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Understanding the Role of Leadership Motivation in College Student Leadership Development

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UNDERSTANDING THE ROLE OF LEADERSHIP MOTIVATION IN COLLEGE STUDENT LEADERSHIP DEVELOPMENT

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Current scholarship situates leadership capacity, leadership self-efficacy, and motivation as core factors in predicting leadership action (Chan & Drasgow, 2001; Dugan, 2017). With relationships between leadership capacity and self-efficacy clearly established in college student leadership development literature (Dugan & Komives, 2007, 2010), this research endeavors to better understand motivation's role in the student leadership development process. Using Dugan (2017) and Chan and Drasgow's (2001) theoretical models as guides, this research will examine several models that test various relationships between leadership capacity, self-efficacy, and motivation. Because scholars have emphasized the importance of disaggregating data based on social identities (Kodama & Dugan, 2013), I will also explore the nature of these various relationships across race, gender, and sexual orientation. In better comprehending the nature of motivation's role in student leadership development, researchers and practitioners can understand to what degree leadership motivation influences the developmental process, potentially explore factors that bolster leadership motivation, and integrate environmental interventions that leverage motivation in the leadership development process.

CHAPTER 1

INTRODUCTION

Global, national, and local communities are contending with complex issues, such as poverty, sexual violence, racial injustice, and inter-religious conflict, for which there are no simple answers. Societies look to citizens who endeavor to engage communities and individuals to imagine, create, and collectively implement multifaceted solutions to these issues. Higher education is often recognized as a social system that develops citizens who can effectively engage diverse populations in social change processes to address community issues (Dewey, 2012); universities and higher education professional organizations have long embraced this as a valued outcome of higher education, recognizing the role they play in developing an engaged democracy in the United States (American Council on Education, 1949; Association of American Colleges & Universities [AAC&U], 2007; Lucas, 1994). Increasingly, collegiate educators are explicitly embracing student leadership development as a powerful way to cultivate students' abilities to catalyze social change in their communities (Komives, 2011).

Although campuses recognize the importance of leadership development as a component of collegiate education, limited numbers of students participate in leadership development programming or take on roles that foster leadership development (Dugan & Komives, 2007; Komives, Dugan, Owen, Slack, Wagner, & Associates, 2011). This begs the question of what campus educators can do to increase student engagement with

leadership development experiences. Scholars have identified a number of psychologicalfactors that influence leadership development including cognitive ability (Brungardt, 1996; Chan & Drasgow, 2001; Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001; Thompson, 2006), capacity (Dugan, 2011b; Dugan & Komives, 2010), self-efficacy (Dugan, 2011b; Dugan & Komives, 2010; Hannah, Avolio, Luthans, & Harms, 2008; Machida & Schaubroeck, 2011; McCormick, 2001), social perspective-taking (Dugan, Bohle, Woelker, & Cooney, 2014), resilience (Dugan, Kodama, Correia, & Associates, 2013), and motivation (Chan & Drasgow, 2001; Dugan, 2017; Keating, Rosch, & Burgoon, 2014). Of these factors, scholars recognize leadership capacity, leadership self-efficacy, and leadership motivation as central constructs in the leadership development process (Chan & Drasgow, 2001; Dugan, 2017); When considering the three constructs, leadership motivation has received little attention in the college student leadership development literature even though understanding its role in the developmental process may illuminate ways educators can leverage student involvement in leadership learning processes and, potentially, leadership enactment. The purpose of this research is to understand the role of leadership motivation in the leadership development process, specifically focusing on how it relates with leadership self-efficacy and leadership capacity.

Statement of the Problem

Scholars have made progress in understanding the theoretical and empirical relationships between leadership capacity, self-efficacy, and motivation. Leadership capacity is understood to be the skills, knowledge, and attitudes necessary to engage in leadership (Dugan, 2011b); leadership capacity is often situated within specific

theoretical models of leadership in that different leadership theories employ diverse yet sometimes overlapping skills, knowledge, and attitudes. Connected to but distinct from leadership capacity is leadership self-efficacy, which is the internal belief in one's ability to be successful engaging in the leadership process (Bandura, 1997). Finally, leadership motivation is understood as the individual drive that determines the level of intensity and persistence one has to engage in the leadership process (Chan & Drasgow, 2001). Theorized as three core psychological constructs central to the leadership development process that then may predict one's leadership behavior, students who foster and employ all three constructs are, theoretically, more likely to participate in leadership development opportunities and, as a result, more likely to engage in leadership processes (Chan & Drasgow, 2001). The interplay between the three constructs is believed to be mutually reinforcing with elevated levels in one construct contributing to the increases in the other two (Dugan, 2017); the bidirectional nature of this relationship can result in a recursive, on-going leadership development process. Contrarily, Chan and Drasgow (2001) hypothesized a more unidirectional model with leadership self-efficacy influencing leadership motivation, which, in turn, affects leadership capacity. Thus, according to Chan and Drasgow (2001), leadership self-efficacy and leadership motivation are key levers to develop leadership capacity, but gains in capacity do not necessarily result in greater self-efficacy or motivation.

Empirical studies have confirmed some relationships theorized between leadership capacity, self-efficacy, and motivation. Scholars in two particular fields have empirically investigated these psychological constructs: leadership studies and college student leadership. Leadership studies literature includes a broader collection of

interdisciplinary research conducted with a wide range of participants whereas college student leadership literature focuses on scholarship derived from student participants and has a specific focus on the collegiate context.

Leadership studies research illuminates some relationships between leadership motivation and leadership self-efficacy (Chan & Drasgow, 2001) as well as between leadership motivation and various aspects of leadership capacity (Barbuto, 2005; Barbuto, Weltmer, & Pennisi, 2010; Kark & Van Dijk, 2007). However, college student leadership scholars have introduced limited research that empirically connects leadership motivation with leadership self-efficacy and leadership capacity. A few college student leadership studies research leadership motivation as a central construct for leadership development (Cho, Harrist, Steele, & Murn, 2015; Keating et al., 2014; Rosch, Collier, & Thompson, 2015), yet only one college student leadership study has investigated leadership self-efficacy as a predictor of leadership motivation (Cho et al., 2015). On the other hand, several college student leadership studies reveal a relationship between leadership self-efficacy and leadership capacity (Dugan, Garland, Jacoby, & Gasiorski, 2008; Dugan, Kodama et al., 2013; Dugan & Komives, 2007, 2010). Collectively, the leadership studies and college student leadership empirical works seem to support an overarching theoretical connection between leadership self-efficacy, motivation, and capacity.

However, three primary issues plague the conclusions that can be drawn from research connecting leadership capacity, self-efficacy, and motivation. First, empirical studies have yet to measure the relationship between all three constructs in one study, thus holding constant for these interconnected factors and accounting for potential

mediating relationships. Whereas Chan and Drasgow (2001) theorize that leadership motivation mediates the relationship between leadership self-efficacy and leadership capacity, they have yet to empirically test the full model. One can infer relationships by piecing together multiple studies, but viably measured relationships (or lack thereof) have yet to be determined.

The second issue pertains to measurement methods that rely on implicit understandings of leadership. Connotations and assumptions associated with leadership vary greatly (Northouse, 2013); thus measurement models that default to implicit definitions of leadership leave room for significant doubt as to whether the scale or items measure a consistent construct. If a student perceives leadership as controlling others and another student understands leadership to be advocacy for social justice, when completing a survey that contains items about leadership, one can reasonable question whether they are responding to the same idea of leadership. And with self-efficacy and motivation being domain-specific, meaning they must be associated with specific tasks or actions (Bandura, 1997), can a survey accurately capture leadership self-efficacy and motivation without the domain to which they apply being clearly defined? For example, researchers may understand leadership motivation to be the drive to participate in a collective, consensus building process, but if the questions about leadership motivation do not make explicit connections to this particular connotation, survey respondents may reply based on their individual perceptions of leadership. So, if a respondent believes leadership motivation is instead about the drive to impose one's will on others, then that person will respond to leadership items with that connation in mind. Thus, implicit understandings of leadership pose significant challenges to construct validity considering

respondents reply with diverse understandings of leadership. When core concepts of a factor scale are left to the discretion of the participants, as is the case with the existing and most frequently employed motivation to lead scale (Chan & Drasgow, 2001), the instrument may not capture a consistent psychological construct.

Finally, some scholars have begun to examine the moderating impact social identities can have on relationships between leadership psychological constructs (Dugan, Kodama et al., 2013; Dugan & Komives, 2010; Dugan, Kusel, & Simounet, 2012; Kodama & Dugan, 2013), thus exemplifying a need to continue examining the role of social identities in leadership development. General leadership literature (Bordas, 2007; Eagly & Carli, 2007; Fassinger, Shullman, & Stevenson, 2010; Komives et al., 2011; Ospina & Foldy, 2009; Ospina & Su, 2009; Sanchez-Hucles & Davis, 2010) and recent empirical studies (Arminio et al., 2000; Boatwright & Egidio, 2003; Dugan, Kusel et al., 2012; Kezar & Moriarty, 2000; Kodama & Dugan, 2013; Renn & Bilodeau, 2005; Renn & Ozaki, 2010) both emphasize the importance of attending to various social identities such as race, ethnicity, gender identity, and sexual orientation in that leadership practices, interventions, and programs are experienced and/or interpreted differently by students of diverse social identities. Unfortunately, many scholars do not attend to differences by social identity, thus assuming universal impact of experiences and constant relationships between psychological factors. Such is the case with the current literature associated with leadership motivation (Chan & Drasgow, 2001; Cho et al., 2015).

Research Questions

The purpose of this research was to understand the role of leadership motivation in the leadership development process, specifically focusing on how it relates with

leadership self-efficacy and leadership capacity. Current relevant literature illuminates gaps in empirical research on the role of leadership motivation in student leadership development, providing an impetus for this research. Thus, the primary research question guiding this study was:

- To what degree and in what ways does leadership motivation relate to leadership self-efficacy and leadership capacity?

Knowing that student leadership development research repeatedly shows that students of diverse identities experience leadership development processes differently, I supplemented this primary question with one subsequent question:

- Are the relationships between leadership motivation, leadership self-efficacy, and leadership capacity moderated by different social identities (i.e., gender, race, and sexual orientation)?

Significance of Study

This study contributes to the college leadership development literature related to socially responsible leadership by confirming particular theoretical connections between leadership self-efficacy, leadership motivation, and leadership capacity. Scholars have theorized relationships between these three psychological constructs, emphasizing both unilateral (Chan & Drasgow, 2001) and bidirectional relationships (Dugan, 2017). However, no researchers have empirically tested the relationship between all three constructs in one study. This research fills a gap in the current literature, testing various possible relationships between self-efficacy, motivation, and capacity with the same domain of leadership undergirding the measurement models of all three psychological constructs.

In addition to filling this hole in the leadership development research, findings from this study guide researchers to implement effective interventions to leverage leadership development. Intentional student leadership development through a range of programs is becoming much more commonplace in higher education (Owen, 2012; Zimmerman-Oster & Burkhardt, 1999). As practitioners develop learning experiences to promote leadership development, they need sound, empirical research to guide their interventions. Whereas leadership self-efficacy and leadership capacity have been largely emphasized in student leadership development literature (Dugan & Komives, 2007; Dugan, Kodama et al., 2013), little scholarship exists to instruct readers on practical implications around leadership motivation (Cho et al., 2015; Rosch et al., 2015). This lack of research on leadership motivation limits scholars' understandings of the role it plays in student leadership development. More importantly, with the dearth of literature about leadership motivation, practitioners do not encounter prompts or encouragement to address it as a key developmental factor, do not know effective strategies to leverage leadership motivation's potential in student leadership development, and, thus, cannot maximize leadership development. Understanding more about leadership motivation and the nature of its connection with leadership self-efficacy and leadership capacity is crucial for administrators to fully and effectively use group and individual-level interventions toward leadership development.

Conceptual Framework

Three theoretical models informed the conceptual model for this study: the social change model of leadership development (SCM; Higher Education Research Institute

[HERI], 1996), Chan and Drasgow's (2001) theory of leadership development, and Dugan's (2017) integrated model for critical leadership development.

The Social Change Model

When discussing leadership development, researchers must have a clear concept of what is meant by leadership. This study will employ the SCM as the guiding leadership model for the domain on which leadership capacity, leadership self-efficacy, and leadership motivation are based. Designed by an ensemble of higher education scholars, the SCM approaches leadership as a collective process in which people engage to improve society (HERI, 1996). The SCM fit well with this research because it was created explicitly for college students, it is grounded in assumptions that anyone can learn and participate in leadership, and the ultimate aim is positive change for others and communities. Additionally, the SCM is one of the most widely used leadership theories in higher education (Owen, 2012). Given the citizenship developmental aims of higher education (AAC&U, 2007; Dewey, 2012), the underlying assumptions of the SCM, and the prominent use of the SCM in higher education, using the SCM as the unifying conceptualization of leadership was ideal for this study.

Dugan and Chan & Drasgow's Approaches to Leadership Development

As for the frameworks that bound and focus this study, Dugan's (2017) integrated model for critical leadership development and Chan and Drasgow's (2001) theory of leadership development overlap to provide a structure that supports the proposed research questions. Both models outline several factors that influence leadership development, but Dugan (2017) identifies leadership capacity, self-efficacy, and motivation as central psychological constructs. In Dugan's model, leadership capacity, self-efficacy, and

motivation have mutually-reinforcing relationships with each other and are influenced by both social and environmental contexts. These contexts can either fortify or constrain a student's development of each psychological construct and can augment the nature of the relationships between them. Chan and Drasgow (2001) also use leadership self-efficacy, motivation, and capacity as components of their theory, yet provide a unidirectional relationship between them, the general direction of which inform the a priori models for my analytic technique. However, Chan and Drasgow do not explicitly incorporate social identity into their theory and assume personality, which would be the closest representation of social identity in their model, to be a predictor of leadership self-efficacy and motivation.

Thus, I used the overlapping primary psychological constructs (i.e., efficacy, capacity, and motivation), Chan and Drasgow's (2001) theorized uni-directional relationship between the constructs, and Dugan's (2017) notion of social identities as a contextual influence to create the framework that guided this research. Figure 1 illustrates the general, directional relationship between leadership self-efficacy, motivation, and capacity. Also, social identity is included as a contextual factor that affects the relational nature between each of the constructs.

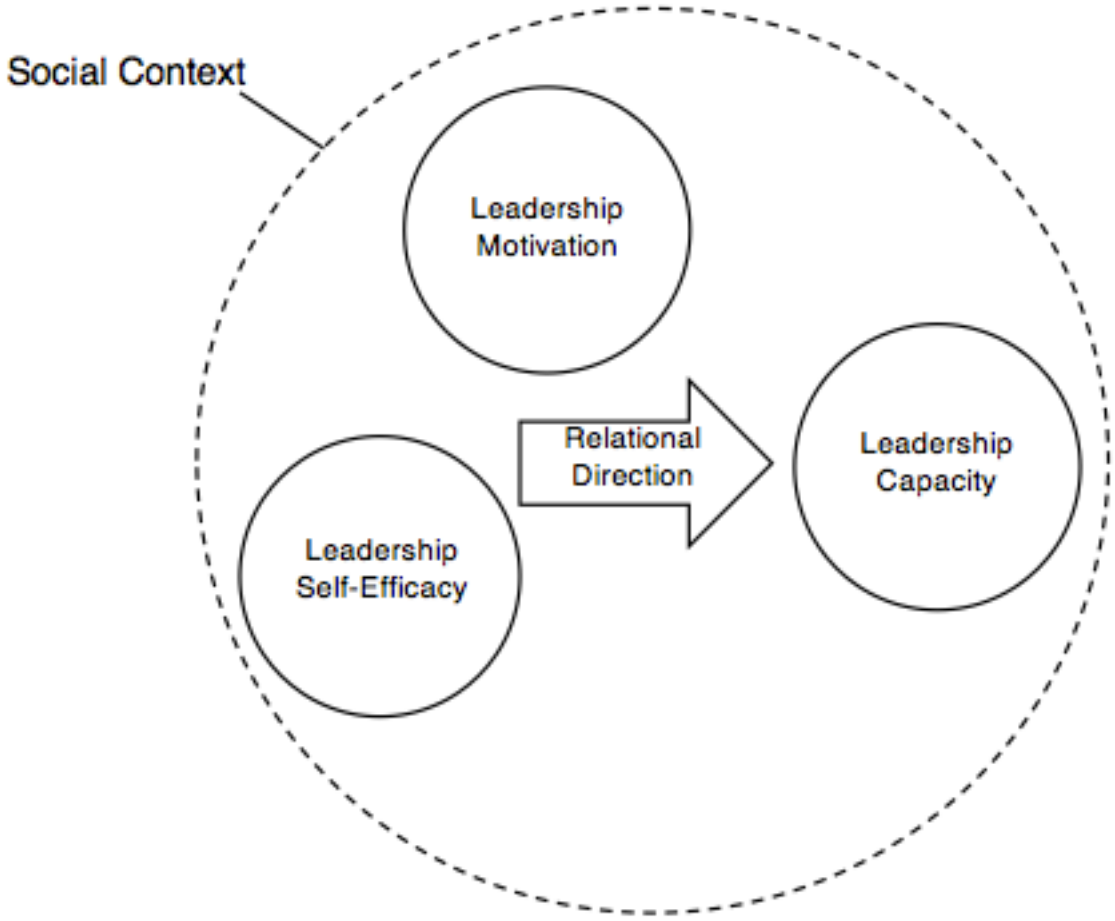

Figure 1. Study conceptual framework. A hybrid of Chan and Drasgow's (2001) theory of leadership development and Dugan's (2017) integrated model for critical leadership development

Methodology Overview

With this conceptual framework in place, I conducted a secondary analysis of a national dataset collected through the Multi-Institutional Study of Leadership (MSL) utilizing structural equation modeling (SEM) as the primary analytic technique. The MSL is a web-based survey administered to undergraduate students at higher education institutions; it includes a collection of items and factor scales that explore students'

experiences with leadership in the collegiate environment. Since its inception in 2006, the MSL uses several latent factor scales that have been tested for measurement reliability and validity (Dugan, 2015; Dugan, Garland et al., 2008;). Over 300 campuses have administered the MSL, more than 100 institutions have been repeat participants in the survey, and over 50 peer-reviewed articles and dissertations have been written based on MSL data. The MSL is clearly a respected survey in the field of higher education and employs sound measurement models that have been subjected to and persisted through rigorous academic processes. This particular study used the MSL data because it includes measurements of leadership self-efficacy, motivation, and capacity that align with the SCM and includes a sample size that is large enough to disaggregate by social identities for invariance analysis.

Data analysis consisted of a multiple step process that required a combination of SEM recommended techniques to adequately answer the research questions. SEM is an appropriate analytic tool to explore relationships between latent constructs because it accounts for measurement model error while analyzing structural model fit (Kline, 2011). Holding constant for measurement model error allows for a more accurate analysis of relationships between latent constructs. Following recommended procedures (Anderson & Gerbing, 1988), I first used confirmatory factor analysis (CFA) to determine validity of the latent factor measures, and then I tested three a priori models to determine independent and relative fit to the data. Once a best-fitting model was determined, I employed invariance testing to determine whether measurement or structural paths models varied by gender, race, and/or sexual orientation (Kline, 2011). Invariance testing allowed me to assess whether factor scales held differently for diverse social identities

and whether relationships between leadership self-efficacy, motivation, and capacity were moderated by different identities.

Definition of Terms

For reader clarity, the following are terms commonly used when discussing this study. These terms can be defined in multiple ways, so I use this section to articulate definitions employed in the research.

Leadership

Because this research is situated in the context of higher education, I operationalize a definition that resonates with leadership educators in the collegiate context and supports the fundamental assumption that leadership can be taught as a primary premise. This definition intimately aligns with the SCM, which is one of the prominently used leadership theories in student leadership development (Owen, 2012). Therefore, leadership is defined as a collective, relational process enacting change for social good (Astin & Astin, 2000; Komives, Wagner, & Associates, 2009).

Leadership Development

Leadership development includes formal and informal experiences that foster increasingly complex ways of comprehending leadership and growth from engaging in leadership experiences (Brungardt, 1996; Day, Harrison, & Halpin, 2009). Day (2001) differentiates leader and leadership development noting that leader development focuses on intrapersonal competence (e.g., self-awareness, self-regulation, self-motivation) while leadership development relates to the cultivation of and use of interpersonal competence (e.g., social awareness, social skills). Because the SCM pertains to both intrapersonal and interpersonal competence and because intrapersonal competence informs one's

interpersonal competence, I use leadership development as an all-encompassing term for the process of promoting intrapersonal and interpersonal growth that allows individuals to effectively engage in increasingly complex forms of leadership.

Leadership Capacity

Leadership capacity is concerned with one's ability to partake in the leadership process; thus it is the knowledge, skills, and attitudes required for one to effectively engage in leadership (Dugan, 2011b). Like leadership development, leadership capacity includes both intrapersonal and interpersonal knowledge, skills, and attitudes related to the leadership process.

Leadership Self-Efficacy

Bandura (1997) defined self-efficacy as one's belief in one's ability to be successful at a particular task. In turn, leadership self-efficacy refers to individuals' internal beliefs in their abilities to successfully engage in the leadership process. I use leadership self-efficacy as opposed to leader self-efficacy because the latter concerns belief in one's leadership ability independent of relationship or context while the former includes the internal belief in one's leadership ability in concert with others and situated within a particular context (Hannah et al., 2008)

Leadership Motivation

Adapted from Chan and Drasgow's (2001) definition of motivation to lead, leadership motivation is an individual-difference construct that affects a person's decision to engage in leadership trainings, roles, responsibilities, and processes and that affects one's intensity of effort and persistence in the leadership process.

Summary

As is apparent from the information and arguments discussed in this chapter, leadership motivation is ill-attended to in college student leadership literature and existing leadership motivation studies are plagued with issues that do not allow researchers and practitioners to fully comprehend the influence of motivation in the leadership development process. Educators have a salient charge to prepare college students for engagement as responsible citizens, part of which means collectively participating in leadership processes to address society's complex problems. Theorists identify leadership self-efficacy, motivation, and capacity as integral psychological constructs to leverage in the college student leadership development process (Chan & Drasgow, 2001; Dugan, 2017). Whereas a wealth of college student leadership literature has explored leadership self-efficacy, capacity, and the relationship between the two (Dugan & Komives, 2010; Dugan, Kodama et al., 2013; Kodama & Dugan, 2013), scholars have given leadership motivation minimal attention with existing literature using problematic leadership motivation measurement tools. This lack of leadership motivation scholarship limits researchers' understandings of leadership motivation's role in the leadership development process; thus, leadership educators need to better comprehend leadership motivation's influence on leadership development to introduce interventions that tap students' full leadership potential for social change. Also, knowing whether and how the relationship between leadership motivation and other leadership psychological constructs is moderated by social identities will help educators to maximize leadership development. Thus, this research sought to understand leadership motivation's role in the leadership development process and whether social identities moderated that role.

CHAPTER 2

LITERATURE REVIEW

Over the past two decades, practitioners and scholars have capitalized on the proliferation of research on student leadership development in higher education to discern increasingly complex notions of leadership and guide leadership education practices. This chapter explores the current literature to identify existing work related to this study and pinpoint gaps this research intends to fill. I start this literature review with the state of student leadership development in higher education as a burgeoning field due to the increasing recognition of leadership development as an important collegiate outcome (Komives et al., 2011; Owen, 2012). This increasing emphasis and shifting programmatic support for leadership development in higher education parallels the evolution of leadership studies as a disciplinary area (Sorenson, 2000). To demonstrate the need to explore the relationship between psychological constructs of leadership development, I then situate the swath of recent research within a college student leadership development framework.

With the impetus for this research established, I then review the literature related to the three central psychological factors examined in this study: leadership capacity, leadership self-efficacy, and leadership motivation. For each construct, I outline key concepts, identify primary theoretical connections, and review relevant higher education literature. Although theorists have speculated the interconnected nature of these

psychological constructs, empirical research has yet to confirm and illuminate relationships between all three factors. I will critique the current literature on the connection between these psychological constructs highlighting measurement issues. This analysis pinpoints the catalyst for this research and will culminate with my primary research questions.

Knowing that social identities shape the ways students perceive, respond to, and enact leadership in society, I then consider how social identities may influence leadership development. Particularly focusing on gender, race, and sexual orientation, I discuss how social norms for each identity intersect with dominant narratives of U.S. leadership. Higher education scholarship that informs how social identities influence leadership development will also be explored in this section. This analysis will culminate with supplementary research questions that provide deeper and more nuanced understandings of the overarching questions.

History of Leadership Studies and Leadership Development in Higher Education

Since their inception, institutions of higher education often espoused to develop students who are capable of providing effective societal leadership (Astin & Astin, 2000; Lucas, 1994). Educators did not explicitly teach students about leadership in most cases; learning about leadership was recognized as a by-product of the collegiate experience (Dugan, 2011b). Higher education acculturated students to upperclass social norms and prepared young adults to fulfill positional roles in their organizations and communities (Thelin, 2011).

At the same time that institutions of higher education proliferated in the 19th century, scholars often did not critically consider leadership as a concept and largely

assumed it to be an inherited trait of the elite class (Bass, 1990; Northouse, 2013). Thus, in the nascent stages of leadership studies, scholars defined leadership in terms of people, primarily focusing on great men who were thought of as natural leaders (Bass, 1990; Rost, 1993); the driving tenant at the time was that some people were born with specific attributes, one of which was leadership ability. Therefore, leadership was thought to be an innate characteristic that could not be learned (Bass, 1990); it was a particular set of personality traits often associated with traditionally masculine characteristics (i.e., aggressive, bold, individualistic, fearless; Eagly & Carli, 2007; Northouse, 2013). This mindset of leadership coincidentally paralleled trends in higher education. Until the mid 20th century, higher education was largely limited to the White, male upperclass (Thelin, 2011), providing an incubator for "great men" to refine their genetic leadership traits.

However, in the 1950s, leadership theorists shifted their focus from personal characteristics to behaviors and contexts (Katz, 1955; Northouse, 2013). Leaders were no longer just the gifted social elite as researchers identified sets of actions that leaders tend to enact. Not only did leaders attend to producing certain ends, but they also took notice of the followers' needs. These behaviors were then refined as researchers realized that certain actions were bound by various contexts (Dugan & Komives, 2011; Northouse, 2013). Thus, contingency and situational leadership emerged to illustrate how different types of leaders and behaviors were needed for varying circumstances, intended goals, and followers (Fielder, 1964; Hersey & Blanchard, 1969). With this mindset of leadership, the focus largely remained on the leader.

The 1940s and 50s were also a time of transition in higher education due to the Serviceman's Readjustment Act of 1994, otherwise known as the GI Bill. Following

World War II, the GI Bill provided financial aid to veterans, thus opening higher education to a wider range of social classes (Lucas, 1994). With this influx of new students, colleges and universities expanded their services and began to reinterpret themselves as not just places where upperclass citizens are educated, but that higher education was a place of opportunity for social class movement (Haveman & Smeeding, 2006). Leadership theories mirrored this transition in that men from different social classes were learning to lead within a diverse set of new contexts. However, college was still predominantly composed of and occupied by the concerns of White men; however, this changed with the civil rights and women's liberation movements of the 1960s and 1970s.

Colleges and universities were challenged to contend with issues of higher education access for women and people of color as the civil rights and women's liberation movements illuminated disparity and bias targeted against these populations (Thelin, 2011). As institutions began to create space for women and students of color, college students, scholars, and practitioners began to challenge traditional ways of relating with and understanding knowledge and society, illustrating new ways of knowing and being (Belenky, Clinchy, Golberger, & Tarule, 1986; Cass, 1979; Cross, 1978; Gilligan, 1977). In a similar way, theorists began to challenge leadership studies paradigms by refocusing their attention from a person-centric perspective to process-centric (Dansereau, Graen, & Haga, 1975; Dugan & Komives, 2011; House & Mitchell, 1974; Northouse, 2013). This transition in thought approach is often referred to as the industrial to post-industrial paradigm shift in leadership studies (Rost, 1993).

The post-industrial paradigm opened leadership development to a broader range of individuals by acknowledging interactions between multiple agents in the leadership process and entertaining the concept that leadership can be learned (Rost, 1991). Although existent but unrecognized in the dominant narrative of leadership scholars, collectivist and process-oriented understandings of leadership were valued and practiced by a range of marginalized populations; lesbian, gay bisexual, and transgender (LGBT) people, people of color, people of lower socioeconomic classes, and women all exemplified collective and process-centric leadership practices as demonstrated in a number events such as the civil rights, gay rights, labor, and women's liberation movements (Bordas, 2007; Dugan, 2017; Eagly & Carli, 2007; Fassinger et al., 2010; Korstad & Lichtenstein, 1988). No longer was leadership seen as a simplistic cause and effect relationship initiated by a leader, but it was identified as a complex process involving the interplay of multi-faceted contexts, power, and problems (Heifetz, 1994; Wheatley, 1999). Thus, with communities empowering broader populations to engage in the leadership process with different roles and ways of influencing change, leadership development as a collegiate, educational experience was able to take root.

With leadership theorists starting to espouse that leadership can be taught, leadership development as a formal concept began to permeate higher education, garnering organized attention from student affairs professionals in the 1970s (Roberts, 1981). Since then, colleges' and universities' professionals have advanced student leadership development by formally defining leadership as an outcome of higher education, designing programs and offices with the explicit function of leadership education, and creating theories and a body of literature to understand student leadership

development (Komives et al., 2011). Higher education researchers continue to cultivate the knowledgebase on student leadership development by introducing leadership and leadership development theories (HERI, 1996; Komives, Longerbeam, Owen, Mainella, & Osteen, 2006; Komives, Lucas, & McMahon, 2007; Kouzes & Posner, 1998), identifying institutional factors that may influence leadership development (Owen, 2012; Smart, Ethington, Riggs, & Thompson, 2002), clarifying practices and programs associated with leadership development (Cress et al., 2001; Dugan & Komives, 2007; Kezar & Moriarty, 2000; Zimmerman-Oster & Burkhardt, 1999), and discerning how social identities moderate the leadership development process (Arminio et al., 2000; Dugan & Yurman, 2011; Kodama & Dugan, 2013; Renn & Bilodeau, 2005; Romano, 1996; Sutton & Terrell, 1997).

Conceptualizing Leadership Development in College

As college student leadership research has expanded in the past two decades, empirical findings have shed light on the multitude of factors related to leadership development. Recently, Dugan (2017) hypothesized a model that acknowledges the various individual and institutional factors that can promote or inhibit leadership development (see Figure 2). In his model, leadership capacity, leadership self-efficacy, and leadership motivation are core psychological constructs. These three factors are believed to be mutually reinforcing and must all be developed to reach one's full leadership potential. Associated with leadership capacity, efficacy, and motivation as part of the model are other psychological constructs such as cognitive skills, resiliency, and social perspective-taking. Whereas cognitive skills have been long-established as influential in leadership development (Atwater, Dionne, Avolio, Camobreco, & Lau,

1999; Komives, Owen, Longerbeam, Mainella, & Osteen, 2005; Marshall-Meis, Fleishman, Martin, Zaccaro, Baughman, & McGee, 2000; Thompson, 2006) and relatively new findings associate resiliency and social perspective-taking with leadership development (Dugan et al., 2014; Dugan, Kodama et al., 2013), researchers have yet to empirically test leadership capacity, efficacy, and motivation in one study.

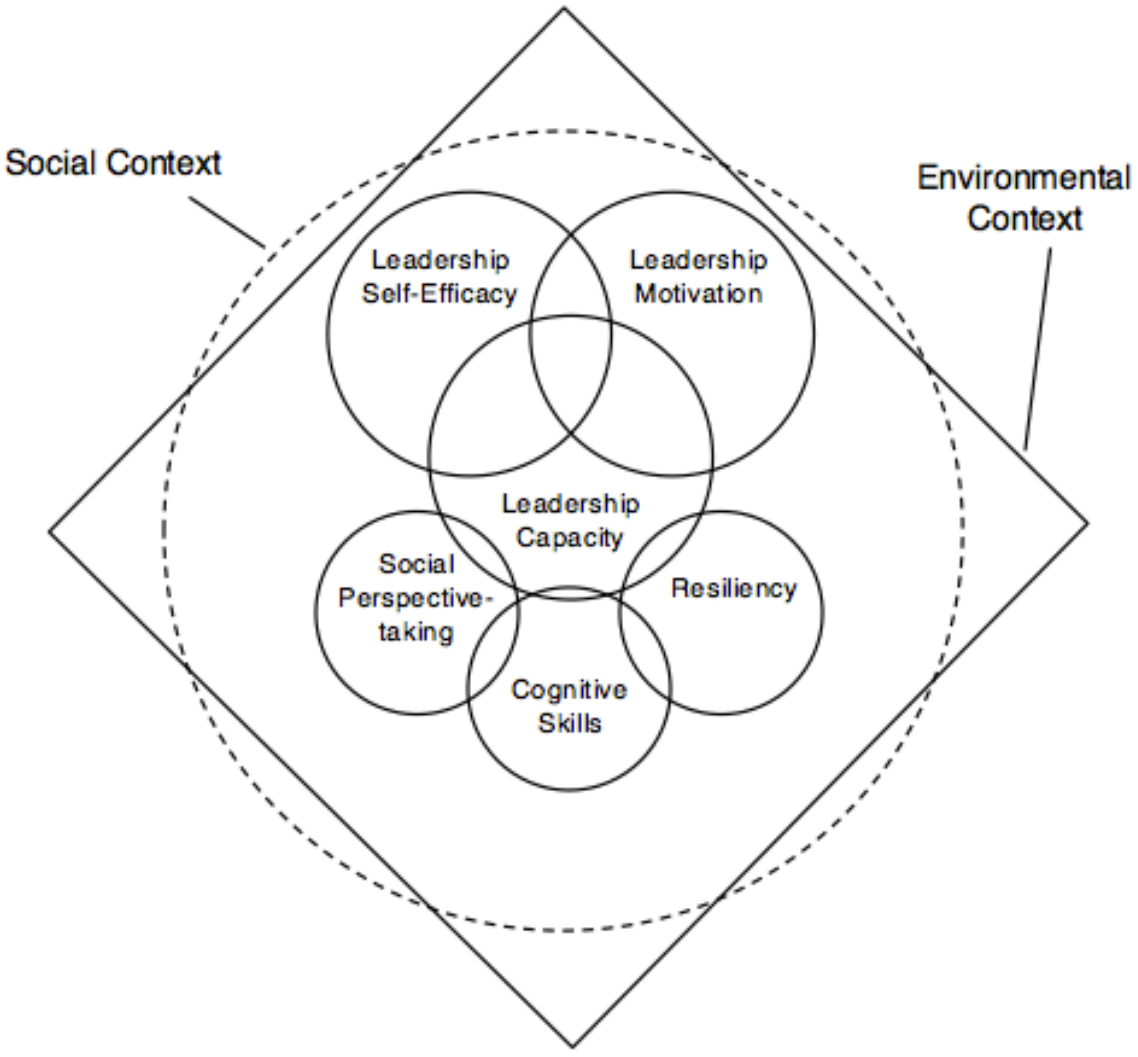

Figure 2. Adaptation of Dugan's (2017) integrated model for critical leadership development.

Capacity, self-efficacy, and motivation are identified as the three central tenants because they theoretically predict the likelihood of a student successfully engaging in leadership development and the process of leadership. When students have the appropriate skillset (i.e., capacity), believe they can be successful with that skillset (i.e., self-efficacy), and want to engage that skillset toward a specific end (i.e., motivation), then they are much more likely to engage in the behavior (Chan & Drasgow, 2001; Dugan, 2011b, 2017). Thus, these three components can have a compounding effect, encouraging leadership educators to engage more than one of these developmental constructs to increase the propensity for students to successfully engage in leadership.

Contrarily, when one or two parts of the three constructs are missing, then a student, theoretically, is less likely to successfully enact leadership (Dugan, 2017). Inattention to all three developmental aspects does not necessarily guarantee a negative outcome; however, the lack of development in capacity, self-efficacy, or motivation may explain why a student does not have positive leadership experiences. Students who have the desire to engage in leadership and believe they can be successful may fail without the appropriate skillset. In this scenario, students may not only falter, but the negative leadership experience may have a detrimental effect on their self-concept and potentially reduce their self-efficacy and motivation. Another situation could be that if students have the skillset but do not believe they can be successful in leadership or do not want to engage in it, then they most likely will not engage in the leadership process (Murphy & Johnson, 2011). To tap into students' potential for leadership development, educators must provide purposeful interventions aimed at all three psychological constructs.

Individual leadership development is bound within the specific environmental context of the institution where campus climate, developmental programs, and structural dimensions can create spaces that foster and deter students from growth (Dugan, 2017). Additionally, constraining or expanding the propensity to develop each of these individual psychological constructs is the broader social context, which is socially constructed. The social context is determined by a combination of the individuals' social identities and the social culture in which their development is embedded. This model recognizes the different levels from which student leadership development can be explored empirically and leveraged for leadership education. Dugan's (2017) model served as a helpful framework to explore the current research on college student leadership development.

Research on Core Psychological Tenants of College Student Leadership Development

In light of Dugan's (2017) model of collegiate student leadership development, most of the higher education leadership literature focuses on the relationships between environmental contexts and psychological constructs, the ways that social context influence psychological outcomes, and how psychological constructs relate to each other. In an effort to understand how collegiate experiences may influence students' abilities to enact leadership, researchers have largely focused on environmental factors' association with leadership capacity. Scholars have explored a range of environmental factors such as involvement and leadership roles in student organizations (Arminio et al., 2000; Brungardt, 1996; Dugan, Garland et al., 2008; Harper & Quaye, 2007; Kezar & Moriarty, 2000; Renn & Ozaki, 2010; Sutton & Terrell, 1997), leadership development programs

(Astin, 1993; Cress et al., 2001; Dugan, Bohle, Gebhardt, Hofert, Wilk, & Cooney, 2011; Dugan & Komives, 2007; Smart et al., 2002; Zimmerman-Oster & Burkhardt, 1999), socio-cultural conversations (Antonio, 2001; Dugan & Komives, 2007, 2010; Dugan, Kodama, & Gebhardt, 2012), institutional resources (Smart et al., 2002), mentorship (Brungardt, 1996; Campbell, Smith, Dugan, & Komives, 2012; Dugan & Komives, 2007; Dugan, Kodama et al., 2013; Thompson, 2006), community service (Dugan & Komives, 2007; Dugan, Kodama et al., 2013), and employment (Dugan, Garland et al., 2008) to understand their possible effects on a number of leadership capacity concepts. These concepts include socially responsible leadership (Dugan & Komives, 2007, 2010), interpersonal skills (Antonio, 2001; Kezar & Moriarty, 2000), communication skills (Antonio, 2001; Kezar & Moriarty, 2000), leadership behaviors (Kouzes & Posner, 2009), and implicit understandings of leadership ability (Smart et al., 2002). This collection of research has helped to illuminate the influence of institutional climate and culture factors on leadership development, clarify how various forms of engagement may leverage leadership development, and identify high-impact practices for leadership capacity development.

However, receiving drastically less attention is the impact of the environmental context on other psychological factors such as leadership self-efficacy and leadership motivation. A handful of researchers have empirically studied the relationship of environmental and experiential factors with leadership self-efficacy (Dugan, Garland et al., 2008; Dugan, Kodama et al., 2013). Unfortunately, only one article from the higher education literature on college student leadership development has explored the campus context's effect on leadership motivation (Hamid & Krauss, 2013). This study was

conducted with students at two universities in Malaysia, so some may question the generalizability of the findings to the American higher education system and students at U.S. institutions.

The dearth in research about these aforementioned relationships may be due to the lack of awareness and understanding about relationships between psychological constructs. Of all the psychological constructs included in Dugan's (2017) leadership development in higher education model, leadership self-efficacy has garnered the most attention aside from leadership capacity. Bandura's (1997) work emphasized the importance of self-efficacy in one's motivation and ability to perform a task. Thus, leadership scholars theorized a connection between leadership self-efficacy and leadership capacity, but minimal empirical work solidified this relationship. In the early 2000s, a few studies acknowledged the importance of leadership self-efficacy in student leadership development (Boatwright & Egidio, 2003; McCormick, Tanguma, & Lopez-Forment, 2002), which were later bolstered by a series of articles based on data from the MSL that confirmed an influential relationship of leadership self-efficacy on leadership capacity (Dugan & Komives, 2007, 2010). Once researchers established the empirical relationship between efficacy and capacity, scholars and practitioners alike began to focus on leadership self-efficacy research and interventions to build student leadership self-efficacy (Dugan, Garland et al., 2008; Dugan, Kodama et al., 2013; Dugan, Kusel et al., 2012).

Similar to leadership self-efficacy, motivation is often recognized as a key construct in leadership development (Barbuto, 2005; Chan & Drasgow, 2001; Dugan, 2017; Keating et al., 2014; Murphy & Johnson, 2011). Leadership motivation serves as

an impetus for students to engage in leadership development experiences, take on leadership roles, and facilitate leadership processes. Although leadership studies literature acknowledges the role motivation plays in leadership - showing how motivation varies among different people (Chan, Uy, Chernyshenko, Ho, & Sam, 2015) and how motivation predicts various leadership activities (Barbuto, 2005; Day & Sin, 2011; Hong, Catano, & Liao, 2010; Kark & Van Dijk, 2007) - it has received minimal attention in college student leadership development literature. Could this be due to the lack of a significant empirical relationship between leadership motivation and leadership capacity? Just as scholars and educators only began to pay more attention to leadership self-efficacy because it was identified as one of the largest predictors of leadership capacity, leadership motivation may receive increased recognition if a meaningful, empirical connection is established. Thus, this research attempted to discern how leadership motivation relates to leadership self-efficacy and leadership capacity in the process of student leadership development.

Leadership Capacity

Leadership capacity, one's skills, knowledge, and attitudes related to the leadership process (Day et al., 2009), is often the focal point of college student leadership development. In leadership studies literature, scholars have conceptualized leadership capacity through a variety of theories and frameworks (Northouse, 2013). The varied leadership approaches associated with both industrial and post-industrial theories reflect a multitude of skills, approaches, and mindsets. For the industrial paradigm, leadership capacity is often recognized as the traits, behaviors, and expertise of a leader to influence a group of followers (Northouse, 2013); some of these skills and knowledge include

practices in which one exerts dominance or offers rewards or punishment to get a desired action as well as implementing distinct tactics for different environments or sets of followers. Contrarily, leadership capacity from the post-industrial perspective includes practices and wherewithal to engage in mutually influential processes with others to advance ends deemed valuable by the collective group. Researchers and practitioners alike may tend to focus on leadership capacity due to its close association with leadership enactment. Leadership educators are often concerned with leadership in practice, desiring to see students effectively enact leadership. Although leadership capacity and leadership enactment are discrete constructs, leadership educators may tend to focus on leadership capacity because skills, knowledge, and attitudes are often reflected in the ways leadership is enacted.

In higher education, leadership capacity has received the most attention in student leadership development scholarship. A burgeoning field of leadership development literature has illuminated a number of factors that contribute to leadership capacity including pre-college factors (Brungardt, 1996; Dugan & Komives, 2010; Kezar & Moriarty, 2000; Smart et al., 2002); pedagogical practices (Antonio, 2001; Astin, 1993; Campbell et al., 2012; Dugan et al. 2013; Dugan & Komives, 2010; Thompson, 2006; Zimmerman-Oster & Burkhardt, 1999); programmatic and contextual experiences (Arminio et al., 2000; Cress et al., 2001; Dugan et al., 2014; Dugan & Komives, 2007; Kezar & Moriarty, 2000; Owen, 2011; Renn & Ozaki, 2010; Smart et al., 2002); institutional factors (Smart et al., 2002); and psychological factors (Dugan, Kodama et al., 2012; Dugan et al., 2014; Dugan & Komives, 2010; Gehrke, 2008; Renn & Ozaki,

2010). Much of this empirical work has been grounded in the socially responsible leadership scale as measured in the SCM (HERI, 1996).

The social change model of leadership development. Whereas college leadership educators have embraced a number of leadership theories that align with both industrial and post-industrial paradigms including servant leadership, relational leadership, transformational leadership, and adaptive leadership, the SCM is one of the most commonly used theories in higher education (Owen, 2012). The SCM operates on a definition of leadership as "a purposeful, collaborative, values-based process that results in positive social change" (Komives et al., 2009, p. xii). This definition of leadership aligns well with collegiate outcomes espousing that students can develop to become future leaders in our local, national, and global communities, advocating for social change to advance the common good (AAC&U, 2007; Dewey, 2012). Thus, the SCM was the leadership theory model used in this study. The SCM was explicitly created for college students and is applicable as both a process and development model. In 1993, a group of higher education scholars convened to develop a leadership model specifically designed for undergraduate college students (HERI, 1996). Being the first such model for college students, the SCM has proliferated within higher education research and as a guiding theoretical framework for many higher education institutions (Owen, 2012). As institutions incorporate this model into their work with students, not only can educators use the model as a vehicle for leadership development, but the SCM also facilitates the process of leadership, promoting action toward positive social change that aligns with democratic educational aims (HERI, 1996; Dewey, 2012).

The SCM is built upon several foundational assumptions (HERI, 1996); understanding these assumptions is imperative for fully comprehending the model. The group of theorists who co-constructed the SCM believed that all students are able to enact leadership, leadership is not contained to one person but is a process, leadership is rooted in values, leadership is a collective process geared toward social justice, and change is central to the leadership process (HERI, 1996). Upholding these assumptions as part of this model is an integral component of this study. This study was predicated on these assumptions, particularly that leadership can be taught as a process in which students engage. Therefore, educators may need to do foundational work with students to help them understand the basic assumptions for them to fully comprehend and engage in the SCM.

The SCM is composed of seven values that are housed within three domains: individual, group, and societal/community (HERI, 1996). The first three values of consciousness of self, congruence, and commitment fall within the individual domain. Consciousness of self refers to an awareness of one's talents, skills, attitudes, and social identity as well as the ability to be mindful, being present to one's actions and mindset. As for congruence, one should act consistently with espoused beliefs and values while relating with others in authentic and genuine ways. The third value of commitment consists of the time and energy one invests in a cause or group, diligently and steadily moving forward to reach a goal. These three values all focus on skills, beliefs and, actions at the individual level that contribute to the leadership process.

The second domain of group values entails collaboration, common purpose, and controversy with civility (HERI, 1996). This set of values explains the leadership

process at the group level, providing individuals with guidelines for how group interaction can foster leadership. Collaboration is a group's ability to bring together diverse perspectives and talents in a common effort toward a goal; this is not simply bringing different pieces together under one person's direction, but it entails shared responsibility, authority, and accountability amongst all members of the group. The second value of common purpose refers to the group's shared values, vision, and goals toward which they must collaborate to achieve. Controversy with civility consists of two main components: conflict due on differences is unavoidable and, therefore, those differences need to be address in open and productive ways.

Finally, the community domain consists of one value: citizenship (HERI, 1996). Citizenship primarily focuses on the interconnected nature of an individual and group with the larger community. This is not simply a feeling of obligation to contributing to society but realizing the interdependence that exists, calling people to address social injustices not only for the sake of others but also for their personal enrichment. All the values interact with each other; individual development in one value may result in shifted perspectives or development in other values. The synergistic relationship between all the different domain values then fosters action toward positive social change.

Critical reflection on the SCM. Although the SCM provides an excellent framework to view leadership development and the leadership process from multiple levels, the model fails to explicitly address issues related to social identity, developmental readiness, and context. Whereas the model inherently implies differences that exist based on social identity, it does not fully acknowledge the ways in which these identities will constrain or alter the enactment of certain values. For example, there are privileged

assumptions with the value of controversy with civility in that people with non-dominant social identities will be able to able to directly air differences or will be perceived differently if addressing controversy in the same way as people with dominant social identities (Eagly & Carli, 2007; Fassinger et al., 2010; Ospina & Foldy, 2009). Similarly, the model does not attend to the fact that students can vary greatly as to their developmental understanding of each value. If some students see leadership as position and others see it as process-orientated, they may experience problems collaborating due to some students strictly associating authority and responsibility with certain positions. Finally, context is not given full credit for the ways in which it can significantly influence how values can be enacted. The SCM seems to be highly appropriate for long-term, cooperative endeavors; however, for high stress scenarios in which immediate change due to extreme internal or external pressures is necessary, using the SCM as a leadership process may be problematic. Even with its shortcomings, the SCM provides a valuable and comprehensive approach to leadership development and the leadership process. Not only is the model thorough with its multifaceted and multilevel structure, it is also understandable for leadership educators and the constituents for which it was constructed. These factors in addition to its wide use in higher education made it an appropriate theoretical model for this research. Thus, because leadership self-efficacy and leadership motivation are domain-specific constructs, socially responsible leadership as conceived in the SCM served as the unifying domain for this study.

Leadership Self-Efficacy

Leadership self-efficacy is one of the most potent predictors of leadership capacity (Dugan & Komives, 2010) and plays a significant role in the leadership development process. Leadership self-efficacy is the internal belief in one's ability to be successful in enacting leadership (Bandura, 1997; Hannah et al., 2008). When students have a higher level of leadership self-efficacy, they are more likely to engage in experiences that allow them to develop or enact their leadership knowledge and skills (McCormick et al., 2002). Hence, leadership self-efficacy plays an integral role in leadership development, acting as a strategically important fulcrum point to potentially leverage leadership learning. By nurturing leadership efficacy development, leadership educators can see greater gains in leadership capacity.

Thus, the development or reframing of leadership self-efficacy is an important process for leadership development. Bandura (1997) recognizes self-efficacy as a malleable construct that can be leveraged by four antecedents: mastery experiences, vicarious experience, verbal persuasion, and physiological and affective states. Leadership educators can then capitalize on practices such as role-play scenarios, developmentally tiered experiences, mentoring relationships, forms of encouragement, and supportive environments to increase students' leadership self-efficacy. However, leadership self-efficacy is also dependent on how students conceptualize leadership and how that aligns with their personal identity (Bandura, 1997). If students' concepts of self correspond with their perceptions of leadership, they will tend to be more highly self-efficacious than students who see a contrast between self and leadership conception. Thus, educators can help students increase their leadership self-efficacy levels by

envisioning how their respective identities align with different ways of understanding and enacting leadership.

Leadership self-efficacy has garnered increasing attention in general leadership studies. Theorists regularly validate leadership self-efficacy as an integral component of leadership development (Dugan, 2011b; Hannah et al., 2008; Machida & Schaubroeck, 2011; McCormick et al., 2002; Paglis, 2010) and incorporate leadership self-efficacy into studies to build empirical evidence of its relationship to other important leadership constructs (Anderson, Krajewski, Goffin, & Jackson, 2008; Chan & Drasgow, 2001; Chemers, Watson, & May, 2000; Dugan & Komives, 2010; Paglis & Green, 2002) along with its variation by social identity (Dugan, Fath, Howes, Lavelle, & Polanin, 2013; Dugan, Kodama et al., 2012; Dugan, Kusel et al., 2012; Dugan & Yurman, 2011; Kodama, & Dugan, 2013; Kolb, 1999). Several empirical studies have validated the influential role leadership self-efficacy plays in leadership development for college students. McCormick et al. (2002) first empirically tested the link between leadership self-efficacy and leadership role attainment, finding that students with higher leadership self-efficacy are more likely to attempt leadership roles. Additionally, they discovered that men had significantly higher leadership self-efficacy than women, suggesting support for theories that normative gender roles negatively impact women's leadership development (Eagly & Carli, 2007). With the creation of the MSL, Komives and Dugan, the co-principal investigators of the study, included leadership self-efficacy as one of many factors, thus increasing opportunities for scholars to examine the affect and variations of leadership self-efficacy by subpopulations. One foundational finding was that leadership self-efficacy is a significant predictor of leadership capacity even when

holding constant for demographic information, outcome pretests, institutional characteristics, and collegiate experiences (Dugan & Komives, 2007, 2010).

With the connection between leadership self-efficacy and leadership capacity well established, researchers turned their attention to leadership self-efficacy to better understand what factors could affect this construct and how it may vary by different populations. Subsequent studies using MSL data have revealed that various factors predict leadership self-efficacy such as socio-cultural conversations (Dugan, Garland et al., 2008; Dugan, Kodama et al., 2013; Kodama & Dugan, 2013), positional leadership roles (Dugan, Garland et al., 2008; Dugan, Kodama et al., 2013; Kodama & Dugan, 2013), mentoring (Dugan, Garland et al., 2008); and variations in leadership self-efficacy by women in STEM and non-STEM majors (Dugan, Fath et al., 2013), commuter status (Dugan, Garland et al., 2008), gender (Dugan, Komives, & Segar, 2008), and race (Dugan & Komives, 2007; Dugan, Komives et al., 2008; Dugan, Kodama et al., 2013; Kodama & Dugan, 2013). A report published by the MSL reinforced leadership self-efficacy as a critical component of leadership development but discerned how a number of environmental factors that influence leadership self-efficacy are moderated by race (Dugan, Kodama et al., 2013). This nuanced understanding of moderated relationships between experiences and leadership self-efficacy calls scholars to consider social identities when researching this and other psychological construct.

The theoretical knowledge and empirical findings reinforce the importance of studying leadership self-efficacy as part of the leadership development process. The salient relationship between leadership self-efficacy and capacity draws attention to leadership self-efficacy, providing new insights into leadership development for both

researchers and educators. And although there are strong theoretical connections and preliminary research indicates a meaningful association (Chan & Drasgow, 2001), the connection between leadership self-efficacy and leadership motivation has yet to be fully explored. Thus, the next section explores the concept of leadership motivation and how it relates to the leadership development process.

Leadership Motivation

When exploring general leadership studies literature, motivation emerged as an influential psychological construct in the leadership development process. Just like self-efficacy, motivation is a domain-specific construct in that one's motivation is variable based on the task or action required (Bandura, 1997; Kark & Van Dijk, 2007). Scholars exploring self-efficacy in relation to leadership had to discern differences between leadership and leader self-efficacy, defining leader self-efficacy in terms of the individual and leadership self-efficacy in regard to the process (Dugan, 2011b). Some theorists acknowledge leader self-efficacy as an interrelated component of leadership self-efficacy, identifying the belief in one's skills as contributing to the belief in one's ability to be successful with others in the leadership process (Hannah et al., 2008). A parallel argument can be made about leader motivation and leadership motivation. Whereas leader motivation can be considered as one's drive to establish skills and self-identify as a leader, leadership motivation would be built upon leader motivation, adding one's drive to engage in the leadership process. Thus, leadership motivation can be seen as an individual-difference construct that affects a person's decision to engage in leadership training, roles, responsibilities and that affect that person's intensity of effort and persistence in the leadership process.

This concept of leadership motivation is distinct from the idea of motivation as a product of leaders' efforts and/ or the leadership process. An example is that of path-goal theory (House & Mitchell, 1974) as derived from expectancy theory (Vroom, 1964); path-goal theory focuses on subordinate motivation to accomplish a task as a key factor in the leadership process. The ideal alignment of leadership style, subordinate characteristics, and task characteristics can result in maximum motivation for the subordinate to complete the task (House & Mitchell, 1974). Contrarily, leadership motivation as framed in this study as the drive to engage in leadership development and processes rather than the subordinate motivation to complete a task within the leadership process.

The literature illuminates three ways in which researchers approach motivation in relation to leadership. First, researchers focus on leaders' abilities to motivate followers to action (Kark & Van Dijk, 2007; Mumford, Dansereau, & Yammarino, 2000). Sometimes, these studies are related to path-goal, transformational, and charismatic leadership theories due to their emphasis on catalyzing followers (House & Mitchell; 1974; Kark & Van Dijk, 2007). Second, several studies address how various forms of leadership motivation are connected with leadership styles, behaviors, and outcomes (Barbuto, 2005; Barbuto et al., 2010; Kark & Van Dijk, 2007). These studies often seek to understand how different types of motivation result in a range of leadership manifestations (Barbuto, 2005). Finally, another subset of articles examines how motivation plays a role in the leadership development process (Chan & Drasgow, 2001; Kark & Van Dijk, 2007; Murphy & Johnson, 2011). Not only do these articles outline motivation's role in a theoretical process (Chan & Drasgow, 2001; Murphy & Johnson,

2011), but they empirically test connections between concepts of those theories (Chan & Drasgow, 2001; Kark & Van Dijk, 2007) with some articles specifically focusing on how different types of motivation affect one's emergence as a leader (Gottfried, Gottfried, Reichard, Guerin, Oliver, & Riggio, 2011; Hong et al., 2010). Thus, a number of researchers have addressed leadership motivation from various angles in general leadership studies literature.

However, in higher education literature, only three studies have explicitly examined college students' leadership motivation. Cho et al. (2015) focused on antecedents to leadership motivation, exploring whether basic psychological needs satisfaction and leadership self-efficacy predict leadership motivation. Rosch et al. (2015) examined leadership motivation from a different angle when they analyzed leadership motivation's ability to predict leadership behaviors. In both studies, the researchers sought to understand differences in leadership motivation levels based on social identities, finding significant differences by gender, race, and class year. A third study by Keating et al. (2014) explores changes in students' leadership capacity (i.e., transaction and transformation leadership abilities), leadership self-efficacy, and leadership motivation over the timeframe of a course when accounting for different entering leadership self-efficacy and leadership motivation scores. All of these college student leadership development studies used the Chan and Drasgow's (2001) motivation to lead factor scales, which is a popular instrument in leadership studies literature for measuring leadership motivation.

Motivation to lead. One of the most commonly used motivation constructs in leadership studies is motivation to lead (MTL) as conceived by Chan and Drasgow

(2001). They define MTL as "an individual-difference construct that affects a leader's or leader-to-be's decision to assume leadership training, roles, and responsibilities and that affect his or her intensity of effort and persistence as a leader" (p. 482). According to Chan and Drasgow's theory of leader development, MTL is informed by past leadership experiences, LSE, personality, cognitive ability, and socio-cultural values. The MTL measures three forms of motivation: affective-identity, social normative, and calculative (Chan & Drasgow, 2001). There are those who enjoy being a leader (affective-identity), those who feel a responsibility to others to become a leader (social-normative), and those who become a leader for the personal benefits they receive or avoid leadership roles due to the personal cost (calculative). Many of the current research on leader motivation uses the MTL scale as the measurement instrument (Cho et al., 2015; Gottfried et al., 2011; Hong et al., 2010; Kark & Van Dijk, 2007; Keating et al., 2014; Rosch et al., 2015).

Although MTL is one of the most popular models of motivation and measurement tools used in leadership studies, it is important to note several issues that can present limitations for its application in collegiate leadership development literature. First, MTL scales rely on implicit understandings of leadership, leaving terms like "lead" and "leader" up to discretion of the reader. Stogdill (1974) stated "there are almost as many different definitions of leadership as there are persons who have attempted to define the concept" (p. 7). Leadership is a nebulous term often used by people in different ways. Thus, students are socialized to understand leadership from a multitude of perspectives. Individuals witness behaviors of close family and community members, absorb messages about leadership from various forms of media, and peripherally learn about leadership through the education system. Depending on what they see and hear, students can have

drastically contrasting perspectives on leadership. Thus, when asked about "leading" and being a "leader" in a survey, students will respond to these questions with multiple connotations of leadership. This inconsistency is problematic in that some students who have learned to see leadership from a negative or positive perspective may express low or high motivation for leadership when the opposite is more accurate. For example, if students have come to understand leadership as a gregarious figurehead who commands large groups of people, they may disassociate from that comprehension of leadership even though they may be driven to promote social change through various forms. Conversely, some students may embrace the term "leader" believing they represent it by dominating others when they actually are not respected by others and make little positive change in their organizations or communities. This lack of conceptual clarity for leadership terms in scale items muddies interpretations one can make of data collected.

Second, MTL focuses on leadership as individual-centric rather than process-centric. The MTL is intended to capture an individual's understanding of their motivation to lead. However, many of the items in the MTL scale frame leadership as a dichotomous option between leader and follower, requiring readers to decide whether they are one or the other. For many students, identifying with the static concept of "leader" is problematic given that whether one claims such an identity depends on contexts, fluctuating self-perceptions, and task domain. Cronin and Genovese (2012) discuss the fluidity of leader and follower identities and raise issues with the concept of leaders when contexts are devoid of specific roles. Within some groups or situations, people may perceive themselves as leaders, but with other communities or tasks, people may consider themselves followers. Additionally, many of the questions also situate

leadership within a well-defined group or organization. This raises concerns about the context limitations, only allowing students to situate leadership within formal organizations and roles. What about leadership outside of designated positions and in general social contexts, such as bystander intervention scenarios? The MTL items constrain leadership within fixed, prescribed contexts and do not afford alternative ways of understanding leadership.

Finally, the MTL scale reflects a dominant, White male connotation of leadership development that may be dissonant with traditionally marginalized peoples' ways of knowing. Scholars consistently find that women, people of color, and non-heterosexual individuals conceive of leadership differently than straight White male counterparts (Arminio et al. 2000; Bordas, 2007; Eagly & Carli 2007; Fassinger at al. 2010; Ospina & Foldy 2009; Sanchez-Hucles & Davis 2010). Some cultural groups see leadership as a collectivist process that does not differentiate between leaders and followers, recognizing the community will call forth all members to engage in the process (Bordas, 2007). Additionally, some students of color resist association with the leader and leadership terminology (Arminio et al. 2000). With some students balking at the leader title, these students may respond negatively to the scale even though they may be carrying out effective leadership in their respective communities. Thus, several issues plague the MTL scales, making it difficult to translate to college student leadership development, which is often focused on social change and democratic engagement (Dewey, 2012; Owen, 2012).

Metatheory on motivation. Numerous factors contribute to and influence one's motivation. Leonard, Beauvais, and Scholl (1999) recognized that the proliferation of

motivation theories and created a metatheory to explain work motivation. In creating this overarching theory, Leonard and her colleagues integrated a variety of theoretical constructs related to self-concept such as the perceived self, the ideal self, and social identities; these self-concept factors intersect with external and internal sources for motivation to illuminate five dominant sources of motivation: intrinsic process motivation, extrinsic/instrumental motivation, external self-concept, internal self-concept, and goal internalization. Theoretically, people consider and are driven by all five motivational sources but will favor certain sources over others depending on the task, context, and personal state. Intrinsic process motivation refers to tasks that are enjoyable (Leonard et al., 1999). Thus, individuals who are dominated by this motivation source will choose to do tasks that they think are fun. In terms of leadership, students driven by intrinsic process motivation may recognize the skills associated with the leadership process as invigorating and choose to engage out of mere enjoyment. Contrarily, people guided by extrinsic/instrumental motivation will choose to engage based on the reward provided. They will accomplish tasks and behave in ways that will bring them the greatest rewards. With the relative values of rewards varying between individuals, people may choose contrasting behaviors when disagreeing on the relative value of multiple rewards. Thus, according to this source of motivation, students may advocate for the process to bring a popular band to campus, but only do so when the band is one they like.

Individuals who are driven by external self-concept are more concerned about perceptions of others and receiving positive feedback relative to others (Leonard et al., 1999). Therefore, people who base their motivation on external self-concept strive to

achieve group goals because they "perceive success or failure will be attributed to them personally" (Leonard et al., p. 990). An example is Black students who take on leadership roles in the Black Student Union to ensure the success of the organization and promote positive perceptions of the Black community, which, in turn, validates and bolsters their own identities as Black individuals in the eyes of others. On the other hand, some people have a personal standard to which they must adhere, which is considered the internal self-concept source of motivation. Individuals motivated by internal self-concept do not need public recognition for their work, but they want to know their efforts contribute to the group's success. For student leadership, students who pride themselves on their social media acumen will endeavor to advance program advertising through Facebook and Twitter because they know it will help their student group may reflect internal self-concept motivation.

Goal internalization is the last motivation source Leonard and her associates (1999) identified. Although they may not contribute to one's individual success or result in personal benefits, those who are motivated by goal internalization will engage in tasks that contribute to the group's goal attainment. In terms of student leadership, student activists may participate in demonstrations related to college access not because it will benefit them nor because they believe they can make a sizeable impact, but because they believe in alleviating social injustice.

This metatheory on motivation worked well for this study's framework for leadership capacity. With socially responsible leadership largely enacted within groups or in association with others, it is fitting that this conception of motivation considers the relationship between individual and group. Additionally, leadership self-efficacy and

SCM research clearly delineate that social identity factors influence leadership development (Dugan, Kodama et al., 2012; Dugan, Kodama et al., 2013; Dugan, Komives et al., 2008; Dugan, Kusel et al., 2012). In congruence with this research, Leonard and her colleagues' (1999) metatheory on motivation recognizes the influence of self-concept and social identity on dominant sources of motivation. The theory grounding the MTL scale addresses intrinsic and extrinsic sources of motivation, but centers these sources on individuals without fully taking into account how individuals make meaning of themselves in light of the group with which they are engaging in the leadership process. Because socially responsible leadership takes into account how one understands the self in interaction with groups and because empirical research regularly implies that one's self-concept informs how one experiences and interprets leadership development interventions, Leonard and her colleagues' metatheory for motivation was most appropriate for this research.

Social Identities

Students' social identities are additional factors that largely shape the leadership development process (Dugan, Kodama et al., 2013; Dugan & Komives, 2010; Kodama & Dugan, 2013). Often, researchers conduct studies and seek theories that validate universal rules or conditions that can impact entire populations. In college student leadership development literature, scholars may attempt to discover all-encompassing theoretical relationships between psychological constructs that leverage leadership development or connections between collegiate experiences and leadership development; then practitioners can implement these findings to benefit all students on campus. Such claims are common in higher education research with a number of studies espousing the

positive effect of various campus experiences on student leadership development outcomes in general (Astin, 1993; Cress et al., 2001; Dugan & Komives, 2007; Kezar & Moriarty, 2000; Posner, 2009; Smart et al., 2002). Increasingly, studies reveal differences by diverse social identities, calling into question the universality of many findings (Kodama & Dugan, 2013). Thus, researchers would be amiss not to attend to social identities in their research, assuring some form of social identity data collection and use of that information in data analysis.

Social identities influence relationships between various experiential, social, and psychological factors because how one makes meaning of various social identities largely informs how one experiences and acts within the world (Brown, 2000; Hogg, 2003; Worchel & Coutant, 2003). Social identity theory posits that the more closely individuals associate themselves with a social identity group, the more likely they are to embody the group's stereotypical characteristics (Tajfel & Turner, 1986); this integration of group characteristics varies by individual and influences ways in which individuals respond to experiences and environments. People are socialized and treated differently within varying social contexts based on their multiple social identities; thus, as people treat and respond to others differently, diverse sets of individuals shape nuanced and alternative understandings of behaviors, experiences, and processes (Hogg, 2003). Based on people's intersecting forms of identities, different patterns of subconscious and conscious thought are engrained in each individual.

Depending on the degree to which people associate particular social identities with their self-concepts, people of the same social identity may experience socialization in different ways; however, trends about how diverse social groups respond to situations

or make meaning of experiences and the environment still emerge (Hogg, 2003). However, even those trends are nuanced by how individuals make meaning of that social identity. For example, some scholars acknowledge that people respond differently to people of diverse races and genders in leadership roles (Ospina & Foldy, 2009; Rhode & Kellerman, 2007), but how students understand their social identities impact whether they recognize such differences and how they then react to such instances. For example, two studies isolated divergent leadership aspirations of females who identified differently along a gender identity spectrum (Boatwright & Egidio, 2003; Kolb, 1999). Researchers found that femininity is significantly related to lower aspirations for leadership (Boatwright & Egidio, 2003) and masculinity is significantly related to leadership emergence (Kolb, 1999). Although study participants identified as female, how they enacted their gender based on a masculine-feminine scale influenced their likelihood to engage in leadership. Not only do social identities alone influence leadership development, but the intersection of social identities with dominant social comprehensions of leadership meaningfully impact the ways that individuals do or do not see themselves engage in leadership, thus affecting their ability and propensity to engage in leadership development.

With leadership commonly associated with stereotypical White, male characteristics in the United States (Brown, 2004; Dugan, 2017; Eagly & Carli, 2007; Sanchez-Hucles & Davis, 2010), individuals whose identities do not match that of the dominant ideology may withhold from engaging in the leadership development process. This may be due to a couple of reasons. One reason could be that people refrain from intentionally engaging in leadership development because they see the mainstream

expectations for leaders, realize they do not fit that mold, and, thus, do not try to participate (Hogg, 2003). An alternative explanation is that people of non-dominant social identities believe they are bad at leadership after receiving negative feedback, which may be due to the dissonance between their way of enacting leadership and that of the prevalent social narrative (Ospina & Foldy, 2009). Moreover, people of dominant social identities may not respond or respond negatively to leadership from people of marginalized populations due to overt and/or subconscious racism, sexism, homophobia, or other biases (Fassinger et al., 2010; Ospina & Foldy, 2009). Leadership educators must challenge identity-biased assumptions about leadership, teaching leadership processes that represent and validate a variety of social identities and counter popular assumptions about leadership. To date, three social identities have received the most attention when disaggregating and representing different ways of knowing: gender, race, and sexual orientation.

Gender. Scholars have made significant progress in examining empirical differences in leadership development based on gender (Boatwright & Egidio, 2003; Dugan, Fath et al., 2013; Dugan & Komives, 2010; Eagly & Carli, 2007; Rhode & Kellerman, 2007; Sanchez-Hucles & Davis, 2010). A common theme in leadership literature about women is the concept of a double bind (Carli & Eagly, 2007). Women are expected to align with gendered social norms that are at contrast with the dominant leadership narrative. Thus, if women act feminine as expected of their gender role, they run the risk of not being respected in their leadership capacity. However, if they act in accordance with the dominant leadership construct, they are subconsciously labeled as harsh or bitchy, descriptors that are not ascribed to men who act in the same way.

Additionally, women in the United States are socialized to be relational; this socialization may manifest in collectivist forms of leadership (Carli & Eagly, 2007). Women may feel more comfortable employing group decision processes versus making independent decisions over others. The differences in the ways women perceive and act within society thus shape the ways they interpret and engage in the leadership process. How women make meaning of and enact leadership and how others respond to their leadership invariably influences leadership development experiences.Thus, it is not surprising that higher education literature repeatedly illustrates empirical differences between women and men for a range of leadership development factors. Women tend to report higher socially responsible leadership capacity than men (Dugan & Komives, 2007, 2010), yet women show lower levels of leadership self-efficacy (Dugan & Komives, 2010; Kezar & Moriarty, 2000; McCormick et al., 2002) and are less likely to enact leadership than men (Boatwright & Egidio, 2003; Dugan & Yurman, 2011). Leadership is a highly relational process that aligns well with the socialization of women in American society (Belenky et al., 1986) but much of the population's perception of leadership still corresponds with stereotypical, male attributes (Boatwright & Egido, 2003; Eagly & Carli, 2007). With social pressure to ascribe to the male model of leadership, women may shy away from enacting leadership, feeling as though they cannot do it well or that they must enact leadership in inauthentic ways. Empirical and theoretical themes reveal the tension between implicit leadership understandings and gender norms that invariable influence how students of different genders navigate leadership development.

Race. With race relations in the United States at a heated and tenuous point, attention to race as it relates to leadership development is all the more timely and

important. Literature repeatedly points to alternative ways that individuals of color engage in the leadership process that diverge from dominant, White norms (Bordas, 2007; Ospina & Foldy, 2009; Ospina & Su, 2009; Sanchez-Hucles & Davis, 2010). Ospina and Foldy (2009) reviewed 148 articles about race/ethnicity and leadership; from this analysis, they discovered that people of color are perceived differently as leaders, enact leadership differently, and are more likely to leverage race as a collective identity to mobilize communities. Whereas race can be characterized as a constraint for leadership practice, it can also be employed as an asset within certain contexts. With race largely informing the experiences of individuals of color in leadership, it is not surprising that empirical research on the leadership development of students of color reflects the divergent experiences of this population. Scholars have shown how various environmental and psychological factors contribute to positive leadership development, but recent studies continue to show that race moderates many of these relationships. When disaggregating data by race, researchers found that socio-cultural conversations had a universal positive relationship with leadership self-efficacy and leadership capacity across race (Dugan, Kodama et al., 2013). However, several other environmental factors such as community service, internships, mentoring, involvement in organizations, and formal leadership programs had positive relationships with some racial groups, no relationship with other racial groups, and even negative relationships with still others in terms of leadership self-efficacy and leadership capacity (Dugan, Kodama et al., 2013). Additionally, similar to Dugan et al.'s (2008) findings related to leadership capacity, Rosch et al. (2015) found that Asian American and Asian students reported lower levels of leadership motivation. Thus, scholars continue to urge fellow researchers to

disaggregate race when analyzing quantitative data on leadership development due to repeated findings that contest the universality of leadership construct relationships (Kodama & Dugan, 2013; Rosch et al., 2015). More research is needed to fully understand these findings and determine empirical rationales as to why racial groups experience leadership development differently. Just as researchers need to better attend to differences in findings based on racial group, educators must be careful when encouraging interventions to boost LSE, assuring that experiences will benefit a diverse range of student populations.

Sexual orientation. Whereas scholars have provided adequate attention to the intersection of gender and leadership and limited attention connecting race with leadership (more is needed), the overlap of sexual orientation and leadership has received minimal consideration (Fassinger et al., 2010). With leadership being a relational process that is subject to one's self-concept, perceptions of others, and contextual norms, the experience of lesbian, gay, bisexual, and queer (LGBQ) individuals in leadership can be distinctly different from their straight peers given their divergent ways of understanding and acting in the world. Additionally, heterosexist assumptions that pervade much of U.S. culture may marginalize and/or trigger LGBQ individuals, mitigating their willingness to engage in leadership and raising questions about their ability to be successful (Fassinger et al., 2010). Similar to leadership concerns around gender and race, LGBQ students may enact leadership in ways that contrast dominant narratives on leadership.Although attention to the interplay of sexual orientation and leadership has received minimal attention in leadership studies, researchers in higher education have empirically investigated how LGBQ students engage in leadership development. Some

foundational scholarship in this area explored LGBQ student leadership development within identity-based contexts (Renn, 2007; Renn & Bilodeau, 2005). In one study, researchers identified LGBT organizations as fertile opportunities for queer leadership development (Renn & Bilodeau, 2005) with a subsequent study differentiating types of leadership within the LGBT/queer community (Renn, 2007). Looking at leadership outside the context of identity-based organizations, Dugan and his colleagues have explored inter- and intra-group differences between heterosexual and lesbian, gay, and bisexual (LGB) peers (Dugan, Komives et al., 2008; Dugan and Yurman, 2011). These studies revealed that LGB students do not have varying levels of leadership capacity and efficacy when compared to their heterosexual peers and each other. These findings are a bit perplexing given LGBQ students' distinct experiences of college campuses (Renn, 2007) yet may illuminate how the strength of association with that particular identity or the relative strength of association other social identities impacts one's construction of the leadership and self-concept in relation to leadership (Dugan & Yurman, 2011; Renn, 2007; Renn & Bilodeau, 2005)

Educators and mentors should help students to better understand their various social identities, how engaging in the leadership process may look different for various social identities, and how people will respond differently to these differences. As collegiate leadership development literature has proliferated, researchers have called for more careful attention to quantitative findings disaggregated by social identities (Dugan, Kodama et al. 2013; Kodama & Dugan, 2013). Studies confirm the interconnected nature of social identity development and leadership development (Renn, 2007; Renn & Bilodeau, 2005; Renn & Ozaki, 2010). As students deconstruct their social identities,

they often come to see injustices in society. These social injustices, especially if they relate to the students' social identities, can serve as catalysts that move marginalized students toward enacting leadership (Renn, 2007; Renn & Ozaki, 2010). Some students' leadership development is not galvanized by purely individualistic motives but by drivers that are also collective in nature. Thus, students' social identities influence motivational factors for engaging in leadership and the process of their leadership development progression.

Summary

College student leadership development is a burgeoning field of study that has garnered much scholarly and practical attention in the past two decades. As researchers and educators have collectively fostered a deliberate focus on leadership development as an outcome of higher education, the literature continues to include increasingly complex and nuanced understandings of leadership and the developmental process. This chapter outlined the shifting conceptions of leadership in leadership studies over time and how that aligned with historical transitions in higher education. This overview culminated with the adoption of leadership development as an explicit collegiate outcome and the development of theories and research that focus on college student leadership. The current higher education literature explored a variety of environmental, pedagogical, and developmental factors that impact college student leadership development.

Using Dugan (2017) and Chan and Drasgow's (2001) theoretical leadership development models as guides in exploring the research, the three constructs of leadership capacity, self-efficacy, and motivation emerged as central in the leadership developmental process; however, empirical testing has yet to fully vet their relationship.

Whereas several studies established the connections between leadership self-efficacy and leadership capacity (Dugan & Komives, 2010; Dugan, Kodama et al., 2013), leadership motivation and leadership capacity, and leadership self-efficacy and leadership motivation, I explored the limitations of the current studies and measurement tools as well as lack of empirical analysis with all three factors in one study. This gap serves as the impetus for this study to understand the relational nature of leadership self-efficacy, motivation, and capacity in the leadership development process. Further contributing to the complexity of this work is the nature of social identities. This chapter explored theoretical literature that illustrates how students of diverse identities conceive of and enact leadership differently, which is substantiated by several empirical studies. These differences call for post hoc analyses to determine whether social identities moderate the relationships between the three psychological constructs.

CHAPTER 3

METHODOLOGY

This study endeavored to understand the role of leadership motivation in the leadership development process. This chapter provides a detailed description of my methodology that contributed to reaching this aim. I start by reiterating my research questions and articulating hypotheses based on literature and prior research. Then, I discuss the study design, providing an overview of the instrument, sample, and key variables to be investigated. Next, the data analysis section provides an outline of steps and procedures used. A narrative on the study limitations concludes this chapter.

Research Questions

In looking at leadership motivation's contribution to the leadership development process, this study explored its relationship with leadership self-efficacy and leadership capacity in particular. Thus, the primary research question was:

- To what degree and in what ways does leadership motivation relate to leadership self-efficacy and leadership capacity?

Because social identities shape how people make meaning of society (Belenky et al., 1986; Patton, Renn, Guido, & Quaye, 2016) and have the potential to influence the relational nature between leadership factors, a subsequent question was:

- Are the relationships between leadership motivation, leadership self-efficacy, and leadership capacity moderated by different social identities (i.e., gender, race, and sexual orientation)?

Hypotheses

The literature reviewed for this study supports a number of hypothetical claims. The null hypothesis for each of the following hypotheses is that there is no relationship between leadership motivation, leadership self-efficacy, and leadership capacity. Given the leadership development literature reviewed, I identify several hypotheses that predict associations between the three psychological constructs and variations based on diverse social identities.

Hypothesis 1

Leadership motivation will have positive relationships with both leadership self-efficacy and leadership capacity. Chan and Drasgow's (2001) research found that leadership self-efficacy predicted motivation to lead. Although their study utilized different measurement tools, this study should replicate the finding. Leadership motivation should also have a positive relationship with leadership capacity. Although not empirically tested by Chan and Drasgow, their theory of leadership development shows a connection between motivation to lead and social knowledge and skills for leading and leadership style.

Hypothesis 2

Leadership motivation will mediate the relationship between leadership self-efficacy and leadership capacity. Mediators are factors that account for the relationship between two other variables (Baron & Kenny, 1986). Highly efficacious individuals

most likely employ a drive to pursue opportunities to develop their leadership capacity because they believe they can be successful (Bandura, 1997). This mirrors parts of a motivational framework, expectancy theory; if students believe they can be successful at a task, believe the task will result in specific reward/outcome and value that reward/outcome, they will be motivated to engage in the task (Vroom, 1964). Thus, motivation to practice and engage in leadership is a product of one's leadership self-efficacy that results in enhanced leadership capacity.

Hypothesis 3

Relationships between leadership self-efficacy, leadership motivation, and leadership capacity will be moderated by social identity. Moderators are factors that influence the direction and/or strength of a relationship between two variables (Baron & Kenny, 1986). I anticipate that because social identities have such a strong impact on self-concept and thought processes (Hogg, 2003), students of diverse identities will report varying patterns of relationship between the psychological constructs.

Study Design

Capitalizing on data from the MSL, this study consists of a quantitative, secondary analysis of the national dataset from 2015 using SEM as the analytic technique.

Research Context and Participants

The MSL is an international survey designed to understand undergraduate students' experiences with and perceptions of leadership (MSL, 2015). This study used data from the sixth iteration of the survey employed from January to April 2015. The MSL research team recruited campuses through professional organizations (e.g., NASPA,

ACPA), conferences, listservs, personal correspondence, and the study website. Each institution administered the survey to a random or census sample of their student population. A minimum of 4,000 students were sampled from each institution unless the campus population was smaller than 4,000; in such cases, the entire student population was sampled. National and local incentives were used to improve response rates and fell within respective national and local human subject review parameters. The national survey received human subjects approval from Loyola University Chicago.

Data were collected via a web-based instrument that was sent to 425,253 students at 91 institutions; of the students administered the survey, 137,381 responded with 99,019 students completing the instrument. This study only used data from four-year higher education institutions in the United States who administered the survey to random or census samples; thus, students from 88 colleges and universities contributed to the dataset. These institutions represent a diverse cross-section of campuses from across the United States. The makeup of the institutional sample includes 50 public and 38 private institutions; 26 religiously affiliated and 62 non-affiliated institutions; 17 institutions with less than 4,999 students, 21 institutions with 5,000 to 9,999 students, 17 institutions with 10,000-19,999 students and 33 institutions with over 20,000; and 6 less competitive, 26 competitive, 26 very competitive, 15 highly competitive, 11 most competitive, and 4 unclassified in terms of selectivity.

In regard to the student sample, 32% of the students responded to the instrument with 72% of the respondents returning completed surveys. Surveys were considered complete when students responded to 100% of the core items, a collection of scales considered integral components of the survey. Thus, the total completed cases for the

MSL 2015 administration was 98,657. Whereas all students received the core items, the MSL is divided into two sub-studies through which students receive one or two different scales. Prior to administration, each institution's sample was randomly divided so that half of the sample received the first sub-study and the other half received the second sub-study. Because the leadership motivation scale was included as a sub-study, this research used the completed cases from the leadership motivation sub-study, which was a total sample of 38,071.

From this point, the data were cleaned to account for manipulated and missing responses. Two layers of criteria were used to identify manipulated cases. Because it is difficult to closely scrutinize several thousand cases, I first identified cases that seemed to be manipulated due to extreme demographic responses (i.e., all or most racial or disability options selected) and all transgender cases for closer cleaning attention. All transgender cases were included for additional speculation considering a past study found that 36% of the transgender cases appeared to be manipulated (Dugan, Kusel et al., 2012). Adapted from Dugan, Kusel et al.'s (2012) criteria for cleaning date, I then applied a combination of criteria to these cases to assess the likelihood of manipulation. Criteria included: 1) Extremely short amount of time to complete the instrument relative to peers (e.g., a respondent took 7 minutes to complete the instrument when the median completion time was 24 minutes); 2) Lack of variation on item responses for scales central to this study (e.g., respondent always selected "2"); 3) Whether campus-reported data matched the respondent's self-reported data; 4) Extreme self-reported ages (e.g., the respondent reported an age of 99, which was the highest response option); and 5) Inappropriate responses to the open-ended question in the survey. Cases that qualified

for at least two of the five criteria were excluded from the study sample, which resulted in 16 cases being eliminated. Of the remaining cases, there were only 48 cases with missing data for the SRLS, leadership self-efficacy, and leadership motivation scales so they were cut from the sample. Thus, the final sample size for this study was 38,007 cases.

After cleaning the data, the breakdown of the sample based on student characteristics was 67.8% White, 9.8% Multiracial, 6.6% Asian American, 6.3% Latino/ Hispanic, 5.2% African American/ Black, 2.6% unidentified, and less than 1% for each Middle Eastern/ Northern African, American Indian/Alaska Native, and Native Hawaiian/ Pacific Islander; 63.9% female, 35.4% male, and .4 transgender/ gender non-conforming; 91.0% heterosexual, 3.6% bisexual, 2.2% gay/lesbian, 1.6% questioning, and 1.0% queer.

Instrument

The MSL uses a survey intended to measure student experiences with leadership development on college campuses (MSL, 2015). Although it was administered on an annual basis between 2009 and 2012, the MSL survey has typically been offered every three years since its inception in 2006. The conceptual framework for the survey is adapted from Astin's (1993) input-environment-output (I-E-O) college impact model. Thus, the instrument is composed of several items and factor scales that measure various input variables such as demographic information and pre-college orientations, environmental variables such as students' experiences and perceptions of campus, and outcome variables such leadership development factors and other psychological constructs. At the heart of the MSL instrument is the socially-responsible leadership

scale (SRLS), which measures students' perceptions of themselves according to the seven values of the SCM (Tyree, 1998). Because the SRLS measures student self-perceptions of knowledge, attitudes, and skills related to leadership, this scale is considered to be a measure of leadership capacity. In addition to the SRLS, leadership efficacy is included as part of the core survey and leadership motivation is integrated as a sub-study of the instrument.

Conceptual Framework

There are two theories that provided the foundation for the conceptual framework for this study. First, Dugan's (2017) model for student leadership development in the collegiate context identifies leadership capacity, leadership self-efficacy, and leadership motivation as central psychological components of a student leadership development process. Although other psychological constructs inform the leadership development process, these three factors are central to the leadership development process, potentially predicting students' leadership behaviors. Thus, understanding how leadership capacity, leadership self-efficacy, and leadership motivation interact elucidates the relational nature of these constructs and provide educators with knowledge to leverage leadership learning.

To build upon these three central psychological constructs, Chan and Drasgow's (2001) theory of leadership development will informed the a priori path models to test the relational direction between constructs. Dugan's (2017) model suggests leadership capacity, self-efficacy, and motivation are mutually reinforcing, which is also supported by other literature (Bandura, 1997). However, a similar reciprocal relationship was theorized for the three domains of the SCM (HERI, 1996), but subsequent research suggested it might be more sequential when applied as a developmental process (Dugan,

Kodama et al., 2013). In a similar way, although theoretically cyclical, leadership capacity, self-efficacy, and motivation may also be sequential as a development process. Thus, Chan and Drasgow's (2001) theory of leader development outlines a linear relationship with leadership self-efficacy predicting leadership motivation, which then predicts leadership capacity. This theoretical model served as the foundation for multiple a priori path models tested in this study.

Variables of Interest

This research focused on three primary variables as derived from the conceptual framework as well as three moderating variables. Although other variables are theoretically connected to leadership capacity, self-efficacy, and motivation, this study focuses on the relationships of these three factors in one model. As a result, I limited this study to the three primary factors. Factor scale items and coding are provided in Appendix A.

Leadership capacity. Leadership capacity was the endogenous variable for this study as measured by the SRLS. Tyree (1999) created the SRLS to measure the seven values of the SCM and its product, change. Recently, Dugan (2015) scrutinized the validity of the SRLS through multiple lenses. From his examination, he found that the change scale did not accurately capture one's ability to participate in social change but instead measured one's comfort with change. Thus, study investigators cut the change scale from the SRLS and discontinued use of the change scale in the MSL. Dugan also surfaced evidence that suggested the common purpose scale was not measuring a distinct construct from the collaboration scale. As a result, he recommended that common

purpose be excluded when employing the SRLS to research leadership capacity. Finally, Dugan removed items to shorten the SRLS yet maintain strong reliability and validity.

As per Dugan's (2015) recommendations, the iteration of the SRLS used for this study consisted of 34 items. Each of the six SCM values measured in the SRLS is composed of a 5 or 6-item scale about which students respond to a range of options indicating their degree of disagreement or agreement with item statements. The response continuum is a 5-point Likert type scale with the following options: strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). The SRLS is composed of six subscales but is often operationalized as a single construct through an omnibus mean, which is calculated using all 34 items. For the 2015 iteration of the MSL, the SRLS omnibus showed a strong level of reliability with a Chronbach's alpha of .96. This study will employ the leadership capacity omnibus for analysis.

Leadership self-efficacy. Leadership self-efficacy was an exogenous variable for this study as measured by a four-item scale grounded in Bandura's (1997) work. The survey asks students to respond to four items with their relative level of confidence for each. Items for this scale relate to students' confidence with: leading others, organizing a group's tasks to accomplish a goal, taking initiative to improve something, and working with a team on a group project. Respondents are provided with a four-point Likert type scale with the following options: not confident at all (1), somewhat confident (2), confident (3), and very confident (4). A 19-person research team with expertise in leadership education confirmed face validity of this scale (Dugan, Garland et al., 2008); additionally, based on empirical relationships between this leadership self-efficacy scale and other relevant constructs that reflect the same theoretical relationships, researchers

established the construct validity of this scale. The leadership self-efficacy factor scale from the 2015 MSL iteration showed a strong level of reliability with a Chronbach's alpha of .87.

Leadership motivation. Leadership motivation was used as an exogenous and mediating variable and measured by a nine-item scaled based on a motivation meta-theory (Leonard et al., 1999). The meta-theory consists of five sources of motivation: intrinsic process, extrinsic/instrumental motivation, external self-concept, internal self-concept, and goal internalization. However, the MSL instrument only measured three of the five sources because of limited space for new items in the survey. Given the leadership theory that guides this study, the SCM, only external self-concept, internal self-concept, and goal internalization were included because they more readily relate to the social change focus while attending to how one's concept of self and association in a group or community play a role in motivation and socially responsible leadership. Three subscales measure these sources of motivation; each subscale is composed of three items with the nine total items being a composite measure of motivation. Like the SRLS, students are asked to what degree they agree or disagree with each item, responding to a Likert type range of the following options: strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). For the purpose of this research, I used the overall leadership motivation scale in the structural models rather than the three separate subscales.

Because the 2015 administration of the MSL was the first using the leadership motivation scale, no substantial validation information was yet available. However, this study afforded the opportunity to further investigate this scale. Although preliminary

analysis confirmed a good level of reliability with a Chronbach's alpha of .83, the processes used for SEM allowed me to examine the scale's reliability and validity. Because CFA is a required first step in the process of testing structural models (Kline, 2011), I further tested measurement reliability and construct validity by exploring how well the leadership motivation scale held together and determining whether the scale was a distinct yet interconnected construct in relation to leadership self-efficacy and leadership capacity.

Moderating variables. Because social identities are associated with varying levels of leadership outcomes (Dugan & Komives, 2010; Dugan, Komives et al., 2008; Dugan, Kusel et al., 2012; Dugan & Yurman, 2011; Kezar & Moriarty, 2000; Kodama & Dugan, 2013) and influence the relational strength and direction between other leadership variables (Dugan, Kodama et al., 2013), three demographic variables were included in the data analysis: gender, race, and sexual orientation. To be included in moderation testing, categorical groups had to be larger than 200 respondents to achieve the required power for analysis (Kline, 2011). Students were provided with three options for gender identification: female, male, and transgender/ gender non-conforming. From the dataset for this study, 35.4% identified as male, 63.9% as female, and .4% as transgender/ gender non-conforming; because the number of transgender/ gender non-conforming respondents was too low, this subsample was not included as a distinct group in the moderation analysis. Students who responded as transgender/ gender non-conforming were asked an additional question, requesting them to indicate a best-fitting description from the following: female to male, male to female, intersexed, gender non-conforming, genderqueer, two-spirit, third gender, and preferred response not listed. Although

inclusion of transgender/ gender non-conforming students as a group was not possible, individuals who identified as male to female were added to the female group and individuals who indicated female to were added to the male group.

As for race, students were allowed to mark all options that applied to their racial group membership. For the purpose of this study, students were recoded into single categories with students who selected multiple options coded into the multiracial category. Thus, racial groups that were used for moderation testing were White/Caucasian (67.8%), Multiracial (10.1%), Asian American (6.6%), Latino/ Hispanic (6.3%), African American/ Black (5.2%), and Middle Eastern (0.7%) with the American Indian/Alaska Native and Native Hawaiian/ Pacific Islander groups having too few cases to be included in moderation analyses. Finally, students were provided with heterosexual, bisexual, gay/lesbian, queer, and questioning for sexual orientation response options. For this study, 91% of students reported being heterosexual, 3.6% as bisexual, 1.6% as questioning, 1.3% as gay/ lesbian males, 1.0% as queer, and 0.8% as gay/ lesbian females. These categorical variables were used to test for moderation of relationships between leadership capacity, self-efficacy, and motivation.

Data Analysis

This study employed various SEM techniques to answer the research questions posed. SEM is a collection of procedures that use covariance matrices to analyze measurement and structural path models (Kline, 2011). Measurement models consist of factor loadings of observed variables (i.e., survey items) onto latent constructs (i.e., factor scales) whereas structural path models pertain to a set of relationships between latent constructs. SEM is designed for use with continuous latent constructs such as leadership

capacity, self-efficacy, and motivation as measured in the MSL. Also, because SEM can analyze both measurement and path models at the same time, this technique accounts for measurement error and provides a more rigorous analysis of the relationships between latent constructs. To conduct the analysis, I used LISREL (Jöreskog & Sörbom, 2006), which is a statistical software specifically designed for SEM.

The data analysis was composed of multiple stages that complied with recommend practices for SEM and appropriately addressed the research questions. This consisted of a series of steps to create a priori models, test measurement models, run structural models, compare relative fit of the models to select the best fitting model, and then test model invariance by the three social identities.

A Priori Models

SEM is used to confirm a priori models (Kline, 2011). Not only can a researcher determine whether data appropriately fit one model, but researchers can also compare multiple structural models to determine whether certain models better explain the relationship between variables (Kline, 2011). When comparing structural models, the same latent constructs must be included but different relationships between these constructs are proposed. Thus, this study tested three a priori models to determine which best explained the relational nature of the data.

Concerning power for analyzing the models, statisticians recommend at least 20 cases per estimated parameter (Jackson, 2003). Considering the estimated parameters for the three models range from 40 to 41, at least 800 cases were needed. The total 38,007 cases as well as the 8 randomly divided sample subsets (with 4,750 or 4,751 cases) far exceed the minimum number of cases for power. All three models shared the same

number of observed variables: 190. Each model had 40 or 41 estimated parameters leaving 150 and 149 degrees of freedom respectively; and because these three factor models had at least two indicators per factor, the models were identified (Kline, 2011).

Model 1. Model 1 assumed that leadership motivation does not mediate the relationship between leadership self-efficacy and leadership capacity. Instead, leadership motivation and leadership self-efficacy were correlated but have distinct relationships with leadership capacity (see Figure 3).

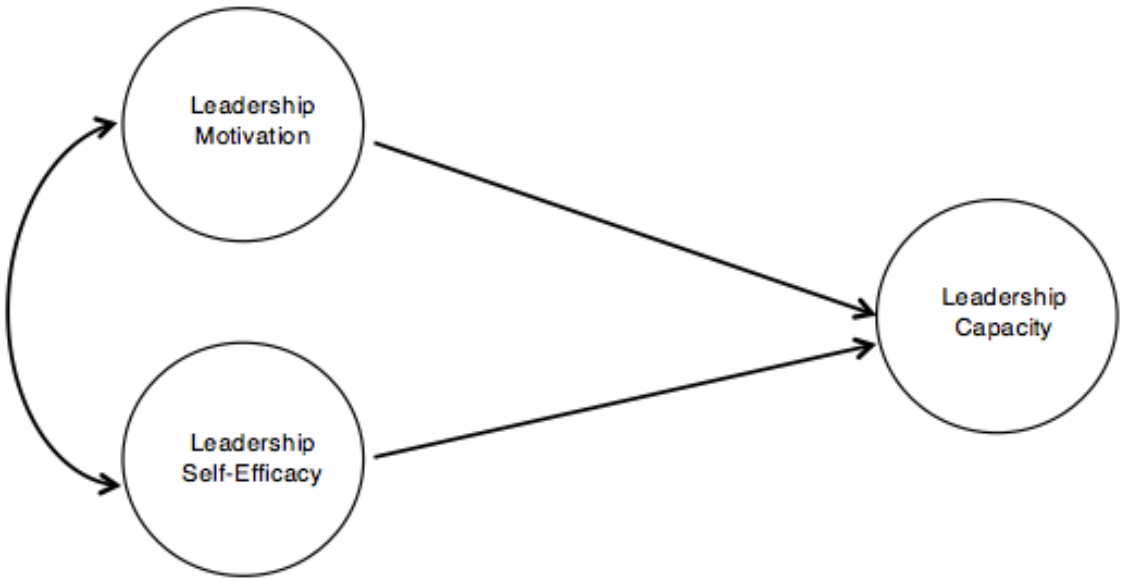

Figure 3. Model 1. Assumes leadership self-efficacy and leadership motivation covary and directly related to leadership capacity.

Model 2. Model 2 directly reflected Chan and Drasgow's (2001) model (see Figure 4); it implied that leadership motivation completely mediates the relationship between leadership self-efficacy and leadership capacity.

Figure 4. Model 2. Reflects Chan and Drasgow's (2001) model of leadership development.

Model 3. Model 3 was a slight variation of Chan and Drasgow's (2001) model that added a direct path from leadership self-efficacy to leadership capacity (see Figure 5). This assumed that leadership self-efficacy has a direct impact on leadership capacity above and beyond the influence via leadership motivation.

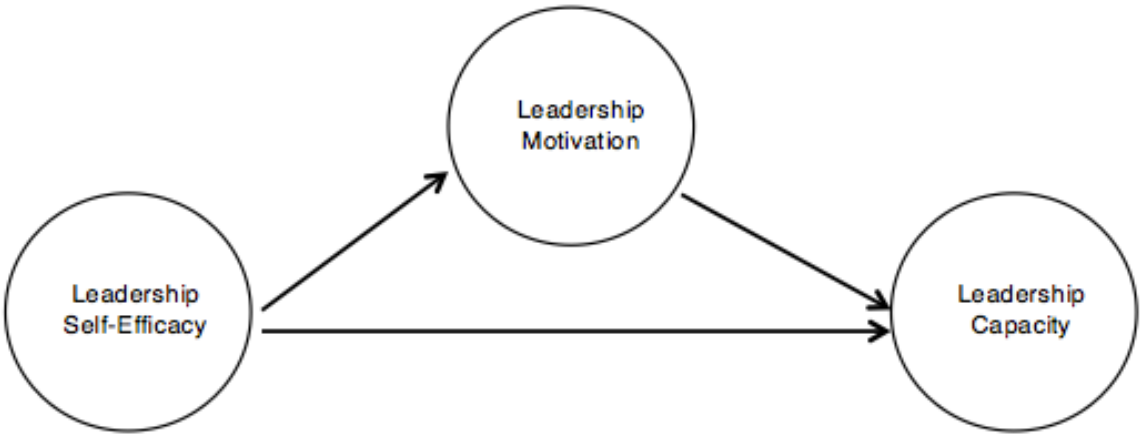

Figure 5. Model 3. Reflects Chan and Drasgow's (2001) model of leadership development with a slight alteration indicating a direct connection between leadership self-efficacy and leadership capacity.

Model Testing

To test how well the models fit the data, I used Anderson and Gerbing's (1988) two-step process for testing them. The first step in their approach is to conduct an

oblique, 3-factor CFA. The CFA confirmed whether observed variables appropriately loaded onto their respective factors and that the factors correlated, thus assuring some sort of relationship between the factors. If the fit indices fell within acceptable ranges, then it was deemed appropriate to continue to the next step of testing the structural models. I then ran each model using LISREL and examined fit indices to determine the goodness of fit.

Model Comparisons

If more than one model had fit indices that fell within the recommended ranges of good fit, then I performed comparison tests of the nested models to determine which model better represented the data. Chi-square tests are used to compare models constructed with the same variables; differences of chi-square scores between models determine whether there is a significant difference between the model fit (Kline, 2011). If there is a significant difference, the model with the smaller Chi-square is determined to be the model of better fit. With the data being non-normal, I used robust maximum likelihood estimates and the resulting Satorra-Bentler scaled chi-square statistic for the comparison process (Satorra & Bentler, 2010) and followed recommended processes for Satorra-Bentler scaled difference chi-square testing (Bryant & Satorra, 2012).

Because large samples, like the one in this study, can produce extreme variations in chi-square values (Maruyama, 1998), I used two processes to prevent type I error (Tabachnick & Fidell, 2013). First, I divided the sample into eight random groups and replicated model testing eight times. The smaller sample groups provided better scaled Chi-square values to compare between models. Second, I followed procedures recommended by Meade, Johnson, and Braddy (2008) when conducting measurement

invariance testing on larger sample sizes. Although meant for measurement invariance testing, I consulted the same recommended fit indices (i.e., comparative fit index and McDonald's noncentrality index) for consideration in addition to the traditional scaled chi-square difference comparison. The model that yielded the best fit most consistently among the three statistics and across the eight samples was deemed the best-fitting model to use in subsequent study analyses.

Invariance Testing

Using the best fitting model, I first determined whether there were differences in leadership motivation means by gender, race, and sexual orientation as an indicator of whether to continue with invariance testing. I then continued with invariance testing, consulting the three statistics as recommended by Meade et al. (2008) to best discern invariance between groups with larger sample sizes. For each social identity, invariance testing required a series of tests to determine measurement and path invariance (Byrne, 1998; Kline, 2011). I first tested for measurement model invariance by examining factor loadings and then factor variances for invariance by social identities. After determining measurement invariance, I then tested structural path models for variance by social identities.

To conduct invariance testing required a number of steps. First, baseline models for each of the groups were run to determine whether the model fit each distinct group well. If the model did not fit one of the groups well, then the model was deemed configurally invariant and subsequent invariance testing was not conducted (Kline, 2011). Second, the model was run with both groups pooled together to determine a baseline from which to compare the next step. For each subsequent step, different aspects of the

measurement or structural models were constrained to be equal across groups. Therefore, the fit indices of the model run were compared with the prior step's model's fit indices. If the fit significantly worsened according to the three fit indices of interest (i.e., scaled chi-square, CFI, and Mc), then one or more of the components that were constrained to be equal (e.g., a factor loading, a factor variance) was invariant (Kline, 2011). Additional testing was then needed to find which particular parameters were invariant. If a parameter was invariant, I then allowed it to be freely estimated for subsequent steps of invariance testing (Kline, 2011). Exploring measurement and structural path models for invariances by gender, race, and sexual orientation provides valuable insight into the psychometric validity and reliability of and the conceptual relationships between leadership self-efficacy, leadership motivation, and leadership capacity.

Summary

In this chapter, I provided an overview of the research design, data collection, instrument, and data analysis plan used for this study. The focus on connections between three continuous, latent constructs justified the use of SEM as an analytic technique. Data were collected using the MSL instrument, providing adequate and appropriate data from which to conduct this secondary analysis. The variables chosen were grounded in the conceptual framework with strong theoretical and empirical work justifying the use of social identity variables as moderating factors. Plans for data analysis corresponded with recommended practices for SEM and directly addressed the research questions posed. This study design and process produced trustworthy findings that inform both research and practice in college student leadership development.

CHAPTER 4

RESULTS

The purpose of this research was to understand the role of leadership motivation in the leadership development process, specifically focusing on how it related with leadership self-efficacy and leadership capacity. I employed data from the spring 2015 administration of the MSL, resulting in a sample of 38,007 participants once data were cleaned per parameters outlined in the previous chapter. To investigate the research questions, I first performed a confirmatory factor analysis on the motivation scale to verify the factor structure of leadership motivation, a new construct included in the MSL. I then followed recommended procedures to analyze and compare three a priori models that outlined theoretical relationships between leadership motivation, leadership self-efficacy, and leadership capacity (Anderson & Gerbing, 1998). Once a best fitting model was determined and the nature of the relationships between leadership motivation and leadership self-efficacy and leadership capacity were confirmed, I then examined whether reported levels of leadership motivation varied by race, gender, and/or sexual orientation. To further understand potential differences based on social identities, I tested whether the measurement models of and relationships between leadership psychological constructs held differently. This required invariance testing, a process of methodically constraining estimated parameters of the model to be equivalent between groups to determine whether specific components of the model varied by social identity (Kline, 2011). For invariance

testing, I used the best fitting model for subsequent structural equation model testing by social identities.

Confirmatory Factor Analyses of Psychological Constructs

Conducting a confirmatory factor analysis (CFA) to test the validity of all measurement models used in the structural model is the first step in the structural equation modeling process (Anderson & Gerbing, 1998). Determining whether observed variables appropriately relate as latent factors and whether the latent factors included in the model correlate are necessary processes before conducting the structural path analysis (Anderson & Gerbing, 1998). Therefore, a CFA with correlating latent factors was conducted to determine whether further analyses were appropriate. I conducted CFAs on all eight datasets to determine whether measurement models appropriately explained the relationship of items to latent factors and whether latent constructs correlated for each of the datasets. Because this study employed a new latent factor, leadership motivation, I first conducted CFAs of leadership motivation to verify its validity as a standalone construct.

For all measurement and structural models, I used a combination of fit indices to determine whether the data fit each model. In structural equation modeling, software programs report a number of fit indices that indicate data-model correspondence using a variety of goodness and badness of fit calculations. Hu and Bentler (1998) recommend judging a model's fit using a collection of absolute and relative fit indices. Thus, I used four fit indices to determine whether models fit the data well: standardized root mean square residual (SRMR), root mean square error of approximation (RMSEA), non-normed fit index (NNFI), and comparative fit index (CFI). The SRMR and RMSEA are

measures of absolute fit that indicate to what degree the covariances perfectly fit the model (Kline, 2011). For the SRMR statistic, values less than .08 are considered good fit (Hu & Bentler, 1998) whereas values less than .10 for RMSEA indicate acceptable fit (Browne & Cudeck, 1993). I also used two measures of comparative fit, NNFI and CFI, which compare how the data fit a worst model; the worst model is typically the null model that assumes no covariance between observed variables (Kline, 2011). Fit indices greater than .90 for both NNFI and CFI are recognized as good fitting (Marsh, Hau, & Wen, 2004). When a model has good fitting indices across all four of these statistics, then the model is considered to be an accurate representation of the relational fit between variables for the data.

The normal distribution of data is a basic assumption for SEM analyses (Kline, 2011). Prior to analysis, I tested the data normality and found that the data were not normally distributed. Most items showed a non-normal univariate distribution with all factors having non-normal multivariate distributions. Because the data were non-normal, I used robust maximum likelihood estimations, specifically the Satorra-Bentler (SB) statistic (Satorra & Bentler, 1994) for all model and invariance testing (Kline, 2011). The SB statistic adjusts the chi-square statistic based on the degree of kurtosis (Satorra & Bentler, 1994). Thus, SB scaled chi-square score is reported in place of the traditional chi-square score throughout the study analyses. Additionally, due to the scaled nature of SB statistic, standard chi-square difference testing cannot be used, requiring an alternative difference testing calculation as prescribed by Bryant and Satorra (2012).

Leadership Motivation CFA

The leadership motivation scale was first included in the MSL for the spring 2015 administration. Based on a motivation metatheory (Leonard et al., 1999), the leadership motivation scale was constructed to align with socially responsible leadership. Prior to conducting this research, experts reviewed the scale items for content validity and a Chronbach alpha was calculated to evaluate the construct's reliability (α=.83). To further verify its validity as a latent factor, I conducted a CFA with all nine observed variables (i.e., individual items) loading onto a single leadership motivation construct.

The leadership motivation single-factor CFA demonstrated strong fit according to the four fit indices consulted (see table 1). The fit indices across all eight datasets showed good levels of fit with NNFI indices ranging from .948 to .960, CFI, indices ranging from .961 to .970, RMSEA indices ranging from .076 to .085, and SRMR indices ranging from .048 to .051. Given these fit indices, the leadership motivation scale has good construct validity.

Table 1. Leadership Motivation CFA Fit Indices

	SB Scaled X^2	*df*	NNFI	CFI	RMSEA	SRMR
Dataset 1	790.593	27	.956	.967	.077	.049
Dataset 2	778.595	27	.960	.970	.077	.048
Dataset 3	829.255	27	.955	.966	.079	.050
Dataset 4	962.184	27	.948	.961	.085	.051
Dataset 5	818.926	27	.955	.966	.079	.048
Dataset 6	787.255	27	.954	.966	.077	.050
Dataset 7	772.829	27	.958	.969	.076	.049
Dataset 8	873.263	27	.953	.965	.081	.051

Note. SB = Satorra-Bentler.

Structural Model CFA

After verifying the construct validity of the leadership motivation scale, I then conducted oblique CFAs for all items and latent factors to be included in the structural

model. The model included the 19 observed variables that loaded on the three, correlated latent constructs: leadership self-efficacy, leadership motivation, and leadership capacity. For each of the eight datasets, the structural model CFAs also showed strong fit; NNFI (all .97), CFI (ranging .97 to .98), RMSEA (ranging .066 to .068) and SRMR (ranging .049 to .051) fit indices all fell within good ranges (see table 2). Thus, the indices from the CFAs for the structural model suggest that the observed variables appropriately load onto respective latent factors and that those latent factors are correlated. Correlations between each of the factors were significant across all eight models with correlations between leadership motivation and leadership self-efficacy ranging from .560 to .591, leadership motivation and leadership capacity ranging from .681 to .727, and leadership self-efficacy and leadership capacity ranging from .611 to .646.

Table 2. Structural Model CFA Fit Indices

	SB Scaled X^2	*df*	NNFI	CFI	RMSEA	SRMR
Dataset 1	3364.35	149	.97	.97	.067	.049
Dataset 2	3338.85	149	.97	.98	.067	.049
Dataset 3	3405.29	149	.97	.97	.068	.051
Dataset 4	3302.33	149	.97	.98	.067	.049
Dataset 5	3293.48	149	.97	.98	.067	.049
Dataset 6	3207.37	149	.97	.98	.066	.049
Dataset 7	3381.54	149	.97	.98	.068	.050
Dataset 8	3236.50	149	.97	.98	.066	.050

Note. SB = Satorra-Bentler.

Structural Model Testing for Best-Fitting Model

The three models outlined in chapter three were tested to determine which one best reflected the eight datasets. As equivalent models, Models 1 and 3 had identical fit indices (Kline, 2011). All three models showed fit indices that fell within recommended ranges that indicate a strong fit (see table 3; Browne & Cudeck, 1993; Hu & Bentler, 1998; Marsh et al., 2004). However, the Satorra-Bentler scaled chi-square difference

testing (Bryant & Satorra, 2012) and difference of CFIs between the two models (Meade et al., 2008) revealed a better fit for Models 1 and 3 when compared to Model 2. Meade et al. (2008) also recommend reviewing model differences between the McDonald's Non-centrality Index (Mc) for each model; but when compared to Model 2, Models 1 and 3 did not show a recommended minimum improved fit of .0075 to be deemed significantly better fitting models. Because this mixed result tends to point to a significantly different fit between Model 2 and Model 1 as well as Model 2 and Model 3, I am inclined to move forward with either Model 1 or Model 3.

Table 3. Tests of Scaled Chi-Square Difference for Models 1, 2, and 3

	SB Scaled X^2	*df*	Scaling factor	SB Scaled X^2diff	Δ*df*	NNFI	CFI	RMSEA	SRMR	Mc
Dataset 1										
Model 1	3364.35	149	1.28	386.59*	1	.971	.974	.067	.049	1.020
Model 2	3743.75	150	1.28			.967	.972	.061	.067	1.022
Model 3	3364.35	149	1.28	386.59*	1	.971	.974	.067	.049	1.020
Dataset 2										
Model 1	3338.85	149	1.34	366.94*	1	.972	.976	.067	.049	1.025
Model 2	3620.99	150	1.34			.970	.974	.070	.065	1.022
Model 3	3338.85	149	1.34	366.94*	1	.972	.976	.067	.049	1.025
Dataset 3										
Model 1	3405.29	149	1.33	338.46*	1	.971	.974	.068	.051	1.028
Model 2	3663.71	150	1.33			.969	.972	.070	.065	1.025
Model 3	3405.29	149	1.33	338.46*	1	.971	.974	.068	.051	1.028
Dataset 4										
Model 1	3302.33	149	1.29	230.08*	1	.971	.975	.067	.049	1.019
Model 2	3564.30	150	1.29			.969	.973	.069	.063	1.019
Model 3	3302.33	149	1.29	230.08*	1	.971	.975	.067	.049	1.019
Dataset 5										
Model 1	3293.48	149	1.29	295.61*	1	.972	.975	.067	.049	1.025
Model 2	3581.51	150	1.29			.969	.973	.069	.063	1.024
Model 3	3293.48	149	1.29	295.61*	1	.972	.975	.067	.049	1.025
Dataset 6										
Model 1	3207.37	149	1.36	299.85*	1	.972	.976	.066	.049	1.022
Model 2	3504.79	150	1.36			.970	.974	.069	.064	1.020
Model 3	3207.37	149	1.36	299.85*	1	.972	.976	.066	.049	1.022
Dataset 7										

Model 1	3381.54	149	1.33	259.06*	1	.971	.975	.068	.050	1.022
Model 2	3677.24	150	1.33			.969	.973	.069	.068	1.022
Model 3	3381.54	149	1.33	259.06*	1	.971	.975	.068	.050	1.022
Dataset 8										
Model 1	3236.50	149	1.34	235.56*	1	.973	.976	.066	.050	1.027
Model 2	3570.44	150	1.34			.970	.973	.069	.068	1.028
Model 3	3236.50	149	1.34	235.56*	1	.973	.976	.066	.050	1.027

Note. Significance testing conducted in comparison with model 2; SB = Satorra-Bentler; diff = difference; * $p < .001$

Because models 1 and 3 are equivalent in fit and have good levels for a range of fit indices, they are both equally valid explanations of the relationships between the data. As cross-sectional data, a causal direction of the relationship is not possible to discern. Thus, some would argue that model 1 is the most appropriate to use moving forward because it does not assume a directional nature between leadership self-efficacy and leadership motivation (Cliff, 1983). However, model 3 reflects a directional relationship between self-efficacy and motivation often discussed in literature, which states that self-efficacy related to a particular task increases one's motivation to engage in that task (Bandura, 1997; Chan & Drasgow). Additionally, some research suggests that the three domains of the SCM, although theoretically mutually reinforcing, are more sequential as an initial developmental process (Dugan, Kodama et al., 2013). In a similar thread, the developmental process between leadership self-efficacy, leadership motivation, and leadership capacity may be more sequential initially even though an ongoing cycle may reveal reciprocal relationships. Using model 3 may allow for more insight into how these constructs relate as one begins a process of leadership development. Furthermore, SEM output from model 3 provides additional information to understand direct effects, indirect effects, and possible mediation, which can verify or discount the plausibility of

particular theories (Chan & Drasgow, 2001; Dugan, 2017) Thus, I conducted subsequent analyses using model 3.

An analysis of the entire dataset using model 3 indicates strong fit (see Table 4). The four fit indices referenced to assess fit, NNFI, CFI, RMSEA, and SRMR, all show strong levels of fit confirming the model represents the full dataset well. Model 3 and the corresponding standardized values for the unique item error, factor loadings, and path coefficients are displayed in Figure 6.

Table 4. Fit Indices for Model 3 with Full Dataset

	SB Scaled X^2	*df*	NNFI	CFI	RMSEA	SRMR	MNCI
Model 3	14120.8813	149	.987	.989	.0497	.0535	1.031

Note. SB = Satorra-Bentler.

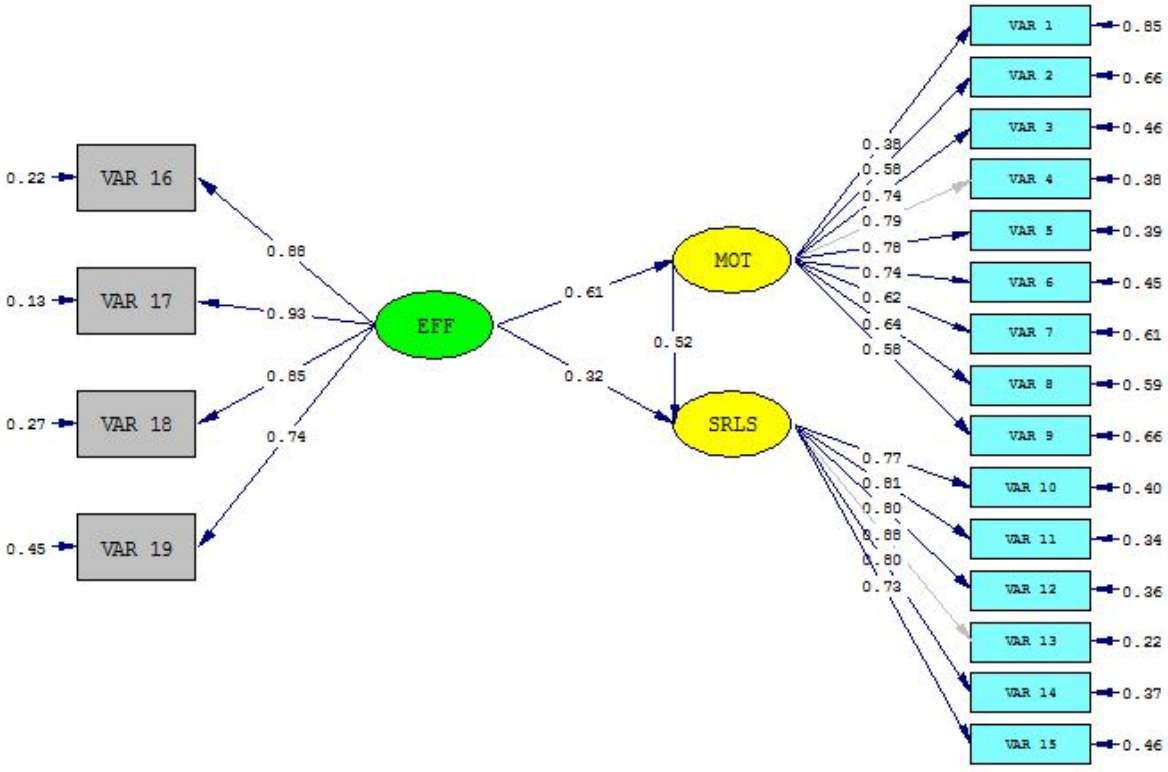

Figure 6. Structural Model 3 with Full Sample

Examining the paths between each of the leadership constructs reveals significant relationships between each of the constructs (see Table 5). When looking at standardized value for each path coefficient to discern the relative strength of each path, relationships between leadership self-efficacy and leadership motivation as well as leadership motivation and leadership capacity seem to be stronger than the path between leadership self-efficacy and leadership capacity.

Table 5. Significance of Structural Paths for Model 3

	B	β	SE	Z score
LSE – LM	.795	.607	.052	15.162*
LM – SRLS	.187	.516	.018	10.193*
LSE – SRLS	.152	.321	.008	19.080*

$p < .001$

The exogenous variables explain relatively large portions of the variances of endogenous variables. Leadership self-efficacy explains 36.8% of the variance in leadership motivation while leadership self-efficacy and leadership motivation explain 57.0% of the variance in leadership capacity. The variance explained for leadership capacity is larger than what was reported in past research (Dugan & Komives, 2010); this is mostly likely due to the use of structural equation modeling, which parcels out unique error unlike regression models (Kline, 2011).

Given the structure of model 3, one can test whether leadership motivation potentially mediates the relationship between leadership self-efficacy and leadership capacity. As a potential mediator, leadership motivation would fully or partially explain the relationship between leadership self-efficacy and leadership capacity (Baron & Kenny, 1986). The Sobel test examines the significance of the unstandardized indirect effect of an exogenous variable on an endogenous variable (Kline, 2011). The indirect

effect of leadership self-efficacy on leadership capacity reveals a z score of 16.32 ($p <$ .001). Because there are significant direct paths between all three factors and a significant indirect effect of leadership self-efficacy on leadership capacity, the relationship of leadership self-efficacy and leadership capacity is partially mediated by leadership motivation is a viable reflection of the data.

Model Invariance by Social Identities

Invariance testing was conducted to determine whether measurement and structural models held differently for diverse social identities. This research focused on whether the nature of the relationship between psychological constructs varied by different social identities. However, to make this determination, one must first test the measurement model to assure it holds the same across groups (Byrne, 1998). When testing the measurement models for invariance between groups, estimated parameters that are found to be invariant are constrained to be equivalent in subsequent testing. However, if estimated parameters are deemed to be variant, then those parameters freely estimated for each group in subsequent testing (Byrne, 1998). For all invariance testing by social identities, baseline model fit indices were calculated to compare with nested models, allowing measurements to determine whether model fit worsened as various parameters were constrained to be equal across groups. As parameters are constrained, if a model's fit significantly worsens, then one or more of the group values for the estimated parameters constrained are considered variant across groups (Byrne, 1998).

For each social identity with more than 200 participants, invariance testing was conducted to compare each social identity group to others not of that group. Thus, invariance testing was conducted in pairs comparing bisexual students and non-bisexual

students, multiracial students and non-multiracial students, female students and non-female students, and so forth. Performing invariance testing between a particular social identity and those not of that identity allowed for unique differences by specific populations to emerge; this is opposed to other methods in which all social identity groups are compare to a referent group, which potentially privileges the perspectives and experiences of that referent group as the normal.

To conduct invariance testing, I followed Byrne's (1998) recommended series of hypotheses. I first tested for configural invariance by assuring the model adequately fit each group's data well. I then tested for measurement invariance by confirming that item factor loadings on latent constructs and then that variances of latent constructs were equivalent across groups. Finally, I verified structural invariance by testing whether structural paths and endogenous variable residuals varied across groups. See Table 7 for full results of each stage of invariance testing.

Table 6. Invariance Testing by Social Identities

	Models Compared	SB Scaled X^2 (ΔScaled X^2)	*df* (Δ*df*)	*p*	NNFI	CFI (ΔCFI)	SRMS	RMSEA	Mc (ΔMc)
Race									
African American/ Black									
1. Black Baseline		317.588	149		.963	.968	.065	.071	.610
2. Non-Black Baseline		1201.735	149		.979	.981	.052	.062	.655
3. Pooled Baseline		1591.922	298		.976	.979	.052	.065	.650
4. Invariant Factor Loadings	3-4	1540.389 (13.149)	315 (17)	.518	.978	.980 (-.001)	.053	.062	.646 (.004)
5. Invariant Factor Loadings & Construct Variances	4-5	1510.503 (2.965)	317 (2)	.227	.980	.981 (-.001)	.053	.059	.642 (.004)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1545.183 (3.500)	320 (3)	.321	.978	.980 (<.001)	.054	.062	.644 (-.002)
Asian American									
1. Asian Baseline		313.046	149		.970	.974	.076	.068	.492
2. Non-Asian Baseline		1213.464	149		.978	.981	.051	.063	.667
3. Pooled Baseline		1463.091	298		.978	.981	.051	.062	.644
4. Invariant Factor Loadings	3-4	1498.731 (8.071)	315 (17)	.965	.979	.981 (<.001)	.051	.060	.645 (-.001)
5. Invariant Factor Loadings & Construct Variances	4-5	1514.074 (35.194)	317 (2)	<.001*	.979	.981 (<.001)	.051	.060	.644 (.001)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1523.717 (7.460)	320 (3)	.059	.979	.980 (<.001)	.052	.060	.643 (.001)
Latino									
1. Latino Baseline		393.312	149		.960	.965	.073	.082	.541
2. Non-Latino Baseline		1167.977	149		.978	.981	.051	.062	.663
3. Pooled Baseline		1652.774	298		.975	.978	.051	.067	.648
4. Invariant Factor Loadings	3-4	1697.569 (17.016)	315 (17)	.453	.976	.978 (<.001)	.052	.065	.648 (<-.001)
5. Invariant Factor Loadings & Construct Variances	4-5	1709.845 (14.207)	317 (2)	.001*	.976	.977 (<.001)	.052	.065	.657 (.001)
6. Invariant Factor Loadings,	5-6	1718.411	320		.976	.977	.053	.065	.647

	Models Compared	SB Scaled X^2 (ΔScaled X^2)	*df* (Δdf)	*p*	NNFI	CFI (ΔCFI)	SRMS	RMSEA	Mc (ΔMc)
Construct Variances, & Paths		(5.054)	(3)	.168		(<.001)			(<.001)
Middle Eastern									
1. Middle Eastern Baseline		299.837	149		.979	.982	.066	.068	.549
2. Non-Middle Eastern Baseline		1263.211	149		.976	.979	.053	.064	.648
3. Pooled Baseline		1540.985	298		.977	.980	.053	.064	.636
4. Invariant Factor Loadings	3-4	1597.199 (32.709)	315 (17)	.012*	.977	.979 (.001)	.055	.063	.634 (.001)
5. Invariant Factor Loadings & Construct Variances	4-5	1600.324 (5.833)	317 (2)	.054	.977	.979 (<.001)	.055	.063	.632 (.002)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1599.885 (7.320)	320 (3)	.062	.978	.979 (<.001)	.056	.063	.630 (.003)
Multiracial									
1. Multiracial Baseline		297.787	149		.978	.981	.057	.063	.610
2. Non-Multiracial Baseline		1207.466	149		.977	.980	.053	.063	.656
3. Pooled Baseline		1545.787	298		.977	.980	.053	.064	.651
4. Invariant Factor Loadings	3-4	1566.662 (20.691)	315 (17)	.240	.978	.980 (<.001)	.052	.062	.649 (.002)
5. Invariant Factor Loadings & Construct Variances	4-5	1569.486 (5.997)	317 (2)	.050*	.978	.980 (<.001)	.052	.062	.647 (.002)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1565.198 (1.510)	320 (3)	.680	.978	.980 (<-.001)	.052	.062	.647 (<.001)
White									
1. White Baseline		294.938	149		.971	.975	.072	.062	.584
2. Non-White Baseline		1227.616	149		.978	.980	.052	.064	.654
3. Pooled Baseline		1530.515	298		.977	.980	.052	.064	.646
4. Invariant Factor Loadings	3-4	1577.204 (27.247)	315 (17)	.055	.978	.979 (-.001)	.053	.063	.645 (.001)
5. Invariant Factor Loadings & Construct Variances	4-5	1607.438 (?????)	317 (2)	.???	.977	.979 (<-.001)	.054	.063	.643 (.002)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1614.261 (3.895)	320 (3)	.273	.977	.979 (<.001)	.055	.063	.642 (<.001)

	Models Compared	SB Scaled X^2 (ΔScaled X^2)	*df* (Δdf)	*p*	NNFI	CFI (ΔCFI)	SRMS	RMSEA	Mc (ΔMc)
Gender									
Female									
1. Female Baseline		458.536	149		.974	.977	.056	.065	.633
2. Non-Female Baseline		602.143	149		.968	.972	.056	.072	.609
3. Pooled Baseline		1057.601	298		.971	.974	.056	.069	.620
4. Invariant Factor Loadings	3-4	1080.141 (15.040)	315 (17)	.593	.972	.974 (<.001)	.061	.067	.620 (<-.001)
5. Invariant Factor Loadings & Construct Variances	4-5	1083.241 (4.870)	317 (2)	.088	.972	.974 (<.001)	.062	.067	.617 (.003)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1087.522 (4.555)	320 (3)	.207	.972	.974 (<.001)	.067	.067	.644 (-.002)
Male									
1. Male Baseline		499.037	149		.968	.972	.056	.070	.620
2. Non-Male Baseline		568.843	149		.972	.976	.056	.068	.609
3. Pooled Baseline		1070.103	298		.970	.974	.056	.069	.614
4. Invariant Factor Loadings	3-4	1091.807 (17.000)	315 (17)	.454	.972	.974 (<.001)	.062	.068	.615 (-.001)
5. Invariant Factor Loadings & Construct Variances	4-5	1093.093 (3.027)	317 (2)	.220	.972	.974 (<.001)	.063	.068	.614 (.001)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1094.097 (.390)	320 (3)	.942	.972	.974 (<.001)	.061	.067	.615 (-.001)
Sexual Orientation									
Bisexual									
1. Bisexual Baseline		371.473	149		.963	.968	.063	.073	.587
2. Non-Bisexual Baseline		1253.128	149		.969	.973	.055	.072	.614
3. Pooled Baseline		1635.139	298		.968	.972	.055	.073	.610
4. Invariant Factor Loadings	3-4	1659.485 (9.422)	315 (17)	.926	.969	.972 (<.001)	.055	.071	.611 (-.001)
5. Invariant Factor Loadings & Construct Variances	4-5	1678.177 (231.923)	317 (2)	<.001*	.969	.972 (<.001)	.056	.071	.610 (.001)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1682.603 (2.925)	320 (3)	.403	.970	.972 (<.001)	.057	.071	.610 (<.001)

	Models Compared	SB Scaled X^2 (ΔScaled X^2)	*df* (Δdf)	*p*	NNFI	CFI (ΔCFI)	SRMS	RMSEA	Mc (ΔMc)
Gay/Lesbian Female									
1. Gay/ Lesbian Female Baseline		398.195	149		.959	.964	.068	.076	.570
2. Non-Gay/ Lesbian Female Baseline		1220.409	149		.970	.974	.054	.071	.621
3. Pooled Baseline		1644.231	298		.968	.972	.054	.073	.612
4. Invariant Factor Loadings	3-4	1673.483 (12.084)	315 (17)	.795	.969	.972 (<.001)	.054	.071	.613 (-.001)
5. Invariant Factor Loadings & Construct Variances	4-5	1671.648 (1.050)	317 (2)	.592	.969	.972 (<.001)	.055	.071	.613 (<.001)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1687.811 (16.335)	320 (3)	.001*	.969	.971 (<.001)	.056	.071	.612 (.002)
Gay/ Lesbian Male									
1. Gay/ Lesbian Male Baseline		335.734	149		.967	.971	.060	.066	.617
2. Non-Gay/ Lesbian Male Baseline		1316.843	149		.967	.072	.057	.074	.601
3. Pooled Baseline		1642.861	298		.968	.972	.057	.073	.604
4. Invariant Factor Loadings	3-4	1670.687 (10.966)	315 (17)	.858	.969	.972 (<.001)	.058	.071	.605 (-.001)
5. Invariant Factor Loadings & Construct Variances	4-5	1654.935 (5.070)	317 (2)	.079	.970	.972 (<-.001)	.059	.070	.600 (.001)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1659.610 (1.313)	320 (3)	.726	.970	.972 (<.001)	.060	.070	.600 (<-.001)
Heterosexual									
1. Heterosexual Baseline		336.979	149		.976	.979	.063	.065	.601
2. Non-Heterosexual Baseline		1276.960	149		.967	.971	.056	.074	.614
3. Pooled Baseline		1585.331	298		.969	.973	.056	.071	.612
4. Invariant Factor Loadings	3-4	1622.601 (30.156)	315 (17)	.025*	.970	.973 (<.001)	.057	.070	.609 (.003)
5. Invariant Factor Loadings & Construct Variances	4-5	1626.756 (3.230)	317 (2)	.199	.970	.973 (<.001)	.058	.070	.609 (<.001)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1631.236 (3.661)	320 (3)	.300	.971	.973 (<.001)	.058	.069	.609 (<.001)

	Models Compared	SB Scaled X^2 (ΔScaled X^2)	*df* (Δdf)	*p*	NNFI	CFI (ΔCFI)	SRMS	RMSEA	Mc (ΔMc)
Queer									
1. Queer Baseline		368.595	149		.972	.976	.060	.074	.600
2. Non-Queer Baseline		1223.245	149		.968	.972	.055	.072	.621
3. Pooled Baseline		1612.554	298		.968	.972	.055	.072	.617
4. Invariant Factor Loadings	3-4	1639.743 (19.842)	315 (17)	.282	.969	.972 (<.001)	.054	.071	.617 (<.001)
5. Invariant Factor Loadings & Construct Variances	4-5	1643.686 (7.088)	317 (2)	.029*	.969	.972 (<.001)	.054	.071	.614 (.003)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1643.649 (4.892)	320 (3)	.180	.970	.972 (<.001)	.057	.070	.613 (.001)
Questioning									
1. Questioning Baseline		413.787	149		.965	.969	.066	.079	.544
2. Non-Questioning Baseline		1226.654	149		.968	.972	.055	.071	.621
3. Pooled Baseline		1656.545	298		.967	.971	.055	.073	.608
4. Invariant Factor Loadings	3-4	1698.847 (33.296)	315 (17)	.010*	.968	.971 (<.001)	.057	.071	.605 (.003)
5. Invariant Factor Loadings & Construct Variances	4-5	1689.229 (4.729)	317 (2)	.094	.969	.971 (<-.001)	.058	.071	.602 (.003)
6. Invariant Factor Loadings, Construct Variances, & Paths	5-6	1679.059 (3.778)	320 (3)	.286	.969	.971 (<-.001)	.059	.070	.601 (.001)

* $p<.05$

Testing revealed no variance between participants of any of the social identities and participants that did not identify with those respective social identities. For a group to be determined variant, a nested model (the model with more degrees of freedom) would need to have a significantly worsened fit. Traditionally, the chi-square difference test is used to identify worsened fit (Kline, 2011), but because the chi-square difference test is subject to sample sizes, Meade et al. (2008) recommend scrutinizing differences in comparative fit index (CFI) and McDonald's noncentrality index (Mc) as well when determining worsened model fit. For the number of items and factors included in this model, a decrease greater than .002 for the CFI and .075 for the Mc would indicate a worsened fit (Meade et al., 2008). Although the chi-square difference test was significant for nine of the model comparisons, CFI and Mc differences did not indicate significant changes, so nested models for those nine models were not deemed a worsened fit.

By testing multiple models, various forms of invariance between participants of particular social groups and their counterparts not of those social groups were upheld. Configural invariance was verified by examining models 1 and 2 of each social identity for strong fit (Cheung & Rensvold, 2002). Using parameters defined for the initial model testing phase of this research, the models held well across groups, meaning the same collection of items relate to the same factors for both groups (Cheung & Rensvold). Next, item-level metric invariance was confirmed comparing the relative fit of models 3 and 4. Because nested models (model 4) did not significantly worsen when individual item factor loadings were constrained to be equal, no social identity was deemed to have uniquely stronger or weaker factor loadings.

Model 5 then tested for factor residual invariance, determining whether the variance not captured by the underlying construct varied significantly by social groups. The nested model (model 5) did not significantly worsen for any social identity group, so the individual items provide a similar quality of measurement for the constructs (Cheung & Rensvold, 2002). Finally, knowing the items loaded consistently onto their respective factors and the items provided consistent construct measurement quality, I then tested whether relational paths between constructs were invariant. Model 6 (the nested model), did not significantly worsen for any of the social identities, so no particular social identity had a uniquely different relationship between the three psychological constructs. This series of findings implied that the factor scales for leadership self-efficacy, motivation, and capacity held well across social identities with no particular social identity group showing a unique difference in the way the construct holds; additionally, no social identity group revealed a unique difference in the path relationships between constructs, suggesting the structural model reflected a plausible explanation of the relationship between constructs, regardless of race, gender, or sexual orientation.

Summary

This chapter explored findings to answer each of the research questions posed in this study. First, two models were identified as plausible explanations of the data, revealing equally strong fit indices to the data. However, the model indicating a direct path between leadership self-efficacy and capacity as well as an indirect path through leadership motivation was used for subsequent analyses because it provided more information to investigate possible descriptions of data relationships. When investigating LISREL output statistics for this model, significant direct and indirect paths were

identified between leadership self-efficacy and capacity with analyses statistics supporting a claim that leadership motivation may partially mediate the relationships between leadership self-efficacy and capacity.

In examining reported levels of leadership motivation by race, gender, and sexual orientation, students of particular social identities expressed varying levels of leadership motivation. Even though leadership motivation means varied significantly for participants of some social identities, the measurement and structural models for leadership self-efficacy, leadership motivation, and leadership capacity were determined to be invariant across groups

CHAPTER 5

DISCUSSION AND IMPLICATIONS

Educating citizens who can effectively engage in communities to contribute to positive social change has been a long-standing emphasis of higher education institutions and associations (ACE, 1949; AAC&U, 2007; Lucas, 1994). In the past few decades, colleges and universities began to address this call through explicit interventions related to leadership development (Komives, 2011). Leadership educators have developed both curricular and co-curricular opportunities for students to learn about and engage in leadership (Dugan, Bohl et al., 2011). But are leadership educators maximizing student engagement in leadership development? With leadership self-efficacy, leadership motivation, and leadership capacity being recognized as central psychological constructs in the leadership development process (Chan & Drasgow, 2001; Dugan, 2017; Keating et al., 2014), leadership educators have the opportunity to leverage each of these constructs for greater leadership development impact. Although college student leadership development scholars have introduced empirical research related to leadership self-efficacy and leadership capacity (Boatwright & Egidio, 2003; Dugan, Fath et al., 2013; Dugan, Garland et al., 2008; Dugan & Komives, 2007, 2010; Dugan, Kodama et al., 2013; Dugan, Kusel et al., 2012; Kodama & Dugan, 2013; McCormick et al., 2002), leadership motivation has received limited recognition in college student leadership development empirical research (Cho et al., 2015; Keating et al., 2014; Rosch et al.,

2015). Thus, the purpose of this research was to understand the role of leadership motivation in the leadership development process.

Statement of the Problem

The relationship between leadership self-efficacy, leadership motivation, and leadership capacity is, by some, theorized to be mutually reinforcing in an ongoing leadership development process (Dugan, 2017; Keating et al., 2014) yet by others, thought to be a unidirectional process in which leadership self-efficacy influences leadership motivation and, in turn, leadership capacity (Chan & Drasgow, 2001). Although some empirical research from both leadership studies and college student leadership literature tests distinct components of the theorized relationship between all three constructs (Barbuto, 2005; Barbuto et al., 2010; Chan & Drasgow, 2001; Cho et al., 2015; Dugan, Garland et al., 2008; Dugan, Kodama et al., 2013; Dugan & Komives, 2007, 2010; Kark & Van Dijk, 2007), no study has ever measured the relationships between all three constructs at the same time. Additionally, researchers studying leadership motivation often employ the motivation to lead scale (Chan & Drasgow, 2001), which relies on implicit understandings of leader and leadership. Given that connotations of and assumptions about leadership vary (Northouse, 2013), it is difficult to interpret findings when survey participants have drastically different understandings of the end task. Furthermore, current literature on leadership motivation does not attend to differences by social identities; several studies suggest distinctions in levels of leadership self-efficacy and leadership capacity as well as relationships between theses construct based on social identities (Boatwright & Egidio, 2003; Dugan, Kodama et al., 2013; Dugan & Komives, 2010; Dugan, Kusel et al., 2012; Kezar & Moriarty, 2000; Kodama &

Dugan, 2013; Renn & Ozaki, 2010). Thus, research is needed to understand whether and how social identities influence levels of leadership motivation and how leadership motivation connects with leadership self-efficacy and leadership capacity.

Research Questions

The purpose of this research was to understand the role of leadership motivation in the leadership development process, specifically focusing on how it relates with leadership self-efficacy and leadership capacity. Because social identities affect other leadership psychological constructs, this research also strived to gauge how social identities influence leadership motivation's role in the leadership development process. Thus, there were two questions that guided this research:

- To what degree and in what ways does leadership motivation relate to leadership self-efficacy and leadership capacity?
- Are the relationships between leadership motivation, leadership self-efficacy, and leadership capacity moderated by different social identities (i.e., gender, race, and sexual orientation)?

Literature Summary

A review of the current leadership studies and college student leadership literature yielded a wealth of information about leadership development related to leadership self-efficacy and leadership capacity with limited information about leadership motivation. Both strands of literature capture theoretical relationships between leadership self-efficacy and leadership capacity (Bandura, 1997; Chan & Drasgow, 2001; Dugan, 2017; Hannah et al., 2008; Keating et al., 2014; Machida & Schaubroeck, 2011; McCormick et al., 2002; Paglis, 2010) and validates these conceptual relationships with empirical

research (Anderson et al., 2008; Chemers et al., 2000; Dugan, Fath et al., 2013; Dugan, Garland et al., 2008; Dugan, Kodama et al., 2013; Dugan & Komives, 2007, 2010; Dugan, Kusel et al., 2012; Dugan & Yurman, 2011; McCormick et al., 2002; Paglis & Green, 2002). Whereas a number of sources emphasize the importance of leadership motivation in the leadership development process (Chan & Drasgow, 2001; Dugan, 2017; Murphy & Johnson, 2011; Keating et al., 2014), some leadership studies articles employ leadership motivation in empirical studies (Barbuto, 2005; Chan & Drasgow, 2001; Day & Sin, 2011; Hong et al., 2010; Kark & Van Dijk, 2007), yet sparse empirical work exists in college student leadership literature (Cho et al., 2015; Keating et al., 2014; Rosch et al., 2015). With social identities as key factors that influence the leadership development process (Arminio et al, 2000; Boatwright & Edigio, 2003; Dugan, Kodama et al., 2013; Eagly & Carli, 2007; Fassinger et al., 2010; Ospina & Foldy, 2009; Renn & Bilodeau, 2005), social identities need attention in research on socially constructed concepts such as leadership and leadership development.

Review of Methods

To answer the research questions at hand, this study used a critical quantitative approach, employing a series of analytic processes from SEM. As an international study of socially responsible leadership for college students, the MSL was an ideal data source; it included the three psychological constructs examined in this study and the factor scales for these constructs had a common, clearly defined domain: socially responsible leadership. Data from the 2015 administration of the MSL were utilized to conduct this research; the sample for this study included 38,007 participants from a range of institutions across the United States.

To ascertain a model that best explained the relationships between leadership self-efficacy, leadership motivation, and leadership capacity, I conducted comparison tests between three a priori models using SEM. Model 1 showed leadership self-efficacy and leadership motivation correlating yet both predicting leadership capacity. Model 2 included leadership self-efficacy predicting leadership capacity with leadership motivation completely mediating the relationship. Model 3 was the same as Model 2 except leadership motivation only partially mediated the relationship between leadership self-efficacy and leadership capacity with a direct path existing between the latter two. Once a model of best fit was determined, I then used the best fitting structural model to conduct invariance tests, determining whether measurement and path models held differently for participants of various races, genders, and sexual orientations. So as not to situate this testing within a particular group for each social identity, the invariance testing examined unique invariance of a particular group when compared to others not of that group (e.g., bisexuals compared to non-bisexuals).

Overview of Findings

Although all three models indicated strong fit for the data, SEM analysis confirmed that Models 1 and 3 were better fitting than Model 2; thus, Models 1 and 3 are both plausible explanations of the relationships between leadership self-efficacy, leadership motivation, and leadership capacity. Because Model 3 better aligns with the initiation of leadership development processes and because the SEM outputs provided more substantial information about the relationships in the model, Model 3 was used for subsequent analyses. Subsequent invariance testing using Model 3 confirmed

measurement and structural model invariance based on race, gender, and sexual orientation.

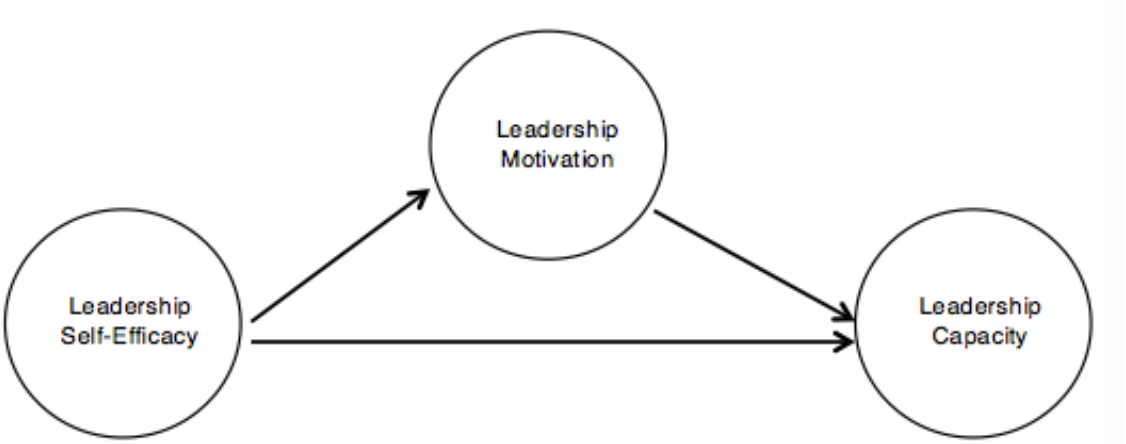

Figure 7. Model 3 Used for Invariance Testing

Discussion of Model Testing

Models 1 and 3 both had better fitting indices than Model 2, suggesting that leadership motivation does not completely mediate the relationship between leadership self-efficacy and leadership capacity. In many explanations of the relationship between leadership self-efficacy and leadership capacity, motivation to learn about and engage in leadership practices is used as an explanation for that connection (Bandura, 1997; Dugan & Komives, 2010; Hannah et al., 2008; Paglis, 2010). Results from Model 3 confirm this rationale, positioning leadership motivation as a plausible mediator between leadership self-efficacy and leadership capacity. Larger standardized path coefficients between leadership self-efficacy and leadership motivation as well as leadership motivation and leadership capacity suggest this series of relationships is a more robust explanation of the data than the direct relationship between leadership self-efficacy and leadership capacity.

However, a unique and significant relationship between leadership self-efficacy and leadership capacity exists independent of leadership motivation.

Resilience may explain the direct relationships between leadership self-efficacy and leadership motivation. Resilience is understood as both one's ability to persist amidst adversity and one's ability to employ effective coping mechanisms for stress (Connor & Davidson, 2003). Although rarely employed in college student leadership development empirical studies (Kodama, 2014), resilience is theoretically connected to leadership development (Dugan, 2017; Heifitz & Linsky, 2002) and with leadership self-efficacy specifically (Bandura, 1997). Individuals with higher leadership self-efficacy may be more likely to persist in practicing leadership-related tasks, even when being unsuccessful at initial attempts or encountering others who doubt their leadership ability.

Model testing validated Chan and Drasgow's (2001) conception of leadership development as Model 2 indicated strong fit indices, but other structural models better explained the nature of the relationship between the three central leadership constructs explored in this study. Similar to Dugan's (2017) model, Chan and Drasgow integrate a cyclical process in which leadership self-efficacy influences leadership motivation which then influences leadership capacity; this series of influences culminates with leadership enactment but also cycles back to impact leadership self-efficacy and leadership motivation. Although generally congruent with Chan and Drasgow's (2001) theory, this study contradicts their claim that leadership motivation completely mediates the relationships between leadership self-efficacy and leadership capacity. Findings from this research suggest that leadership motivation largely mediates the relationship but that a direct or other mediated path between leadership self-efficacy and leadership capacity

exists. Thus, an additional path between leadership self-efficacy and leadership capacity would make Chan and Drasgow's model better reflect what this empirical work indicates.

This study also highlights difficulties discerning directional relationships with cross-sectional data. The equivalent fit of Models 1 and 3 exemplify the limitations of using cross-sectional data to ascertain causal relationships. This research can confirm directional relationships as plausible explanations, but cannot confirm them as explanations. Even though Model 3 was used for subsequent analyses due to additional information provided in the output, it is important to note that it is no more valid than Model 1 in terms of explaining the relationships between leadership self-efficacy, leadership motivation, and leadership capacity. This highlights the need for longitudinal studies of on leadership development.

Discussion of Invariance Testing

Testing for unique invariance based on race, gender, and sexual orientation did not reveal any configural, measurement, or structural variances. Configural invariance testing determines whether combinations of items load onto factor scales in the same way (Byrne, 1998). Thus, regardless of participants' races, genders, and sexual orientations, they respond to the items in similar patterns that account related factors consistent across groups. Essentially, the MSL instrument seems to uniformly capture three distinct yet correlated constructs.

Measurement invariance pertains to whether items load onto factor scales with similar strength and in the same direction as well as whether factors variances are significantly different (Byrne, 1998). With measurement invariance confirmed, the MSL questionnaire consistently captures the psychological constructs across social identity

groups tested with no particular factor loading or factor variance being uniquely moderated by any of the groups. This finding bolsters the psychometric rigor of the MSL to measure socially responsible leadership capacity, self-efficacy, and motivation, further confirming construct validity and reliability across diverse sample groups.

With analyses suggesting measurement invariance, invariance testing of structural paths was deemed appropriate (Byrne, 1998) and found to be invariant as well. The relationships between the three leadership constructs relate in similar ways, meaning that relationships between the constructs were relatively consistent in direction and strengths. Thus, one may infer that rationales explaining the relationships between these leadership constructs are similar for students of diverse races, genders, and sexual orientations. No matter the racial, gender, or sexual orientation identity of the student, leadership self-efficacy relates directly to leadership capacity as well as through leadership motivation.

Although measurement and structural path models were found to be invariant across race, gender, and sexual orientation, this does not mean that all factor relationships associated with these outcomes are consistent across these social identities. For example students of diverse racial, gender, or sexual orientation groups may express different rates of leadership motivation or particular environmental factors may influence different patterns of growth in leadership motivation for diverse groups. Additionally, this research examined the unique variance of particular groups, comparing students of a particular identity to other respondents not of that identity. Thus, leadership construct measures or relationships between leadership self-efficacy, motivation, and capacity for a certain racial, gender, or sexual orientation identity may significantly vary from another specific identity within that same type of identity. Even with these cautions, findings

from invariance testing point to relatively generalizable relationships between leadership self-efficacy, motivation, and capacity, calling researchers and practitioners to establish scholarly work and effective interventions that can leverage greater leadership motivation development for all students.

Limitations

There are some study limitations that influence the ways this research should be interpreted and applied. First, this study used a cross-sectional survey; thus, relationships identified were not causal in nature. Although Model 3 was used for invariance testing, Model 1, which outlined a correlational relationship between leadership self-efficacy and leadership motivation rather than a unidirectional path, has the strongest claim that we can make about the nature of the relationship between leadership self-efficacy and leadership motivation. Model 3 supports the viability of some theoretical relationships between the three constructs, but the direction of those relationships cannot be confirmed in this study. Nevertheless, this study illuminated insights whether relationships between constructs exist and how those relationships held consistently based on social identities.

Second, this study did not integrate a number of variables such as demographics and other theoretically related constructs to hold constant for these variables. This research was a first step in understanding the general relationships between three latent leadership constructs and a first to conduct an analysis of these relationships in one model. I also took the research a step further to test for moderation by social identities; this moderation testing afforded an opportunity to account for ways unique social identities influenced leadership motivation yet did not significantly moderate the relationships between the three constructs. Now that this research has been conducted,

subsequent research can capitalize on these findings to explore how other demographic and psychological factors relate to these central leadership constructs and how environmental factors my leverage each construct or relationships between constructs.

Third, this research did not use multi-level modeling to examine institutional effects on the factor relationships. Multi-level modeling is appropriate for this national sample considering individual responses are nested within different institutions (Tabachnick & Fidell, 2013). However, this research was not seeking to understand the environmental influences, such as institutions' contexts, and was instead focused on the relationship between latent constructs, for which SEM was the best analytic technique. Additionally, multiple studies using MSL data yielded results that found institutional effects to be minimal and mostly insignificant (Dugan, Fath et al., 2013; Dugan, Kodama et al., 2012; Dugan & Komives, 2010; Kodama & Dugan, 2013).

Fourth, this study also employed a motivational leadership scale that is partially representative of the meta-theory from which it was derived. Because of limited space in the survey, only a part of the leadership motivation scale was incorporated into the MSL questionnaire. With intrinsic process motivation and extrinsic/instrumental motivation missing from the measurement tool, students for which these forms of motivation resonate may report lower general motivation levels. Intrinsic process motivation was excluded because it pertains to a person's enjoyment of doing a task; students who enjoy engaging in leadership will naturally gravitate toward experiences the help them develop and enact leadership skills. The relationship between this form of motivation and other leadership theories is well-substantiated (Barbuto, 2005), but this form of motivation is

often tapped and does not provide a more nuanced understanding of motivation with the factors of this study.

As for extrinsic/instrumental motivation, those driven by this form of motivation will continue a task only when it proves to be the most probable for receiving a direct reward. Unfortunately, the path of social change is long, embedded in complex challenges, and offers few tangible and immediate rewards. Based on this rationale, extrinsic/instrumental motivation theoretically seems minimally related to socially responsible leadership and offers mentors and educators little leverage to engage students in leadership development. However, external self-concept, internal self-concept, goal internalization provided more insightful information about relationships to socially responsible leadership that can help scholars better understand student leadership development as a phenomenon and provide educators with meaningful data to create effective leadership development interventions. Additionally, Barbuto (2005) found that all three of the subscales included in this study's motivation scale have positive, significant correlations, yet the two excluded do not have significant correlations with some of the other motivation meta-theory subscales. Having all the subscales correlate allowed for a stronger single measure of motivation for this study.

Fifth, this research used socially responsible leadership to represent leadership capacity. Because socially responsible leadership is built upon a number of key assumptions and focuses on social change as the end goal of leadership, applicability to management or contexts where social change is not the ultimate end is limited. However, because leadership for social change is commonly used in collegiate leadership education (Owen, 2012) and because an engaged democracy can be understood as an aim of higher

education (Dewey, 2012), the use of socially responsible leadership as a measure of leadership capacity for this study was appropriate.

Sixth, this study used social identity categories to capture the influences of identity, which are complex and fluid self-constructs. Generally, quantitative research is reductionist by its nature; thus, it is difficult to capture accurate representations of integrated, ever-changing, and multi-faceted constructs like social identities. Whereas many individuals share a same social identity, such as gender, how they conceive of and act within society in light of that identity can vary significantly. Although this study attempted to attend to social identities by disaggregating analysis by gender, race, and sexual orientation, educators must be considerate in applying findings, realizing there are additional nuances within each categorical group. Disaggregating by demographic groups provided a layer of critical analysis that set a base-level understanding of the relationships between central leadership psychological constructs as related to social identities. With resounding calls from researchers to disaggregate data (Dugan, Kodama et al., 2013; Dugan, Kodama et al., 2012; Kodama & Dugan, 2013), this was a strong first step toward understanding diverse college students' leadership development.

Finally, several groups of students were excluded from moderation analyses due to small sample sizes. American Indian/ Alaska Native, Native Hawaiian/ Pacific Islander, Transgender/ gender non-conforming, and gay/ lesbian gender non-conforming students were not represented as distinct groups for invariance testing. Excluding these groups was purely a matter of statistical power and does not imply a lack of need to understand these student groups' unique experiences. Scholars recognize the importance of affirming experiences of these marginalized populations, calling on researchers to

increase efforts to include these groups in college student leadership scholarship (Dugan, Kusel et al., 2012; Dugan & Yurman, 2011; Garland, 2010). This study sought to establish preliminary findings about the role of leadership motivation in leadership development, but subsequent research using analytic techniques that are favorable to smaller sample sizes are needed to explore how leadership motivation and its role in the leadership development process may be different for smaller pockets of social identities.

Implications for Research

One of the most striking implications is the need for leadership motivation research in college student leadership development scholarship. Leadership motivation has received marginal attention at best in the college student leadership development literature, and even that attention is based on a measurement that relies on implicit understandings of leadership (Cho et al., 2015; Keating et al., 2014; Rosch et al., 2015). Leadership motivation has clear connections to leadership self-efficacy and leadership capacity in the leadership development process, even showing a stronger relationship with each of these latter constructs than they have with each other. Just as leadership self-efficacy has been included as an intermediary factor in college student leadership development studies (Dugan & Komives, 2010), leadership motivation also needs to be included in analyses to gain a more complete picture of the role it plays in leadership development.

To date, all empirical studies in college student leadership development literature have used Chan and Drasgow's (2001) motivation to lead scales (Cho et al., 2015; Keating et al., 2014; Rosch et al., 2015). Self-efficacy and motivation are domain-specific psychological constructs meaning they must be associated with particular tasks

or actions (Bandura, 1997); Chan and Drasgow's (2001) MTL scale relies on the respondents' implicit understanding of leadership begging the question of whether it accurately captures a salient understanding of leadership motivation. Additionally, with a wealth of empirical research related to college student leadership development based on the SCM (Campbell et al., 2012; Dugan, Fath et al., 2013; Dugan, Kodama et al., 2013; Dugan & Komives, 2010; Dugan & Yurman, 2011; Johnson, 2015; Kodama & Dugan, 2013; Kodama, 2014), the current college student leadership motivation literature might be problematic when discussing its relation to socially responsible leadership. Researchers need to not only employ leadership motivation in more empirical research, but they also need to carefully consider what measurements of leadership motivation are used. Because MTL scales rely on implicit understandings of leadership and because social location plays an influential role in shaping how leaders are perceived and how leadership is enacted (Eagly & Carli, 2007; Fassinger et al., 2010; Ospina & Foldy, 2009), the MTL scales may be susceptible to variance by different social identities. This variance in responses combined with theoretically different scales can present a number of difficulties for accurately understanding relationships between constructs.

For example, two students may be socialized in two different communities and have come to understand leadership and their roles in communities in to distinct ways. One student may perceive leadership as an individual and charismatic practice of directing others to accomplish that individual's will and is driven to engage in that form of leadership. Another student may understand leadership the same way as the first student, not feel particularly driven to engage in that form of leadership, and yet actively engages in community processes for social change. If a scale relies on implicit

understandings of leadership motivation, the first student may report a high score while the second reports a low score. However, if they then respond to a leadership capacity scale grounded in socially responsible leadership, the second student might then report a score that is on par or higher than the first student. Now imagine the leadership motivation scale is based on socially responsible leadership as well; the two students' responses may be different for this leadership motivation scale. The subsequent examination of the relationships between the leadership motivation scales and the leadership capacity scale would look drastically difference, suggesting divergent findings.

Because leadership is a socially-constructed phenomenon and is connoted in a number of ways (Dugan, 2017; Eagly & Carli, 2007; Fassinger et al., 2010; Northouse, 2013; Ospina & Foldy, 2011; Sanchez-Hucles & Davis, 2010), leadership research exploring relationships between leadership constructs requires scales that are grounded in consistent theoretical frameworks. The leadership motivation scales used in this research holds well and consistently across social identity groups; additionally, they were created with the domain of socially responsible leadership in mind. Using leadership measurement scales that align via underlying theoretical foundations is critical for clearly interpreting findings for both scholarly and practical settings.

Implications for Practice

With leadership motivation being empirically confirmed as a critical component of the college student leadership development process, leadership educators need to integrate specific educational experiences and interventions aimed at boosting leadership motivation and leveraging its influence in leadership development. Often, educators

focus on leadership capacity, teaching different skills, concepts, or theories for students to implement in their various roles and contexts (Dugan, 2011a; Dugan, Rosseti Morosini, & Beazley, 2012; Dugan, Turman, & Torrez, 2015). As leadership studies scholars began to theorize about leadership self-efficacy's role in the leadership development process and subsequent research emerged (Chan & Drasgow, 2001; Hannah et al., 2008), college educators began to explore how leadership self-efficacy could be leveraged for greater student leadership development (Dugan, Garland et al., 2008; Dugan, Kodama et al., 2013; Dugan & Komives, 2010; Kodama & Dugan, 2013). Leadership self-efficacy is sometimes explained in terms of motivation, stating that as students feel more confident in their leadership abilities, they will tend to engage in leadership development and leadership opportunities more often (Bandura, 1997; Chan & Drasgow, 2001; Dugan & Komives, 2010). Whereas leadership self-efficacy can be used as an effective lever for leadership motivation, there are other considerations practitioners can capitalize on to maximize leadership motivation in the leadership development process. The three components of leadership motivation included in this study, external self-concept, internal self-concept, and goal internalization, can provide insight into ways of fostering leadership motivation.

Practical Considerations for Motivation from External Self-Concept

Motivation attributed to external self-concept relates to one's individual drive sparked by others' perceptions (Leonard et al., 1999); others' positive or negative perceptions, whether directly related to an individual or by association through a group, can catalyze an individual to take action, whether that action is to counteract or confirm those perceptions. Individuals generally want others to see them in a positive light, so

they will often act in a way that strengthens that positive perception (Ridgeway, 2003). For example, students may read criticism about their organizations in the school newspaper or hear buzz that they are respected for their ability to mediate disagreements. If external self-concept is important to them, they will engage in work to correct or contrast organizational criticism or continue developing skillsets that bolster their mediation abilities. Some students who have identities strongly grounded within larger communities (e.g., a gay male who closely associates with the LGBTQ community) will try to work to change negative assumptions or bolster positively perceived aspects of their community.

Leadership educators need to be aware of the power these external forces have on students' motivations to engage in leadership development and leadership processes. As students receive mixed messages about their abilities to engage in or perceived access to leadership processes, mentors, staff, faculty, and peers can play powerful roles in contributing messages that reinforce student engagement in leadership develop (Howes, 2016). Educators and mentors can also help students reframe external perceptions so they are not internalized and result in disengagement but instead are considered in ways that instigate growth and action. External opinions and perceptions will always exist and will inform individuals' behaviors to some degree; leadership educators have the opportunity and challenge of transforming external perceptions into catalysts for positive leadership development. Just as mentors and educators can use verbal persuasion to build leadership self-efficacy (Bandura, 1997), they can also use verbal persuasion to enhance student motivation to engage in leadership development.

Practical Considerations for Motivation from Internal Self-Concept

Motivation related to internal self-concept focuses on behavior driven by how one perceives their best self should be or act (Bandura, 1997; Leonard et al., 1999). Based on how they understand leadership, students may see leadership mindsets, behaviors, and skillsets as part of their idealized self. However, because of dominant narratives around leadership, some students do not see themselves as capable of engaging in leadership or do not want to be associated with leadership (Armino et al., 2000; Dugan, 2017; Eagly & Carli, 2007; Howes, 2016). As a result, many students may self-select out of leadership development opportunities because their concept of leadership does not align with who they think they are or should be. Thus, leadership educators have a responsibility to present critical frameworks that open space for all students to see themselves engaging in the leadership process. As students are able to see ways in which they all contribute to the leadership process, they can then internalize a concept of self that engages in leadership and seek out leadership development opportunities that help them work toward that idealized self.

Research on programmatic approaches to leadership development provides interesting insights as to leadership educators' capacities to leverage critical frameworks about leadership for internal self-concept motivation. Whereas most colleges and universities who participated in the MSL use the SCM and other relational or complex theories as grounding frameworks for their work, many leadership educators often use non-theoretical approaches or industrial theories in their leadership development work (Owen, 2012). Furthermore, most leadership educators reported limited formal education in leadership (Owen, 2012). Some leadership educators may not be aware when they are

reinforcing dominant connotations of leadership through their programs and services, thus mitigating some students' motivation to engage in leadership development processes. With limited education on leadership theories, many leadership educators may not be able to critically deconstruct popular theories and models to help students reframe and envision themselves in the leadership process. Leadership educators have a responsibility to further their leadership education, critically reflect on how they frame leadership in ways that may deter some students from engaging in the process, and construct a set of development programs and experiences that exemplify and promote the different ways people engage in leadership. As educators develop this more complex and critical leadership development toolkit, they will be better prepared to help students reimagine a leadership identity as a component of their idealized self and, as a result, reinforce their leadership motivation (Dugan, 2017).

Practical Considerations for Motivation from Goal Internalization

Goal internalization pertains to motivation gained or diminished by one's personal commitment to a group or community's desired outcome (Leonard et al., 1999). Students may have strong convictions for and commitment to a social issue that, even if rectified, does not directly benefit them. For example, a student may care deeply about animal extinction rates due to their love of animals. As students work toward protecting animal habitats or challenging policies for hunting or fishing, they may not experience direct benefits to their lives except the satisfaction of making progress toward saving animal lives. Leadership educators can capitalize on this passion for a cause to encourage students to engage in the leadership process. By helping students to understand how their engagement in the leadership process can help them to make progress toward an end goal

in mind, students may be more motivated to participate in leadership development experiences regardless of what others think or whether they perceive of themselves as a leader.

Leadership educators have multiple opportunities to ignite students' leadership motivation through both personal interactions and programmatic interventions. Mentoring relationships have been shown to have positive associations with socially responsible leadership capacity (Campbell et al., 2012). Mentoring relationships provide an ideal opportunity to inspire students to engage in leadership development by helping them to reframe feedback or how they conceive of leadership, illustrating their potential impact on social justice issues, or even providing simple encouragement. Leadership motivation can also be fostered through various collegiate experiences. Whether this is done explicitly through reflection exercises that challenge students to connect their values or passions with leadership development or passively through the introduction of critical curriculum that illustrates diverse manifestations of leadership practices that appeal to a diverse range of student, leadership educators should be intentional about creating spaces and opportunities that tap into individuals' leadership motivation.

Future Research

This study helped to answer key questions for college student leadership development scholars, yet also sets the stage for future opportunities in leadership development research. Based on findings from this research, leadership motivation is a critical component of the leadership development process for a wide range of college students. More research is needed to understand how and why socially responsible leadership motivation levels vary for students of different social identities. Studies on

leadership self-efficacy and leadership capacity have delved into differences based on social identities, finding varying levels of these constructs (Dugan, Kodama et al., 2013; Dugan & Komives, 2007, 2010; Dugan et al. 2009; Dugan & Yurman, 2011). Similarly, additional research is needed to explore to what degree diverse groups report different levels of leadership motivation and what might account for such differences.

More research is also needed to dissect finer nuances of these differences when exploring them as dynamic and complex social identities as opposed to static and simplistic social identity categories. As mentioned in the limitations section, social identities are fluid and more varied than the simple categories provided on surveys. This research provided some baseline information about diverse student groups' levels of leadership motivation, but one could argue that a more sophisticated look at students' social identities in concert with leadership motivation may reveal interesting and insightful trends. Kodama's (2014) research dug deeper into understandings of racial identity in quantitative scholarship as she explored students' varying levels of collective racial esteem (i.e., how students understand their racial identities) as it relates to resilience and leadership self-efficacy. This study not only fortified the call to disaggregate data by social identities when conducting quantitative research, but it also revealed unique patterns when racial and ethnic identities were considered in more complex ways. When leadership educators can better understand more about how leadership motivation is different for diverse populations and how students' understandings of their relative social identities impact their leadership motivation, leadership educators can then create powerful interventions that effectively foster greater leadership motivation, and thus, leadership development.

Researchers also need to explore what pre-college and environmental factors relate to leadership motivation. On average, students have at least 18 years of living in particular social contexts and engaging in certain communities; thus, pre-college factors could play a meaningful role in differentiating students' motivations to engage in leadership development and the leadership process just as they influence other leadership development factors (Dugan & Komives, 2010). Building upon pre-college factors, what collegiate experiences appear to influence leadership motivation? Participation in a number of collegiate activities relates with students' leadership capacities (Antonio, 2001; Dugan, Bohl et al., 2011; Dugan, Kodama et al., 2013; Dugan & Komives, 2010; Dugan, Garland et al., 2008; Kezar & Moriarty, 2000; Zimmerman-Oster & Burkhardt, 1999) and leadership self-efficacy (Dugan, Fath et al., 2013; Dugan, Garland et al., 2008; Kodama & Dugan, 2013). It stands to reason that similar patterns may exist between certain collegiate experiences and leadership motivation as well.

Just as I considered how social identities may have played a role influencing the nature of relationships between leadership motivation, self-efficacy, and capacity, scholars must continue to examine questions of moderation by social identities concerning pre-college and collegiate experiences' impacts on leadership motivation. How do social identities uniquely shape relationships of influential collegiate experiences with leadership motivation like they do for other relationships between various environmental factors and other leadership psychological constructs (Dugan, Kodama et al., 2013)? The MSL provides a wealth of factors to explore in relation to leadership motivation as well as variables that might moderate those relationships. By investigating what impacts leadership motivation to expand the leadership development

knowledgebase, scholars can provide empirical evidence for educators to use when considering meaningful leadership development experiences.

Now that leadership self-efficacy, leadership motivation, and leadership capacity are shown to be empirically related, researchers can turn their attention to studies that include other psychological constructs theoretically connected to the leadership development process such as cognitive and metacognitive ability, systemic thinking, resilience, other forms of self-efficacy (e.g., learning, resilient), critical reflection, and social perspective-taking (Chan & Drasgow, 2001; Dugan, 2017; Dugan, Kodama et al., 2013, Hannah et al., 2008; Machida & Schaubroeck, 2011; Marshall-Meis et al., 2000; Preskill & Brookfield, 2009; Thompson, 2006). Studies with other psychological constructs may provide a more nuanced understanding of the relationship between leadership self-efficacy, leadership motivation, and leadership capacity. For instance, students who have productive coping mechanisms for stressful situations may be more likely to have higher levels of leadership motivation strengthened by the knowledge that they can manage leadership missteps or persist in extended efforts to reach desired social change outcomes. Another example is students who engage in critical reflection might be more motivated to engage in leadership in that they are able to deconstruct dominant narratives and assumptions about their social identities as related to leadership; in recognizing this, these students can reconstruct idealized selves and/or mitigate external pressures to reinforce their drive to engage in socially responsible leadership development. Scholars should not only explore what else relates, but continue to seek out how social identities may moderate those relationships. Although race, gender, and sexual orientation did not seem to moderate the relationships between leadership self-

efficacy, leadership motivation, and leadership capacity, these social identities and others may moderate relationships between other leadership psychological constructs.

Finally, longitudinal research on leadership development in needed to truly understand how the leadership development process unfolds throughout college and how collegiate experiences impact leadership development. Although quantitative researchers promulgated a wealth of literature based on MSL data, all of this research is limited to influential relationships at best rather than honing in on causal connections. Understanding the sequence of how the relationship between leadership self-efficacy, leadership motivation, and leadership capacity unfolds will provide invaluable information to leadership educators. It is when they understand the impact of their work and the broader collegiate context on leadership development that colleges and universities will be able to more efficiently and effectively nurture diverse students who lead social change in society.

Conclusion and Significance

This research sheds light on the role leadership motivation plays in leadership development, specifically as it relates to leadership self-efficacy and leadership capacity. It employed a new leadership motivation measurement tool, which better aligns with socially responsible leadership than other motivation factor scales and was validated in the course of this study. As the first study to employ factor scales that were designed with socially responsible leadership in mind and the first to use all three of those leadership constructs together, it validated the strong relationship between all three leadership constructs often outlined in various leadership development theories (Chan & Drasgow, 2001; Dugan, 2017; Keating et al., 2014).

Disaggregating and analyzing the data based on social identities helped to not only understand variations in leadership motivation for students of diverse races, genders, and sexual orientations, it also supported the universality of the relationships between leadership self-efficacy, leadership motivation, and leadership capacity. With relationships between constructs holding consistently across all groups tested, it elevates the importance of this central set of constructs in the leadership development process and provides an impetus for leadership educators to meaningfully integrate experiences that tap into all three levers to promote the greatest development for the broadest set of individuals. Essentially, leadership motivation is a critical component for all students' leadership development that leadership educators must attend to if higher education intends to maximize its impact on students' leadership development

APPENDIX A

VARIABLES OF INTEREST AND CODING

Variables of interest and coding

Variable	Coding
Demographics	
Gender	1=Male; 2=Female; 3=Transgender/Gender Non-Conforming
Race	1=White/ Caucasian; 2=Middle Eastern; 3=African American/ Black; 4=American Indiana/ Alaska Native; 5=Asian American/ Pacific Islander/ Asian; 6=Latino/ Hispanic; 7=Multiracial; 8=Race/ Ethnicity Not Listed
Sexual Orientation	1=Heterosexual; 2=Bisexual; 3=Gay/ Lesbian; 4=Queer; 5=Questioning; 6=Rather not say
Leadership Self-Efficacy	
How confident are you that you can be successful at the following?	1=Not at All Confident; 2=Somewhat Confident; 3=Confident; 4=Very Confident
Leading others	
Organizing a group's tasks to accomplish a goal	
Taking initiative to improve something	
Working with a team on a group project	
Leadership Motivation	
Please indicate your level of agreement with the following items:	1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree
I only join groups with good reputations	
Others recognize me as a good person because of my contributions to the group	
It is important that others think I do high quality work	
I need to be part of a group that reflects my values	
Providing quality leadership, whether recognized or not, is important to me	
I need to see that my actions make a difference in the group	
I am willing to persist in the face of adversity to meet my group's goals	
When I agree with my group's goals, I work harder to make a difference	
I put my group's progress toward a goal above my own success	

Leadership Capacity	
Please indicate your levels of agreement with the following items:	1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree
I am open to others' ideas	
I value differences in others	
I am able to articulate my priorities	
Hearing differences in opinions enriches my thinking	
I am usually self confident	
I am seen as someone who works well with others	
My behaviors are congruent with my beliefs	
I respect opinions other than my own	
I know myself pretty well	
I am willing to devote the time and energy to things that are important to me	
Leadership Capacity (cont.)	
I stick with others through difficult times	1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; 5=Strongly Agree
It is important to me to act on my beliefs	
I am focused on my responsibilities	
I can make a difference when I work with others on a task	
I actively listen to what others have to say	
My actions are consistent with my values	
I believe I have responsibilities to my community	
I could describe my personality	
I work with others to make my communities better places	
I can describe how I am similar to other people	
I enjoy working with others toward common goals	
I participate in activities that contribute to the common good	
Others would describe me as a cooperative group member	
I can be counted on to do my part	
Being seen as a person of integrity is important tot me	
I follow through on my promises	
I hold myself accountable for responsibilities I agree to	
I am comfortable expressing myself	
My contributions are recognized by others in the groups I belong to	
I share my ideas with others	
My behaviors reflect my beliefs	
I value opportunities that allow me to contribute to my community	
It is important to me that I play an active role in my communities	
I believe my work has a greater purpose for the larger community	

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VITA

Dr. Correia-Harker started his educational career in this hometown of Meridian, Idaho where he participated in public schooling in the West Ada School District. Receiving a strong foundation at Meridian High School, he then received his Bachelor of Arts in Religious Studies from the College of Idaho in Caldwell, Idaho. There, he completed an independent study on biblical methodologies and youth development and graduated with a magna cum laude distinction. A few years later, he continued his studies at Indiana University where he earned a Master's of Science in Education for Student Affairs Administration. Most recently, he engaged in Loyola University Chicago's Higher Education Ph.D. program where he focused on student leadership development and organizational theory and served as a research associate for Multi-Institutional Study of Leadership.

Professionally, Dr. Correia-Harker has worked at a number of institutions in various student affairs functional areas. Most of his experience is related to student activities, but he has also held roles in residence life, student union management, and academic advising. Currently, he is the Director of Campus Assessment at the Interfaith Youth Core, a non-profit organization that partners with higher education to elevate the priority of interfaith cooperation in society. In this role, he supports campuses to assess interfaith efforts and, on behalf of IFYC, provides oversight on

two national surveys, the Campus Religious & Spiritual Climate Survey and the Interfaith Diversity Experiences & Attitudes Longitudinal Survey.

Regarding his research interests, Dr. Correia-Harker would like to continue this line investigating college students' leadership motivation in socially responsible leadership development. He is also interested in exploring what collegiate factors leverage the leadership development process and how that potentially looks different for student of diverse social identities. A second vein of research relates to student experiences engaging religious worldview diversity. This includes how students' experiences of campus affect their attitudes toward others of different worldviews and what environmental factors promote positive interworldview engagement.