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# TOMORROW'S LEADING LADIES: HOW CORE SELF-EVALUATIONS, LEADERSHIP PERCEPTIONS, AND SOCIAL SUPPORT INFLUENCE YOUNG WOMEN'S LEADERSHIP ASPIRATIONS

A Dissertation Presented to the Graduate School of Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Industrial-Organizational Psychology

by
Lauren Elizabeth Ellis
December 2015

Accepted by:
Dr. Mary Anne Taylor, Committee Chair
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#### ABSTRACT

Given that women are an underrepresented population in organizational leadership, the purpose of this dissertation was to understand the forces driving college-aged women's leadership aspirations. Using a two-study design, the current research sought to understand the influence that internal (psychological) and external (social) factors can have on a young woman's desire to lead.

In Study One, which included 228 college-aged female participants, results indicated there was a significant, positive between Core Self Evaluations (CSE) and leadership aspirations and provided partial support for the mediating effects of leadership fit on the CSE-aspiration relationship. Results from Study One failed to support the hypothesized mediating effects of mentor presence on the CSE-leadership aspiration relationship. In addition, results of Study One failed to support CSE as a mediator of the relationship between role model status and leadership aspirations. Thus, Study One supported the importance of CSE in aspirations and suggests that the fit between self-perceived leader traits and stereotypes of a successful leader may also be important in understanding aspirations.

Study Two, which only included those participants that indicated they had a mentor within the last 12-months, again supported the relationship between CSE and leadership aspirations, but failed to support the mediating effects of mentor quality on the CSE-aspirations relationship.

Overall, results support the influence of internal factors on leadership aspirations, highlight the importance of a woman's self-identification as a potential leader, and

provide insight to help better understand how to best utilize mentoring to increase young women's desires to reach leadership positions within their careers. A discussion of the results, limitations, and potential future directions for research are also provided.

# **DEDICATION**

For my parents, Shari and Larry.

Thank you for always believing in me

and in doing so, teaching me to believe in myself.

I am forever grateful.

"Don't let the fear of the time it will take to accomplish something stand in the way of your doing it. The time will pass anyway; we might just as well put that passing time to the best possible use."

- Earl Nightingale

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#### CHAPTER ONE

#### INTRODUCTION

Leaders are an integral part of the work experience and significantly influence employee and profit related outcomes. Therefore, it is important to understand the unique aspects of how subgroups, such as women, experience leadership. Based on the most recent annual data from the Bureau of Labor Statistics (BLS), there are 72.7 million working women in the current US labor force of the 127.1 million women of working age. The BLS expects an increase in the number of women in the civilian labor force over the next decade and projects women will make up almost 47% of the labor force by 2022 (Labor Force, 2013). However, having women active in the workforce does not guarantee that women will be leaders in the workforce. Thus, it is important to understand how women, especially young women, form leadership aspirations and the forces that drive their desire to lead.

In the current study, we proposed that college-aged women's leadership aspirations were shaped by both internal psychological belief-systems and external social support. Psychological belief-systems central to leadership aspirations include core self-evaluations (CSE), a global construct related to a sense of self-worth and control over one's life outcomes, and leadership fit which involves leader stereotypes, or beliefs regarding the traits necessary for leadership, and the compatibility of self-rated traits with those leader stereotypes. External social support for leadership aspirations is provided by mentors and role models. While these two terms are often interchangeable within the

colloquial lexicon, they denote two very specific and unique relationships within the framework of this investigation.

In the context of leadership, we believed that CSE was associated with leadership aspirations in young women through the relationship of CSE with mediating and moderating influences. Mediators of the CSE-aspiration relationship included leadership fit and mentor presence, such that when these two variables were independently accounted for the relationship between CSE and leadership aspirations was expected to be attenuated. The CSE-aspiration relationship was also expected to be partially mediated by mentorship quality for those that reported having a mentor. Additionally, we believed this quality-aspiration relationship would be largely driven by the underlying relationship between gender similarity, career similarity, mentor-protégé relationship length, and amount of weekly interaction with the mentor with leadership aspirations. Meanwhile, the relationship between CSE and leadership aspirations was expected to be moderated by role model status. However the moderating effects of CSE were expected to differ when examining mid- versus high- status role models.

In order to best understand the research questions at hand, a two-study approach was taken for the current investigation. Study One included the full sample and tested the CSE-aspiration relationship, the mediating effects of leadership fit and mentor presence (see Figure 1), as well as the moderating effects of role model status (see Figure 2). Study Two (see Figure 3) only included those participants that indicated they had a mentor within the last 12-months. While we expected this sample selection to result in some range restriction, variability actually remained almost identical within the sample

population (.27) versus the original population (.26), while the skew did slightly increase in the restricted sample (from .07 to .15), we believe that the pros understanding the impact of mentorship outweighed the cons of sample reduction.

Study Two again examined the relationship between CSE and leadership aspirations, as well as the mediating effects of mentor quality on the CSE-aspirations relationship. While not investigated in depth due to the lack of a significant relationship between mentor quality and leadership aspirations, the influence of gender similarity, career similarity, mentor-protégé relationship length, and amount of weekly interaction with the mentor on the mediational effects of mentorship quality were considered, and may provide further understanding of how mentorship quality mediates the relationship between CSE and leadership aspirations in future studies. In sum, the current study was an examination of leader stereotypes, self-perceived compatibility with those stereotypes, and the internal and external factors that influence leadership aspirations among collegeaged women.

In the following literature review we begin with an overview of Strategic Human Resource Management (SHRM) and the associated, individual-level application of this area, known as Talent Management (TM), as a means for framing our analysis of leadership and leadership aspirations. Leadership is one area that is a continuing focus within the SHRM and TM literature. We review research that suggests that managing the development of leaders may strengthen a company's reputation and their ability to succeed in a competitive marketplace and we contend that supporting leadership aspirations has practical implications for the competitiveness and success of firms. Of

course, encouraging leadership aspirations of young women may also help continue to enhance the diversity at upper level positions within a firm. Thus, there are many reasons why organizations should be motivated to understand the dynamics that encourage young women to desire leadership positions.

While leadership is a well-regarded field within academia, those in business settings may question the practical implications of creating effective leaders within organizations. Thus, we turn to the literature which demonstrates that leadership has a significant impact on companies at many levels, including the climate of the firm, commitment of the organization's members, and the economic and strategic well-being of the organization. Next, we focus on women's self-perceptions and self-efficacy, desire to lead, and ways to enhance women's development in leadership roles. Finally, we review the literature on mentors and role models, focusing on the external factors that influence young women's leadership aspirations. Understanding the particular forces that shape young women's leadership aspirations may help management develop this important resource and increase the number of women rising to key leadership roles in the workplace.

## **Strategic Human Resource Management**

For as long as humans have worked together to achieve a common goal, the management of human resources has been an important step in achieving the highest possible levels of productivity. The management of these differences highlights our natural tendency to leverage the human resources around us to their full potential (Deadrick & Stone, 2014). Engaging in a systematic evaluation of the needs of an organization compared to the skill set offered by employees allows a company to strategically meet organizational needs, and thereby offers a competitive advantage over firms who do not participate in this type of planning. Thus, understanding and developing leaders is a key component within the current framework of strategic human resource management (SHRM).

However, the recognition that efficiently managing human skill differences is critical to the functioning and outcomes of organizations is a relatively recent revelation. Instead of capitalizing on worker skills only to increase the gain of the corporation, the late-20<sup>th</sup> century saw a rise in Human Resource Management (HRM) as a way to foster trusting and mutually beneficial relationships between managers and employees. In this way, HRM moved from a "personnel" function to a strategic HRM (SHRM) function (Deadrick & Stone, 2014). While the idea that a HRM strategy should be fully integrated and aligned with key business outcomes was not novel, the large number of publications in the early 1980's pushing for increased strategic planning into HRM helped cement modern SHRM for years to come (Kaufman, 2014).

Within the HRM landscape, SHRM is the idea that HRM practices should be part of a larger HR strategy (Kaufman, 2014), and focuses mainly on the firm-level relationships between HRM practices and the ultimate firm performance level (Marler, 2012). SHRM is largely run on a resource based view (RBV) of the firm and an ability, motivation, and opportunity (AMO) based view of the employee, with the central idea being that human capital can be a key source of advantage and performance. In other words, the focus of SHRM is to identify individuals' unique skill sets and align them with the needs of the firm. This involves a mutually beneficial relationship and exchange between the employee and the firm, which may increase organizational commitment. By engendering a more committed relationship to the firm, companies are able to engage employees and develop them to meet organizational needs. For this paper, SHRM is defined as "the pattern of planned human resource deployments and activities intended to enable an organization to achieve its goals" (p. 298, Wright & McMahan, 1992). This definition places SHRM activities in alignment with organizational objectives and firmly within the organizational context (Kramar, 2013).

## **Benefits of SHRM Practices**

Engaging in SHRM is an important aspect of ensuring positive business outcomes. SHRM has extensively adopted a resource-based view of the firm, thus describing human capital as a driving source of organizational competitive advantage (Harris, 2009). A growing number of researchers have called for an appreciation of the impact of extending and refining human resource practices by grooming those individuals with the most potential and motivation for appropriate opportunities within the firm. This

implies that when employment opportunities arise, the applicant pool is better suited to the available positions (Wright, Dunford, and Snell, 2001). Consequently, by better understanding women's desire to be workplace leaders, organizations can better understand how to utilize their female human capital to its full extent.

This idea of grooming and developing employees along with the use of appropriate policies has a 25-year history and suggests that early identification and development of leadership is key in maximizing both the aspirations of early career individuals and the goals of the firm. As cited in a review of seminal HRM articles by Frost (2013), Huselid's work from the early-to-mid 1990's showed that HRM policies had a statistically significant impact on increased levels of employee performance and outcomes at the firm-level, and that engaging in SHRM practices resulted in increased competitive advantage and business results gains for organizations (Huselid, 1995; Harris, 2009).

Specifically, Huselid (1995) examined the outcomes of engaging in High Performance Work Practices (HPWP). Over 3,400 organizations from all major industries were represented in the study. Even across this wide variety of organization industry and size, Huselid found that HPWP was associated with lower turnover (a 7% decrease), as well as higher productivity and corporate profits (over \$27k more in sales and almost \$4k more in profits, per employee). More recently, researchers have found that Hueslid's (1995) findings may have well underestimated the corporate benefits of HPWPs and reported increased gross return on assets and decreased turnover findings (Combs, Liu, Hall, & Ketchen, 2006). Combs et al.'s (2006) meta-analysis provided additional support

for the empirical relationship between human resource policies, SHRM, and objective measures of desirable outcomes for corporations. Their results estimate that for every unit increase in HPWPs, an organization can expect a .20 standardized unit increase in organizational performance.

One such way companies can increase their gains through SHRM practices is by knowing what specific knowledge, skills, and abilities (KSAs) individual jobs require. By then selecting people that closely align with these KSAs, organizations are more likely to have employees that are more productive due to increased task and citizenship performance behaviors. In turn, these more productive employees contribute to increased revenues and decreased costs within the business, and thus drive higher corporate profits (Kim & Ployhart, 2014). Selecting quality leadership is particularly relevant for companies since an effective leader may have a significant impact on the economic well-being of the firm as well as on employee satisfaction.

Many corporations have developed an appreciation of this impact of a well-qualified leader on outcomes ranging from employee affect to corporate profit at every level of the firm. Part of the process of SHRM as it applies to leadership is to identify those individuals who are interested in these positions. Therefore, understanding the forces that shape the aspirations to lead and implementing practices and policies to enhance these aspirations benefits the firm as well as the women who desire leadership positions.

The current study was an examination of this piece of the equation. Specifically, what are the underlying forces that may make a woman desire to seek out leadership

positions? Presently, we examined the way in which college-aged women assess their own general self-worth and their fit for leadership, as well as the variables that may impact these self-assessments. Evaluation and assessment of such self-perceptions is an important subarea of SHRM given the relevance of leadership for reaching corporate objectives (Jagersma, 2007). This type of self-evaluation in applied settings is a more specific form of SHRM termed talent management. This topic encompasses such self-assessment, and a discussion of this broad based, emerging area follows.

# **Talent Management**

One form of SHRM called talent management is of particular relevance to the current investigation. While talent management is complimentary to the objectives of an organization's SHRM practices (Lewis & Heckman, 2006; Hoglund, 2012), it is important to note how talent management differs from general SHRM practices. It is different in that it is more focused on upper-level strategic positions within the firm (Dries, 2013) than general SHRM. As Dries (2013) notes, talent management is to SHRM what gifted education is to learning; the needs of talented individuals in the organization are going to be inherently and markedly different than those of the average individual. Thus, in the current study, identification of individuals that have the abilities and desires to assume organizational leadership roles falls clearly within this domain. Furthermore, linking leadership to talent management within firms implies that organizational decision makers should take an active and assertive role in identifying potential leaders and providing an environment that will support and develop their potential.

Definitional difficulties of talent management pose challenges for linking this set of organizational philosophies and practices to leadership identification and development (Dries, 2013; Hoglund, 2012; Lewis & Heckman, 2006). The lack of a consistent and clear definition of talent management has hindered the academic advancement of the field (Gallardo-Gallardo, Dries, & Gonzalez-Cruz, 2013). Gallardo-Gallardo and colleagues (2013) provide an excellent table to show some of the various definitions that have been

used in talent research (see Table 1). Thus, the use of the term in the present study and its linkage to leadership development will be clarified.

Throughout history, the nature of "talent" has evolved from that of an innate gift to that of aptitudes that can be developed and thus, definitional ambiguity has posed problems for the research in this area (p. 292; Gallardo-Gallardo et al., 2013; Tansley, 2011). Historically, use of the word "talent" implied a personal resource that should be nurtured and invested wisely. In an organizational setting, the use of the term has evolved to imply a particular knowledge, skill, or ability that an individual possesses. Since leadership and talent management are often discussed in tandem in organizational settings, it is important to clarify the how leadership fits into this popular framework.

In the current study, we contend that talent management involves an assertive effort on the part of organizational decision makers to identify and develop individuals with potential and knowledge in strategic areas that may benefit the firm (Collings & Mellahi, 2009; Hoglund, 2013). Specifically, leadership is an important talent or area of potential that may be identified and developed more effectively by recognizing the factors that are empirically related to leadership aspirations (Jagersma, 2007). As a way to build the argument that talent management in the form of leadership development has significant implications for firms, we review the literature associated with organizational outcomes of leadership. This provides practical arguments for investigating the factors that impact leadership aspirations among young women going into entry level positions.

As a second step, we briefly review the research on leadership associated and relevant to aspirations, and then turn to a discussion of women in leadership. The

overview of leadership allows us to understand and examine the traits and skills that are associated with leaders, both from an empirical and a subjective perspective. Finally, we turn to women in leadership and identify gender specific issues in this area. This literature provides a context for a more individualized examination of college-aged females' leadership aspirations which includes an investigation of some of the contextual and psychological influences on leadership aspirations.

# **Leadership Development**

## The Importance of Leadership

Leadership is a well-researched topic within the field of Industrial-Organizational psychology. One of the reasons there may be such a vast and varied interest in leadership is because, much like talent, organizational decision-makers recognize the impact of leadership, yet it is often hard to define. Modern day research argues for a more focused approach on leader traits and the interaction of these traits with external (e.g., social and cultural) forces. The current study adopted this perspective since we believe that leadership aspirations involve both psychological forces, such as CSE and self-perceived leadership fit, along with social influences like role models and mentors. Thus, our framework is consistent with modern leader theories that incorporate subjective ideas regarding leadership as well as social forces that shape its emergence (Hiller, DeChurch, Murase & Doty, 2011; Jex & Britt, 2014).

Leadership outcomes have been examined at the individual, group, and corporate level. A review of outcomes in 2011 found 1,161 studies of outcomes ranging across these levels, with a focus on individual or follower outcomes (Hiller et al., 2011). We provide an overview of just some of these leadership outcomes as a means for justifying a more intensive investigation of the factors that shape leadership aspirations.

One way that leaders can affect change within the workplace is by providing strategic vision and helping their subordinates achieve the objectives of the organization. In addition, leaders also provide motivation and encouragement to those they lead and may enhance organizational learning through this positive influence (Choudhary, Akhtar

& Zaheer, 2013; Boehm, Dwertmann, Bruch, & Shamir, 2014; Hiller et al., 2011). This motivation can manifest as coaching, formal evaluation, or simple words of praise.

Additionally, leaders tend to enforce company policies and rules as well as be key persons in obtaining resources for their teams and work groups (Jex & Britt, 2014).

Another way that leadership affects an organization is through employee outcomes. In his examination of family-run businesses, Sorenson (2000) found that the type of leadership business-leaders engaged in accounted for more than a third (36%) of the variance in employee satisfaction and over a quarter (27%) of the variance in employee commitment. Thus, in terms of economic outcomes for the firm and affective and productive outcomes for the employee, leadership has relevant implications for the well-being of organizations at every level.

Transformational leadership is a newer iteration in theories of leaders, and focuses in part on the ability of the leader to engage and motivate subordinates to identify with key aspirations of the firm. With regard to transformational leadership style and business outcomes, research suggests that when leaders engage in a transformational style, employees (and therefore corporations) benefit from increased goal setting, task accomplishment and an increased culture of achievement orientation (Xenikou & Simosi, 2006). In their study, Xenikou and Simosi (2006) also found that achievement orientation had a significant impact on performance as measured by two objective indices of annual production goal attainment. Thus, leadership style can influence the culture and production outcomes of an organization which supports that an organization's

performance can be reliably related to the leadership in place (Kaiser, Hogan, & Craig, 2008).

Finally, it is not just psychologists that are finding an effect of leadership on bottom-line performance outcomes of organizations. Economists Bloom and Van Reenen (2006) collected data from 732 manufacturing companies from the United States, the UK, France, and Germany in order to better understand the management practices in play. These practices fell into four categories: operations (e.g., lean production, process improvements), monitoring (e.g., performance appraisal, issuing appropriate sanctions and rewards), targets (e.g., transparency, realism, and consistency of goal setting), and incentives (e.g., promotion, pay, rewards). These practices were then compared to metrics measuring a number of outcomes such as performance, productivity, sales, and survival. The researchers found that while the country and industry in which a business was situated accounted for about half the variance in performance, the other half was accounted for by management practices (Bloom & Van Reenen, 2006). This is crucial because it is often the top leaders that shape, develop, and influence which management practices are utilized, and thus influence the business outcomes of that organization (Kaiser et al., 2008).

No matter *how* a leader influences the business outcomes of their organization, the bottom line of the literature is that leaders *do* influence business outcomes. Thus, it is important to consider how to develop women leaders in organizations in order to effect the business bottom line, and this development begins with women wanting to lead.

## **Women in Leadership**

Currently, there are only 24 women CEO's of Fortune500 companies and only 27 when looking at the Fortune1000 (Fairchild, 2014). Nevertheless, women may play a prominent role in the firms with the strongest economic performance in the global market. As Fortune notes, "Only 5% of Fortune 1000 companies have female CEOs, but those giants generate 7% of the Fortune 1000's total revenue" (Fairchild, 2014). Still, the lack of women ascending to high-ranking business positions has come to be known as the "glass ceiling." Research has supported a number of reasons for the existence of the glass ceiling, including stereotypes of women's unsuitability for leadership positions and a lack of formal and informal support within the firm (Cook & Glass, 2014).

While the number of opportunities for women in the workforce is increasing, the number of women in leadership positions is growing (Cook & Glass, 2014), and the culture around women in leadership is shifting (Eagly & Carli, 2003), there are still gender differences in the types of jobs that women pursue. The majority of science, engineering, and business jobs are held by men, while jobs in the social service, education and administrative sectors are held by a female majority (Evans & Diekman, 2009). This disparity in job field pursuit may have its roots in the lack of women in the STEM (science, technology, engineering, and math) fields. Cook and Glass (2014) found that women were much more likely to be selected as CEO and had increased tenure in companies where the proportion of women on the board of directors was highest. This increased diversity among company decision-makers may be explained by two theories, with implications for women attaining leadership at all levels of an organization.

First, social identity theory posits that people are more likely to positively evaluate in-group members, and thus, having women in decision making positions increases the likelihood that female candidates be viewed as in-group members (Cook & Glass, 2014). Secondly, Kanter's (1977) token theory helps explain why having women in existing positions of power can increase the promotion potential and tenure of female leaders. When a woman in a male-dominated organization is promoted to a leadership position, she may be viewed as having a "token" status and be subjected to increased visibility and performance pressure. This heightened scrutiny can often lead to reductions in job satisfaction and performance, and thereby result in shortened tenure. However, when there is increased gender integration in the board of directors (or other decision making bodies) the token effect is lessened for rising women leaders (Cook & Glass, 2014) allowing for other women to have a less scrutinized ascent in the workplace.

As Boatwright and Egidio say, "finding 'the right man for the job' has been appropriately updated to 'the right person for the job'" (p. 653; 2003). Despite this increasing trend to utilize gender-neutral language in the workplace, leadership still tends to be seen as a male-suited position and best suited to the stereotypical male personality (Boatwright & Egidio, 2003; Geber, 1987). However, some proactive organizations have begun to eschew stereotypically-male, hierarchical leadership strategies in favor of actively seeking leaders who can effectively utilize democratic strategies like shared power and collaboration into their leadership styles (Boatwright & Egidio, 2003). And as noted earlier, recent research suggests a more open environment for women than in the

past, with more appreciation of communal (person-oriented) traits as well as agentic (task-oriented) traits in leadership (Paustian-Underdahl, Walker & Woehr, 2014).

Given these opportunities, the self-rated leadership aspirations of early career women can shed light on the existing gender imbalance in leadership. Researchers lament that women do not express their desire for leadership positions often enough (Boatwright & Egidio, 2003), that they are less likely to ask for promotions than their male colleagues (Babcock & Laschever, 2003), and that they don't always naturally express the confidence to ask for new opportunities (Sandberg, 2011). However, women are well suited for the ever more popular democratic styles of leadership which have deemphasized authority based on political, economic and military power and placed increased emphasis on collaboration, empowerment, and support (Boatwright & Egidio, 2003). This gradual decline in women's leadership disadvantage may help explain why more and more women are able to envision themselves as corporate leaders. However, some women are still unable to break through their own personal glass ceiling constructed of defeating self-beliefs.

Whether or not a woman believes she can become a leader and succeed within her leader duties may be largely due to her sense of self-worth and competence. One theory that holds promise for understanding the presence or lack of leadership aspirations among young women is Core Self-Evaluations. While we will continue to discuss the importance that the increasing presence of women within leadership has on young women's leadership aspirations later in this paper, it is important to first address how

general self-beliefs drive the desire to lead. These core self-evaluations are the first of two psychological variables that we believe will impact leadership aspirations.

#### **Core Self-Evaluations**

People have an inherent belief in themselves and their abilities. This is known as self-efficacy, and research has shown it is central in beliefs that one can achieve goals and also has a significant impact on the type and level of career aspirations that individuals choose (Beaman, Duflo, Pande, & Topalova, 2012). Additionally, self-efficacy can drive whether people believe they can succeed, if they can persevere through tough situations, their likelihood to be vulnerable to stress and depression, and the kinds of decisions made at key life moments (Bandura & Locke, 2003).

Beaman and colleagues (2012) note that interventions targeted at influencing self-esteem can impact future behavior. Research indicates that increasing a person's leadership self-efficacy can help provide them with the confidence in the capability of achieving success before any cognitive or physical effort to engage in a leadership task has even begun (Lester, Hannah, Harms, Vogelgesang, Avolio, 2010). This efficacy has been empirically linked to myriad outcomes in the workplace, including motivation to lead, attempts at obtaining leadership positions, and increased leadership potential and job performance ratings (Lester et al., 2010).

In addition to leadership, self-efficacy has been shown to be critical in commitment to fields in education and to successful completion of requirements within the field (Chemers, Zurbriggen, Syed, Goza and Bearman, 2011). These authors found that protégés' belief that they could conquer challenges and succeed led to commitment to scientific fields. Research by Hartung, Porfeli, and Vondracek (2004; from Fiebig, 2008) suggests that boys are more likely to believe they have a larger range of career

options than girls (who are more likely to choose a profession from either the male or female sector). However, Hartung and colleagues found that girls with high self-esteem are more likely to select a non-traditional career, such as a career in science or math, than their female peers with lower self-esteem.

Especially when encouraging girls to enter the STEM professions, high self-esteem, in addition to career development initiatives such as increased career knowledge and social support, availability of female role-models, and dispelling of occupational gender stereotypes can help support leader aspirations (Scott & Mallinckrodt, 2005). Thus, there is support that the relationship between self-efficacy and career commitment may be partially explained by the impact of mentoring due to the benefits offered by the mentoring relationship. This finding has been reported in a variety of educational settings and across a number of levels ranging from high school to graduate preparation (Chopin, Danish, Seers, & Hook, 2013).

Overall, research indicates that having higher self-beliefs leads to a greater likelihood to engage in and express desire for leadership and self-esteem has emerged as a predictor of leadership. An excellent example comes from Dickerson and Taylor's (2000) study that showed college aged women that had higher levels of task-specific self-esteem led to an increased selection of and interest in completing a leadership task. General self-esteem is also significantly, positively (p<.05) related to leadership aspirations and accounts for additional variance in young women's leadership aspirations above and beyond the need for connectedness and fears of negative evaluation (Boatwright & Egidio, 2003). Conversely, young women with low levels of task-specific

self-efficacy are more likely to self-select out of leadership positions (Dickerson & Taylor, 2000), removing themselves from the leadership pool altogether.

Self-efficacy and self-esteem are just two aspects of a person's beliefs of their capabilities and worth. In the current study we measured self-worth through Core Self-Evaluations (CSE), introduced by Judge, Locke, and Durham (1997) as a broad personality trait. This multi-dimensional trait captures four of the most widely-recognized forms of self-evaluation. These four traits include self-esteem (beliefs in one's value as a person), generalized self-efficacy (beliefs in one's ability to perform across a number of domains), neuroticism (tendency to engage in negative self-beliefs, negative thoughts, and negative actions), and internal locus of control (beliefs in one's ability to affect and control one's life events) (Judge, 2009; Judge, Erez, Bono, & Thoresen, 2003). In sum, CSE helps explain the central beliefs a person has about their own value, capability, and effectiveness.

Originally, CSE was measured with full scales for each of its self-evaluation areas (Judge et al., 1997). However, a meta-analysis conducted by Judge and his colleagues in 2003 provided empirical evidence for the assumption that there was considerable overlap among the four main traits. The four, core variables have an average correlation of .60 and factor analyses consistently support a single, common construct (Judge, 2009). While each of the individual traits contains its own level of uniqueness, when brought together high self-esteem, high self-efficacy, low neuroticism, and high internal locus of control become an entity of their own – an entity now known as CSE. Out of the need for a more direct and succinct way to measure a person's CSE than measuring the four-

component variables directly, the Core Self-Evaluations Scale (CSES; Judge et al., 2003) was created as a brief measure of CSE.

While there have been no direct studies investigating CSE and leadership aspirations, there is an existing body of literature empirically linking CSE to a number of positive leadership outcomes. These outcomes include high CSE persons being perceived as engaging in transformational leadership behaviors more often than those with low CSE levels (Hu, Wang, Liden, & Sun, 2012). Also, those leaders that engage in more transformational leadership behaviors are more likely to increase the CSE levels of their subordinates, thus increasing production and motivation (Nubold, Muck, & Maier, 2013).

CSE is also related to motivation, challenging personal goals, and commitment to goal pursuit (Chang, Ferris, Johnson, Rosen, & Tan, 2012). People with high levels of CSE have been noted to have strong intrinsic desires to take an active role in their personal career management in such ways as seeking out social support to pursue and achieve their career goals. This social support often manifests in the form of mentorship (Hu, Baranik, & Wu, 2014; Kammeyer-Mueller & Judge, 2008). The implications of mentorship on leadership aspirations will be discussed in greater detail later within this paper.

A recent meta-analysis of CSE research (Chang et al., 2012) summarized the ways that having high CSE can relate to other individual differences. People with higher levels of CSE tend to be more conscientious, extraverted, and positive while having less

negative affectivity. While these individual differences do not make a leader, they all help contribute to skills that would make a leader more effective.

Another research finding that helps build the case for CSE being a significant predictor of leadership aspirations is that CSE helps forecast career decision making difficulty, above and beyond personality traits (Di Fabio, Palazzaschi, & Bar-On, 2012) lending support to other researchers that have also found CSE to be significant in the career decision making process (Guichard & Huteau, 2001; Savickas, 2005). Di Fabio and colleagues (2012) found that university students with low CSE were less likely to use relevant information to explore and prepare for their career paths, putting them at a disadvantage to their high CSE peers. This said, for those with low CSE, seeing oneself as a future leader might never occur due to lack of information and preparation.

Conversely, for those with high CSE, desiring to reach levels of leadership can be part of maintaining a positive self-concept. By desiring to achieve high levels of achievement, people with high CSE are helping to maintain their view of self-consistency (Korman, 1970; 1976). Additionally, aspiring to higher positions requires more investment but leads to greater recognition and rewards (Dipboye, 1977; Jones, 1973), which fall in line with the positive self-image associated with high CSE (Chang et al., 2012; Kim, Oh, Chiaburu, & Brown, 2012). Thus, those with high CSE are much more likely to aspire to leadership than those with lower levels of CSE.

However, having a general sense of self-worth and control differs from believing that you have the key skills and abilities to succeed in the particular domain of leadership.

In the following section, this distinction will be addressed through the idea of leadership

fit. This theory is helpful for understanding individualized belief systems regarding selfperceived leadership traits and those that a woman believes are required of leaders in her
intended career field and provides a theoretical framework for examining the second of
two psychological variables that we believe will impact leadership aspirations. Thus, we
posited that the congruity between these two sets of beliefs, or a young woman's
leadership fit, would allow us to predict whether leadership roles would be viewed as
attainable by young women about to embark on their careers.

## **Leadership Fit**

Understanding when and why women are able to envision themselves as leaders has much to do with a woman's personal self-beliefs as her beliefs about what a leader should be. This section of the paper will discuss different theories and research that consider the barriers to women seeing themselves as leaders and ways to enhance a woman's perceived congruity between being female and being a leader. From a theoretical perspective, Role Congruity Theory (RCT) implies that part of the relationship between CSE and leadership aspirations may be explained by the internal beliefs regarding one's self-perceived compatibility with leadership demands.

Gender stereotypes are a cultural knowledge, often learned early in life and before they can be questioned or critically examined (Rudman & Phelan, 2010). The beliefs that men should be assertive, aggressive, and competitive while women display a tendency to be emotional and caring are prolific in many countries, and these gender role beliefs can influence personal standards for self-regulation (Evans & Diekman, 2009). However, it is often the masculine, or agentic, attributes that are believed to be necessary for success in fields dominated by men (Fiebig, 2008). Thus, there is a potential mismatch between self-perceived traits of some women and the perceived requirements of leadership roles. The degree of congruity between leadership traits and the traits women perceive in themselves may dictate their comfort in leadership positions and their desire to attain these positions.

In the following section, we discuss how internalized stereotypes of the traits needed for leadership, along with self-perceived standing on these traits, may be an important influence on leadership aspirations. We term the fit between these two variables "leadership fit." While CSE is often cited as an important influence on young women's leadership aspirations, we hold that this relationship is in part due to the mediating effects of leadership fit.

# **Role Congruity Theory**

One of the key variables in the current study is the perceived fit between leadership and self-perceptions as a mediator of the link between CSE and leader aspirations. Part of the CSE-leadership aspiration relationship may be driven by underlying beliefs regarding the compatibility between one's own capabilities and the demands of leadership roles. Based on past findings, there is often an incongruence between stereotypes of female traits and leadership stereotypes. Researchers have investigated the reasons behind the underrepresentation of women in leadership positions using Role Congruity Theory (RCT; Eagly and Karau, 2002; Elesser & Lever, 2011).

This theory suggests that the communal traits typically ascribed to women may be viewed as more incompatible with the demands of leadership than the more masculinized agentic traits (Prentice and Carranza, 2002). Although this conceptualization of leadership into the masculinized dimension of agency and the feminized dimension of communality was developed over 35 years ago (Powell and Butterfield, 1979) recent research using the same dimensions still reveals a preference for and perceived compatibility of agentic traits with leadership, in contrast with the less compatible dimension of communality, under normal conditions in firms (Koenig, Eagley, Mitchell & Ristikari, 2011).

Specifically, agentic traits encapsulate a person's tendency to be confident, assertive, and controlling, and are typically used to describe men. These traits may manifest in the work-world through behaviors like competing for attention, speaking up in meetings, influencing co-workers, or actively trying to fix a problem. Some words that may be attributed to a highly agentic person are dominant, self-assured, forceful, daring or ambitious. Alternatively, communal traits, which are traditionally descriptive of women, refer to a tendency to have a care about the well-being of others. In the workplace, behaviors such as giving support, listening to other's non-work problems, taking direction, and avoiding the spotlight would be typical of highly communal people. People with communal tendencies can be described as helpful, kind, nurturing, affectionate, and empathetic (Eagly & Johannesen-Schmidt, 2001).

# **Gender Biases in Leadership**

According to RCT and the associated agentic/communal description of leader traits, a double-bind may exist for women trying to enter leadership roles. Descriptive bias exists when a woman's traits are viewed as more incompatible with leader demands. Thus, this bias may emerge if women are perceived as having typically feminine traits. First, this may be because some of these feminine traits may be inconsistent with agentic demands and second, since the traits are expected in women, their positive impact on communal aspects of leadership may be undervalued (Vinkenberg, van Engen, Eagley & Johannesen-Schmidt, 2011). This descriptive bias, simply translated, means that women are initially judged to be unsuitable for leadership positions because the demands of leadership are viewed as more compatible with stereotypically masculine traits.

Additionally, if the woman behaves in a more masculinized, gender incongruent way, prescriptive bias may emerge (Eagley and Karau, 2002). This prescriptive bias means that when gender-based, stereotypic expectations of women are violated, negative reactions to the woman occur. In reality, recent research suggests that a combination of both masculine and feminine traits are important for leadership, and this effect is pronounced for female leaders (Wolfram and Gratton, 2014). If women behave in a way that is communal, this may be viewed as typical female behavior, and may be undervalued unless it is coupled with some degree of agentic traits, which are less stereotypic and may be more salient in evaluations of female leaders.

As a specific example, female leaders who communicate in an agentic style during written or oral communications are viewed equally positively as male leaders, but are rated disproportionately negatively when the communication is more tentative or feminine (Bongioino, Bain & David, 2014). Additional research in applied settings found that women who were androgynous in terms of their perceived sex role and in terms of their leadership style were viewed as more authentic leaders and more effective by subordinates (Tzinerr & Barsheshet-Picke, 2014). This suggests that certain female traits, when combined with male traits, are central in perceptions of leadership for women. Feminine traits that fall outside the communal aspect of leadership may be viewed as a liability. Finding a balance between the communal and agentic traits that are central in leadership may drive others' perceptions of leadership potential for women as well as their own perceptions of their leadership potential. Thus, the RCT and the

conceptualization of agentic/communal traits has relevance for understanding women in leadership and how young women see themselves fitting within the leadership domain.

Recent research challenges traditional assumptions about the perceived compatibility of men and women for leadership roles and clarifies the important distinction between perceptions of leadership in lab settings and ratings of actual female and male leaders (Elsesser & Lever, 2011; Paustian-Underdahl et al., 2014). Investigators have found that the bias for male leaders is stronger when individuals are simply asked to state a preference for a male or female leader rather than when they rate actual male or female leaders (Elsesser and Lever, 2011). Furthermore, a recent metaanalysis of gender effects actually found a preference for female leaders in middle level leadership positions and no impact at lower or higher levels (Paustian-Underdahl et al., 2014) when actual leaders were rated. However, ratings of perceptions of the leader potential of women and men tend to be more biased. Additional research involving actual experience with female leaders found a preference for female leaders when an organization was threatened since females are associated more with change than male leaders (Brown, Diekman & Schneider, 2011). Thus, perceptions of female leadership may be more biased than *reactions* to female leaders once they attain a position.

Consequently, the combination of both typically masculine and typically feminine traits for women desiring to enter leader roles may be particularly important for their long term success (Bruckmuller, Ryan, Rink & Haslam, 2014, Cook & Glass, 2014). Given the centrality of others' and self-perception in the attainment of leadership positions, this is an important theme in the area of women's leadership aspirations.

Gender roles clearly have a strong impact on women's expectations and behavior. Some researchers suggest that gender roles can serve as a self-regulatory means for how to behave (Evans & Diekman, 2009). The strong consensus that men are more agentic and women are more communal suggests that the self-rated agentic-communal balance of traits along with perceptions of the agentic-communal nature of leadership could be a driving force in leadership aspirations. In fact, empirical research suggests that women leaders who characterized themselves as more androgynous were viewed more positively than masculinized or feminized female leaders (Kark, Waismel-Manor and Shamir, 2012). Additionally, those women who have more liberal sex role attitudes may be more successful in leadership positions (Fiebig, 2008). Therefore, we believe that the fit between self-perceived agentic and communal traits and those traits that young women believe are required by leadership may account for some of the relationship between CSE and leadership aspirations.

While leadership fit is just one way to help explain the relationship that exists between CSE and leadership aspirations, we also believe that the external, social influences of mentors and role models will further explain the relationship. In the following sections, we will discuss the inherent differences between mentors and role models and the ways in which they can impact the leadership aspirations of young women.

### **Mentors and Role Models**

One potentially significant impact on young women in today's labor market comes in the form of mentorship and role models. In the current paper we will be referring to both mentors and role models. While in some contexts these terms may be used interchangeably, this investigation will use the words to denote two very different and distinct relationships. First, mentor will be used to designate those people who have an active, two-way relationship with their protégé. These are people that are available to answer questions, provide specific support, and personalized advice to the people they mentor. A role model, on the other hand, refers to the passive, unidirectional relationship directed solely by the admirer. Role models have somehow found themselves in the public eye (e.g., celebrities, field experts, inspirational speakers) and provide motivation, behavioral examples, and inspiration to their admirers, but lack the personalized relationship attributed to a mentor. Additionally, the current study will be gathering information about mentor-protégé relationships actually experienced by young women but assessing role model effects through the manipulation of vignettes depicting either average or high achieving role models.

A seminal article by Gibson (2004) helps elaborate the carefully differentiated distinction between mentors and role models in order to better understand the motivation they can provide. According to this theorist, mentors and role models vary on a number of dimensions (see Table 2). While role models may impact young women's behavior through the desire to emulate the model, mentors have a more direct and behavioral influence on young women's careers. Mentors provide modeling through actual contact,

while role models may never actually have contact with the young woman. Thus, the social intimacy of the relationship is quite different for mentors and role models. Furthermore, while the role model may serve as a general representation of expectations and aspirations, the mentor serves a more concrete function, guiding specific career choices. The nature and length of interaction differs between the two sources of inspiration, since interaction with the role model is more variable and unilateral than typical mentor-protégé interactions. Thus, while the role model may be viewed as a source of inspiration and identification, the objective of the mentor is more immediate and more personal.

### **Mentors**

Having a person who has life experience and has achieved success can be an inspiring force for people of all ages and at all stages of personal and professional development. These mentors are sometimes people that work closely with the person they are mentoring, like a boss or coworker, or other times find themselves engaged in a person's life, like a religious elder or successful friend. Mentors are often individuals that one can identify with and can serve as a source of inspiration for young professionals (Hoyt & Simon, 2011), which is critical for women entering the workforce.

Even though mentors tend to bring support and encouragement to those they advise, woman seem to be a disadvantage in obtaining mentors. Research has shown that while women may have a more difficult time in obtaining a mentor, once the mentor relationship is created, if the mentor provides career encouragement it can be much more effective for women's career advancement than men's (Hoobler, Lemmon, Wayne,

2014). Women with proactive personalities, especially those with high levels of CSE, may be more likely to actively pursue and obtain mentorship and affiliation with more senior associates (Liang & Gong, 2013) and mentors may be more likely to desire to enter into mentoring relationships with those individuals that appear to have high levels of potential (Kammeyer-Mueller & Judge, 2008). Moreover, early career women that actively sought out mentoring relations were found to make more money and have a more senior position within two years than those women that did not have a mentor (Blickle, Witzki, & Schneider, 2009; Liang & Gong, 2013). Therefore, all women - but especially those in college and early career settings - may have increased career benefits from creating strong mentor relationships and increased aspirations for leadership responsibilities on the job.

The function a mentor serves can vary, and with the variability in role comes a variability in the benefits received by the protégé. As noted by Allen, Eby, Poteet, Lentz, and Lima (2004) mentors can provide career mentorship and/or psychosocial mentorship. Career mentoring, which provides specific advice for advancement, was found to be more related to objective indicators of career success like salary and promotion than psychosocial mentoring.

In the current study, we took the position that young women who were more confident, or who had higher CSE, would be more likely to seek out and find a mentor. In addition, among those women who located a mentor, we believed that the quality of that mentoring relationship would partially mediate the relationship between CSE and leadership aspirations. In other words, CSE would have an impact on aspirations, in part

through facilitation of mentoring relationships that foster and encourage leader aspirations.

Mentoring Quality. While the term "quality" of mentoring relationships was measured in a global assessment of satisfaction with the mentor, there may be specific underlying factors that contribute to high quality mentoring relationships, and these were be examined in the current study. We believed the mediational effects of quality would be due in part to gender similarity, career similarity, mentor-protégé relationship length, and amount of weekly interaction with the mentor.

The way a mentor was obtained was also expected to affect the perceived quality of the mentoring relationship. Previous research noted that while there was no real mentoring outcome differences found based on whether or not the protégé voluntarily obtains a mentor, input into the mentor match process appears to be significantly related to mentorship quality and investment into the mentoring relationship (Allen, Eby, & Lentz, 2006).

The type of mentoring provided may also impact perceived quality. When mentors provided psychosocial mentoring, for example providing acceptance, counseling, and friendship, male and female protégés reported higher satisfaction with their mentor than when the mentor focused on providing strategic career advice (Allen et al., 2004; Tenebaum, Crosby, Gliner, 2001). This may be because once a mentor begin offering psychosocial support to their protégé, the relationship has intensified to a deeper point where an emotional bond has been created within the dyad (Allen et al., 2004; Kram, 1985).

Research indicates that female mentors may be more likely to give this important psychosocial support to their protégés than their male counterparts (Tenebaum et al., 2001), indicating an area wherein women may provide a more satisfactory mentoring experience. However, both psychosocial and career support have been found to significantly contribute to a protégé's satisfaction with their mentor (Ensher & Murphy, 1997). Again, this provides support for our contention that the positive impact of high CSE on leadership aspirations may, in part, be due to the social facilitation provided by high quality mentoring experiences.

**Mentor-Protégé Similarity.** While career and psychosocial support are key aspects to understanding mentorship quality, the similarity between the mentor and protégé is a driving force behind the perceptions of support received. In a recent meta-analysis, Eby and colleagues (2013) found that when a protégé feels deep-level similarity to their mentor, it is highly predictive of the perception of both career and psychosocial support ( $\rho$ =.38 and  $\rho$ =.48, respectively). Wanberg, Kammeyer-Mueller, and Marchese (2006) also found support for the relationship between perceived similarities and psychosocial support, citing an increased opportunity for counseling and friendship to emerge where commonalities are apparent.

Rooted in the similarity-attraction paradigm (Byrne, 1971), the similarity between mentor and protégé is thought to increase attraction through matched values and viewpoints, as well as an increased effectiveness for communication and interpersonal closeness (Byrne, 1997; Hu et al, 2014). Additionally, when dissimilarities exist within mentoring dyads, stereotypes may be primed leading to dislike and increased

expectations for negative interpersonal interactions (Ragins, 1997). As a result, it is the *perception* of similarity that is important (Ensher & Murphy, 1997). However, some research suggests that similarity is most critical to mentoring relationships at the beginning or in short-term relationships (Turban, Dougherty, & Lee, 2002; Watson, Kumar, Michaelsen, 1993). The importance of dyad duration is discussed next.

Mentor-Protégé Relationship Characteristics. Career mentoring was found to be most common for relationships where mentors and protégés interacted most frequently and for within-department mentoring relationships (Allen et al., 2006). It is important to note that Allen and colleagues (2006) measured frequency of interaction using both inperson and other forms of communication, such as emails. While one form of communication may be more effective when examined separately, Allen et al.'s findings suggest interaction at any level between the mentor and protégé can lead to a more beneficial relationship. In the current study, we examined mentor-protégé interaction by asking about the number of times per week there is contact between the mentor and protégé, how long interactions typically last, as well as the primary form of communication within the dyad.

In support of the importance of interaction, past research has found that contact between mentors and protégés was found to significantly predict the amount of career and psychosocial support perceived by protégés (Lankau, Riordan, & Thomas, 2005). Importantly, duration was found to possibly ameliorate some of the negative outcomes of initial dissimilarity in mentoring pairs. Lankau et al. (2005), note that while shallow factors like demographic differences play into liking at the beginning of a mentoring

relationship, as time progresses more deep-level similarities are able to surface. In addition to encouraging the recognition of deep-level similarities, the amount of time spent with a mentor led to protégés having an increased satisfaction with their mentor and an increased likelihood of maintaining the mentoring relationship (Ensher & Murphy, 1997).

#### **Role Models**

While mentors are likely to be individuals with whom women can identify, the aspirations of women may also be shaped by role models under certain conditions (Hoyt, 2012). Academic evidence suggests that role models can influence the behavior of those that admire them and that role models can be affective for admirers of all ages. For example, Beaman and colleagues (2012) found that when random villages were selected to reserve village council positions for women, the gender gap in leadership aspirations decreased by 32% in adolescents living in those villages relative the villages without those council positions. Similarly, research shows the availability of successful female role-models is especially important for young girls. Dasgupta and Asgari's (2004) research shows that both the quantity and quality of contact with successful in-group members can help change self-beliefs. This identification and experience with successful women in the field may shift young women's beliefs in their own capacity for success (Asgari, Dasgupta, & Cote, 2010).

While it is intuitively appealing to believe that role models will be inspirational to all early career women, academic research suggests that this effect may depend on the general self-efficacy and self-confidence of women and the status of the role model

(Hoyt, 2012). For those young women who have high self-efficacy, high status and moderate status role models have a facilitative effect on leadership aspirations. However, for those women with low self-efficacy, the contrast between the achievements of high status female leaders and their own internalized beliefs of their leadership potential may actually discourage leadership aspirations (Hoyt & Simon, 2011). Thus, while more moderate status female leader role models may inspire early career women regardless of leadership self-efficacy, the impact of high status female role models may be more facilitative for those with high self-efficacy.

According to Gibson (2004), the essential elements of a role model which have the most power are perceived similarity, a means of embodying performance standards in one's field, and they are visible in some way, either in person or through some social media. It is critical to note that these are positive role models, which were the focus of the current study. Negative role models are those that may embody socially undesirable and somewhat stereotypic traits of occupations. These actually decrease occupational interest and attraction (Cheryan, Drury & Vichayapali, 2012).

Further research suggests that those women who focus on the attainment of success rather than the avoidance of failure gravitate toward positive role models rather than toward negative ones (Lockwood, Jordan and Kunda, 2002). These are more likely to generate feelings of perceived similarity to and identification with the role model, an aspect of the model that will be discussed in more detail. In the current study, given our focus on leadership aspirations, we examined the power of positive role models at

varying status levels in motivating young women to believe that they aspire to positions of leadership.

Early research identified the power of positive role models in shaping young women's careers, although the underlying dynamics were not examined in this work. Forty-five years ago, researchers noted that young women who had positive female role models present, and those who believed they were evaluated positively by important figures such as working mothers and teachers were more likely to choose non-traditional careers than those who did not have such role models in their life (Almquist & Angrist, 1971; Tangri, 1972; Basow & Howe, 1980). This early work hinted at the importance of positive self-evaluations as a significant moderator of the power of positive role models. In the following discussion, we explore the importance of self-efficacy as a moderator of the relationship between the presence of a powerful role model and leadership aspirations.

Moderating Effects of Core Self Evaluations. Research on the relationship between strong role models and criteria such as performance and professional aspirations has been mixed. Some researchers have found that exposure to women in professional roles actually increased anxiety about performance in one's academic area (Knobloch-Westerwick, Kennad, Westerwick, Willis & Gong, 2014). Other work found that performance on a genuine leadership task was strengthened when young women were exposed to a positive, powerful female role model (Latu, Mast, Lammers & Bombari, 2013).

Research which incorporated psychological moderators of the impact of role models suggests that the inconsistent findings may be explained, in part, by the failure to consider the impact of a young woman's self-efficacy or self-confidence. Research has found that the impact of a role model significantly varied as a function of a young woman's self-confidence. High powered role models had a negative effect on self-views when their success was viewed as unattainable, but positive effects when the accomplishments of the model were viewed as attainable. Thus, for women who were high in self-efficacy, powerful, positive role models had a facilitating effect on emotions related to attainment, while they had the opposite effect on women with low self-efficacy (Lockwood & Kunda, 1997).

We anticipated that CSE would function similarly. This construct consists of high self-esteem, high generalized self-efficacy, low neuroticism and high internalized locus of control. As noted earlier, these four interrelated constructs are significant predictors of self-directed behavior and motivation. As such, we believed that the findings for CSE in the current study would mirror those found for self-efficacy in prior research.

More recently, research by Hoyt (2012) showed that perceived similarity between the role model and the aspiring professional is important in that this similarity is tied to self-efficacy. In other words, women with high self-efficacy or CSE are more likely to identify with powerful role models and are more likely to think they can reach that level of attainment. Conversely, those with low self-efficacy or CSE are more likely to believe that the accomplishments of the high status, high powered role model are out of reach and are more likely to be discouraged by their presence. Specifically, for women with low

self-efficacy, a high status role model actually diminished leadership aspirations and performance, while it enhanced performance and aspirations among those women with high self-efficacy and positive ideas regarding their leadership potential.

Similarly, Hoyt, Burnette & Innilla (2012) reported that individuals with more positive views about the malleability of leadership skills and abilities responded more positively to a role model before performing a leadership task than those who believed that "leaders are born." This echoed earlier findings that powerful role models had a more inspirational and motivational effect on those women who viewed their own leadership skills as flexible and open to improvement (Lockwood and Kunda, 1997). Thus, for those women who are higher in self-efficacy or CSE and those who believe they are more able to improve their leadership skills, positive role models may have an empowering effect on aspirations. Conversely, for those with lower self-efficacy or CSE, positive role models may have a negative impact.

Those women with higher self-efficacy may view the role model as more similar to themselves. Younger women and early-stage entrepreneurs may seek to emulate others who are viewed as successful in their career. This inspirational characteristic may enhance one's motivation to succeed. The prevalence of role models is striking. For young entrepreneurs, 81% cite a role model as an important influence on their motivation before starting an enterprise. The presence of a role model was critical for highly educated young women with limited practical experience (Bosma, Hessels, Schutjens, Van Praag & Verhoul, 2012).

In summary, we expected that the status of a role model would interact with CSE in predicting leadership aspirations. High status role models would increase the aspirations of high CSE women but would have a negative impact on those with relatively low CSE. Moderate status role models would slightly increase aspirations of high CSE women and lower CSE women.

## **Hypotheses**

Given the research previously reviewed, a number of different relationships were of interest in the current study. The first goal of the current study was to examine the relationship between CSE and leadership aspirations in a number of ways. The obtainment of a mentor and the effects of role-model status were also explored. The second study goal pertained to those participants that reported having had a mentor within the last 12 months, and aimed to observe the various interactions involving mentorship quality and leadership aspirations.

## **Study One**

Study One allowed us to examine the first goal of the current investigation. This entailed an examination of the relationship between CSE and leadership aspirations, with leader fit and presence/absence of a mentor as mediators of the relationship. Study One also allowed us to examine the way in which the role model status impacted leadership aspirations. We believed that CSE would interact with role model status to predict aspirations.

To pursue the first objective of Study One, we examined the relationship between CSE and leadership aspirations. This was conducted by first examining the relationship between CSE and leadership aspirations, and then turning to underlying moderators and mediators of this relationship. At the most basic level, we believed that a relationship existed between CSE and leadership aspirations. Young women with higher levels of CSE would be more likely to have higher levels of leadership aspirations because they

were likely to believe they could and would be successful and that they were able to control the success in their lives.

We also posited that the relationship between CSE and leadership aspirations would be influenced by some of the other variables of interest, specifically leadership fit and the presence of a mentor. We believed that the impact of CSE on leadership aspirations would be due in part to the fit between a woman's self-perceived traits and the similarity of these traits with those that she believed are required of leaders, which was labeled as 'leadership fit'. When leadership fit was controlled, the relationship between CSE and leadership aspirations would become weaker.

Furthermore, those women with high CSE would be more likely to experience the myriad benefits that could result from the mentor-protégé relationship, since they were more likely to seek out and gain a mentor. The presence of a mentor was expected to foster leadership aspirations. When the presence of a mentor was controlled, the relationship CSE and leadership aspirations would become attenuated. Thus, we hypothesized that:

Hypothesis 1: There will be a significant, positive relationship between CSE and leadership aspirations.

Hypothesis 2: The relationship between CSE and leadership aspirations will be partially mediated by the psychological variable of leadership fit. When the impact of leadership fit is controlled, the relationship between CSE and leadership aspirations will become weaker.

Hypothesis 3: The relationship between CSE and leadership aspirations will be partially mediated by the social variable of the presence of a mentor. When the presence of a mentor is controlled for, the relationship between CSE and leadership aspirations will be weakened.

The second goal of Study One involved exploring the influence of high and moderate status role models on young women's leadership aspirations as a function of CSE. Our participants were exposed to either a moderate status or high-status role model through the provision of a short vignette. We hypothesized that there would be a difference in the amount of inspiration and influence that was gained from a role-model based on individual personality differences. More specifically, we believed that the influence of a role model on leadership aspirations would be dictated by a young woman's level of CSE. Thus, we anticipated an interactive effect between levels of CSE and role model status on leadership aspirations.

Hypothesis 4: The impact of role-model status on leadership aspirations is moderated by CSE.

Hypothesis 4a: The relationship between role-model status and leadership aspirations will be positive for those women with high CSE. As role model status increases from moderate to high, leadership aspirations will increase for high CSE women.

Hypothesis 4b: The relationship between role-model status and leadership aspirations will be weaker and negative for those women with low CSE.

As role model status increases from low to high, leadership aspirations will decrease for low CSE women.

# **Study Two**

Study Two focused only on the role of the quality of mentorship on leadership aspirations, and was limited to those women who indicated in Study One that they had a mentor within the last 12 months. While Study One investigated whether the mere presence of a mentor had a facilitating effect on leadership aspirations, Study Two extended this investigation to an analysis of the impact of the quality of the mentoring relationship on aspirations. Furthermore, we believed that four variables, gender and career similarity, length of mentoring relationship and amount of weekly interaction, were the factors that would account for the strength of mentor quality as a mediator of the CSE-aspirations relationship.

While our hypotheses in Study One suggested that those women with higher CSE would be more likely to have a mentor, it also seemed likely that the quality of this mentoring relationship would vary to some extent within this more select group of women who were the focus of Study Two. Even though women with moderate to high CSE levels may have been more likely to have a mentor (thus restricting the range of CSE in Study 2), we believed there would be variability in both CSE and in mentoring quality among this more select sample of women.

In Study Two, we first examined the relationship between CSE, mentoring quality and leadership aspirations for the subset of women who report having a mentor within the last 12 months. We believed that the quality of the mentoring relationship would mediate

the CSE-leader aspiration linkage. If mentoring quality served as a mediator of the CSE-leader aspiration relationship, we planned to examine the underlying basis of the impact of mentoring quality on leadership aspirations. Specifically, we believed the mediational effects of quality would be due to gender similarity, career similarity, mentor-protégé relationship length, and amount of weekly interaction with the mentor.

To examine the first link between CSE, quality of mentoring, and leadership aspirations, we proposed the following hypotheses:

*Hypothesis 5:* There will be a significant, positive relationship between CSE and leadership aspirations among women who report having a mentor.

Hypothesis 6: The relationship between CSE and leadership aspirations is mediated by the quality of the mentoring relationship, such that when the effects of the quality of the mentoring relationship on leader aspirations is controlled, the relationship between CSE and leadership aspirations diminishes.

If there was a significant mediating influence of quality on the relationship between CSE and leadership aspirations, we planned to further explore whether the impact of quality was due to gender similarity, occupational similarity, length of the mentor-protégé relationship, or amount of interaction with the mentor.

### CHAPTER TWO

#### **METHOD**

## **Survey Methodology**

## **Participants and Procedure**

228 college women from a large, public University in the Southeastern United States were recruited using the university human subjects research pool. Participants were able to sign up for the study via the online research portal and were only told that it was a female-only study. Participation in the human subjects research pool usually grants students course credit or extra credit for a variety of classes within the psychology department. All responses were anonymous. All participants were female and the majority were freshman (61.8%). Participants came from a wide variety of majors, with the largest percentages coming from Psychology (17.2%), Biological Sciences (10.1%), and Marketing (6.1%). The vast majority reported their age between 18 and 20 (90.0%).

## **General Study Measures**

**Biodata.** A number of control variables were included to allow for testing of the effects on the dependent measures. Included were: age, race, gender, year in school, GPA, previous work experiences, previous leadership experience, intended career field, parents' professions, and current major (see appendix A).

These variables were added in order to provide a more comprehensive understanding of the demographic variables that predict which women are more likely to have leadership aspirations. The relationship between these variables and the dependent measure was assessed and controlled when appropriate.

Core Self-Evaluations. The 12-item Core Self Evaluation Scale (CSES) created by Judge et al. (1997) was used to assess CSE (see appendix B). For this study, we kept the negatively worded scale items as CSE has been extensively used and continues to be found to have high reliability estimates, although we acknowledge as previous research has found reversed-scored items to at times be less reliable and cluster onto their own factors (Herche & Engelland, 1996; Schmidtt & Stults, 1985; Swain, Weathers, Neidrich, 2008; Weems & Onwuegbuzie, 2001). However, Judge and colleagues (2003) reported internal consistency reliabilities estimates of between .81 and .87 and a test-retest reliability of r=.81. Additionally, confirmatory factor analysis found support that the 12 items load onto one higher order factor. Furthermore, convergent and discriminant validity was found for the CSES as a measure of core self-evaluations (Judge et al., 2003) thus lending support to our decision to maintain the multidirectional nature of the original scale.

The CSES is a direct and global measure to assess the latent factor underlying self-esteem, locus of control, self-efficacy, and neuroticism/emotional stability. The scale utilizes a 5-point Likert scale ( $1 = strongly\ disagree$ ,  $5 = strongly\ agree$ ) and includes items such as " $I\ determine\ what\ will\ happen\ in\ my\ life,"$  "Sometimes  $I\ feel\ depressed$ ," and "Overall,  $I\ am\ satisfied\ with\ myself$ ." Items were averaged to give each participant an overall CSE score ( $\alpha = .83$ )

Leadership Aspirations. A slightly modified version of the Career Aspirations Scale (CAS; O'Brien, 1996) was used to measure leadership aspirations (see Appendix C). Reverse-scored items were edited to be positively worded. The CAS was originally

a 10-item scale measuring aspirations for leadership and promotion, managing and training others, and continuing education. However, Gray and O'Brien (2007), found that the items had a two-factor structure best supported by 8 key items. This 8-item scale has high internal reliability ( $\alpha$  = .77) and test-retest reliability (r = .84) with college-aged women (Grey & O'Brien, 2007), and contains two major content factors, leadership and educational aspirations. The two educational aspirations factor items were dropped, as they were not relevant to the study at hand. Additionally, the item "I would be unsatisfied just doing my job in a career I am interested in" was also dropped due to its low face validity and confusing wording. Some example scale items include "I hope to become a leader in my career field," "I plan on devoting energy to getting promoted in the organization or business I am working in," and "Attaining leadership status in my career is important to me."

Additionally, four modified items from Tharenou's (2001) 13-item Managerial Aspirations scale were used. These items addressed the desire to have more responsibility and power within an organization. The items were slightly modified to maintain a unidirectional scale and to address the future-state nature of employment in the current sample. As a whole, the scale has an alpha of .94 and test-retest reliability above .73 (Theranou, 2001). The items included from this scale are: "My aspirations are very high in regard to professional recognition and achievement," "I would like to be in a position of influence in my future organization," "I would like to be in a position of responsibility in my future organization," and "I would like to advance to a position where I can have an influence on organizational policy."

In sum, Leadership Aspirations were measured using a combination of 11 the CAS and Managerial Aspirations scale items. All items were measured on a 5-point Likert-scale with response options ranging from "Not at all true of me" to "Completely true of me." Item scores were averaged for each participant, leading to a single Leadership Aspiration score per person and the scale reached well beyond acceptable levels of internal consistency, both for those participants that responded to the items after encountering an average status role model ( $\alpha$  = .95) and those that read about a high status role model ( $\alpha$  = .93).

## **Study One Specific Measures**

Leadership Fit. Leadership fit was measured two ways in the current study. First, leadership fit was measured using a modified short form Bem Sex Role Inventory (short-BSRI; Bem, 1981; items as found in Özkan & Lajunen, 2005). The original BSRI contained 60 items (Bem, 1974). The BRSI-Short scale contains 30-items that indicate masculine, feminine, and neutral traits (see Appendix D). This short form has been shown to have a consistent and replicable factor structure and higher internal consistency measures than the long form BSRI (Campbell, Gillaspy, Thompson, 1997; Colley, Mulhern, Maltby, Wood, 2009). Campbell et al., (1997) found the BSRI-short to have reliability consistent with the findings original provided by Bem in 1981 ( $\alpha$  masculine = .82,  $\alpha$  feminine = .89) which meets professional standards. The BSRI-short was scored on a 5-point scale with anchors ranging from "does not at all describe" to "completely describes" and items included "independent," "understanding", and "adaptable." The overall BEM scales for leader ( $\alpha$  = .82) and self-report ( $\alpha$  = .85) scores showed

acceptable standards of internal consistency, as did sub-scales for both the leader and self-report scales (agentic,  $\alpha = .75$ ,  $\alpha = .82$ ; communal,  $\alpha = .92$ ,  $\alpha = .92$ , respectively).

While the BSRI-short is typically used to measure sex-role stereotyping, in this study it was used to help understand perceived leadership behavior and how similar the participant felt they were to a successful leader in their field. However future use of the BSRI-short in this manner is discouraged in favor of more global measures. Measurement issues concerning the BSRI-short are discussed in more depth later in the paper.

One item from each trait category was removed in the current study. From the masculine category, "Has leadership abilities" was removed due to its redundancy with a highly similar item. From the feminine category "Loves children" was removed as it seems incongruent with the other items and has been previously shown to not load onto either the feminine or masculine factor (Choi, Fuqua, & Newman, 2009). Finally, from the neutral category, "Jealous" was removed due to its low face validity when dealing with issues of leadership. In order to measure the fit between leader BSRI scores and self BSRI scores, we took the following steps in the current study. First, the correlation between the participant's self-rating and successful leader-rating was calculated. Next, the weighted average for the masculine/agentic, feminine/communal and neutral items was obtained.

The current leadership fit score calculations allowed for fit to be addressed in a non-direct manner as well as allowing for the examination of the agentic and communal trait differences on leadership aspirations. We believed that differences in agentic traits would have a larger impact on leader aspirations than communal traits due to the

stereotypically male perceptions of leadership. Also, this type of calculation allowed us to examine the overall perceived similarity between the participant and the leader they imagined from within their field without computing difference scores. This is a benefit to the current research as we recognize the past findings that provide cautions about the possibility of methodological issues, such as reduced reliability (Edwards, Perry, 1993; Peter, Churchill, Brown, 1993) when using difference scores.

In addition, leadership fit was measured using a single item scale that asks participants "Overall, how much do you believe you are like the successful leader from your intended career field?" (see Appendix D). Responses were recorded using a 5-point Likert scale with anchors ranging from "I am almost nothing like the successful leader from my intended career field" to "I am almost exactly like the successful leader from my intended career field."

Role-Model Status. Four vignettes were designed to represent four levels of achievement represented by a role model. These levels were more moderate than the manipulations used in past research. Each vignette was crafted to portray one of four levels of performance: low-moderate, high-moderate, low-excellent and high-excellent. Respondents were told to assume that the vignette was a female in the respondent's field.

These vignettes were piloted in order to select two for use in the current study (see Appendix E). Ratings of the vignettes were made on four items: "To what extent would you view this person as successful in your field," "How impressed are you by this person's achievements," "How much do you think that this person has accomplished for this stage of her career," and "The career center is considering inviting this person to

campus to give a short talk about her career to serve as a role model to students. Do you think she would be a good role model for people in your field?"

An ANOVA was run to determine whether the various vignettes were significantly different. Results indicated that the four vignettes were statistically different for the questions regarding success, [F(3,48) = 22.67, p < .01], impressiveness [F(3,48) = 15.21, p < .01], accomplishment [F(3,48) = 20.28, p < 01], and ability to serve as a role model [F(3,48) = 10.83, p < .01]. Next, t-tests were used to select those two vignettes that differed most significantly. While the High-Excellent vignette (M = 6.71, SD = 0.37) did not differ from the Low-Excellent vignette (M = 6.81, SD = 0.36) condition, t(22) = -0.43, p > .05, it did differ from both the Low-Moderate vignette (M = 4.83, SD = 1.79; t(15) = 4.49, p < .01) and the High-Moderate vignette (M = 5.73, SD = 1.35; t(21) = 2.87, p < .01) conditions. Thus, after considering the results, the High-Excellent and Low-Moderate conditions were chosen to be used in the present study.

It is worth noting that some prior research has used more extreme manipulations of success in order to portray both unsuccessful or negatively stereotyped individuals and highly successful potential role models. As noted in the earlier review, these negative manipulations include extreme stereotypes of individuals in scientific professions, and the positive manipulations often included extremely accomplished potential role models such as Hillary Clinton or Oprah Winfrey. While these are successful women, they may evoke different emotional reactions from participants based on a range of individualistic, personalized attitudes toward these potential role models.

By using a moderately successful and extremely successful general description of an individual in the participant's field, we hope to present a more realistic and personally relevant set of potential role models to participants. So while the current investigation uses more realistic role-model examples, pilot study participants found the Low-Moderate example to provide a role model that was above average on a 7-point Likert scale (M=4.83, SD=1.79). Thus, the current study still provided examples of role models that could be admired by participants, without resorting to gross oversimplifications or using polarizing real-life examples.

# **Study Two Specific Measures**

Mentor Quality. In the current study, mentor quality was assessed using a combination of Ragins and McFarlin's (1990) Mentor Role Instrument (MRI) and Ragins and Cotton's (1999) Satisfaction with Mentor Scale (SMS; see Appendix F). Both instruments were measured using a 5-point Likert scale with responses ranging from "strongly disagree" to "strongly agree." The SMS and MRI items will be combined and randomly ordered within the survey.

The MRI (Ragins & Cotton, 1999) is a 33-item measure that assesses mentor functions via 11 main mentor role categories. The MRI has been shown to be a reliable measure (Ragins & McFarlin, 1990) and the coefficient alphas for the various mentor role categories range from .63 to .91 (Ragins & Cotton, 1999). The scale was constructed with confirmatory factor analysis and based on Kram's (1985) nine mentor roles. It also includes two psycho-social mentor roles that are thought to help account for gender differences in mentoring relationships. These two additional categories, Parent and Social

Interactions, seek to explain how some protégés may view their mentor as a parental figure or abstain from social interaction with their mentor to avoid sexual issues within the mentoring relationship.

However, in the currently study the Social Interactions and the Protect categories will be dropped. Social Interactions will be dropped because the items are more appropriate for a post-college mentorship relationship. The Protect items will be dropped because they are also more workplace appropriate and have low face-value for what a mentor at the college level should do. Additionally, some items will be modified to account for the future-state of the participants' career life as well as slightly modified to accommodate those participants that have general-topic mentors. Therefore the MRI in the current study will only contain 27-items. Some item examples include "My mentor provides support and encouragement," "My mentor gives me tasks that require me to learn new skills," and "My mentor is someone I identify with."

The SMS (Ragins & Cotton, 1999) is a 4-item scale that assesses the overall satisfaction a protégé has with her mentor. The scale has a coefficient alpha of .83 (Ragins & Cotton, 1999) and includes items such as "My mentor is someone I am satisfied with" and "My mentor has been effective in his/her role". Two of the SMS items were reverse coded and were reworded to create a unidimensional scale. Finally, a final item "My mentor is similar to me" was added as a single item measure of similarity (discussed below) but incorporated into the larger Mentor Quality scale. The modified scale was 32 items for those with career mentors and 30 items for those with general mentors (see Appendix F) and was averaged into an overall Mentor Quality score.

Mentor Quality scale reliability for those that had general mentors ( $\alpha$ =.94) as well as those participants that had career mentors ( $\alpha$ =.95) was well above professional standards.

Mentor-Protégé Similarity. Gender similarity was measured with a single item. After identifying whether they had been in a mentoring relationship within the last 12 months, participants indicated whether their mentor was male or female. For the 63 participants that reported having general mentors, 75% had a mentor that was female and of the 80 participants that reported having a career specific mentor, 63% indicated having a female mentor. Thus, the majority of participants that had a mentor were in a mentoring relationship with a female.

Mentor-protégé career similarity was assessed with a single-item yes/no response. Participants indicated career similarity with their mentor by answering yes or no to "Is your mentor a part of your intended career field?" (see Appendix G)

Additionally, a single item "My mentor is similar to me" was added to the mentor quality items help assess perceived similarity (see Appendix F).

Mentor-Protégé Relationship Characteristics. Duration of the mentoring relationship was measured with a single item, "What is/was the duration of your relationship with your mentor?" Responses range in time from "Less than 3 months" to "4 or more years."

Mentor-protégé interaction was measured with two separate single-item measures. First, interaction frequency was assessed by asking participants "In general, how often do/did you interact with your mentor?" with response options ranging from "About once a year" to "More than once a day." In addition, interaction length was measured by

asking "On average, when you interact with your mentor, how long does the interaction last?" with provided response options ranging from "Less than five minutes" to "More than an hour" (see Appendix H).

### CHAPTER THREE

### ANALYSES

All statistical analyses were conducted using SPSS 18.0, with the addition of the PROCESS macro, an SPSS add-on written by Andrew F. Hayes. Before beginning analyses, the data on individual measures were screened for outliers. Descriptive statistics were examined to ensure normal distribution of the data. Cases were also examined for non-normal responses. Based on these analyses, one case was permanently removed from the dataset bringing the final number of participants to 228. Additionally, scale reliabilities were conducted to ensure that measures met acceptable levels of reliability and to provide rational for maintaining items within the scales.

As listed in Table 3 and discussed in the measures section, all scales reached the recommended reliability alpha level of .8, providing support for scale integrity. The majority of scales were measured on a 5-point Likert scale. The means for all scales were above the midpoint. The descriptive statistics, variable correlations, and internal reliabilities for all scales used in the current study are listed in Table 3.

# **Study One: Tests of Hypotheses**

Study one examined the impact of Core Self-Evaluations on leadership aspirations (H1) and further hypothesized that the CSE-aspiration relationship would be mediated by self-perceived leadership fit (H2) and by the presence of a mentor (H3). Further, we expected that CSE would interact with the presence of a high status role model to predict aspirations (H4).

## **Hypothesis 1**

Hypothesis 1 stated that there would be a significant, positive relationship between CSE and leadership aspirations. For Study One, which included all participants, there was a statistically significant positive relationship between CSE and Leadership Aspirations (r = .27, p < .001). Thus, the simple relationship between CSE and aspirations was significant and in the hypothesized direction.

In addition to conducting simple correlations, hierarchical multiple regression was conducted to better understand the relationship between CSE and Leadership Aspirations. This analysis involved entering biodata variables into the first block while CSE was placed into the second block. This initial Study One stepwise regression suggested that previous leadership experience was a significant control variable for the relationship between CSE and Leadership Aspirations. The final regression indicated that previous leadership experience and CSE explained 9.5% of the variance (F(2, 209) = 10.90, p < .001) in Leadership Aspirations. It was found that previous leadership experience significantly predicted Leadership aspirations ( $\beta$  = .15, p < .05), as did CSE ( $\beta$  = .25, p <

.001), with CSE predicting Leadership aspirations 5.9% above and beyond previous leadership experience alone (see Table 4).

## **Hypothesis 2**

Hypothesis 2 stated that the relationship between CSE and leadership aspirations would be partially mediated by the psychological variable of leadership fit. When the impact of leadership fit was controlled, we expected that the relationship between CSE and leadership aspirations would become weaker.

In order to test Hypothesis 2, two different measures or indices of leadership fit were used. The first was a correlation between respondent's self-perceived leader characteristics and the respondents' perceived characteristics of a successful leader in their field. This provided a relatively indirect measure of leader fit. The second index of leadership fit was more explicit and asked respondents to rate their similarity to a successful leader in their field.

The first set of analyses involved the indirect measure of self-rated leader qualities and those of a stereotypically successful leader. First the Leadership Fit correlation needed to be conducted, finding the relationship between how a participant felt about themselves on a variety of leadership qualities in relation to how they viewed a successful leader from within their intended field on those same leadership qualities. This was done by correlating each participant's responses on the self-report scale with their responses to the scale that tapped into their beliefs about a stereotypical leader in their field. Next, using the PROCESS macro in SPSS the mediational effects of Leadership Fit on the relationship between CSE and Leadership Aspirations were explored. For this first

analysis, involving a non-direct measure of leadership fit, our mediational hypothesis was not supported.

Specifically, the predictor variable, CSE, was significantly related to both the mediator (Leadership Fit;  $R^2 = .10$ , F(2,207) = 11.59, p < .001) and the outcome variable (Leadership Aspirations;  $R^2 = .10$ , F(2,207) = 10.89, p < .001), even after controlling for previous leadership experience. In the mediation analysis, CSE was entered as the predictor, previous leadership experience as a covariate, leadership fit as the mediator, and leadership aspirations as the outcome variable. The overall relationship was significant ( $R^2 = .10$ , F(3, 206) = 7.51, p < .001). However, Leadership Fit's relationship with Leadership Aspirations became insignificant when coupled with CSE (b = .19, t(206) = .88, p = .38) and experience, leading to mediation being unsupported for the proposed variables (see Table 5).

Next the agentic and communal subscales were further explored for their relationship with leadership aspirations. Due to the reduced variance in the self and leader scales, correlations were no longer calculated for participants. Instead, fit scores were calculated using weighted averages for each scale item pair. These scores were entered as mediators of the CSE and Leadership Aspirations relationship in the PROCESS macro. The agentic fit score was not a significant predictor of Leadership Aspirations ( $\beta$  =.83, t(208) = 1.57, p = .12). The communal fit score was also insignificant in predicting Leadership Aspirations ( $\beta$  =.43, t(208) = .97, p = .33). These findings do not support the mediating effects of Leadership Fit – either from a masculine or feminine focus – on the relationship between CSE and Leadership Aspirations.

The mediation analyses were repeated using the more direct measure of fit, where participants were asked to explicitly rate their similarity to a successful leader in the field. This second analysis involved the same hypothesis and the potential mediating effects of leader fit on the CSE-leadership aspirations relationship. The same PROCESS mediation analysis (Model 4) was conducted, but the non-direct leadership fit correlation was replaced with the direct measure response as the mediating variable. CSE, previous leadership experience, and Leadership Aspirations were used in the same way as in the previous mediation.

This direct measure of leadership fit did support our hypothesis that fit would partially mediate the relationship between CSE and Leadership Aspirations. For the direct fit mediation analysis, CSE was significantly related to both Leadership Fit ( $R^2$  = .07, F(2,208) = 7.75, p < .001) and Leadership Aspirations ( $R^2$  = .09, F(2,208) = 10.90, p < .001), even while taking previous leadership experience into account as a covariate. The overall relationship between the variables was significant ( $R^2$  = .11, R = .11, R = .11, R = .001; see Table 6).

When Leadership Fit was entered before CSE in PROCESS mediation, it was significant ( $\beta$  = .13, t(207) = 2.14, p < .05). The CSE-Leadership Aspiration relationship was weakened when Leader Fit was entered first ( $\beta$  = .32, t(207) = 3.04, p < .01) as compared to the CSE-Leader Aspiration relationship when Leader Fit was not in the equation ( $\beta$  = .38, t(208) = 3.67, p < .001). Overall, these two analyses involving H2 suggest partial mediation of the relationship between CSE and Leadership Aspirations by

Leadership Fit when fit was measured by a direct index, but not when Leader Fit was measured more indirectly.

Post-hoc analyses were conducted to further examine the feminine and masculine characteristics that were initially thought to be important to the Leadership Fit measure. While the relationship between leadership and self-perceptions was not a significant mediator of CSE and Leadership Aspirations, self-ratings of the communal (feminine) and agentic (masculine) characteristics were thought to be valuable. Thus, we averaged participants agentic and communal sub-scale self-scores in order to further understand the how self-scores influenced the relationship between CSE and Leadership Aspirations. These scores were found to be significantly correlated to CSE (Agentic, r = .25, p < .001; Communal, r = .15, p < .05) and Leadership Aspirations (Agentic, r = .36, p < .001; Communal, r = .20, p < .01)

Both the Agentic and Communal self-report scale scores were found to partially mediate the relationship between CSE and Leadership Aspirations. When the Agentic Self Score was entered in PROCESS mediation, it was a significant predictor of Leadership Aspirations ( $\beta$  = .38, t(208) = 4.89, p < .001). The CSE-Leadership Aspiration relationship was weakened when Agentic Self Score was entered first ( $\beta$  = .29, t(208) = 2.88, p < .01) as compared to the CSE-Leader Aspiration relationship when Agentic Self Score was not in the equation ( $\beta$  =.41, t(209) = 4.02, p < .001). The overall mediation relationship between the variables was significant ( $R^2$  = .17, F(2, 208) = 20.89, p < .001).

The CSE-Leadership Aspiration relationship was also weakened when Communal Self Score was entered in PROCESS mediation. Communal Self Scores were a

significant predictor of Leadership Aspirations ( $\beta$  = .21, t(206) = 2.77, p < .01). The CSE-Leadership Aspiration relationship was weakened when Communal Self Score was entered into the relationship ( $\beta$  = .38, t(206) = 3.66, p < .001) as compared to the CSE-Leader Aspiration relationship when Communal Self Score was not entered ( $\beta$  =.44, t(207) = 4.16, p < .001). The overall mediation relationship between the variables was significant ( $R^2$  = .11, F(2, 206) = 12.78, p < .001). These results support self-reported agentic and communal characteristics as partial mediators of the relationship between CSE and Leadership Aspirations.

## **Hypothesis 3**

In the analyses of H3, we examined the possibility that Mentor Presence would partially mediate the relationship between CSE and Leadership Aspirations. Specifically, H3 stated that the relationship between CSE and leadership aspirations would be partially mediated by the social variable of the presence of a mentor. When the presence of a mentor was controlled, the relationship between CSE and leadership aspirations was expected to be weakened.

Since Mentor Presence is a dichotomous variable, PROCESS could not be used to analyze the proposed hypothesis. Instead, correlations were first run to better understand the relationship between the variables of interest. Mentor Presence was coded so that a 1 signified having no mentor while a 2 signified indicating having a mentor. While CSE and Leadership Aspirations were significantly, positively correlated (r = .27, p < .001), Mentor Presence was not significantly correlated to CSE (r = .04, p = .59) or

Leadership Aspirations (r = .12, p = .07; see Table 7). Thus, H3 was not supported by these simple pattern of correlations.

Next, hierarchical regression was used to further explore the relationship between variables, with all regressions using previous leadership experience as a control variable in the first step. CSE was significantly related to Leadership Aspirations ( $R^2$  = .09, F(2,206) = 10.59, p < .001). When both CSE and mentor presence were entered into the regression, the overall R squared was significant ( $r^2$  = .10, F(3,205) = 7.92, p < .001). However, when entered first, Mentor Presence's relationship with Leadership Aspirations was insignificant ( $\beta$  = -.17, t(205) = -1.6, p = .12) thus again failing to support H3 which hypothesized that Mentor Presence would mediate the relationship between CSE and Leadership Aspirations.

## **Hypothesis 4**

The final hypothesis in study one involved the potential interaction of respondent CSE with role model status, as manipulated in the scenarios that respondents read. Hypothesis 4 suggested that the relationship between role-model status and leadership aspirations would be positive for those women with high CSE. As role model status increased from moderate to high, leadership aspirations were expected to increase for high CSE women (H4a) and decrease for low CSE women (H4b). Thus participants that read the moderate-status vignette were coded as a 1 while those that read the high-status were coded as a 2, therefore positive results would indicate an increase in both role-model status and leadership aspirations.

Results indicated that Role Model Status was not a significant predictor of Leadership Aspirations ( $\beta$  = .07, t(207) = .69, p = .49), thus the analyses involving role model status as a mediator were not conducted. This suggested that in the present study, exposure to a high or moderate status role model did not have any significant impact on the leadership aspirations of young women.

### **Study Two: Tests of Hypotheses**

In Study Two, we examined the relationship between CSE, mentoring quality and leadership aspirations for the subset of women who reported having a mentor within the last 12 months. Hypothesis 5 stated that we expected to find a significant relationship between CSE and leadership aspirations for this more select group of individuals. Simple correlational analyses revealed a significant positive relationship between CSE and Leadership Aspirations (r = .24, p < .01)

The potential impact of the control variables, including past leadership experience, was examined by entering CSE after these biodata. Differently than for Study One data, the regression analysis for Study Two indicated that no biodata measures were significantly related to leadership aspirations when entered in a regression along with CSE. The results suggested that CSE predicted 5.3% of the variance (F(2,136) = 7.66, p < .01) in Leadership Aspirations for those Study two participants ( $\beta$  = .35, t(136) = 2.77, p < .01). Thus CSE emerged as a significant predictor of leadership aspirations even in a more restricted sample of respondents than in Study One, providing support for H5.

We also examined the impact of the quality of mentoring relationship on leadership aspirations in Study Two respondents. As proposed in Hypothesis 6, we believed that the quality of the mentoring relationship would mediate the CSE-leader aspiration linkage and planned to examine the underlying basis of these effects if the relationship proved significant. If mentoring quality served as a mediator of the CSE-leader aspiration relationship, we would examine the underlying basis of the impact of mentoring quality on leadership aspirations. Specifically, we believed the mediational

effects of quality would be due to gender similarity, career similarity, mentor-protégé relationship length, and amount of weekly interaction with the mentor.

Tests of Hypothesis 6 explored the mediating effects of perceived mentor quality on the relationship between CSE and Leadership Aspirations. We examined this relationship for those participants who reported having a career-specific mentor and for those who reported having a general-life mentor. Since mentor quality items were slightly modified to accommodate the more general nature and non-career-specific role of a lifementor, the two groups were examined separately to clarify potential effects of these two types of mentors.

The first analysis involved only those Study Two respondents who reported having a career mentor. When using the data for those respondents who reported having a career mentor, CSE did not significantly relate to Leadership Aspirations ( $R^2 = .05$ , F(1,69) = 3.38, p = .07), although it approached significance. Thus, H6 was not supported when mentor quality was explored for those who reported having a mentor for their career.

Exploratory analyses involving these participants in the test of H6 revealed that CSE was significantly related to Mentor Quality ( $R^2$  = .08; F(1,69) = 6.10, p < .05) and Mentor Quality was significantly related to Leadership Aspirations ( $\beta$  = .45, t(68) = 2.73, p<.01). While the CSE-Leadership Aspiration relationship slightly exceeded the statistical threshold for significance (p = .07) it is worth noting that Mentor Quality decreased CSE's relationship to Leadership Aspirations ( $\beta$  = .18, t(68) = 1.06, p = .29) from the direct relationship reported in PROCESS mediation ( $\beta$  = .31, t(69) = 1.84, p =

.07; see Table 8). Thus, while the current hypothesis was not statistically supported, a larger sample than the 71 participants in the current subset may have yielded a mediating effect of career mentor quality on the relationship between CSE and Leadership Aspirations.

The test of H6 was repeated using those Study two respondents who reported having a General mentor rather than a career mentor. The relationship between General Mentor Quality, CSE and Leadership Aspirations was more definitive. The data indicate that general mentor quality did not mediate the relationship between CSE and Leadership Aspirations as the variables were not significantly correlated to one another (CSE-Leadership Aspirations, r = .22, p = .08; Mentor Satisfaction-Leadership Aspirations, r = .09, p = .48; CSE-Mentor Satisfaction, r = .08, p = .56) and the paths between variables in the mediation were found to be insignificant (see Table 9). Therefore, for those participants that reported having a general, non-career mentor, Hypothesis 6 was unsupported.

In summary, results of Study Two showed that quality of mentorship did not mediate the CSE-leadership aspiration relationship.

#### CHAPTER FOUR

#### DISCUSSION

### **Implications of the Current Study**

The present study tested the relationships between core self-evaluations, leadership perceptions, and various forms of social support. In total, six hypotheses were examined. Even though the original relationships had sound conceptual and theoretical backing, only two hypotheses were supported. However, both the supported and unsupported hypotheses help us better understand some of the driving forces behind young women's leadership aspirations. The implications of the results will be discussed in more detail in order to expand on the possible reasons for the findings of the study. Limitations and strengths are also discussed, as well as directions for future research.

Previous research indicates a relationship between self-esteem and leadership aspirations, and the current study extended this research by examining the relationship between CSE and leadership aspirations. Results of the study suggest that self-perceptions such as CSE drive leadership aspirations. CSE remained a significant predictor of leadership aspirations in a sample of women with and without mentors.

Providing interventions in order to boost CSE levels in underrepresented leadership populations may be an effective way to drive change in leadership numbers, especially for women who are underrepresented in leadership positions. Bandura (1982) stated that there are four main ways to influence self-efficacy, which is a subcomponent of CSE. They are: enactive mastery (personal accomplishments), vicarious experience

(behavioral modeling), verbal persuasion (encouragement), and managing physiological arousal (e.g., anxiety; Gardner & Schermerhorn, 2004).

While all four of these experiences can influence efficacy beliefs, it is each individual's personal interpretation and combination of these factors that ultimately determine their self-efficacy (Gist & Mitchell, 1992). Thus, mentors may be able to provide three of the four determinants of self-efficacy. By providing behavioral models, encouragement, and tasks that can increase personal successes, mentors can help continue to build on the efficacy beliefs of those they advise. Additionally, when armed with this knowledge, young women may be able to seek out opportunities that give them experiences that can boost their beliefs in themselves, select role models that reflect successful behaviors, and encounter more situations to induce a variety of emotional states to better understand their capabilities in a number of settings.

These positive behaviors have been linked to the pursuit of and attainment of challenging goals, greater task perseverance, and increased stressed resistance (Gardner & Schermerhorn, 2004). Additionally, increased positive self-evaluations may lead to an increase in positive self-talk and mental imagery, both of which have been linked to increased performance across a number of domains including sports, behavior modification, and emotion regulation (Neck & Manz, 1992). Thus, it is not a far stretch to believe increased core self-evaluations would lead to behaviors that would result in an increase in behaviors that would facilitate success as a leader. Mentors may also play a role in the leadership development of young women by providing contextual exemplars, reducing poor quality behavioral decisions and in turn, increasing leadership efficacy

through positive personal experiences which can increase personal identification as a leader (Lord & Hall, 2005).

Results of this study extend the existing literature on CSE and leadership for young women who are in the beginning phase of their careers. Thus, the use of this population for leadership aspirations is relevant to understanding the initial stages of career development and the internal and external forces that shape these decisions. By better understanding the leadership aspirations of women *before* they enter the workforce, we can help ensure that the trajectory of young women's careers begins with a focus on leadership, rather than arising after entering the workplace.

The current study attempted to evaluate the mediating effects of participant's perceived similarity to a leader in her intended career field through both direct and non-direct measures. While the non-direct measure of the fit between self-perceived and stereotypic characteristics of leaders did not prove significant in shaping leadership aspirations, the simple direct measure of self-rated similarity of self to a successful leader in the field did prove to be a significant influence on aspirations and to mediate the relationship between CSE and leadership aspirations.

In the context of the current study, this implies that overall beliefs about perceived similarity are more influential on leadership aspirations than specific matches on a number of leadership characteristics. This provides an interesting dichotomy between the actual characteristics for which participants saw themselves as being similar to leader versus their global view of similarity. While this finding may initially seem counterintuitive, the results may be highlighting that the driving forces that inspire

feelings of similarity are different for each participant. There may be one key element that drives feelings of fit, and this can best be captured through qualitative items or general measures. Future researchers may best be served by focusing on general measures for similar sample populations, rather than building out lists of potential leadership characteristics.

Boosting young women's global perceptions of leadership fit may be possible through mentors and selection of appropriate role models, but also lends support to the increased presence of women portrayed as leaders in print and the media. This base level of identification with leadership may be more critical than expected in fostering future female leadership and researchers would do well to continue to explore this difference from non-direct measures of fit. The power of these overall impressions of similarity as a mediator suggest that core self-evaluations may have an impact on inspirations in part by enhancing a woman's view of herself as similar to successful females in the field. Exposure to successful women in the field on a frequent basis may be a powerful motivator for women to seek out leadership positions.

This study also allowed us to examine the contribution of both mentors and role models to leadership aspirations, and treated the internal resource of CSE as a significant factor in understanding the impact of these two influences. The current study believed that the presence of a mentor would mediate the relationship between CSE and leadership aspirations. However, the relationship was not statistically supported.

This may be because the majority of the study population was early in their school career. The women that participated in the study may not have had enough time in

college to solidify their intended career path or to benefit from mentors in a way that would encourage an increase in leadership aspirations. To help young women aspire to leadership, mentors must ensure that they are providing quality mentorship and taking each individual protégé into account. While results from this study did not reach statistical significance, they do show a trend that young women with mentors that provide career, rather than psycho-social forms, of mentoring are more likely to have higher leadership aspirations.

Furthermore, providing extremely high status mentors and role models may not be the most effective way to inspire all women. While the results of the current investigation did not reveal that CSE to be a significant moderator of the role-model status and leadership aspirations relationship, it may be that the current manipulation was not strong and sustained enough to provide the same role model effects as in real life. Even so, there was a marked difference in the inspiration and intimidation provided by the role model vignettes. Participants found the more successful role model to be more intimidating but also more inspiring than the moderately successful role model. However, the moderately successful role model was still able to provide a level of inspiration to participants.

It is often assumed only the most successful people should be considered candidates for mentors and role models, findings from this study show that including a more varied selection of options for role models and mentors may be beneficial to college aged women. By letting young women know that role models are not a one-size-fits-all form of inspiration, this research can help support the formation of healthy, encouraging and motivating bonds.

From a methodological standpoint, our findings also suggest that more subtle manipulations of role models that do not involve contrasting high status publically recognizable figures with no role model at all may provide a more realistic appraisal of the impact of such models on leadership aspirations. One reason that the manipulation of role model status did not produce the findings consistent with past research is that the current manipulation involved role models that would realistically be encountered in a woman's career.

The findings of this study may help universities and organizations better understand the best ways to utilize mentor and role model programs effectively. As noted above, mentors are viewed as most effective when they provide career support to their protégés. By providing mentors with the training and information to best provide the types of support valued by college-aged women, schools can help improve the quality and effectiveness of mentoring relationships. Additionally, this information helps mentors avoid spending time on areas that do not show to be beneficial to their protégé.

In the reverse, there were a number of women in the study that reported not being engaged in a mentoring relationship. While this was neither a primary interest nor did we formulate any formal hypotheses about women without mentors, the anecdotal responses left by these young women are enlightening. A number of women mentioned being too "independent" to need a mentor, indicating that they may be unaware of the potential benefits of a mentoring relationship. Further education for young women about what a mentoring relationship can be - that mentors won't stop you from "figuring things out on your own," or that learning and taking advice from a mentor does not mean you have a

"crutch" or lose "independence" – is clearly important. There were also a number of women that mentioned having the desire for a mentor but not knowing how to go about meeting, connecting with, or properly identifying potential mentors. Ensuring universities are versed on the best ways to prepare college aged students, especially females, to meet and connect with mentors would be beneficial, as well as making certain this information is available to students.

Finally, helping young women see themselves as embodying the characteristics of leadership can help improve the likelihood of them achieving leadership status. By setting the stage for leadership aspirations and leadership success before young women leave the campus setting, we can enable young women's careers to begin, and hopefully grow, with a leadership focus. Adding more women leaders can help organizations see the benefits of female leadership qualities and change the stereotype of leadership for young women to come.

## Limitations, Strengths, and Future Research

We note that there are several limitations to the proposed study. First, we chose to restrict our sample to only women in order to highlight the experiences of an underrepresented population at the leadership level in the workforce. The experiences of women are important, however, the experiences of collegiate women in a Southern U.S. university climate may not be generalizable. Additional research conducted in different parts of the country or that considers males' experiences and leadership aspirations is encouraged. We also collected data only at a certain point in time. Longitudinal research would help expand the literature on the way leadership aspirations and mentoring relationship evolve throughout the college experience could even examine how collegiate aspirations translate into real-world leadership roles.

Secondly, we chose to only include college aged women in the current research. By restricting the sample to college women, we lose the perspective of those young females that might be entering the workforce without the benefit of a college education. By virtue of pursuing post-secondary education our sample may have higher leadership aspirations than the population at large. Further research on the leadership aspirations of non-collegiate women would provide a more comprehensive understanding of the how these aspirations arise. Moreover, moving research into the workforce would allow for the examination of how mentors influence women in the working world.

Furthermore, we asked participants to imagine a successful leader within their intended career field when we gathered the indirect measure of leader fit. Rather than providing an

actual person, leaving leaders up to the imagination may have created less salient leaders or increased the perceived similarity between the self and imagined leader.

In terms of limitations specific to Study Two, we recognize the range restriction we imposed in Study Two via the elimination of participants who have not had a mentor within the last year. However, to fully measure the effects of mentor quality, this culling of the data was necessitated. Continuing to research those women with mentors is encouraged; the current study highlights some of the benefits elicited by differing types of mentoring relationships. Future researchers should focus more closely on the specific types of behaviors within career and psycho-social mentoring dyads that are most effective in eliciting not only leadership aspirations but also actual leadership experience. The fact that the CSE-leadership aspiration relationship remained significant even in this more restricted sample speaks to the importance of this variable in understanding aspirations.

While we recognize the limitations in this study, we would also like to highlight some of the strengths of the current research. First, this research used realistic role model examples by providing vignettes that featured moderately successful females. In previous research unrealistic and extreme role model examples have been provided, leading to less identification with the role model by participants. Future researchers should be aware that the use of exaggerated examples is not required. Realistic role models can elicit effective differences in status when studying role modeling.

Additionally, we based our leadership fit measurements on a well-validated scale listing various characteristics that may be exhibited by leaders. Prior research has simply

looked at self-perceived leadership abilities rather than the perceived fit of specific agentic and communal traits with leadership demands in a young woman's chosen profession. By understanding the match between self-perceptions and leader perceptions, we are better able to capture an indirect measure of similarity between participants and their own image of a successful leader in their intended career field. We also reinforce this indirect measure by explicitly asking about how similar the participant is to the leader they imagined. Continued examination of non-direct measures of Leader Fit is encouraged.

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**APPENDICES** 

# Appendix A **Biodata** What is your age? I am \_\_\_\_\_ years old What is your race and ethnicity? Please select all that apply: \_\_\_\_ White/Caucasian \_\_\_\_ Black/African American \_\_\_\_ American Indian/Alaska Native \_\_\_\_ Asian \_\_\_\_ Native Hawaiian or other Pacific Islander \_\_\_\_ Hispanic or Latino \_\_\_\_ Other - Please list: \_\_\_\_ What is your gender? \_\_\_\_ Male \_\_\_\_ Female \_\_\_\_ I prefer not to answer What is your year in school? \_\_\_\_ Freshman \_\_\_\_ Sophomore \_\_\_\_ Junior Senior What is your GPA? I have a \_\_\_\_\_ GPA out of 4.0 Have you ever had a job? \_\_\_\_ Yes: If so, what type of job did you most recently have? \_\_\_\_ \_\_\_\_ No Have you ever held a leadership role? Yes: If so, what leadership role did you most recently hold? \_\_\_\_ No

Which category most closely fits the care	er you intend to go into after graduation?
Please select one category from the list be	elow.
Agriculture, Food, and Natural	Homemaking*
Resources	Human Services
Architecture and Construction	Information Technology
Arts, Audio/Video Technology, and	Law, Public Safety, Corrections, and
Communications	Security
Business Management and	Manufacturing
Administration	Marketing, Sales, and Service
Education and Training	Military Services*
Finance	Science, Technology, Engineering,
Government and Public	and Mathematics
Administration (Non-Military*)	Transportation, Distribution, and
Health Science	Logistics
Hospitality and Tourism	
Did your parent(s) work while you were	growing up?
Yes, both of my parents worked.	
Yes, my father worked.	
Yes, my mother worked.	
No. neither of my parents worked.	

What is your current major	in school?	
Accounting	English	Nursing
Administration and	Environmental and	Packaging Science
Supervision	Natural Resources	Pan African Studies
Agribusiness	Environmental	Parks, Recreation, and
Agricultural Education		Tourism Management
Agricultural	Financial Management	Philosophy
Mechanization and Business	Food Science	Physics
Animal and Veterinary	Forest Resource	Plant and
Sciences	Management	<b>Environmental Sciences</b>
Anthropology	Genetics	Political Science
Architecture	Geology	Prepharmacy
Art	Graphic	Preprofessional Health
Biochemistry	Communications	Studies
Bioengineering	Health Science	Prerehabilition
Biological Sciences	History	Sciences
Biosystems	Horticulture	Preveterinary Medicine
Engineering	Industrial Engineering	Production Studies in
Chemical Engineering	Landscape	Performing Arts
Chemistry	Architecture	Psychology
Civil Engineering	Language and	Religious Studies
Communication	International Health	Science Teaching
Studies	Language and	Secondary Education
Computer Engineering		Sociology
Computer Information	Management	Special Education
Systems	Marketing	Sports Communication
Computer Science	Materials Science and	Turfgrass
Construction Science	Engineering	Wildlife and Fisheries
and Management	Mathematical Sciences	
Early Childhood	Mathematics Teaching	Women's Leadership
Education	Mechanical	Youth Development
Economics	Engineering	Studies
Electrical Engineering		
Elementary Education	Modern Languages	

## Appendix B

## **Core Self-Evaluations**

Below are several statements about you with which you may agree or disagree. Using the response scale below, indicate your agreement or disagreement with each item by placing the appropriate number on the line preceding that item.

1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree
I am confident I get the success I deserve in life.
Sometimes I feel depressed. (r)
When I try, I generally succeed.
Sometimes when I fail I feel worthless. (r)
I complete tasks successfully.
Sometimes, I do not feel in control of my work. (r)
Overall, I am satisfied with myself.
I am filled with doubts about my competence. (r)
I determine what will happen in my life.
I do not feel in control of my success in my career. (r)
I am capable of coping with most of my problems.
There are times when things look pretty bleak and hopeless to me. (r)

## **Appendix C**

## **Leadership Aspirations**

In the space next to the statements below please circle a number from "1" (not at all true of me) to "5" (very true of me). If the statement does not apply, circle "1." Please be completely honest. Your answers are entirely confidential and will be helpful only if they accurately describe you.

1: Not at all true of me, 2: Slightly true of me, 3: Moderately true of me, 4: Quite a bit

le of me, 5: Very true of me
I hope to become a leader in my career field.
My aspirations are very high in regard to professional recognition and achievement.
When I am established in my career, I would like to manage other employees.
I would like to be in a position of influence in my future organization.
I plan on devoting energy to getting promoted in the organization or business I am
working in.
I would like to advance to a position where I can have an influence on
organizational policy.
I plan on developing as an expert in my career field.
When I am established in my career, I would like to train others.
I would like to advance a position of responsibility in my future organization.
I hope to move up through any organization or business I work in.
Attaining leadership status in my career is important to me.

## Appendix D

## **Leadership Fit**

## **Leader Prompt:**

I would now like to think about a successful leader in your intended career field. What types of characteristics would that leader exhibit? Below you will find several characteristics that might describe the leader you've imagined. Using the rating scale provided, indicate how much each word describes a successful leader from your career field:

## **Self Prompt:**

I would now like to think about how you see yourself. What types of characteristics do you exhibit? Below you will find several characteristics that might describe you. Using the rating scale provided, indicate how much each word describes you:

1: Does not at all describe, 2: S	lightly describes, 3: Moderatel	y describes, 4: Mostly
Describes, 5: Very much descri	ibes	
Defends own	Strong personality	Secretive
beliefs	Understanding	Dominant
Tender	Reliable	Affectionate
Conscientious	Self-sufficient	Adaptable
Independent	Compassionate	Willing to take a
Sympathetic	Eager to sooth hurt	stand
Unpredictable	feelings	Conceited
Assertive	Sincere	Aggressive
Sensitive to others'	Willing to take	Gentle
needs	risks	Tactful
Conventional	Warm	
Overall, how much do you be career field?	elieve you are like the success	ful leader from your
I am almost nothing like t	he successful leader in my care	er field
I am only slightly like the	successful leader in my career	field
I am somewhat like the su	ccessful leader in my career fie	eld
I am mostly like the succe	ssful leader in my career field	
I am almost exactly like the	ne successful leader in my care	er field

#### Appendix E

#### **Role Model Vignettes**

#### Low-Moderate Role Model Vignette -

Jane, a recent graduate of Clemson University, just celebrated her three-year anniversary at her place of employment. She recently donated some time to come back to Clemson to speak to students from your major about what it's like to have a job. Jane feels it's important to give back to her alma mater and to those who supported her. In her talk she said "I had to work really hard to get here. I didn't grow up with a lot, but hard work and my family helped me along the way." While in college, Jane tried to be a good student, and she always worked hard in school. Jane chose not to participate in academic or social clubs on campus and instead focused on her school work. Although she never won any awards for her efforts, she always tried her hardest and ended her studies with a 2.7 GPA.

After college she went on to work at an entry level position in the field you're considering at a company close to home. Since starting her job, Jane has been rated in the top 50% of employees and has received 'satisfactory' performance ratings at every performance review with her boss. Her boss says that "Jane is a good, reliable employee and is a pleasure to have in the workplace. She gets her work done on time and is self-sufficient. Jane tries to help out her coworkers and has the potential to grow into an excellent member of our organization. I hope she chooses to continue to share her talents with us." Jane has not yet been promoted but, because of her solid performance appraisals, hopes to move up in her company within the next 12 months.

#### High-Moderate Role Model Vignette –

Jane, a recent graduate of Clemson University, just celebrated her three-year anniversary at her place of employment. She recently donated some time to come back to Clemson to speak to students from your major about what it's like to have a job. Jane feels it's important to give back to her alma mater and to those who supported her. In her talk she said "I had to work hard to get here. I didn't grow up with a lot, but hard work and my family helped me along the way." While in college, Jane was a good and talented student, and she always worked hard in school. Jane participated in a few academic and social clubs and activities on campus but mostly focused on her school work. Although she never won any awards for her efforts, she always tried her hardest and ended her studies with a 3.0 GPA.

After college she went on to work at an entry level position in the field you're considering at a company close to home. Since starting her job, Jane has been rated in the top 40% of employees and has received 'satisfactory' performance ratings at every performance review with her boss. Her boss says that "Jane is a good, reliable employee and is a pleasure to have in the workplace. She gets her work done on time and is self-sufficient. Jane consistently helps out her coworkers and will grow into an excellent member of our organization. I hope she chooses to share her talents with us for years to come." Jane has not yet been promoted but, because of her solid performance appraisals, hopes to move up in her company within the next 6 months.

#### Low-Excellent Role Model Vignette -

Jane, a recent graduate of Clemson University, just celebrated her three-year anniversary at her place of employment. She recently donated some time to come back to Clemson to speak to students from your major about what it's like to have a job. Jane feels it's important to give back to her alma mater and to those who supported her. In her talk she said "I had to work really hard to get here. I didn't grow up with a lot, but hard work and my family helped me along the way." Jane was very smart and talented, and she always worked hard in school. Jane participated in a number of academic and social clubs and activities on campus and gained the respect of her friends and colleagues. She won two awards for her efforts, in addition to leaving with a 3.8 GPA and Cum Laude honors.

After college she went on to work in a coveted position in the field you're considering at a well-respected company. Since starting her job, Jane has been rated in the top 20% of employees and has received 'exceeds expectations' performance ratings at every performance review with her boss. Her boss says that "Jane is one of the best employees I've ever encountered and is a pleasure to have in the workplace. She not only gets her work done on time but goes above and beyond to make sure she delivers an outstanding product. Jane always helps out her coworkers and is a vital member of our organization. I hope she chooses to share her talents with us for years to come." Jane has already been promoted once but, because of her solid performance appraisals, hopes to move up in her company again within the next 12 months.

#### High-Excellent Role Model Vignette -

Jane, a recent graduate of Clemson University, just celebrated her three-year anniversary at her place of employment. She recently donated some time to come back to Clemson to speak to students from your major about what it's like to have a job. Jane feels it's important to give back to her alma mater and to those who supported her. In her talk she said "I had to work hard to get here. I didn't grow up with a lot, but hard work and my family helped me along the way." Jane was extremely smart and talented, and she always worked hard in school. Jane participated in many academic and social clubs and activities on campus and gained the respect of her friends and colleagues. She won numerous awards for her efforts, in addition to leaving with a 4.0 GPA and Magna Cum Laude honors.

After college she went on to work in a coveted position in the field you're considering at a highly respected company. Since starting her job, Jane has been rated in the top 10% of employees and has received 'exceeds expectations' performance ratings at every performance review with her boss. Her boss says that "Jane is one of the best employees I've ever encountered and is a pleasure to have in the workplace. She not only gets her work done on time but goes above and beyond to make sure she delivers an outstanding product. Jane always helps out her coworkers and is a vital member of our organization. I hope she chooses to share her talents with us for years to come." Jane has already been promoted twice but, because of her solid performance appraisals, hopes to move up in her company again within the next 12 months.

## Appendix F

## **Mentor Quality**

Below are several statements about your MENTOR with which you may agree or disagree. Using the response scale below, indicate your agreement or disagreement with each item by placing the appropriate number on the line preceding that item.

1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree

## **Career Mentor Scale**

My	mentor			
----	--------	--	--	--

 helps me attain desirable positions.	is someone I can confide in.
 uses his/her influence to support my	provides support and encouragement.
advancement.	is someone I can trust.
uses his/her influence for my benefit.	is like a parent to me.
helps me learn about opportunities in	reminds me of a family member.
my field.	treats me like family.
gives me advice on how to attain	serves as an inspiration to me.
recognition in my field.	is someone I identify with
_ suggests specific strategies for	represents who I want to be.
	serves as a sounding board for me to
achieving my career aspirations.	develop and understand myself.
 gives me tasks that require me to learn	guides my professional development.
new skills.	guides my personal development.
 _ provides me with challenging tasks.	accepts me as a professional person.
 _ assigns me tasks that push me into	sees me as being competent.
developing new skills.	thinks highly of me.
helps me be more visible in my field.	is someone I am satisfied with.
creates opportunities for me to	meets my needs.
impress important people.	helps me feel fulfilled.
brings my accomplishments to	has been effective in his/her role.
the attention of important people.	is similar to me.
the attended of maportalit people.	

# **General Mentor Scale**

# My mentor...

Appendix G	
Mentor-Protég	gé Similarity
My mentor is:	
Male	
Female	
Is your mento	a part of your intended career field?
Yes	
No	

# Appendix H

# Mentor-Protégé Relationship Characteristics

What is/was the duration of	your relationship with your mentor?
Less than 3 months	
4-6 months	
6 months – 1 year	
$_{}$ 1 – 2 years	
2 – 4 years	
4 or more years	
In general, how often do/did	you interact with your mentor?
About once a year	•
A few times a year	
About once a month	
A few times a month	
About once a week	
A few times a week	
Almost Daily	
More than once a day	
On average, when you intera	act with your mentor, how long does the interaction
last?	·
Less than 5 minutes	
5-15 minutes	
15-30 minutes	
30-45 minutes	
40-60 minutes	
More than an hour	

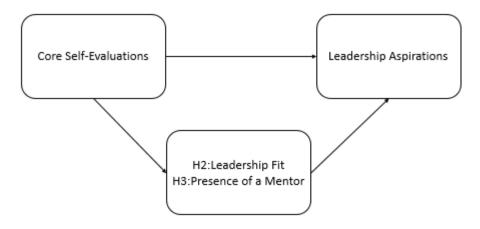


Figure 1. Mediated Relationships Explored in Study One

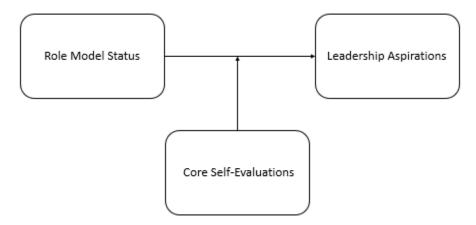


Figure 2. Moderated Relationship Explored in Study One

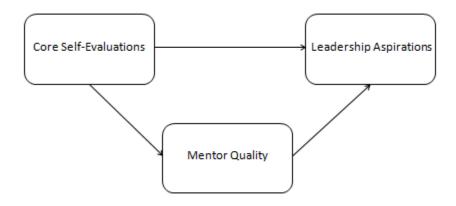


Figure 3. Mediated Relationships Explored in Study Two

# Table 1

# Various Definitions of Talent

Different definitions of talent in the world of work,

Source	Definition of talent
Gagné (2000)	"() superior mastery of systematically developed abilities or skills" (p. 67)
Williams (2000)	"describe those people who do one or other of the following: regularly demonstrate exceptional ability – and achievement – either over a range of activities and situations, or within a specialized and narrow field of expertise; consistently indicate high competence in areas of activity that strongly suggest transferable, comparable ability in situations where they have yet to be tested and proved to be highly effective, i.e. potential." (p. 35)
Buckingham and Vosburgh (2001)	"Talent should refer to a person's recurring patterns of thought, feeling, or behavior that can be productively applied." (p. 21)
Jericó (2001)	"The implemented capacity of a committed professional or group of professionals that achieve superior results in a particular environment and organization." (p. 428; translation ours)
Michaels et al. (2001)	"() the sum of a person's abilities—his or her intrinsic gifts, skills, knowledge, experience, intelligence, judgment, attitude, character and drive. It also includes his or her ability to learn and grow." (p. xii)
Lewis and Heckman (2006)	"() is essentially a euphemism for 'people" (p. 141)
Tansley, Harris, Stewart, and Turner (2006)	"Talent can be considered as a complex amalgam of employees' skills, knowledge, cognitive ability and potential. Employees' values and work preferences are also of major importance." (p. 2)
Stahl et al. (2007)	"a select group of employees - those that rank at the top in terms of capability and performance - rather than the entire workforce". (p. 4)
Tansley et al. (2007)	"Talent consists of those individuals who can make a difference to organizational performance, either through their immediate contribution or in the longer-term by demonstrating the highest levels of potential." (p. 8)
Ulrich (2007)	"Talent equals competence [able to do the job] times commitment [willing to do the job] times contribution [finding meaning and purpose in their work]" (p. 3)
Cheese, Thomas, and Craig (2008)	"Essentially, talent means the total of all the experience, knowledge, skills, and behaviours that a person has and brings to work" (p. 46)
González-Cruz et al. (2009)	"A set of competencies that, being developed and applied, allow the person to perform a certain role in an excellent way." (p 22; translation ours)
Silzer and Dowell (2010)	"() in some cases, 'the talent' might refer to the entire employee population." (p. 14)
Silzer and Dowell (2010)	"In groups talent can refer to a pool of employees who are exceptional in their skills and abilities either in a specific technical area (such as software graphics skills) or a competency (such a consumer marketing talent), or a more general area (such as general managers or high-potential talent). And in some cases, "the talent" might refer to the entire employee population." (pp. 13–14)
Silzer and Dowell (2010) Bethke-Langenegger (2012)	"An individual's skills and abilities (talents) and what the person is capable of doing or contributing to the organization." (p. 14)  "we understand talent to be one of those worker who ensures the competitiveness and future of a company (as specialist or leader) through his organisational/job specific qualification and knowledge, his social and methodical competencies, and his characteristic attributes such as eager to learn or achievement oriented" (p. 3)
Ulrich and Smallwood (2012)	"Talent = competence [knowledge, skills and values required for todays' and tomorrows' job; right skills, right place, right job, right time] × commitment [willing to do the job] × contribution [finding meaning and purpose in their job]" (p. 60)

**Table 2**Differentiating Characteristics of Mentors and Role Models

Characteristics differentiating three developmental targets

	Behavioral model	Role model	Mentor		
Defining processes	Observation and learning	Identification and social comparison	Interaction and involvement		
	Based on the capabilities of the target and desire to learn by the individual	Based on perceived similarity and desire to increase similarity by the individual	Based on an active interest in and action t advance the individual career		
Potential number	Multiple, depending on availability	Multiple; individual seeks requisite variety	Typically one or two primary		
Attributes sought in the target by the individual	Task skills; demonstrated high organizational performance levels	Role expectations; self-concept definition	Career functions; psychosocial functions		
Length of interaction between parties	Short-term	Variable	Typically long-term		
Flexibility in selection	Little	High; somewhat shaped by context	Moderately high; substantially shaped be context		
Awareness	Usually explicit awareness by both parties	Typically one-way on the part of the observing person	Usually explicit awareness by both parties		

**Table 3** *Means, Standard Deviations, Intercorrelations, and Reliability Estimates among Variables* 

	Variable	M	SD	1	2	3	4	5	6	7	8
1	Core Self- Evaluations	3.55	.51	(0.83)							
2	Leadership Aspirations	3.92	.79	0.27**	(0.94)						
3	Leader Fit - Indirect	.58	.25	0.33**	0.15*	(0.84)					
4	Leader Fit - Direct	3.52	.87	0.28**	0.19*	0.43*					
5	General Mentor	4.19	.49	0.08	0.09	0.14	0.27*	(0.94)			
6	Career Mentor Quality	4.28	.51	0.25*	0.36**	0.25*	0.23*		(0.95)		
7	Mentor Presence	1.34	.47	-0.04	-0.12	0.02	-0.02				
8	Role Model Status	1.53	.50	0.03	0.06	0.04	0.03	.09	.14	0.01	

Note: Internal consistency reliability estimates are plotted on the diagonal; Scales are on a 1-5 point range; Indirect Fit on 0-1 point range; Mentor Presence and Role Model status are dichotomous where 1 = yes and 2 = no and 1=low 2=high, respectively

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

**Table 4**Predicting Leadership Aspirations from CSE

Predictors	Unst. B	SE	Beta	t	p	$R^2$	Adj. R <sup>2</sup>
Model 1						.04	.03
	0.35	0.13	0.19	2.81	.006		
Model 2						0.10	.09
Previous Leadership Experience	0.29	0.12	0.15	2.31	0.02		
Core Self-Evaluations	0.38	0.10	0.25	3.67	0.00		

**Table 5**Coefficients of Direct and Indirect Effects of Mediation by Leadership Fit (Indirect) Controlling for Previous Leadership Experience

					Cons	sequer	nt				
	•		Leaders	hip Fit (M)	)		Leadership Aspirations (Y)				
Antecedent		Coeff.	SE	p	95% CI		Coeff	SE	p	95% CI	
Prev. Lead Exp.(Control)		.01	.04	.77	07 to .09	_	.28*	.12	.02	.04 to .53	
CSE (X)	a	.16***	.03	.00	.09 to .22	c'	.36**	.11	.00	.14 to .57	
Leadership Fit (M)						b	.19	.22	.38	23 to .62	
Constant	$i_1$	.01	.13	.96	25 to .26	$i_2$	2.05***	.41	.00	1.25 to 2.85	
R <sup>2</sup> =.10 F(2,207)=11.59,p<.001									<sup>2</sup> =.10 5)=,p<.001	I	

<sup>\*</sup>p<.05 \*\*p<.01 \*\*\*p<.001

**Table 6**Coefficients of Direct and Indirect Effects of Mediation by Leadership Fit (Direct) Controlling for Previous Leadership Experience

					Cons	sequer	nt			
			Leaders	hip Fit (M)	)	_	L	eadership A	Aspiration	s (Y)
Antecedent		Coeff.	SE	p	95% CI		Coeff	SE	p	95% CI
Prev. Lead Exp.(Control)	_	.07***	.14	.62	20 to .34	-	.28*	.12	.03	.03 to .52
CSE (X)	a	.44***	.12	.00	.21 to .66	c'	.32**	.11	.00	.11 to .53
Leadership Fit (M)						b	.13*	.06	.03	.01 to .26
Constant	$i_1$	1.85***	.45	.00	.97 to 2.74	$i_2$	1.81***	.42	.00	.99 to 2.64
	R <sup>2</sup> =.07 F(2,208)=7.75,p<.001						R <sup>2</sup> =.11 F(3,207)=8.92,p<.001			

<sup>\*</sup>p<.05 \*\*p<.01 \*\*\*p<.001

**Table 7**Correlations of Interest for Hypothesis 3

Variable	M	SD	1	2	3	4	
Leadership Aspirations	3.92	.78	1				
Core Self-Evaluations	3.55	.51	.27**	1			
Mentor Presence	1.34	.47	.12	.04	1		
Leadership Experience	1.76	.43	.19**	.17*	.02	1	

Note: Mentor Presence scale 1 = has no mentor, 2 = has mentor; Leadership Experience scale 1 = no, 2 = yes \*p<.05 \*\*p<.01

 Table 8

 Coefficients of Direct and Indirect Effects of Mediation by Career Mentor Quality

	Consequent									
		Career Mentor Quality (M)					Leadership Aspirations (Y)			
Antecedent	_	Coeff.	SE	p	95% CI		Coeff	SE	p	95% CI
CSE (X)	a	.29*	.12	.02	.06 to .52	c'	.18**	.17	.29	15 to .51
Career Mentor Quality (M)						b	.45**	.16	.01	.01 to .26
Constant	$i_1$	3.23***	.42	.00	2.39 to 4.08	$i_2$	1.52	.78	.06	04 to 3.08
	R <sup>2</sup> =.08 F(1,69)=6.09, p<.02				R <sup>2</sup> =.14 F(2,68)=5.59, p<.01					

<sup>\*</sup>p<.05 \*\*p<.01 \*\*\*p<.001

 Table 9

 Coefficients of Direct and Indirect Effects of Mediation by General Mentor Quality

	Consequent										
		Career Mentor Quality (M)					Leadership Aspirations (Y)				
Antecedent	_	Coeff.	SE	p	95% CI		Coeff	SE	p	95% CI	
CSE (X)	a	.06	.12	.60	18 to .31	c'	.34	.20	.09	06 to .74	
General Mentor Quality (M)						b	.13	.21	.54	30 to .56	
Constant	$i_1$	3.95***	.45	.00	3.06 to 4.85	$\mathbf{i}_2$	2.12	1.11	.06	11 to 4.34	
		$R^2 = .00$ F(1,57)=.27, p<.60					R <sup>2</sup> =.06 F(2,56)=1.74, p<.19				

<sup>\*</sup>p<.05 \*\*p<.01 \*\*\*p<.00