RACE AND GENDER EFFECTS ON LEADERSHIP PERCEPTIONS

BY

ABIGAIL E. PETERSEN

THESIS

Submitted in partial fulfillment of the requirements for the degree of Master of Science in Agricultural Education in the Graduate College of the University of Illinois at Urbana-Champaign, 2017

Urbana, Illinois

Adviser:

Associate Professor David M. Rosch
ABSTRACT

The purpose of this study was to examine the effects of differences in the gender and racial identity of students on the perceived leader skill, motivation to lead, and leadership self-efficacy of themselves and other students with whom they collaborate in formal student organizations. The study investigated members of student organizations of a large, public, Midwestern research university. Results indicated strong positive ratings of male leaders by men in leadership self-efficacy and positive ratings of women leaders by women in leader skill and aspects of motivation to lead. Findings suggested that women representation in leadership positions will likely continue to rise in the future. The study also found that Asian Americans consistently rated themselves and others significantly lower in leadership scores compared to White individuals.
ACKNOWLEDGEMENTS

I would first like to express my utmost gratitude and thanks to my advisor and mentor Dr. David Rosch for his unceasing support, guidance, and motivation in completing not only this work, but the many projects and requirements of my Master’s Degree. I would also like to thank the Agricultural Education staff and fellow graduate students for the academic and emotional support provided to me for the last year and a half. Lastly, I would like to offer special thanks to Mark Garofalo for supporting me through the entire process of pursuing a higher degree.
# TABLE OF CONTENTS

- CHAPTER 1: INTRODUCTION ........................................................................................1
- CHAPTER 2: LITERATURE REVIEW .............................................................................4
- CHAPTER 3: METHODOLOGY .....................................................................................13
- CHAPTER 4: RESULTS ...................................................................................................16
- CHAPTER 5: DISCUSSION .............................................................................................22
- REFERENCES ..................................................................................................................28
- APPENDIX A: QUESTIONNAIRE ..................................................................................32
- APPENDIX B: IRB APPROVAL .....................................................................................38
CHAPTER 1: INTRODUCTION

Increasing world challenges presented by issues such as globalization and climate change create a necessity for innovative solutions that can only be found in conversations driven by diverse leaders. Yet, in the current 535 seats of the 115th US congress, women represent 104 of the seats and people of color represent 102. Similar representation issues arise in the 2016 board seats of Fortune 500 companies with only 20.2% representation by women and 22.9% representation by people of color (Alliance for Board Diversity, 2016). These key leadership positions in our society not only lack diversity at face value but also express a void in the perspectives and people lacking a seat at the table. Researchers have also studied gender and racial diversity in leadership with staggering results. Some leadership stereotypes suggest society feels as though men are more suited for leadership. The literature suggests that male-like characteristics are perceived as favorable to leadership by society. Male-like, task-oriented traits such as dominance, control, and directness are perceived by others as favorable for leadership capabilities (Powell, 2012). Additionally, literature also suggests that whiteness is a stereotypical leadership characteristic as well. For example, In Rosette, Leonardelli, and Phillips study on racial bias in leadership, leaders were more likely to be assumed as white as opposed to other races (Rosette, Leonardelli, & Phillips, 2008). These studies discuss society’s view of leaders and leadership, not about their legitimate effectiveness or success of the leader. As Eagly and her colleagues discuss, the gender of the individual has no impact on the actual success of a leader (Eagly, Karau, & Makhijani, 1995).

As issues such as climate change, globalization, and food access involve a multitude of stakeholders with unclear solutions, society needs the most effective leaders carrying out groundbreaking solutions to these problems. However, as the science may suggest, we are
overlooking a large segment of the population as they do not fit into society’s leader stereotype. By lacking diversity and an understanding of inclusivity of leadership, we, as a population, are missing out on potential benefits that industries could receive from assorted viewpoints. Society can no longer afford to ignore segments of the population, and must utilize their talents and potential. To begin, we must first look at how we identify potential leaders.

The purpose of this study is to understand leadership perceptions across leader and follower demographic differences in registered student organizations at a large public Midwestern research university. Leadership perceptions refers to the perceived effectiveness of a leader by his or her peers. How a follower interprets and judges the effectiveness of the leader’s actions and appearance of that leader all fall under this realm of implicit leadership theory. This study aims to expand on the literature of student organizations at the university level. Little is known about the structure and implications of perceptions of leader effectiveness in gender and race-diverse student organizations. The current literature on student organizations mainly focuses on identity-based group efforts in overcoming discriminatory practices, but does not look at the current state of their views on leadership. Furthermore, research carried out on college student leadership in general mainly focuses on formal leadership training opportunities (i.e. classes, workshops), but little has been done on these organizational leadership opportunities through registered student organizations. Student organizations in higher education offer an early framework for leadership in the professional world as they are the units to which the early practice and application of leadership occurs for students training to become tomorrow’s organizational leaders. These pre-professional experiences build upon their idea of the prototypic leader. Therefore, researchers should study student organizations to attain insight into leadership perceptions of the professional world. Pairing leadership perceptions and prototypes with
informal leadership experiences within a university creates an opportunity for a unique study that could have implications for understanding the formation of leaders and how to increase women leaders and leaders of color in the workplace.
CHAPTER 2: LITERATURE REVIEW

LEADERSHIP AND STUDENT ORGANIZATIONS

Formal student-based organizations began with the formation of an academic honors Greek organization, Phi Beta Kappa, in 1776 ("The History of Phi Beta Kappa," n.d.). Through time, student organizations expanded beyond Greek letter organizations to honors and recognitions organizations, sports organizations, departmental organizations, and special-interest organizations (Dunkel & Schuh, 1998). This student-led structure allowed for unique opportunities to practice leadership in real world situations. These unique opportunities for leadership resulted in positive effects on their leadership development specifically when holding a leadership role such as president, captain, or chair (Dugan & Komives, 2007). Students may face many issues in their organization such as recruitment and budgeting issues (Castellanos, 2016). These problems seen in student organizations mirror many of the same issues seen in professional organizations. In order for businesses to thrive, they must manage budgets and recruit top members as assets to their organization. As student organizations possess safety nets such as advisors and have minimal consequences for mistakes, the holding environment of college for emerging adults allows students to troubleshoot these issues. The practice of problem-solving in a low-risk environment fosters such skill development. For example, in culturally diverse organizations, students acquire cross-cultural communication skills simply by participation in the group (Harper & Quaye, 2007). With the increasing necessity for multicultural skills in diverse environments, professional organizations value the development of these skills in particular.

These organizations also aid in identity development. In LGBT student organizations, for example, research suggests an identity-involvement cycle in students as they become involved in
that organization. They tend to become more comfortable in their identity which causes them to become more involved. This cycle not only occurred related to personal identity development, but also identity development as a leader (Renn, 2007). Similar to the development of problem solving capacity, a low-risk environment allows students to identify their life direction and develop their leadership identity within the constructs of student organizations. This environment guides them to these identities before entering the safety-net-free professional world. The skill and identity development that occurs in registered students organizations allows for training and development of leaders entering the work force. It is important to define what we mean when we discuss the “development of leaders.” For my study, I utilized the Ready, Willing, and Able Model.

READY, WILLING, AND ABLE MODEL OF LEADERSHIP CAPACITY DEVELOPMENT

The research field of leadership is a fairly new one and the theories and models we use to define and develop leadership have been growing and transforming since its creation. Researchers define leadership in many ways, however this study uses a model that combines many of the already existing and developed theories to create one inclusive leader-centered training model of leadership development. The Ready, Willing, and Able (RWA) model combines the concepts of self-efficacy, motivation, and skill with respect to leadership as a guide for leadership development opportunities. (Keating, Rosch, & Burgoon, 2014). “Ready” refers to a leader’s confidence or self-efficacy to lead a group of people (Murphy, 1992). “Willing” refers to the motivational components of leading a group of individuals, divided into three types: affective identity, leading because you see yourself as a leader; non-calculative, leading because someone has to do it; and social normative, leading because your peers want you to lead (Kim-Yin Chan & Drasgow, 2001). Finally, “able” refers to the skills needed to lead. This component
of the model is molded from Podsakoff and his colleagues’ (1990) Leadership Behavior Scale which measures transformative and transactional leadership skills. All of these capacities are necessary for leader and organizational success. For example, an individual with leadership skill cannot be an effective leader with this skill alone. They must also have the confidence and motivation to utilize such skills in the correct situations. Training students with a combination of these three aspects of leadership equip future leaders to tackle complex challenges presented by globalization, food security, and climate change. Although the three aspects of the model are necessary for leader and organizational success, this framework does not guarantee successful leader behaviors (Keating et al., 2014). However, utilizing this model aids leadership educators in focusing on central goals in the development of leaders. This model is the basis on which this study measures leadership development within the research population.

IMPLICIT LEADERSHIP THEORY

To determine how students define effective leadership capacity within society, Implicit Leadership Theory provides some degree of insight. Although leadership theories take many shapes and forms, perhaps one of the most important theories when discussing leadership is how individuals internalize their conceptions of what makes an effective leader. An individual’s previous experience with a leader or leading themselves molds that individual’s prototype of what a leader’s appearance, behaviors, and necessary skills should be. These experiences determine the characteristics individuals associate with words such as “supervisor”, “leader,” and “effective leader” (Offermann, Kennedy, & Wirtz, 1994). The concept of Implicit Leadership Theory (ILT) describes these interactions between prior experiences and current leader expectations. This prototype reveals unconscious or conscious biases that may be based on physical characteristics such as race and gender, as discussed in this study, or on attributes and
behaviors such as extraversion or sociability. Unconscious biases could play a role in society by defining who our actual leaders are and what they look like. These biases are tied to the context of a leader and the situations where leadership occurs (Lord, Foti, & De Vader, 1984). This is important, as researchers often measure leadership effectiveness through survey questionnaires that ask people to rate a leader’s behaviors and capacities. Research suggests that because of these existing biases ratings on leadership abilities and effectiveness are often skewed (Antonakis, Avolio, & Sivasubramaniam, 2003). My research is an investigation in systematic bias in determining effective leaders related to gender and racial identity.

CONTEXT PREDICTS PERCEIVED LEADERSHIP EFFECTIVENESS

The context in which leadership occurs is integral to the perceived effectiveness of a leader. A study on leadership perceptions using a transformative leadership framework found that context should always be considered in leadership research when asking participants to rate the effectiveness of a leader’s behaviors (Antonakis et al., 2003). Although some leader behaviors deemed as effective are universal across context, that effectiveness may change depending on the circumstances of the situation, which can be broken into two types: situational and individual (Antonakis et al., 2003).

Situational context looks at the factors external to leaders in evaluating their effectiveness. For example, in a study by Emrich in 1999, 58 undergraduate psychology students at a small university judged the capabilities of leaders in different situations. These situations included easy-to-lead, or tranquil, followers and difficult-to-lead, or troubled, followers. He found that students rated a leader assigned to troubled followers higher than the leader assigned tranquil ones. This finding suggests a “goal-dependent perception” of leader effectiveness, where
depending on the goal of the group or task (even if individuals picked it ourselves), people do not think about how the context impacts the perception of leadership abilities (Emrich, 1999).

Individual, or internal, context focuses on the leaders’ social identity, appearance, and previous experiences in perceptions of leadership. The background of the followers or the leader can strongly shape the perception of the leaders’ effectiveness. The leader and follower’s previous experience with a leader can play a role in an individual’s implicit theories on leader effectiveness. An individual’s previous experience with leadership all mold what a leader should look like, their behaviors, and skills (Offermann et al., 1994). The gender or racial identity of the individuals may also affect another person’s rating of their leadership capabilities.

Individual and situational context are easily described as two separate entities on paper, but in reality, they intertwine and are difficult to separate when evaluating leader competency. Thomas Sy and his colleagues studied this factor when looking at Asian American leadership and technical competencies in different job types (Sy et al., 2010). The researchers compared the perceived leader effectiveness of Asian American engineers to Asian American sales persons. They also compared competencies of these race-occupation entities with their Caucasian counterparts. They found participants perceived Asian American engineers as more competent leaders than Asian American Salespersons and opposite effects were found within their Caucasian counterparts. Sy and his colleagues attributed this to a connectionist theory of leadership (Kunda & Thagard, 1996). This theory discusses the importance of the interaction between the individual and situational context in leadership (Sy et al., 2010). Observers may develop a single overarching leader prototype in their mind, but perception of competencies and abilities can change based on the individual and situational context. The context central to this study is individual, focusing on the race and gender of the leader and follower, but it is
impossible to ignore the situational influences at play. This study focuses on ratings of leader
capacity in regards to the racial and gender identities of leaders and those who rate them.

GENDER AND LEADERSHIP

Organizational studies on leadership found that organizations are typically dominated by
older, male leaders with mostly female subordinates. Many early studies on leadership also
utilized military organizations as a population of study which is heavily male dominated (Eagly
et al., 1995). Early leadership research utilized similar gender dynamics and created leadership
theoretical perspectives with men in mind while ignoring half of the population (Powell, 2012).
Without a balanced study of gender roles in leadership, women are typically left out. Literature
focused on the understanding of women leaders and perception of women as leaders attempt to
understand the disparity and why women lack representation in major leadership roles.

As discussed above, the social constructions of “man” and “woman” describe certain
behaviors related to each respective gender. Masculine characteristics include task-focused
behaviors such as directedness and control, while feminine characteristics include relationship-
based behaviors such as sociability and supportiveness (Eagly et al., 1995; Goktepe & Schneier,
1989; Powell, 2012; Rosch, Collier, & Zehr, 2014). These findings influence many aspects of
masculine and feminine leadership behaviors are rated. For example, in Eagly and her
colleagues’ study of perceived leader effectiveness related to gender, they found when leaders
acted outside of their respective gender roles, perceived effectiveness of that leader decreased.
Additionally, job type emerged as extremely important when rating the effectiveness of a leader.
In roles that required relationship abilities, women were rated as more favorable, while men were
rated as more favorable in roles requiring task abilities. In a study of gender-related patterns in
transformative and transactional leadership capacities, women reported lower transactional
scores than their male counterparts (Rosch et al., 2014). Additional research showed women scored higher than men in individualized consideration, a factor in transformational leadership, and lower than men in passive leadership factors (Antonakis et al., 2003). The literature suggests that transformative leadership typically matches feminine leader characteristics and women in general exhibit elevated transformative leadership abilities compared to men (Powell, 2012; Rosch et al., 2014).

These findings might imply that women dominate positions of leadership in organizations. However, they are underrepresented in major leadership roles. A likely issue is peer ratings of women as leaders. Stereotypically, contemporary society associates effective leadership with masculine characteristics, summarized by the “think manager, think male” mentality (Powell, 2012). In Goktepe and Scheier’s study, findings suggested that masculine role orientations, rather than feminine ones, were associated with emergent leaders (Goktepe & Schneier, 1989). Similar findings exist in another study where men were rated as higher in effectiveness in organizations where leaders were typically men and with male subordinates (Eagly et al., 1995). These suggest a picture of how gender identify influences perceived leader effectiveness; it may not be skills that women that are lacking, but society’s views on women leading that depress their ability to utilize these skills. Despite this dismal picture for women in leadership, historical trends indicate that representation of women in leadership positions are slowly and steadily on the rise. Fortune 500 companies have seen a 20.5% increase in women on board seats since 2012 (Alliance for Board Diversity, 2016) and representation of women in U.S. Congress has been on the steady incline since “The Year of the Women” in 1992 (Manning, Brudnick, & Shogan, 2015).
RACE AND LEADERSHIP

A unique study by Thomas Sy and his colleagues mentioned earlier considered the perception of minority populations, particularly Asian Americans, across a variety of work contexts (2010). Their results suggested that although Asian Americans possess a positive “model minority” view by society, they are still perceived as less competent leaders than White Americans, lending credence to the notion that society’s prototypical leader is White. Ospina and Foldy investigate the effects of racial identity and suggest that perceptions guide the enactment of leadership and experience of individuals of color (Ospina & Foldy, 2009).

The experiences of leaders of Color often differ from White leaders. In a study by Arminio and her colleagues in 2011, leaders of color found themselves editing their cultural heritage by changing their verbal and body language habits in White-predominant groups so that they did not seem so different around others (Arminio et al., 2000). Motivations for leading also differs for students of Color compared to White students. In Harper and Quaye’s 2007 study of Black student leaders, high-achieving Black student leaders’ participated in leading student organizations to advance the African American community. Types of organizational involvement also showed different motivations for participation in leadership. The drive to advance individuals of color motivated participation in an identity-based organization while partaking in what was seen as the “ideal leadership experience” drove participation in predominantly white organizations. (Harper & Quaye, 2007). The motivations and experiences of individuals of color can play a role in how they internalize leader effectiveness therefore change how they perceive other individuals as well as themselves as leaders.
RESEARCH FOCUS

Utilizing questionnaires of student organization participants and their peers, I strived to understand how perceptions of student leaders’ leadership self-efficacy, motivation to lead, and leadership skill were rated differently across gender and racial identities within intact formal student organizations. Understanding how individuals perceive their own leadership gave a baseline for that person’s leader prototype. I then explored how leadership perceptions of others were influenced by the racial or gender identities of leaders and peers who rated them. As people in positions of power are often appointed and recognized as leaders by other individuals, determining how peers rate leader effectiveness can aid in the comprehension of implicit leadership theory. Lastly, I determined if leader/follower demographic differences related to the perceptions of effective leadership within these student organizations by comparing individual leadership scores to their peer observations. Comparing the means of these ratings helped determine potential unconscious biases of leader preference held within this population.
CHAPTER 3: METHODOLOGY

POPULATION AND SAMPLE

Target populations were participants of registered student organizations. Students surveyed were active members of the formal organizations at a large, public researcher university institution. This study included 760 participants and 1,735 unique observations of the participants by other participants from the same student organization. Of these participants, 31% (239) identified as male; 66% (501) identified as female; 3% (19) identified as African American; 33% (253) identified as Asian American; 49% (371) identified as White; and 6% (45) identified as Latinx. Of the unique observations, 34% (590) identified as male; 66% (1145) identified as female; 2% (39) identified as African American; 39% (621) identified as Asian American; 51% (824) identified as White; and 7% (118) identified as Latinx. Due to unreported gender and race data, percentages may not accumulate to 100%.

INSTRUMENTATION

Researchers administered a questionnaire in-person and then electronically (Qualtrics) targeted to students who missed the in-person data collection meeting. The questionnaire included several groupings of questions. The first groups of questions related to general background and demographic data such as self-reported gender and racial identity. The next two sections included statements pertaining to leadership utilizing the Ready, Willing, and Able model (Keating et al., 2014). The five “Ready” questions utilized questions from the Leadership Self-efficacy scale (Murphy, 1992), the 16 “Willing” questions used on this questionnaire were taken from the 27-item Motivation to Lead scale (Kim-Yin Chan & Drasgow, 2001); the seven “Able” questions were taken from the Leader Behavior scale (Podsakoff, MacKenzie, Moorman, & Fetter, 1990).
Participants rated all statements on a seven-point Likert scale ranging from strongly disagree to strongly agree. This section contained items asking participant to rate themselves, and then additional sections to rate up to three other members of their student organization. For this section, researchers required participants to rate someone present at the time of survey administration and someone they could accurately evaluate. Participants typically chose at least one executive member to rate. Researchers designed questions utilizing the “Ready, Willing, and Able” model to understanding leadership self-efficacy, motivation to leader, and the leader behavior skill.

DATA COLLECTION

The researcher recruited through a college wide student council and Office of Registered Student Organizations. Both organizations identify as experts in the student organizations active at the University. The researchers sent recruitment emails to active organizations and respondents made up the sample population of this study. Participant criteria included a requirement of being 18 years old or older and a current member of a student organization at the university. Researchers compensated participating organization $50 dollars for over 75% participation from members overall. They administered a pre-survey in order to gauge interest and collect basic student organization background information such as club advisor name, number of members, and title. After pre-survey results were submitted, researchers set a time to meet with the student organization to administer the survey.

DATA ANALYSIS

Researchers calculated mean scores for each self-efficacy, affective-identity motivation, social-normative motivation, non-calculative motivation, and leadership skill for each participant and unique observation. To determine impact of race and gender on leadership perceptions, we
then paired these scores with the observers of that individual to create delta leadership averages (i.e. the difference between self-reported and observer-reported scores targeting that participant) by subtracting the mean of observer scores from the individual self-report score. This allowed us to conduct an analysis of the variance (ANOVA) on pairings based on race or gender. Additionally, the researchers calculated T-tests determining differences in individuals’ and observers’ scores across race and gender to gauge differences in how the each score rated comparatively to others within their race or gender.
CHAPTER 4: RESULTS

EFFECTS OF GENDER ON LEADERSHIP SCALE

The researcher calculated the scale means and dispersion statistics for each leadership scale to determine the shape of the data initially comparing gender identities. Specifically, the leadership scores for Affective Identity Motivation to Lead (MTLAI), Non-Calculative Motivation to Lead (MTLNC), Social Normative Motivation to Lead (MTLSN), Self-Efficacy to Lead (SEL), and Transformative Leadership Skill (TLS); displayed in Table 1.

Table 1. Means and Dispersion Statistics Between Gender Identities

<table>
<thead>
<tr>
<th>Leadership Scale</th>
<th>Total Individual Scores</th>
<th>Observer Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total n (SD)</td>
<td>Female n (SD)</td>
</tr>
<tr>
<td>TLS</td>
<td>5.91 (0.70)</td>
<td>6.01 (0.66)</td>
</tr>
<tr>
<td>MTLAI</td>
<td>4.90 (1.07)</td>
<td>4.99 (1.09)</td>
</tr>
<tr>
<td>MTLNC</td>
<td>5.35 (1.02)</td>
<td>5.46 (0.98)</td>
</tr>
<tr>
<td>MTLSN</td>
<td>5.86 (0.88)</td>
<td>5.95 (0.85)</td>
</tr>
<tr>
<td>SEL</td>
<td>5.39 (0.84)</td>
<td>5.46 (0.80)</td>
</tr>
</tbody>
</table>

I then conducted an independent-samples t-test to compare the individual scores of men and women. These results are displayed in Table 2. The results showed that women rated themselves statistically significantly higher than men rated themselves across all scales, while a moderate effect size emerged for skill and affective identity, non-calculative, and social normative motivation to lead. Individual leadership self-efficacy scores showed a small effect size when calculating Cohen’s d.

Table 2. T-test Individual Scores Compared by Gender

<table>
<thead>
<tr>
<th>Leadership Scale</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLS</td>
<td>-5.73</td>
<td>1876</td>
<td>0.00</td>
<td>0.26</td>
</tr>
<tr>
<td>MTLAI</td>
<td>-6.79</td>
<td>1876</td>
<td>0.00</td>
<td>0.31</td>
</tr>
<tr>
<td>MTLNC</td>
<td>-5.27</td>
<td>1131</td>
<td>0.00</td>
<td>0.31</td>
</tr>
<tr>
<td>MTLSN</td>
<td>-6.87</td>
<td>1876</td>
<td>0.00</td>
<td>0.32</td>
</tr>
<tr>
<td>SEL</td>
<td>-3.94</td>
<td>1875</td>
<td>0.00</td>
<td>0.18</td>
</tr>
</tbody>
</table>
When comparing how peers rated other individuals as a whole in the relevant leadership categorizations, I calculated an independent t-test to compare the observer scores of men and women. These figures are displayed in Table 3.

Table 3. 
*T-test Observer scores Compared by Gender* 

<table>
<thead>
<tr>
<th>Leadership Scale</th>
<th>t</th>
<th>df</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLS</td>
<td>-1.77</td>
<td>1733</td>
<td>0.08</td>
<td>0.09</td>
</tr>
<tr>
<td>MTLAI</td>
<td>-5.16</td>
<td>1254</td>
<td>0.00</td>
<td>0.29</td>
</tr>
<tr>
<td>MTLNC</td>
<td>-5.05</td>
<td>1095</td>
<td>0.00</td>
<td>0.31</td>
</tr>
<tr>
<td>MTLSN</td>
<td>-4.51</td>
<td>1088</td>
<td>0.00</td>
<td>0.27</td>
</tr>
<tr>
<td>SEL</td>
<td>-4.98</td>
<td>1117</td>
<td>0.00</td>
<td>0.30</td>
</tr>
</tbody>
</table>

The t-test showed that women rated other individuals moderately higher than men rated other individuals related to their perceived affective identity, non-calculative, and social-normative motivation to lead, and leadership self-efficacy. There was a marginally significant difference between how men and women rated other individual’s transformative leadership skill.

The researchers conducted a one-way between subjects ANOVA to compare the effects of gender on all ratings of motivation to lead (affective-identity, non-calculative, and social normative), leadership self-efficacy, and transformative leadership skill. Significant effects for gender emerged on transformative leadership skill \[F(3,1553) = 3.35, p=0.02\], affective-identity motivation to lead \[F(3,1553) = 3.43, p=0.02\], and leadership self-efficacy \[F(3,1551) = 7.80, p<0.001\]. However, marginal significant effects emerged for non-calculative motivation to lead \[F(3,1552) = 2.37, p=0.07\] and social-normative motivation to lead \[F(3,1553) = 2.17, p=0.09\].

Because the ANOVA revealed a statistically significant result, the researchers conducted post hoc comparisons using Bonferroni’s t-tests, which better controls for large numbers of comparisons than other t-tests, given the volume of comparisons analyzed in such post-hoc analysis. The observer t-tests indicated the mean score for women observing women was significantly higher than the mean scores of women overserving men for transformative
leadership skill ($p=0.03$). However, all other combinations of gender did not show significant differences to other gender combinations for skill. For affective-identity motivation to lead, the mean scores for men observing men were significantly higher than the mean scores of women observing men ($p=0.01$). All other scores for combinations of individual/observer gender score showed no significant different for affective-identity motivation to lead or any other scales of motivation to lead. The leadership self-efficacy scores however, showed several significant results. The mean scores for men observing men were significantly higher than women observing men ($p<0.001$), men observing women ($p<0.001$), and women observing women ($p=0.01$). All other comparisons showed no significant results for self-efficacy to lead. Significant results for individual/observer gender combinations are outlines in Table 4.

Table 4. 
Statistically Significant Mean Score Comparisons Across Gender Identities

<table>
<thead>
<tr>
<th>Leadership Scale</th>
<th>Observer Mean 1</th>
<th>Observer Mean 2</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLS</td>
<td>Women observing Women</td>
<td>Women observing Men</td>
<td>0.03</td>
</tr>
<tr>
<td>MTLIAI</td>
<td>Men observing Men</td>
<td>Women observing Men</td>
<td>0.01</td>
</tr>
<tr>
<td>SEL</td>
<td>Men observing Men</td>
<td>Women observing Men</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>SEL</td>
<td>Men observing Men</td>
<td>Men observing Women</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>SEL</td>
<td>Men observing Men</td>
<td>Women observing Women</td>
<td>0.01</td>
</tr>
</tbody>
</table>

EFFECTS OF RACE ON LEADERSHIP SCALE

To initially determine the shape of the data for race and leadership scores of leadership skill; affective-identity, non-calculative, and social-normative motivation to lead; and leadership self-efficacy, we calculated the scale means of the data. These means and standard deviations are displayed in Table 5.
Table 5.
Means and Dispersion Statistics for Race

<table>
<thead>
<tr>
<th></th>
<th>TLS µ (SD)</th>
<th>MTLAI µ (SD)</th>
<th>MTLNC µ (SD)</th>
<th>MTLSN µ (SD)</th>
<th>SEL µ (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Individual</td>
<td>5.91 (0.70)</td>
<td>4.90 (1.07)</td>
<td>5.35 (1.02)</td>
<td>5.86 (0.88)</td>
</tr>
<tr>
<td></td>
<td>Observer</td>
<td>4.79 (0.52)</td>
<td>4.93 (1.06)</td>
<td>5.41 (1.13)</td>
<td>5.74 (0.97)</td>
</tr>
<tr>
<td>African American</td>
<td>Individual</td>
<td>5.65 (0.71)</td>
<td>4.64 (1.16)</td>
<td>5.03 (1.14)</td>
<td>5.63 (0.85)</td>
</tr>
<tr>
<td></td>
<td>Observer</td>
<td>4.74 (0.66)</td>
<td>4.65 (0.90)</td>
<td>5.30 (1.03)</td>
<td>5.62 (1.02)</td>
</tr>
<tr>
<td>Asian American</td>
<td>Individual</td>
<td>5.83 (0.74)</td>
<td>4.70 (1.11)</td>
<td>5.11 (1.10)</td>
<td>5.73 (0.93)</td>
</tr>
<tr>
<td></td>
<td>Observer</td>
<td>4.75 (0.54)</td>
<td>4.72 (0.99)</td>
<td>5.18 (1.13)</td>
<td>5.59 (0.96)</td>
</tr>
<tr>
<td>Caucasian</td>
<td>Individual</td>
<td>5.99 (0.63)</td>
<td>5.08 (1.01)</td>
<td>5.53 (0.91)</td>
<td>5.97 (0.83)</td>
</tr>
<tr>
<td></td>
<td>Observer</td>
<td>4.81 (0.49)</td>
<td>5.12 (1.09)</td>
<td>5.58 (1.10)</td>
<td>5.88 (0.94)</td>
</tr>
<tr>
<td>Latinx</td>
<td>Individual</td>
<td>5.87 (0.75)</td>
<td>4.61 (1.07)</td>
<td>5.42 (0.98)</td>
<td>5.67 (0.90)</td>
</tr>
<tr>
<td></td>
<td>Observer</td>
<td>4.88 (0.54)</td>
<td>4.82 (1.09)</td>
<td>5.51 (1.14)</td>
<td>5.65 (1.09)</td>
</tr>
</tbody>
</table>

I conducted a one-way between-subjects ANOVA to compare the effects of race on individual leadership ratings of motivation to lead (affective-identity, non-calculative, and social normative), leadership self-efficacy, and transformative leadership skill. Significant effects for race emerged on all measured leadership scales including: transformative leadership skill [F(3,682) = 3.67, p=0.01], affective-identity motivation to lead [F(3,682) = 8.19, p<0.001], non-calculative motivation to lead [F(3,681) = 9.71, p<0.001], social normative motivation to lead [F(3,682) = 5.17, p=0.002], and leadership self-efficacy [F(3,681) = 6.48, p<0.001].

Because the ANOVA showed a statistically significant result, I then conducted a series of Bonferroni t-tests that analyzed individual cross-race interactions. The post-hoc individual t-test indicated the mean individual scores for White individuals was statistically significantly higher than the mean scores of Asian American across all measured scales of leadership including: transformative leadership skill (p=0.03); affective identity (p<0.001), non-calculative (p<0.001), and social-normative motivation to lead (p=0.004); and leadership self-efficacy (p<0.001). A comparison of White and Latinx individual scores also showed significant differences where
White individuals rated themselves statistically significantly higher than Latinx individuals in affective identity motivation to lead (p=0.03).

I also conducted a one-way between-subjects ANOVA to compare the effects of race on leadership ratings of observers rating individuals perceived transformative leadership skill, motivation to lead (affective-identity, non-calcultative, and social normative), and leadership self-efficacy. Significant effects emerged on all measured leadership scales: transformative leadership skill \( F(3,1598) = 3.02, p=0.03 \), affective-identity motivation to lead \( F(3,1598) = 18.05, p<0.001 \), non-calcultative motivation to lead \( F(3,1598) = 15.45, p<0.001 \), social normative motivation to lead \( F(3,1598) = 11.43, p<0.001 \), and leadership self-efficacy \( F(3,1597) = 6.71, p<0.001 \).

Due to the significant ANOVA results, we conducted post hoc analysis of the observer data using a series Bonferroni t-tests. Results indicated that in rating the affective identity motivation to lead of others, White observers rated other individuals statistically significantly higher than African American (p=0.04), Asian American (p<0.001), and Latinx (p=0.02) observers. Additionally, Asian Americans rated other individuals statistically significantly lower in non-calcultative motivation to lead than White observers (p<0.001) and Latinx observers (p=0.02). Regarding social-normative motivation to lead, White observers rated others statistically significantly higher than Asian American observers rated other individuals (p<0.001). Finally, the scores for leadership self-efficacy showed two significant comparisons. Latinx observers rated others statistically significantly higher than African-American observers rated individuals (p=0.04) while White observers rated others statistically significantly higher than African American and Asian American observers rated their peers. No statistically
significant results emerged related to comparisons of observer race on perceived transformative leadership skill of others.
CHAPTER 5: DISCUSSION

Statistically significant differences emerged in our study related to the gender of the individual conducting the leadership ratings. Particularly when focusing on leadership self-efficacy, men consistently saw other men as more confident in their leadership capacity than any other individual/observer gender combination. This finding seems to conflict with another part of our analysis that showed women rated other women more highly than they rated men in most areas of leadership capacity. In general, women rated everyone higher than men did, and women rated men significantly lower than men rated other men specifically in leadership self-efficacy and affective-identity motivation to lead.

Men rated other men much higher than women rated men especially regarding their perceived leader identity and confidence in leading. In leadership skill, there was no significant difference except when women rate others. These seemingly contrasting results paint a potentially contradicting picture and leads to the question: which leadership capacity is more important in making an observer attribution of leader overall effectiveness: one’s perceived confidence in leading, the degree to which one seems to possess a self-image as a leader of one’s peers, or perceived skill applied to one’s behaviors? According to the ready, willing, and able leadership training model, all three are important and necessary (Keating et al., 2014). While these results seemed to imply women perceived other women higher than men in many leadership-related capacities and men seemed to perceive men only as more confident than women in leading, a generation of gender-related research indicates that women are not ahead in leadership (Eagly et al., 1995; Goktepe & Schneier, 1989; Manning et al., 2015; Alliance for Board Diversity, 2016; Powell, 2012). If women seem to see women as more competent overall, why do men hold the majority of leadership positions in business and government?
The potential significance of present leader gender demographics provides an explanation. Men currently hold a majority of leadership positions in the professional world. However, women have higher representation in student organizations according to Dugan’s fifty institution study on college student involvement (2013). Perhaps when men hold leadership positions, their elevated perceptions of the confidence in leading within other men (relative to women) allows for the elevation of more men into leadership positions. Additionally, the preference for male leadership by other men could be stronger than the preference of women for other women. This factor could provide an explanation for the majority male leadership found in the professional United States.

However, these results could also potentially indicate a future increase in the number of women leaders in the workplace. Current professional settings show a slow increase of interest in all levels of leadership by women (Manning et al., 2015; Alliance for Board Diversity, 2016). In this sense, we could interpret our results to indicate that as these women graduate and move to professional organizations, they will take with them their perceptions of other women’s leadership capacity.

With regard to racial identity, significant differences emerged in how individuals of different racial groups rate themselves and others on perceived measures of leadership capacity. Particularly when examining self-perceptions of leadership capacity, White individuals perceived themselves as more skilled in comparison to how Asian Americans saw themselves. Additionally, White individuals were also motivated to lead based on an image of oneself as a leader compared to Latinx individuals. When reviewing observer scores, White individuals saw others, regardless of race, as capable of leading more effectively than students from other racial
identity groups in this study. Asian American observers, in particular, rated others lower in most leadership ratings compared to White observers.

When determining the effects of race on leadership ratings, not only did White individuals see themselves as leaders more so than individuals of color see themselves, but they also rated other individuals higher, seeing them as potential leaders more so than their non-White peers. Particularly, the low ratings Asian Americans consistently gave themselves and others compared to White individuals may indicate how an individual’s race effects their idea of a prototypical leader. Given this, perhaps there is a difference between White individuals and Asian American individuals in their perception of who can be a leader. Our results could suggest that perhaps Asian American populations have a restricted view of who should lead whereas White populations might possess a more expansive criteria. These findings reinforce Ospina and Foldy’s (2009) framework for understanding the effect of race and ethnicity on leadership perceptions of effectiveness. These authors suggest that the influence of race and ethnicity on leadership perceptions can and do effect leadership enactments. The difference between Asian American and White individual’s views on effective leadership perceptions show that these differences influence their perceptions not only of their perceived leadership effectiveness, but their critique of other individuals as well.

IMPLICATIONS

Understanding cognitive leadership prototypes and biases held by students in their formal student organizations can greatly influence how they judge and view other leaders. As the student leaders in these organizations provide a preview of leadership in the professional world, recognizing these biases as early as possibly will provide great insight into how individuals are invited to leadership opportunities and then critiqued on their effectiveness. The preference of
male leaders by men and cultural differences among White and Asian American individuals’ views on leadership give leadership educators and researchers an understanding that the concept of leadership and what makes one’s leadership behaviors effective varies greatly by social identity.

For leadership educators, the recognition of college students’ views of leadership, specifically related to the female preference for women and preference of male leaders by men, is integral to training effective leaders for the future. Not only should educators strive to overcome these biases by recognizing them, but educators should also combat them by providing multi-gender and multicultural examples of leadership in their teaching. Perhaps one of the reasons for gender bias is the examples provided and seen in trainings and formal environments for leadership learning. Providing multi-gender and multicultural examples of leadership may reduce such bias and make leadership a gender-neutral concept accessible to all. Additionally, as these biases are typically unconscious, leadership educators should bring these biases to the forefront of future leaders’ minds by making bias in leadership and the cultural differences of effective leadership a more significant part of typical leadership curriculum. These small changes could work to lessen the inclination of leaders of color to alter their verbal and body language habits to match those of their white peers (Arminio et al., 2000).

Leadership researchers could also utilize these findings to provide a clearer picture of the factors that influence society’s views who is an effective leader. Previous research shows job type, such as the specific tasks asked of the leader as well as the difficulty of those tasks, influences the perceived effectiveness of a leader (Emrich, 1999; Goktepe & Schneier, 1989). Given our findings, future research endeavors should explore student organization type as an influence to race and gender effects of leadership to determine other variables that affect
perception of leader identity, competence, and confidence. As many organizations have different goals and mandates, some may require very different tasks and as well as high or low risk decision making. For example, typical student organizations at universities include pre-professional organizations that provide early career experiences and networking. Leaders of these organizations make different decisions compared to leaders of common-interest organizations such as an intermural sports group or a movie club. In interest organizations, tasks are much lower risk as they do not relate directly to future professional endeavors. Women, for example, are typically rated as more effective leaders in relationship-based skills and behaviors while men are favored for task-based skills and behaviors (Eagly et al., 1995; Goktepe & Schneier, 1989; Powell, 2012; Rosch et al., 2014). A dissection of the organization type and tasks required of the leaders could indicate why men and women are rated in such ways. The implications within a study of this nature could broaden our view of racial effects of leadership effectiveness as well. In Sy et al.’s study of Asian American leadership (2010), they discovered that it is not just the view of Asian American leaders in general, but the race-occupation fit of that individual that greatly affected perceived leader effectiveness. Studying this phenomena in student organizations could provide a broader picture of the impacts of gender and race on leadership.

CONCLUSION

Research has shown that society holds unconscious gender biases around leadership and that the perceptions of effective leadership change across racial identities. The findings within this study provide a potential explanation of the slow increase in women leaders in the professional world and a potential preview of the future. As student organizations serve as early training environments for leadership in the professional world, that world should prepare for
likely shifts. The inequality surrounding rating of leadership effectiveness based on social identity must be tackled as society begins to search for solutions to the world’s largest challenges. If we, as a society, fail to do so, we may block those with the skills, motivation, and confidence to lead us towards these solutions.
REFERENCES


APPENDIX A: QUESTIONNAIRE

General Information

1. What is your most recent class year?
   - Freshman
   - Sophomore
   - Junior
   - Senior
   - Graduate Student

2. How would you categorize your primary academic major?
   - STEM (Science, Technology, Engineering, Math)
   - Social Sciences (e.g., Political Science, Education, Psychology)
   - Arts & Humanities (e.g., History, Philosophy, Dance)
   - Human Services (e.g., Public Health, Social Work)
   - Business
   - Undeclared/Undecided

3. What is the name of your RSO?

4. How many semesters have you been involved in this RSO?

5. How many hours per week are you involved in this RSO?

6. Are you, or have you ever been President of this RSO?
   - Yes
   - No

7. Are you, or have you ever been an Executive Board member of this RSO?
   - Yes
   - No

8. Are you, or have you ever held any other non-Executive position in this RSO?
   - Yes
   - No

# Question | Very Untrue of me | Untrue of me | Somewhat Untrue of me | Neutral | Somewhat true of me | True of me | Very true of me
---|---|---|---|---|---|---|---
9 | I am or have been primarily responsible for organizing planning an event for my RSO | A | B | C | D | E | F | G
10 | I regularly attend meetings for my RSO | A | B | C | D | E | F | G
11 | I am or have been primarily responsible for recruiting members for my RSO | A | B | C | D | E | F | G
12 | I am or have been primarily responsible for delegating tasks in my RSO | A | B | C | D | E | F | G
13 | I am or have been primarily responsible for making disciplinary decisions in my RSO | A | B | C | D | E | F | G
14 | I am or have been primarily responsible for attending events coordinated by my RSO | A | B | C | D | E | F | G
15 | I am or have been actively engaged in service projects on campus with my RSO | A | B | C | D | E | F | G
16 | I consider this organization’s advisor (if it has one) a mentor for my leadership development | A | B | C | D | E | F | G
17 | I am or have been both mentally and physically committed in my RSO | A | B | C | D | E | F | G

32
Additional Student Organizations

Please answer the following questions based on your current involvement in additional student organizations on campus.

18. How many other RSOs are you involved in? (Skip to next section if “0”)
   □ 0     □ 1     □ 2-3     □ 4-6     □ 7-10     □ 10+

19. What types of organizations are you involved in on campus? (Choose all that apply)
   □ Student Government     □ Sorority/Fraternity     □ Academic Organizations
   □ Community Service     □ Cultural Organizations     □ Social
   □ Athletics (club, intramural)
   □ Pre-Professional Organizations
   □ Other ____________________________

20. Hours spent in other activities (current) ____________________________

21. For how many semesters have you been involved in RSOs in general?
   □ 1-2     □ 3-4     □ 5-6     □ 7-8     □ 8+

High School Involvement

Please answer the following questions based on your past involvement in student organizations and extracurricular activities in high school.

22. What types of activities were you involved in during high school? (Choose all that apply)
   □ Student Government     □ Academic & Professional
   □ Religious Organizations     □ Non-Religious Community Organizations (Scout, Boys & Girls Club, YMCA)
   □ Athletics     □ Music & Theater
   □ Service     □ Cultural
   □ Agriculture Clubs (4-H, FFA)
   □ Other ____________________________

23. Rate your perceived level of engagement in high school organizations – in your memory, how engaged were you in your high school organization(s)?
   □ No engagement     □ Little engagement     □ Moderate engagement
   □ High level of engagement

24. Please rate the level of priority you placed on your involvement in high school.
   □ No priority     □ Low priority     □ Medium priority
   □ High priority     □ Essential

25. I was in positions of leadership or significant influence within my high school organization(s).
   □ Very Untrue of me     □ Untrue of me     □ Somewhat Untrue of me
   □ Neutral     □ Somewhat true of me     □ True of me     □ Very true of me

Please answer the following questions based on your experiences in relation to student organizations on campus.

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neutral</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>It is appropriate for people to accept leadership roles or positions when they are asked.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>27</td>
<td>I feel that I have a duty to lead others if I am asked.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>28</td>
<td>Most of the time, I prefer being a leader rather than a follower when working in a group.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>#</td>
<td>Question</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Slightly Disagree</td>
<td>Neutral</td>
<td>Slightly Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>---------</td>
<td>------------------</td>
<td>---------</td>
<td>----------------</td>
<td>-------</td>
<td>----------------</td>
</tr>
<tr>
<td>29</td>
<td>I agree to lead whenever I am asked or nominated by other group members.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>30</td>
<td>I do not frequently acknowledge the good performance of other group members.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>31</td>
<td>I would agree to lead others even if there are no special rewards or benefits to that role.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>32</td>
<td>I show respect for the personal feelings of other group members.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>33</td>
<td>I will never agree to lead if I cannot see any benefits from accepting that role.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>34</td>
<td>I would want to know “what’s in it for me” if I am going to agree to lead a group.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>35</td>
<td>I know how to encourage good group performance.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>36</td>
<td>I am the type of person who is not interested to lead others.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>37</td>
<td>I behave in a manner that is thoughtful to the needs of other group members.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>38</td>
<td>I commend other group members for doing a better than average job.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>39</td>
<td>I am confident of my ability to influence a group I lead.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>40</td>
<td>I give special recognition when the work of other group members is very good.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>41</td>
<td>I usually want to be the leader in the groups that I work in.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>42</td>
<td>I am the type of person who likes to be in charge of others.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>43</td>
<td>I have a tendency to take charge in most groups or teams that I work in.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>44</td>
<td>I am only interested to lead a group if there are clear advantages for me.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>45</td>
<td>I have no idea what it takes to keep a group running smoothly.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>46</td>
<td>I would only agree to be a group leader if I know I can benefit from that role.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>47</td>
<td>I personally compliment other group members for doing outstanding work.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>48</td>
<td>I know what it takes to make a group accomplish its task.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>49</td>
<td>I believe I can contribute more to a group if I am a follower.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>#</td>
<td>Question</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Slightly Disagree</td>
<td>Neutral</td>
<td>Slightly Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>----</td>
<td>--------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------</td>
<td>-------------------</td>
<td>---------</td>
<td>----------------</td>
<td>-------</td>
<td>----------------</td>
</tr>
<tr>
<td>50</td>
<td>I have more of my own problems to worry about than to be concerned about the rest of the group.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>51</td>
<td>I know a lot more than most students about what it takes to be a leader.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>52</td>
<td>I am the type who would actively support a leader but prefers not to be appointed as leader.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>53</td>
<td>I always give positive feedback when other group members perform well.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
</tbody>
</table>

Demographics

We understand that pre-determined categories may not capture the complexity and fluidity of social identity. Please answer the questions to the best of your ability and level of comfort.

54. What gender do you identify with?
   - □ Man
   - □ Woman
   - □ Trans*
   - □ Other ____________________________

55. What racial background do you identify with? (Choose all that apply)
   - □ African American/Black
   - □ Asian/Asian American
   - □ Caucasian/White
   - □ Latino/Hispanic
   - □ Middle Eastern
   - □ Native American
   - □ Multiracial
   - □ Other ____________________________
   - □ Prefer not to answer

56. Are you an international student?
   - □ Yes
   - □ No

57. Are you a transfer student?
   - □ Yes
   - □ No

58. What is your sexual orientation?
   - □ Heterosexual
   - □ Gay/Lesbian
   - □ Bisexual
   - □ Other ____________________________
   - □ Prefer not to answer

59. How many people live in your primary residence at home?
   - □ 1
   - □ 2
   - □ 3
   - □ 4
   - □ 5
   - □ 6
   - □ 7
   - □ 8
   - □ 9
   - □ 10
   - □ 10+

60. Highest level of education completed by your parent(s)/guardian(s).
   - □ High School
   - □ 2 Year Degree
   - □ Some College
   - □ 4 Year Degree
   - □ Master’s Degree
   - □ Professional or Terminal Degree
   - □ Unknown/NA

61. Average Household Income
   - □ $15,000 or Below
   - □ $15,000 - $30,000
   - □ $31,000 - $45,000
   - □ $46,000 - $60,000
   - □ $61,000 - $75,000
   - □ $76,000 - $100,000
   - □ $101,000 - $200,000
   - □ $201,000 or More
   - □ Unknown/NA
Please select a member of this RSO to evaluate. Print their full name on the line above.

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Neutral</th>
<th>Slightly Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>This person believes it is appropriate for people to accept leadership roles or positions when they are asked.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>2</td>
<td>This person feels that they have a duty to lead others if I am asked.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>3</td>
<td>Most of the time, this person prefers being a leader rather than a follower when working in a group.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>4</td>
<td>This person agrees to lead whenever they are asked or nominated by other group members.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>5</td>
<td>This person does not frequently acknowledge the good performance of other group members.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>6</td>
<td>This person would agree to lead others even if there are no special rewards or benefits to that role.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>7</td>
<td>This person shows respect for the personal feelings of other group members.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>8</td>
<td>This person will never agree to lead if they cannot see any benefits from accepting that role.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>9</td>
<td>This person would want to know “what’s in it for me” if they are going to agree to lead a group.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>10</td>
<td>This person knows how to encourage good group performance.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>11</td>
<td>This person is the type of person who is not interested to lead others.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>12</td>
<td>This person behaves in a manner that is thoughtful to the needs of other group members.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>13</td>
<td>This person commands other group members for doing a better than average job.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>14</td>
<td>This person is confident of their ability to influence a group I lead.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>15</td>
<td>This person gives special recognition when the work of other group members is very good.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>16</td>
<td>This person usually wants to be the leader in the groups that they work in.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>#</td>
<td>Question</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Slightly Disagree</td>
<td>Neutral</td>
<td>Slightly Agree</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------</td>
<td>-------------------</td>
<td>---------</td>
<td>---------------</td>
<td>-------</td>
<td>----------------</td>
</tr>
<tr>
<td>17</td>
<td>This person is the type of person who likes to be in charge of others.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>18</td>
<td>This person has a tendency to take charge in most groups or teams that they work in.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>19</td>
<td>This person is only interested to lead a group if there are clear advantages for them.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>20</td>
<td>This person has no idea what it takes to keep a group running smoothly.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>21</td>
<td>This person would only agree to be a group leader if they know they can benefit from that role.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>22</td>
<td>This person personally compliments other group members for doing outstanding work.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>23</td>
<td>This person knows what it takes to make a group accomplish its task.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>24</td>
<td>This person believes they can contribute more to a group if they are a follower.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>25</td>
<td>This person has more of their own problems to worry about than to be concerned about the rest of the group.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>26</td>
<td>This person knows a lot more than most students about what it takes to be a leader.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>27</td>
<td>This person is the type who would actively support a leader but prefers not to be appointed as leader.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>28</td>
<td>This person always gives positive feedback when other group members perform well.</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
</tr>
</tbody>
</table>
APPENDIX B: IRB APPROVAL

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Office of the Vice Chancellor for Research
Office for the Protection of Research Subjects
528 East Green Street
Suite 203
Champaign, IL 61820

August 16, 2016

David Rosch
Agr & Consumer Economics
137 Bevier Hall
905 S. Goodwin Ave.
Urbana, IL 61801

RE: Investigating the Effects of Student Organizations on Young Adult Leader Development
IRB Protocol Number: 16892

Dear Dr. Rosch:

Thank you for submitting the completed IRB application form for your project entitled Investigating the Effects of Student Organizations on Young Adult Leader Development. Your project was assigned Institutional Review Board (IRB) Protocol Number 16892 and reviewed. It has been determined that the research activities described in this application meet the criteria for exemption at 45CFR46.101(b)(2).

This determination of exemption only applies to the research study as submitted. Please note that additional modifications to your project need to be submitted to the IRB for review and exemption determination or approval before the modifications are initiated.

Copies of the attached, date-stamped consent form(s) are to be used when obtaining informed consent. If there is a need to revise or alter the consent form(s), please submit the revised form(s) for IRB review, approval, and date-stamping prior to use.

Exempt protocols will be closed and archived five years from the date of approval. Researchers will be required to contact our office if the study will continue beyond five years. If an amendment is submitted once the study has been archived, researchers will need to submit a new application and obtain approval prior to implementing the change.

We appreciate your conscientious adherence to the requirements of human subjects research. If you have any questions about the IRB process, or if you need assistance at any time, please feel free to contact me at OPRS, or visit our website at http://oprs.research.illinois.edu

Sincerely,

Michelle Lore, MS
Human Subjects Research Specialist, Office for the Protection of Research Subjects

Attachment(s): Oral Consent Script, Waiver of Documentation of Informed Consent

c: Jasmine Collins
   Nicole Nelson
   Julie Hafermann

U of Illinois at Urbana-Champaign • IORG0000014 • FWA #00008584
   telephone (217) 333-2670 • fax (217) 333-0405 • email IRB@illinois.edu
Informed Consent Script

*Investigating the Effects of Student Organizations on Young Adult Leader Development*

Hello. Would you be interested in participating in a study pertaining to how students develop leadership capacity through participating in student organizations? We are interested in having you complete a short survey that asks you about your participation in this particular organization as well as others you may be a part of, and includes some questions about your leadership behaviors and beliefs. It will take approximately 10 minutes to complete, and any information you provide will be anonymous and kept as confidential as possible. I will be available to help you if you have questions about anything.

You must also be 18 years or older to participate in this study. By participating, you are giving consent to use your given information.

**Will my study-related information be kept confidential?**

Yes, but not always. In general, we will not tell anyone any information about you. When this research is discussed or published, no one will know that you were in the study. However, laws and university rules might require us to disclose information about you. For example, if required by laws or University Policy, study information may be seen or copied by the following people or groups:

- The university committee and office that reviews and approves research studies, the Institutional Review Board (IRB) and Office for Protection of Research Subjects;
- University and state auditors, and Departments of the university responsible for oversight of research;

---

University of Illinois at Urbana-Champaign
Institutional Review Board

Approved: 8-16-16
IRB #: 10892

RECEIVED

4/15/20
Institutional Review Board

RECEIVED

4/15/20
WAIVER OF DOCUMENTATION OF INFORMED CONSENT FORM
Application for Waiver of Documentation on Informed Consent

ALL APPLICATIONS MUST BE SIGNED AND SUBMITTED AS SINGLE-SIDED DOCUMENTS. PLEASE, NO STAPLES.

Responsible Project Investigator: David Rosch
Project Title: Investigating the Effects of Student Organizations on Young Adult Leader Development
IRB Number 16892

To request a waiver of documentation [signature] of informed consent, please provide a response to either of the following questions. Please be specific in explaining why either statement is true for this research.

In cases in which the documentation requirement is waived, the IRB may require the investigator to provide subjects with a written statement regarding the research.

1. Explain that the only record linking the subject and the research would be the consent document and the principal risk would be potential harm resulting from a breach of confidentiality. Each subject will be asked whether the subject wants documentation linking the subject with the research, and the subject’s wishes will govern. *Note: A waiver of documentation of informed consent is not permissible under this category if subject to FDA regulations.

2. The research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside the consent.

This research study represents minimal risk to participants, and pertains only to topics that participants are likely to discuss openly with peers and colleagues. Data collection will take place only through an anonymous questionnaire collected at the research site. The use of a signed consent form is not advised as this information poses no harm or confidentiality threats.

IRB Approval: University of Illinois at Urbana-Champaign Institutional Review Board

Approved: 8-16-16
IRB #: 16892

Responsible Principal Investigator

8/15/16
Date