-traditional gender roles. Thinking about your own actions, feelings and beliefs, please indicate how much you personally agree or disagree with each statement by selecting SD for "Strongly Disagree", D for "Disagree", A for "Agree," or SA for "Strongly agree." There are no right or wrong responses to the statements. You should give the responses that most accurately describe your personal actions, feelings and beliefs. It is best if you respond with your first impression when answering.

1 In general, I will do anything to win  SD D A SA
2 If I could, I would frequently change sexual partners  SD D A SA
3 I hate asking for help  SD D A SA
4 I believe that violence is never justified  SD D A SA
5 Being thought of as gay is not a bad thing  SD D A SA
6 In general, I do not like risky situations  SD D A SA
APPENDIX J

PERSONAL ATTRIBUTES QUESTIONNAIRE: ADJUSTED FOR LEADERS

The items below inquire about what kind of a person you think a leader is like. Each item consists of a pair of characteristics, with the letters A - E in between. For example:
Leaders are not at all artistic
Leaders are very artistic
A.....B.....C.....D.....E

Each pair describes contradictory characteristics -- that is, a leader cannot be both at the same time, such as very artistic and not at all artistic. The letters form a scale between the two extremes. You are to choose a letter which describes where leaders fall on the scale. For example, if you think leaders have no artistic ability, you would choose A. If you think leaders are pretty good, you might choose D. If you think leaders are only medium, you might choose C, and so forth. Now, answer the questions below.
1. Leaders are:
   not at all aggressive
   very aggressive
   A.....B.....C.....D.....E

2. Leaders are:
   not at all independent
   very independent
   A.....B.....C.....D.....E

3. Leaders are:
   not at all emotional
   very emotional
   A.....B.....C.....D.....E

4. Leaders are:
   not very submissive
   very dominant
   A.....B.....C.....D.....E

5. Leaders are:
   not at all excitable in a major crisis
   very excitable in a major crisis
   A.....B.....C.....D.....E

6. Leaders are:
   not very passive
   very active
   A.....B.....C.....D.....E

7. Leaders are:
   not at all able to devote themselves completely to others
   able to devote self completely to others
   A.....B.....C.....D.....E

8. Leaders are:
   not very rough
   very gentle
   A.....B.....C.....D.....E
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Leaders are: not at all helpful to others</td>
<td>very helpful to others</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Leaders are: not at all competitive</td>
<td>very competitive</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Leaders are: not very home oriented</td>
<td>very worldly</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Leaders are: not all kind</td>
<td>very kind</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Leaders are: indifferent to others' approval</td>
<td>highly needful of others' approval</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Leader’s: feelings not easily hurt</td>
<td>feelings are easily hurt</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Leaders are: not at all aware of the feelings of others</td>
<td>very aware of the feelings of others</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Leaders: make decisions easily</td>
<td>has difficulty making decisions</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Leaders: give up very easily</td>
<td>never gives up easily</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Leaders: never cry</td>
<td>cry very easily</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Leaders are: not at all self-confident</td>
<td>very self-confident</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Leaders: feel very inferior</td>
<td>feels very superior</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Leaders are: not at all understanding of others</td>
<td>very understanding of others</td>
<td>A.....B.....C.....D.....E</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
22. Leaders are:
very cold in relations
with others

very warm in relations
with others

A.....B.....C.....D.....E

23. Leaders have:
little need for security

very strong need for security

A.....B.....C.....D.....E

24. Leaders:
go to pieces
under pressure

stands up well
under pressure

A.....B.....C.....D.....E
APPENDIX K

DEMOGRAPHIC QUESTIONNAIRE

Please circle or fill in the response that answers the question most accurately for you.

Sex/Gender:
(1) Female
(2) Male
(3) Other: ________________________________

Race/Ethnicity:
(1) Black/African American
(2) Asian or Asian American
(3) White/European American
(4) Latino(a)/Hispanic
(5) Native American
(6) Pacific Islander/Inuit
(7) Middle Eastern
(8) Bi/Multi-Racial
(9) Other ________________________________

Age: ______________

Sexual orientation:
(1) Bisexual
(2) Gay/Lesbian
(3) Heterosexual
(4) Other ________________________________

Relationship status:
(1) Single
(2) Seriously Dating
(3) Married/Partnered
(4) Divorced/Separated
(5) Widowed
Highest Degree Achieved:
(1) High School Diploma or equivalent
(2) Associates Degree (e.g., A.A., A.S.)
(3) Bachelor’s (e.g., B.A., B.S.)
(4) Master’s (e.g., M.A., M.S., M.Ed.)
(5) Doctorate (e.g., Ph.D., Psy.D., Ed.D.)
(6) Other: ____________________

Your birth order in your family of origin: ________________________________

Major: ________________________________

Occupation: ____________________________

Job expected after graduation: ________________________________

Level in College:
(1) Freshman
(2) Sophomore
(3) Junior
(4) Senior
(5) Graduate Student
(6) Post-baccalaureate

Socioeconomic Status:
(1) Lower Class
(2) Lower Middle Class
(3) Middle Class
(4) Upper Middle Class
(5) Upper Class

Family / Household income:
(1) Under $20,000
(2) $20,001-40,000
(3) $40,001-60,000
(4) $60,001-80,000
(5) $80,001-100,000
(6) Over $100,000

Number of Children you have: _________________

Number of past leadership experiences you have held: _________________

Number of current leadership experiences you hold: _________________
Please write the title(s) and a brief description of each leadership position you have held or currently hold:

__________________________________________

Number of female role-models/mentors in your life: ______________________

If applicable, please write the names and occupations all of the female role-models/mentors in your life:

___________________________________________________

Number of male role-models/mentors in your life: ______________________

If applicable, please write the names and occupations all of the male role-models/mentors in your life:

___________________________________________________

Mother’s Highest Degree Achieved:
(1) High School Diploma or equivalent
(2) Associates Degree (e.g., A.A., A.S.)
(3) Bachelor’s (e.g., B.A., B.S.)
(4) Master’s (e.g., M.A., M.S., M.Ed.)
(5) Doctorate (e.g., Ph.D., Psy.D., Ed.D.)
(6) Other: ________________________
(7) Unknown

Mother’s occupation: _______________________________________

Father’s Highest Degree Achieved:
(1) High School Diploma or equivalent
(2) Associates Degree (e.g., A.A., A.S.)
(3) Bachelor’s (e.g., B.A., B.S.)
(4) Master’s (e.g., M.A., M.S., M.Ed.)
(5) Doctorate (e.g., Ph.D., Psy.D., Ed.D.)
(6) Other: ________________________
(7) Unknown

Father’s occupation: _______________________________________


Dear Participant:
I am a psychology instructor in the Social Science Department at the University of Houston-Downtown. I am conducting a research study to learn about college women’s leadership interests and goals. I am requesting your participation, which will include answering questions about your interests and goals for leadership, as well as, questions about your confidence and expectations about being a leader. You will also be asked questions about your demographic information such as your age and education level. To participate in this research project you must be at least 18 years of age, female, and currently enrolled in college courses. This survey is available online and it takes about 1 hour to complete. Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty, meaning it will not affect your grade. The results of the research study may be published, but your name will not be used. All of your responses will be kept confidential.

There are no expected risks to participants in this study. However, if you do experience any distress during this survey, you may terminate your participation at any time without penalty, and/or you can contact the Student Assistance Program at 713-221-8121 or 713-221-8248 to receive counseling services. Although there may be no direct benefit to you, the possible benefit of your participation is that researchers will gain knowledge about women’s leadership development, specifically how women develop interests and goals for future leadership positions.

You can print a copy of this consent form for your records. If you have any questions concerning the research study, please contact Nadia Hasan at (713) 221-8645 or hasann@uhd.edu.

Sincerely,

Nadia T. Hasan, M.A.

After reviewing the information above, I give consent to participate in this study.

________________________________________  __________________________
Signature                                                   Date
Any questions regarding your rights as a research subject may be addressed to the UHD Committee on Standards for Research Involving Human Subjects through its current chair, Dr. Joanna Kaftan, (713) 221-8299 or Kaftanj@uhd.edu. All research projects that are carried out at the University of Houston Downtown are governed by requirements of the University and the Federal Government.
Re: HASAN/SUBICH IRB APPROVAL 20100511
From: "Samartgedes, Mary" <mary6@uakron.edu>
To: Nadia Hasan <nadiatalalhasan@yahoo.com>
Cc: "Subich,Linda M" <subich@uakron.edu>
Sent: Wed, June 2, 2010 11:52:20 AM
Subject: HASAN/SUBICH IRB APPROVAL 20100511

Ms. Hasan:

Your IRB protocol entitled “Understanding Women’s Leadership Aspirations” (#20100511) was determined to be exempt from IRB review. A letter confirming the exemption status is in the mail to you.

Exempt protocols do not require annual review. However, if any change is made to the protocol, please contact the IRB (x7666) to discuss the change prior to implementation. Changes that increase the risk to participants and/or include activities that do not qualify for exemption will require the submission of a new application for IRB review.

If the change is minor and does not increase the risk to participants, then a new application will not be required.

Upon completion of your research, please submit the Final Report form (attached).

Please call if you have any questions. (330-972-7666).

Thank you.

Mary Samartgedes, IRB Secretary
The University of Akron
Office of Research Services and Sponsored Programs
302 Buchtel Common
Akron, Ohio 44325-2102
v: 330.972.7666
mary6@uakron.edu
APPENDIX N

UHD HUMAN SUBJECTS APPROVAL LETTER

April 14, 2010
Log #22-10

Ms. Nadia Hasan
Department of Social Sciences
University of Houston – Downtown
One Main Street
Houston, Texas 77002

Dear Ms. Hasan:
The Committee for the Protection of Human Subjects received your application entitled
Understanding Women’s Leadership Aspirations. The committee thanks you for your
application and approves your protocol. Please use the attached informed consent letter
when obtaining consent from your participants.

Best wishes for a successful project. If your project goes beyond one year or if you make
changes to the project, you will need to request a renewal and provide a progress report
one month before the expiration date of April 14, 2011. The documents to do so can be
found on the UHD website at the same location where you found the application form. If I
can be of further assistance to you, please do not hesitate to contact me.

Sincerely,

Joanna Kaftan, Ph.D.
Chair, Committee for the Protection of Human Subjects
May 24, 2010

Ms. Nadia T. Hasan
Department of Social Sciences
University of Houston -Downtown
One Main Street
Houston, TX 77002

Dear Ms. Hasan:
The Committee for the Protection of Human Subjects at the University of Houston – Downtown reviewed your request for revision for the project entitled, *Understanding Women’s Leadership Aspirations*, Log # 22-10R. Your revision request has been approved. If your project goes beyond one year, you will need to request a renewal and provide a progress report one month before the expiration date of May 25, 2011. If anything changes in your protocol, please submit a revision request.

I wish you luck in your project. If I can provide any further assistance to you, please contact me at 713-221-8299 or at kaftanj@uhd.edu.

Sincerely,

Joanna Kaftan
Chair, Committee for the Protection of Human Subjects.
APPENDIX O

TABLES
<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>19%</td>
<td>Executive assistant, business manager, accounting, administrative coordinator, administrator, human resource manager, international purchasing manager, manager, accounts manager, bank manager, non-profit project manager, office assistant, office manager, business owner of a bar, self-employed, parking lot office manager, real estate agent, regional manager, vice president, customer service representative, employment counselor, commercial property manager, clerks, secretary, store manager, union worker, title examiner, lab tech at Mobil Oil</td>
</tr>
<tr>
<td>Homemaker</td>
<td>14%</td>
<td>Mothers whose primary occupation was taking care of their families</td>
</tr>
<tr>
<td>Health Care</td>
<td>13%</td>
<td>Dietician, director of hospice care, medical assistant, medical billing and coding representative, insurance agent, licensed professional counselor, switchboard operator for hospital, nurse, registered nurse, nurse assistant, provider, physical therapist, quality assurance for a home health agency, surgical tech, activities director, social worker, veterinarian</td>
</tr>
<tr>
<td>Education</td>
<td>08%</td>
<td>Teacher, ESL teacher, elementary school teacher, school bus driver, school teacher, library assistant, student</td>
</tr>
<tr>
<td>Legal Field</td>
<td>05%</td>
<td>Attorney, lawyer, law firm secretary, legal secretary, legal assistant, paralegal, correctional officer, security agent</td>
</tr>
<tr>
<td>Housekeeper</td>
<td>05%</td>
<td>Janitors, house cleaner</td>
</tr>
<tr>
<td>Food Service</td>
<td>03%</td>
<td>Kitchen manager, baker, cook, hostess</td>
</tr>
<tr>
<td>Other</td>
<td>10%</td>
<td>Barber, hair stylist, bus driver, designer, seamstress, florist, machine operator, musician</td>
</tr>
</tbody>
</table>
Table A-2. Description of Father Occupations.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Collar</td>
<td>28%</td>
<td>Plumber, electrician, elevator technician, laborer, handy man, janitor, landscaping, lawn mower, machine operator, mechanic, mechanic assistant, farmer, construction worker, contractor, builds airplane parts, carpenter, air condition tech, foundation repair, home builder, house painter, painter, pest control, pipe filler, assembly technician, surveyor, technician, trash collector, truck driver, upholster, postal worker, railroad systems, landscaper, refinery, longshoremen, marble/ mirror work, shop foreman, shop worker</td>
</tr>
<tr>
<td>Business</td>
<td>19%</td>
<td>Business owner, financial advisor, general manager, sales person, sales regional manager, insurance broker, account executive for Borden, accountant, supervisor of steel company, supervisor for metro, president and CEO of a mid-sized metals company, procurement manager, oil business, deep-sea operations manager, development manager of chemical company, off shore captain, warehouse supervisor, regional manager, self employed</td>
</tr>
<tr>
<td>Engineer</td>
<td>4%</td>
<td>Engineer, petroleum engineer, stationary engineer, railroad engineer</td>
</tr>
<tr>
<td>Education</td>
<td>3%</td>
<td>Teacher, associate teacher, research physicist, district superintendent</td>
</tr>
<tr>
<td>Professional</td>
<td>2%</td>
<td>Sociologist, journalist, captain of aviation, environment specialist, politician</td>
</tr>
<tr>
<td>Health Care</td>
<td>2%</td>
<td>Medical practitioner, physician, psych tech, health inspector</td>
</tr>
<tr>
<td>Legal Field</td>
<td>2%</td>
<td>Police officer, law professor, criminal attorney, parole officer, safety trainer, security guard</td>
</tr>
<tr>
<td>Food Service</td>
<td>2%</td>
<td>Butcher, chef</td>
</tr>
</tbody>
</table>


Table A-3. Description of Participant Leadership Experiences.

<table>
<thead>
<tr>
<th>Business</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>35%</td>
<td>Manager, assistant manager, clinic manager, office manager for pediatric office, manager of a retail store, training manager, shift manager, branch manager of a bank, teller manager for a bank, store manager, night shift manager, manager at a hotel, airline manager, Sears Portrait studio manager, patient service manager, service manager for a structured cabling department, store manager, manager at McDonalds, manager of a bar, restaurant manager, daycare manager</td>
</tr>
<tr>
<td>Supervisor</td>
<td>06%</td>
<td>Supervisor, phlebotomist supervisor, office supervisor, data entry supervisor, unit supervisor for state parole, operations supervisor, supervisor of childcare center, supervisor of the claims department at an insurance company, assistant supervisor at work, coordinator of payroll</td>
</tr>
<tr>
<td>Other Business</td>
<td>16%</td>
<td>Real estate broker, president of a non-profit organization, executive director of a non-profit, assistant vice president, counseling coordinator, financial controller, shift leader, bank teller, foundation secretary, executive secretary for family business, land administration assistant and treasurer, business owner, small business owner, lead oral surgery assistant, lead production in document production, team leader, head bartender, certified designated trainer at restaurant, head hostess at a restaurant, senior pharmacy technician, senior customer service representative, resolution specialist, pharmacy trainer, system applications process super user, team leader of eligibility section for HR benefits, customer service employee, team facilitator, head of translation at a telecommunication company in Iran, youth volunteer trainer for Texas Children hospital</td>
</tr>
<tr>
<td>Religious</td>
<td>12%</td>
<td>Sunday school teacher, Sunday school director, Bible school teacher, president of students for Christ, praise dance director, choir director, choir president, church music director, regional ladies director, local ladies director, local youth director, leadership certificate from church, writer and director of church play, director of youth ministry, youth president at church, praise dance president, choir pray person, youth leader, co-director of the youth department, president of pastoral council committee, director of praise group, chairperson of school committee at church, assistant principal for religious education school</td>
</tr>
<tr>
<td>Community</td>
<td>12%</td>
<td>Philanthropy leader, 4-H president, Red Cross team leader, volunteer coordinator, camp lead counselor, camp counselor, president of Arconettes, treasure of a trail ride association, mentor at a juvenile detention center, pal-peer assistance leadership, club organizer, Houston area organizer, advisory board member for Nuestra Vida, Victoria immigration and refugee centre volunteer, president of LULAC youth council, Sierra Club camping leader, relay for life team captain, women of the lake, student movement for real change community development intern, Rice humanitarian medical outreach student leader in Kenya</td>
</tr>
<tr>
<td>Category</td>
<td>Percentage</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Politics</td>
<td>11%</td>
<td>Secretary of high school senior class, class president in high school, student council, president of chapter sorority, treasurer of sorority, secretary for my sorority, secretary in my association, president, Black Student Association-social events coordinator, HOSA President 2008, founder of Junior State of America, AMIGOS de las Americas Youth-to-Youth leader in Nicaragua and Panama, president of Bilingual Education Student Organization, president of National Honors Association in high school, vice president of National Honor Society in high school, yearbook editor in high school, president of yearbook committee, co-consul of high school Latin club, VP in high school club, vice president of the science club, vice president of projects-FCCLA</td>
</tr>
<tr>
<td>Education</td>
<td>07%</td>
<td>First generation college student, student, scholarship winner, teacher for summer school programs, lead teacher for after school program, teacher assistant, teaching assistant for special needs children, freshman orientation advisor, English translator, English teaching volunteer, workshop Houston tutor, UHD ambassadors, parent program coordinator, board member of parent teacher association, vice president of PTA, policy council committee member for Head Start and Advance</td>
</tr>
<tr>
<td>Athletic</td>
<td>06%</td>
<td>Captain of the golf team, varsity tennis captain, captain of sports team, swim captain, swim coach, captain of softball team, cheerleading captain, captain of cheerleading squad in college, cheer captain, little league baseball coach, director of gymnastics program for children, board member of swim team, student athletic trainer</td>
</tr>
<tr>
<td>Arts</td>
<td>05%</td>
<td>Orchestra vice-president, dance instructor, dance officer, dance captain, dance leader, music and dance leader, artistic director, captain of drill team, officer of drill team, student radio station social director, student radio station promotions director, band captain</td>
</tr>
<tr>
<td>Military</td>
<td>03%</td>
<td>Petty officer in US Navy, captain in navy, specialist in US Army, squad leader in the US army, commissioned officer in the US Army, squadron commander for Air Force JROTC Unit</td>
</tr>
<tr>
<td>Mother</td>
<td>08%</td>
<td>Mother</td>
</tr>
</tbody>
</table>
Table A-4. *Direct Path Estimates for Proposed Path Models.*

<table>
<thead>
<tr>
<th>Direct Paths</th>
<th>All Participants</th>
<th>Ethnic Minority Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFNI → SEL</td>
<td>.57**</td>
<td>.47**</td>
</tr>
<tr>
<td>CFNI → OEWLQ</td>
<td>.15</td>
<td>.13</td>
</tr>
<tr>
<td>CMNI → SEL</td>
<td>.14</td>
<td>.13</td>
</tr>
<tr>
<td>CMNI → OEWLQ</td>
<td>-.10</td>
<td>-.09</td>
</tr>
<tr>
<td>PAQ-LF → SEL</td>
<td>.17*</td>
<td>.21*</td>
</tr>
<tr>
<td>PAQ-LF → OEWLQ</td>
<td>.23**</td>
<td>.19*</td>
</tr>
<tr>
<td>PAQ-LM → SEL</td>
<td>.12*</td>
<td>.13*</td>
</tr>
<tr>
<td>PAQ-LM → OEWLQ</td>
<td>-.07</td>
<td>-.09</td>
</tr>
<tr>
<td>SEL → OEWLQ</td>
<td>.35**</td>
<td>.42**</td>
</tr>
<tr>
<td>SEL → ILS</td>
<td>.69**</td>
<td>.75**</td>
</tr>
<tr>
<td>SEL → GLS</td>
<td>.13</td>
<td>.28*</td>
</tr>
<tr>
<td>OEWLQ → ILS</td>
<td>.23*</td>
<td>.20*</td>
</tr>
<tr>
<td>OEWLQ → GLS</td>
<td>.27**</td>
<td>.21*</td>
</tr>
<tr>
<td>ILS → GLS</td>
<td>.61**</td>
<td>.53**</td>
</tr>
</tbody>
</table>

Note: NS = not significant; * p < 0.05, two-tailed,** p < 0.01, two-tailed. (N=224 all participants; 170 ethnic minority participants). Self-Efficacy for Leadership Scale (SEL), Outcome Expectations for Women’s Leadership Questionnaire-Adjusted (OEWLQ), Interest in Leadership Scale (ILS), Goals for Leadership Scale (GLS), Conformity to Feminine Norms Inventory-45 (CFNI-45), Conformity to Masculine Norms Inventory-46 Relevant Total (CMNI-46), Personal Attributes Questionnaire: Adjusted for Leaders Masculinity Subscale (PAQ-LM), Personal Attributes Questionnaire: Adjusted for Leaders Femininity Subscale (PAQ-LF).
Table A-5. Indirect Paths for the Proposed Path Model with All Participants.

<table>
<thead>
<tr>
<th>Indirect Paths</th>
<th>Standardized Estimates</th>
<th>SE</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFNI-45→SEL→ILS</td>
<td>.39**</td>
<td>.10</td>
<td>3.86</td>
</tr>
<tr>
<td>CFNI-45→SEL→ILS→GLS</td>
<td>.24**</td>
<td>.07</td>
<td>3.69</td>
</tr>
<tr>
<td>CFNI-45→SEL→OEWLQ</td>
<td>.20**</td>
<td>.05</td>
<td>3.94</td>
</tr>
<tr>
<td>CFNI-45→SEL→OEWLQ→ILS</td>
<td>.05*</td>
<td>.02</td>
<td>2.28</td>
</tr>
<tr>
<td>CFNI-45→OEWLQ→ILS→GLS</td>
<td>.03</td>
<td>.03</td>
<td>1.10</td>
</tr>
<tr>
<td>CFNI-45→OEWLQ→ILS</td>
<td>.09</td>
<td>.08</td>
<td>1.19</td>
</tr>
<tr>
<td>CFNI-45→OEWLQ→GLS</td>
<td>.06</td>
<td>.05</td>
<td>1.19</td>
</tr>
<tr>
<td>CMNI→SEL→ILS</td>
<td>.05</td>
<td>.04</td>
<td>1.20</td>
</tr>
<tr>
<td>CMNI→SEL→OEWLQ</td>
<td>.01</td>
<td>.01</td>
<td>1.02</td>
</tr>
<tr>
<td>CMNI→SEL→OEWLQ→ILS</td>
<td>.01</td>
<td>.01</td>
<td>1.03</td>
</tr>
<tr>
<td>CMNI→OEWLQ→ILS</td>
<td>-.02</td>
<td>.02</td>
<td>-1.00</td>
</tr>
<tr>
<td>CMNI→OEWLQ→ILS→GLS</td>
<td>-.02</td>
<td>.02</td>
<td>-1.00</td>
</tr>
<tr>
<td>PAQ-LF→SEL→ILS</td>
<td>.11*</td>
<td>.05</td>
<td>2.30</td>
</tr>
<tr>
<td>PAQ-LF→SEL→ILS→GLS</td>
<td>.07*</td>
<td>.03</td>
<td>2.26</td>
</tr>
<tr>
<td>PAQ-LF→SEL→OEWLQ</td>
<td>.06*</td>
<td>.03</td>
<td>2.07</td>
</tr>
<tr>
<td>PAQ-LF→SEL→OEWLQ→ILS</td>
<td>.01</td>
<td>.01</td>
<td>1.44</td>
</tr>
<tr>
<td>PAQ-LF→OEWLQ→ILS→GLS</td>
<td>.01</td>
<td>.01</td>
<td>1.44</td>
</tr>
<tr>
<td>PAQ-LF→OEWLQ→ILS</td>
<td>.05*</td>
<td>.02</td>
<td>2.37</td>
</tr>
<tr>
<td>PAQ-LF→OEWLQ→ILS→GLS</td>
<td>.03*</td>
<td>.01</td>
<td>2.30</td>
</tr>
<tr>
<td>PAQ-LM→SEL→ILS</td>
<td>.08*</td>
<td>.04</td>
<td>2.00</td>
</tr>
<tr>
<td>PAQ-LM→SEL→ILS→GLS</td>
<td>.05</td>
<td>.03</td>
<td>1.94</td>
</tr>
<tr>
<td>PAQ-LM→SEL→OEWLQ</td>
<td>.04*</td>
<td>.02</td>
<td>2.16</td>
</tr>
<tr>
<td>PAQ-LM→SEL→OEWLQ→ILS</td>
<td>.01</td>
<td>.01</td>
<td>1.63</td>
</tr>
<tr>
<td>PAQ-LM→SEL→OEWLQ→ILS→GLS</td>
<td>.01</td>
<td>.01</td>
<td>1.64</td>
</tr>
<tr>
<td>PAQ-LM→OEWLQ→ILS</td>
<td>-.02</td>
<td>.01</td>
<td>-1.36</td>
</tr>
<tr>
<td>PAQ-LM→OEWLQ→ILS→GLS</td>
<td>-.01</td>
<td>.01</td>
<td>-1.35</td>
</tr>
<tr>
<td>SEL→ILS→GLS</td>
<td>.42**</td>
<td>.07</td>
<td>5.65</td>
</tr>
<tr>
<td>SEL→OEWLQ→ILS</td>
<td>.08*</td>
<td>.04</td>
<td>2.28</td>
</tr>
<tr>
<td>SEL→OEWLQ→ILS→GLS</td>
<td>.05*</td>
<td>.02</td>
<td>2.26</td>
</tr>
<tr>
<td>OEWLQ→ILS→GLS</td>
<td>.14**</td>
<td>.05</td>
<td>2.67</td>
</tr>
</tbody>
</table>

Note: * p < 0.05, two-tailed, ** p < 0.01, two-tailed. (N=224). Self-Efficacy for Leadership Scale (SEL), Outcome Expectations for Women’s Leadership Questionnaire-Adjusted (OEWLQ), Interest in Leadership Scale (ILS), Goals for Leadership Scale (GLS), Conformity to Feminine Norms Inventory-45 (CFNI-45), Conformity to Masculine Norms Inventory-46 Relevant Total (CMNI-46), Personal Attributes Questionnaire: Adjusted for Leaders Masculinity Subscale (PAQ-LM), Personal Attributes Questionnaire: Adjusted for Leaders Femininity Subscale (PAQ-LF).
Table A-6. Indirect Paths for the Proposed Path Model with Ethnic Minority Women.

<table>
<thead>
<tr>
<th>Indirect Paths</th>
<th>Standardized Estimates</th>
<th>SE</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFNI-45→SEL→ILS</td>
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Note: * p < 0.05, two-tailed, ** p < 0.01, two-tailed. (N=170). Self-Efficacy for Leadership Scale (SEL), Outcome Expectations for Women’s Leadership Questionnaire-Adjusted (OEWLQ), Interest in Leadership Scale (ILS), Goals for Leadership Scale (GLS), Conformity to Feminine Norms Inventory-45 (CFNI-45), Conformity to Masculine Norms Inventory-46 Relevant Total (CMNI-46), Personal Attributes Questionnaire: Adjusted for Leaders Masculinity Subscale (PAQ-LM), Personal Attributes Questionnaire: Adjusted for Leaders Femininity Subscale (PAQ-LF).
### Table A-7. Direct Path Estimates for Exploratory Path Models.

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<th>Ethnic Minority Participants</th>
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Note: NS = not significant; * $p < 0.05$, two-tailed, ** $p < 0.01$, two-tailed. (N=224 all participants; 170 ethnic minority participants). Self-Efficacy for Leadership Scale (SEL), Outcome Expectations for Women’s Leadership Questionnaire-Adjusted (OEWLQ), Interest in Leadership Scale (ILS), Goals for Leadership Scale (GLS), Conformity to Feminine Norms Inventory-45 (CFNI-45), Conformity to Masculine Norms Inventory-46 Relevant Total (CMNI-46), Personal Attributes Questionnaire: Adjusted for Leaders Masculinity Subscale (PAQ-LM), Personal Attributes Questionnaire: Adjusted for Leaders Femininity Subscale (PAQ-LF).
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APPENDIX P

CODE BOOK

Self-Efficacy for Leadership Scale (SEL)
Outcome Expectations for Women’s Leadership Questionnaire-Adjusted (OEWLQ)
Interest in Leadership Scale (ILS)
Goals for Leadership Scale (GLS)
Leadership and Achievement Aspirations Subscale (LAA)
Lifetime Sexist Events Subscale (LSE)
Modified Index of Race Related Stress-Brief Version (IRRS-B)
Conformity to Feminine Norms Inventory-45 (CFNI-45)
Conformity to Masculine Norms Inventory-46 Relevant Total (CMNI-46)
Personal Attributes Questionnaire-Leaders Masculinity Subscale (PAQ-LM)
Personal Attributes Questionnaire-Leaders Femininity Subscale (PAQ-LF)