### STAFF SUMMARY SHEET

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**Surname of Action Officer and Grade**
Davis, Civ

**Symbol**
DFM

**Phone**
333-4130

**Typist’s initials**
kjd

**Suspense Date**
20140707

**Subject**
Clearance for Material for Public Release

**USAFA-DF-PA-381**

**DATE**
20140707

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**SUMMARY**

1. **PURPOSE.** To provide security and policy review on the document at Tab 1 prior to release to the public.

2. **BACKGROUND.**
   Authors: Kevin J. Davis; David A. Levy; James E. Parco
   Title: Leadership Development as Identity Change

3. **Circle one:**
   - Abstract
   - Tech Report
   - Journal Article
   - Speech
   - Paper
   - Presentation
   - Poster
   
   **Check all that apply (For Communications Purposes):**
   - [ ] CRADA (Cooperative Research and Development Agreement) exists
   - [ ] Photo/Video Opportunities
   - [ ] STEM-outreach Related
   - [ ] New Invention/Discovery/Patent

   **Description:** (brief description of item, eg. abstract): According to Ibarra, et al (2010) leadership development requires re-creation of identity. For this article we examined a leadership development program, searching for evidence that identity change had occurred. Specifically, we collected data at a military academy where leadership development was the focal point of the institution’s mission. Using leadership behaviors and skills suggested by Yukl (2008) we were able to show how the perceived importance of these skills changed as students progressed through the program. We also found that the perceived importance of certain leadership skills depended on a student’s “change readiness.” Finally, we searched for evidence that women value relationship-oriented leadership skills more highly than men.

4. **Release Information:** Submission to (journal name; conference name, date, place, etc.)
   Journal of Academy of Business and Economics

   **Previous Clearance Information:** None.
   **Recommended Distribution Statement:** Distribution A: approved for public release, distribution unlimited

5. **DISCUSSION.** The leadership development program at the Air Force Academy is discussed; no data on military policy, process or technologies included.

6. **RECOMMENDATION.** Recommend approval for Distribution A.

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**Signature:**
Kevin J. Davis
Director of Assessment
Department of Management
LEADERSHIP DEVELOPMENT AS IDENTITY CHANGE: AN ANALYSIS OF THE IMPACT OF A DELIBERATE LEADERSHIP DEVELOPMENT PROGRAM

Kevin J. Davis
David A. Levy
James E. Parco

ABSTRACT

According to Ibarra, et al (2010) leadership development requires re-creation of identity. For this article we examined a leadership development program, searching for evidence that identity change had occurred. Specifically, we collected data at a military academy where leadership development was the focal point of the institution's mission. Using leadership behaviors and skills suggested by Yukl (2008) we were able to show how the perceived importance of these skills changed as students progressed through the program. We also found that the perceived importance of certain leadership skills depended on a student’s “change readiness.” Finally, we searched for evidence that women value relationship-oriented leadership skills more highly than men.

Keywords: Leadership, Identity, Systems, Leadership Task-Behaviors, Leadership Relationship-Behaviors, Leadership Traits, Change-Oriented Leadership, Technical Core, Institutional Level, Personality, Authentic Leadership

1. INTRODUCTION

As noted by Ibarra, et al (2013; p.62) “people become leaders by internalizing a leadership identity and developing a sense of purpose.” Critically, this is a continuous process where each new role or leadership job invites the person to re-create themselves (Ibarra, et al, 2010). Learning who you are, or could be, is essential to leadership development (Cashman, 2008). The development of a new identity is a challenging process; new roles don’t automatically lead to identity change. As noted by Schein (1999; p.59) any change in identity tends to be painful since the establishment of a new identity involves the unlearning of prior behaviors and the restructuring of new “thoughts, perceptions, feelings, and attitudes.” Changing identity, then, often requires a move away from a comfortable equilibrium while also potentially acting against the norms of the organization (Schein 1999).

The steps involved in developing a new leadership identity can be expected to parallel the steps required to develop any new identity. In studying how professionals developed new identities after they assumed new roles, Ibarra (1999; p.764) found that re-creation of identity generally occurs over three stages: 1) Observing role models to identify potential identities, 2) Experimenting with provisional selves, and 3) Evaluating experiments against internal standards and external feedback.” The activation of these steps starts when people are faced with situations that require new behaviors. As noted by Lewin, new experiences tend to create new behaviors and judgment (Schein, 1999). While change can be obtained within an education environment (Petriglieri, et al, 2011), a new job, appropriately chosen, is often the best setting for identity change. (Hill, 2004)

Note that in this paper the terms “leadership behaviors”, “leadership levers”, and “leadership skills” are used interchangeably. In the literature cited below the authors generally use one of these three terms. However, all three terms connote specific actions taken to influence, or lead, others.

2. LITERATURE REVIEW

2.1 Exploring identity

According to Howe (2008) identity is defined both by a person’s internal individual characteristics and the social context in which that person is a player. More specifically, identity includes (DeRue and Ashford
(2010; p.629); "individual internalization, relationship recognition, and collective endorsement." A change in identity requires "cognitive restructuring" in order to overcome prior individual and social cognitive positioning (Schein, 1999). This restructuring occurs in three areas: "semantic redefinition" where words can take on new meanings; cognitive broadening, where known concepts take on additional possibilities; and "new standards of judgment or evaluation" (Schein, 1999; p.61).

Paralleling the three step process discussed in the introduction, Ibarra, et al (2010; p.665) established that identity change also requires a second three stage process, "involving separation from established identities, transition, and integration of new self-conceptions." The transition to a new role is a particularly important time during which the person must decide on their level of commitment.

Howe (2008) suggests that roles can be created where the incumbent is invited to simply play at the role; she explains that play can be an extremely valuable developmental tool since play allows the role incumbent to try out new identities that are extremely disconnected from a player's current identity. Of course, the reason this is possible is because play is usually accompanied by lots of protection for the incumbent—it is understood that they are "just playing". However, long term development depends on people internalizing change at deeper levels. Deep change is difficult and an important part of leadership development (Kaplan, 1993). Charan (2005), echoing Kaplan to some extent, suggests that deeper leadership development demands very strong evaluation as part of the feedback process. However, where feedback is direct and readily available it is important to have a guide or mentor to make the experience less dangerous. A major responsibility of the mentor is to create enough "psychological safety" (Schein 1999!) for the recipient to accept the need for change without becoming defensive. The guide also makes sure the right things are learned and that the experience is correctly understood (McCall, 2004). Finally, it is important to observe that change readiness is a critical determinant of identity change (Ibarra, et al, 2010; Avolio and Hannah, 2008). Readiness can be determined by a number of methods including judging reactions to past experiences and careful evaluation of recent behavior.

2.2 Countervailing forces
Since identity, in part, depends on the social environment, the environment can block or inhibit identity change. For example, the entire social network often depends on the current collection of identities and positions (Van Vugt, 2012). Goffman (1959) observed this dynamic long ago, suggesting that the roles people occupy produce pressure to conform to a particular behavior set. Rather than fight system influences, it is often easier when stepping into a new role for people to simply assume prototypical behaviors (Hogg, 2001).

Beyond the maintenance of current system order, leaders also encounter opposition to a new identity from the people working for them. According to Hunt (1996) leadership behaviors and identities are often subject to prior judgment. Specifically, potential followers tend to rely on internal schemas to determine whether behaviors constitute leadership. Hence, when a leader decides to display a new identity and new behaviors, followers will resist if these behaviors do not meet their internal "leadership" expectations. This can be critical in terms of establishing real identity change because the power of leadership and authority is generally determined by both the leader and the followers (Kahn and Kram 1994). Where followers disagree with the leader's performance, they will reduce their commitment to that person. In Barnard's (1938) terms the followers' zone of indifference shrinks when the leader's identity and behaviors don't fit the "leader" schemas of the followers.

The extent to which new occupants are driven by the system instead of their own internal prerogatives often surprises first time leaders. First time managers discover that success in their new position requires significant behavioral changes. For example, they often find that as a leader they have less freedom and that they have become responsible for the actions and behaviors of others (Hill, 2004). In any new role if leaders are to remain authentic (Avolio, et al 2005) they must find a way to combine the pressures of their new role with their internal identity, which often requires changes to their identity.

2.3 Women and Men
Previous work suggests that women and men favor different leadership skills. For example, Eagly and Carli (2007; p.66) found that women leaders are "associated with communal qualities, which convey
concern for the compassionate treatment of others.” In contrast, men were “associated with assertion of control.” To support their argument, Eagly and Carli (2007) reported the results from a meta-analysis of 45 studies. This meta-analysis found that women, more so than men, were likely to rely on leadership behaviors associated with the transformational leadership style. The study also found that women were more likely to work to enhance relationships and to ensure that others felt a sense of inclusion. Men, more so than women, were found to be inclined toward laissez-faire leadership, often granting more follower autonomy than warranted.

Other research has found that women favor more democratic and participative types of leadership; men favor more autocratic and directive types of leadership (Eagly and Johannesen, 2001). Overall, Eagly and Johannesen (2001; p787) explained that, relative to men, women are likely to be “more interpersonally oriented, democratic, and transformational.” In accordance with the transformational style, women were also more likely than men to set high standards and clearly define future goals.

Some research has questioned these differences. For example, while Bass (1981) agrees that there is some evidence that women are more relations-oriented than men, he maintains that in actual leadership situations, the differences are negligible. Chin (2011), too, suggests that differences are more likely to be found in laboratory experiments, where there is likely a reversion to gender roles, which is then confused with leadership differences. However, actual leaders seem convinced that important differences exist. For instance, Rutherford (2001) surveyed both female and male leaders. She found that 84% of the women maintained that women managed differently than men; 55% of men concurred. Both genders agreed that women were more relationship oriented, yet more demanding with better organizational skills. As noted above, Bass (1981) suggests that the differences are minor, yet some of the research he employs suggests otherwise. For instance, he cites Banfield (1976), who interviewed women leaders. These leaders reported that they were compelled to incorporate masculine characteristics while sacrificing their femininity.

2.4 USAFA as an intentional leadership program

For the current paper, we required a leadership development program where the developmental phases (Ibarra, et al, 2010; Ibarra, 1999) could be readily identified, allowing us to measure identity changes at specific points. At the U.S. Air Force Academy leadership development is accomplished through an intentional, time-specific process, which serves our requirements quite well.

The Air Force Academy is very focused on the concept of identity-based leader development. This commitment is immediately evident in the Academy mission statement: “We educate, train, and inspire men and women to become officers of character motivated to lead the United States Air Force in service to our nation.” (Air Force Academy, n.d.) This statement makes it clear that the Academy is about more than just supplying skills. The aim of instilling character and motivation to lead requires a change in identity. And the Academy’s four class system commits a lot of resources to produce these identity changes. Of central importance to leadership development at the Academy is the focus on character. Students are asked to internalize “integrity first.” The Academy provides many role models who demonstrate both “moral identity” and “moral identity internalization” (Mayer, et al 2012).

Upon arrival at the Academy, new students, referred to as “cadets”, enter Basic Cadet Training. Where business schools often talk about creating “boot camp” experiences to get to deeper identity change, the Academy provides an actual boot camp. During this six-week period, even the expressive parts of identity are attacked: the students have their hair cut very short, they are required to wear the same uniform, their freedom is extremely limited, and their “voice” is virtually non-existent. This boot camp is followed by an entire year during which many of the identity restrictions are continued. Interestingly, in accordance with Ibarra’s (1999) developmental model, freshmen are frequently invited to observe and think about their leaders—they are asked find role models.

Following the intense initial six weeks, cadets formally enter the Academy’s Officer Development System (ODS), an overarching program covering the entire four years cadets are at the Academy (Officer development system, nd). This system integrates all aspects of the Academy experience, with a focus on outcomes. A number of leadership development models are employed. The primary model, informing
cadet experiences during each of their four years is the Personal, Interpersonal, Team, and Organizational (PITO) Model. (USAFA pamphlet 36-3527, 2013). In the first year ("P") at the Academy cadets are taught to be followers, while beginning to more intentionally build a sense of personal identity: during the second year ("I") personal growth continues to be emphasized, but cadets also become responsible for coaching first year cadets, thereby emphasizing interpersonal growth. During the third year ("T") cadets work on "group identity and cohesiveness." Finally during the fourth year ("O") cadets learn to "drive organizational norms" while creating "an environment where all members of the organization can reach their full potential" (USAFA pamphlet 35-3527, 2013). Since the start of each academic year coincides with a distinct promotion to the next class level, the upward movement is somewhat abrupt, inviting cadets to fully engage in their new roles and tasks.

During each of the last six semesters cadets are generally given a leadership job commensurate with their class year, one that parallels the four class Officer Development System. For example, during their junior year most cadets are given formal leadership jobs where they take responsibility for the activities of a team (representing "T" in the PITO model) of 10-14 students. During their senior year ("O" in the PITO model) cadets are provided leadership positions where their actions impact the culture and activities of whole squadrons (approximately 100 students) or larger units. As observed by Ibarra, et al (2010) new roles with new responsibilities encourage people to try on new identities. And she notes that in trying on new identities, old identities tend to be left behind. Importantly, for the purposes of the current study, as cadets assume higher level positions the required mix of leadership levers or management skills should change significantly (Hunt 1996; Katz 1974)

As discussed above, according to Charan (2005) leadership development demands very strong evaluation and mentorship to support the feedback process. Leadership development depends on learning the right things and the only way to insure this learning is to use a coach or mentor (McCall, 2014). Each Academy squadron (approximately 100 cadets) has two full time mentors and evaluators. Cadets are provided feedback throughout each semester. However, the most intense feedback occurs at the end of each semester when cadets are given a feedback score which ostensibly captures their performance under the Officer Development System. This score, their military performance average (MPA), is comprised of inputs from the two full time squadron evaluators and written feedback from other cadets in their squadron. The MPA is thought to capture the sense in which a cadet is a leader among peers, and is ready for additional responsibility. As further discussed below in our methods section, for this research the MPA measure was used as a proxy for change readiness.

2.5 Leadership skills and organizational levels
Since the leadership changes we examined for this research are directly related to the changing leadership skills required at different organizational levels, a bit more discussion on this topic is necessary. Simply stated, many prior researchers have found that the skills used by leaders change as they move up the organizational hierarchy (e.g., De Meuse, 2011; Mumford, 2003, Hunt, 1996; Jacobs and Jaques, 1987; Katz, 1974) In an early study Pinto and Tornow (1975), surveyed hundreds of managers at different organizational levels, asking them to choose the skills that were most important to their current position. Their research demonstrated that managers at each level favored very different leadership skills. Of particular value for our research, they found that managers at the highest leadership levels valued strategy and planning skills, took a broad, systems-oriented sense of the organization, and recognized the need to deal with complexity. This finding parallels Katz’ (1974) work since he discovered that as leaders move up in an organization conceptual skills become more important. For example, higher level managers need to take a systems view of their organization and develop an ability to anticipate interconnections. Also included in conceptual skills (Katz, 1974) are the ability to deal with complexity and ambiguity, the anticipation of organizational change, and the promotion of innovation. Finally, Hunt (1996), too, emphasized the need for different leadership skills at different organizational levels. Paralleling the work of Pinto and Tornow (1975) and Katz (1974), Hunt pointed out the need for top level leaders to skillfully deal with change, complexity and innovation, while developing an ability to see beyond organizational boundaries.

There is some argument about whether lower level skills continue to be important as a leader moves upward. Mumford (2003) believes that early leadership skills continue to be important; De Meuse (2011)
found evidence that earlier skills continued to be used by leaders as they moved up their organizations. Nevertheless, it is generally accepted that the salience and use of leadership skills shifts substantially as leaders progress upward.

3. HYPOTHESES (Based on the leadership levers listed in our research methods section below)

The Academy’s Officer Development System intentionally moves cadets from lower to higher levels of responsibility. Prior research has found that different levels of leadership and management require different types of skills, or at least a different mix of skills (De Meuse, 2011; Mumford, 2003; Katz, 1974). To successfully lead at higher levels of a hierarchy, leaders must take on a more abstract view, focus on leading change, create a vision, work beyond organizational boundaries, and develop an ability to deal with ambiguity while making decisions. The leadership levers we used for hypothesis 1 provide a proxy for these higher level leadership skills.

Hypothesis 1: Cadets in their eighth semester will rank/value the following leadership levers more highly than cadets in their fifth semester: A) "Be socially aware while dealing with others"; B) "Communicate the need for change"; C) "Envision new possibilities"; D) "Facilitate change"; E) "Foster innovation"; F) "Influence outsiders to support change"; G) "Make sense of ambiguous situations"; H) "Make timely decisions"; I) "Try new ways of doing things"; J) "Willingness to take risks"

Even though other leadership levers, such as "Build group identity through the use of symbols" and "Develop new strategies based on strengths" seem to match the "Organizational" level jobs given to Academy seniors, the actual duties of cadets do not allow them use these levers. Hence we had no expectation that fifth and eighth semester cadets would value these levers differently.

As discussed above, the Academy’s Military Performance Average (MPA) evaluates prior cadet leadership performance and is meant to identify cadets who are leaders among their peers, leaders who are ready for additional challenges. Higher scores on this cadet measure have been strongly linked to later Air Force success for Academy graduates (Didier, 2012). Since change readiness is a critical determinant in the development of new identities (Ibarra, 1999), and leadership development requires identity change (Ibarra, et al, 2010) we sought to understand how cadets who demonstrated higher change readiness (higher MPA scores) differed in their ranking of leadership levers.

Hypothesis 2: Cadets with higher MPAs will demonstrate a preference for leadership levers that are likely to make them stand out among their peers.

For Hypothesis 2 our aim was exploratory; hence, we do not identify specific leadership levers that will be favored by cadets with higher Military Performance Averages (MPAs). Our intent was to find the levers favored by cadets with higher MPAs, and then map those to the statement in Hypothesis 2, if possible.

As discussed in our literature review, prior research has shown that women tend to focus on relations-oriented leadership levers more than men.

Hypothesis 3: Women will rank 11 of the 13 relations-oriented leadership levers more highly than men.

We did not include all 13 relationship-oriented leadership levers in hypothesis 3. For the "Build group identity through the use of symbols, ceremonies, and stories" lever we expected cadets to realize that their Academy jobs do not allow for the use of this lever. Hence we didn't have a prior expectation about which gender would favor this lever. In terms of "Provide significant autonomy", we expected men to rank/value this leadership lever more highly than women based on prior research showing that, on average, men valued "laissez-faire" management much more than women.

4. RESEARCH METHODOLOGY
4.1 Leadership Levers (aka, leadership skills, leadership behaviors)

As noted by Yukl, leadership taxonomies are abstractions “derived from observed behaviors in order to organize perceptions.” (2008, p.66) Naturally, when organizations are examined using different lenses, different leadership taxonomies emerge. Moreover, levels of analysis can also affect any resulting taxonomy. Thus, there is no set of “correct” leadership categories. Nevertheless, Yukl provides a general leadership focus. His review of hundreds of leadership studies has demonstrated the effectiveness of particular leadership levers in specific situations. These levers can each be assigned to one of several sub-categories of leadership levers rendering Yukl's identification from the vast leadership literature particularly relevant for our purposes (see Davis and Levy, 2010).

To inform and test our three hypotheses, we employed Yukl's three factor model (2008) and added a list of self-focused behaviors as a fourth factor. Yukl’s three dimensional leadership behavior model includes the following: 1) task-oriented behaviors—primarily concerned with accomplishing tasks in efficient and reliable ways; 2) relations-oriented behaviors—primarily concerned with increasing mutual trust, cooperation, job satisfaction, and organizational identification; 3) and change-oriented behaviors—primarily concerned with understanding the environment, finding innovative ways to adapt to it, and implementing major changes in strategies, products, or processes. By combining Yukl’s three dimensional model with self-focused behaviors we were able to present our respondents with leadership levers that represented the “full range” (Michel, et al., 2011) of leadership.

Our four factors contain 54 leadership behaviors or skills (see Table 1 below). For our research these behaviors and skills are referred to as “leadership levers”. Although this list largely adheres to Yukl’s taxonomy, a few of the leadership levers have been expanded. For example, during our prior research we found that respondents often view Yukl’s “personal integrity” leadership behavior as being too broad. Hence we separated it (personal integrity) into “be truthful” and “be consistent”.

<table>
<thead>
<tr>
<th>Behavioral Orientation</th>
<th>Leadership Lever</th>
<th>Behavioral Orientation</th>
<th>Leadership Lever</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-focused</td>
<td>Able to endure high stress</td>
<td>Change</td>
<td>Foster team learning</td>
</tr>
<tr>
<td></td>
<td>Acknowledge strengths and limitations</td>
<td>Change</td>
<td>Identify symbols to capture new vision/strategy</td>
</tr>
<tr>
<td>Self-focused</td>
<td>Actively seek organizational influence</td>
<td>Change</td>
<td>Identify threats and opportunities</td>
</tr>
<tr>
<td>Task</td>
<td>Assess performance</td>
<td>Task</td>
<td>Improve processes and procedures</td>
</tr>
<tr>
<td>Task</td>
<td>Assign workload</td>
<td>Change</td>
<td>Influence outsiders to support change</td>
</tr>
<tr>
<td>Self-focused</td>
<td>Be confident</td>
<td>Relations</td>
<td>Involve people in decisions affecting them</td>
</tr>
<tr>
<td>Self-Focused</td>
<td>Be consistent</td>
<td>Relations</td>
<td>Keep people informed</td>
</tr>
<tr>
<td>Self-Focused</td>
<td>Be socially aware while dealing with others</td>
<td>Self-Focused</td>
<td>Maintain high energy level</td>
</tr>
<tr>
<td>Self-Focused</td>
<td>Be truthful</td>
<td>Self-Focused</td>
<td>Make sense of ambiguous situations</td>
</tr>
<tr>
<td>Self-Focused</td>
<td>Believe destiny can be controlled</td>
<td>Self-Focused</td>
<td>Make timely decisions</td>
</tr>
<tr>
<td>Relations</td>
<td>Build group identity through the use of symbols, ceremonies, and stories</td>
<td>Self-Focused</td>
<td>Model appropriate behavior</td>
</tr>
<tr>
<td>Relations</td>
<td>Build interpersonal relationships</td>
<td>Task</td>
<td>Monitor work activities</td>
</tr>
<tr>
<td>Change</td>
<td>Celebrate organizational progress</td>
<td>Task</td>
<td>Organize work activities</td>
</tr>
<tr>
<td>Task</td>
<td>Clarify expectations/goals</td>
<td>Task</td>
<td>Plan short-term operations</td>
</tr>
</tbody>
</table>
TABLE 2: LEVELS BY SEMESTER CADETS WERE EXPECTED TO RANK VALUE MORE HIGHLY THAN 5TH SEMESTER CADETS

As noted in our first hypothesis, in line with prior management and leadership research, we expected cadets in their eighth semester to value the leadership levels in Table 2 more highly than cadets in their 5th semester.

4.2 Procedure

The list in Table 1 was reproduced on card sets. Respondents were asked to rank the 5 levels in order of importance. This sorting exercise was conducted at the beginning of a meeting period. Participants were told that they were going to engage in an analysis of important aspects of leadership. Each subject was handed a shuffled stack of cards and they were going to engage in an analysis of important aspects of leadership.

The only additional information given was a suggestion to initially sort the cards into three piles (most important, less important, and then rank order each pile). Participants were given as much time as they needed. In most cases, everyone was finished within sixty minutes.

The stack of cards contains a set of phrases and terms related to leadership. Your task is to sort the cards into three piles (most important, less important, and then rank order each pile). Participants were given as much time as they needed. In most cases, everyone was finished within sixty minutes.

This sorting exercise was conducted at the beginning of a meeting period. Participants were told that they were going to engage in an analysis of important aspects of leadership. Each subject was handed a shuffled stack of cards and they were going to engage in an analysis of important aspects of leadership.

The task is to sort the cards into three piles (most important, less important, and then rank order each pile). Participants were given as much time as they needed. In most cases, everyone was finished within sixty minutes.

Faster Innovation

Facilitate change

Change

Self-Focused

Willingness to take risks

Try new ways of doing things

Provide feedback

Research conflict

Set standards

Resolve immediate problems

Recruit new members

Provide significant autonomy and recognition

Develop good relationships

Coordinate work activities

Communicate the need for change

Develop new strategies

Display flexibility in thinking

Encourage people to consider other perspectives

Exhibit self-control

Express self-confidence

Subordinates

Foster innovation

Facilitate change

Change

Self-Focused
To test each of our hypotheses we examined the card sorts performed by our cadet respondents. Since the data was rank-ordered, non-parametric methods were used. Specifically, to address each hypothesis, we employed Mann-Whitney U tests to search for differences between two independent groups. This test is the equivalent of a Student t-test used for parametric data (Field, 2005). Table 3 shows the results of the Mann-Whitney analysis for hypothesis 1.

**TABLE 3: LEVERS USED TO TEST HYPOTHESIS 1**

<table>
<thead>
<tr>
<th>Leadership Levers</th>
<th>Data Analysis Finding: Lever Is More Highly Ranked by:</th>
<th>Sig level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Be more socially aware while dealing with others</td>
<td>8th Semester Cadets</td>
<td>.029*</td>
</tr>
<tr>
<td>Communicate the need for change</td>
<td>8th Semester Cadets</td>
<td>.043*</td>
</tr>
<tr>
<td>Envision new possibilities</td>
<td>8th Semester Cadets</td>
<td>.007**</td>
</tr>
<tr>
<td>Facilitate change</td>
<td>8th Semester Cadets</td>
<td>.009**</td>
</tr>
<tr>
<td>Foster innovation</td>
<td>8th Semester Cadets</td>
<td>.013*</td>
</tr>
<tr>
<td>Influence outsiders to support change</td>
<td>8th Semester Cadets</td>
<td>.001**</td>
</tr>
<tr>
<td>Make sense of ambiguous situations</td>
<td>8th Semester Cadets</td>
<td>.007**</td>
</tr>
<tr>
<td>Make timely decisions</td>
<td>8th Semester Cadets</td>
<td>.016*</td>
</tr>
<tr>
<td>Try new ways of doing things</td>
<td>8th Semester Cadets</td>
<td>.528</td>
</tr>
<tr>
<td>Willingness to take risks</td>
<td>8th Semester Cadets</td>
<td>.04*</td>
</tr>
</tbody>
</table>

* = significant at the .05 level; ** = significant at the .01 level

Our second hypothesis was simply that cadets with a higher MPAs (proxy for identity change readiness) would demonstrate a higher preference for levers that would make them stand out as leaders among their peers. As an exploratory research question, we did not have preset assumptions about exactly which levers would be preferred. Table 4 shows the results of this test.

**TABLE 4: LEVERS MORE HIGHLY FAVORED BY CADETS WITH HIGH MPAS (CHANGE READINESS PROXY)**

<table>
<thead>
<tr>
<th>Leadership Levers</th>
<th>Data Analysis Finding: Lever Is More Highly Ranked by:</th>
<th>Sig level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assess</td>
<td>&gt; 3.00 MPA Cadets</td>
<td>.023*</td>
</tr>
<tr>
<td>Be consistent</td>
<td>&gt; 3.00 MPA Cadets</td>
<td>.022*</td>
</tr>
<tr>
<td>Be truthful</td>
<td>&gt; 3.00 MPA Cadets</td>
<td>.048*</td>
</tr>
<tr>
<td>Model appropriate behavior</td>
<td>&gt; 3.00 MPA Cadets</td>
<td>.026*</td>
</tr>
</tbody>
</table>

* = significant at the .05 level; ** = significant at the .01 level

Our third hypothesis was informed by prior research showing that women and men differ in their leadership styles. In particular, women tend to emphasize relations-oriented leadership levers more than
men. However, because men tend to favor laissez-faire leadership more than women, we expected men to favor the autonomy relationship lever more than women. We had no prior expectation in terms of the relationship lever “Build group identity through the use of symbols, ceremonies & stories” because the roles cadets serve in generally do not allow them to impact their organization with this lever. Table 5 shows the results of the comparison of women and men in their eighth semester at the Academy.

**TABLE 5: HYPOTHESIS 3 COMPARISON OF RANKINGS ON 11 RELATIONSHIP ORIENTED VARIABLES (8TH SEMESTER CADETS)**

<table>
<thead>
<tr>
<th>Leadership Levers</th>
<th>Data Analysis Finding: Lever is More Highly Ranked by:</th>
<th>Sig level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build group identity through the use of symbols, ceremonies &amp; stories</td>
<td>Women</td>
<td>.806</td>
</tr>
<tr>
<td>Build interpersonal relationships</td>
<td>Women</td>
<td>.806</td>
</tr>
<tr>
<td>Coach and mentor</td>
<td>Women</td>
<td>.59</td>
</tr>
<tr>
<td>Develop good relationships</td>
<td>Women</td>
<td>.482</td>
</tr>
<tr>
<td>Encourage people to consider other perspectives</td>
<td>Women</td>
<td>.68</td>
</tr>
<tr>
<td>Express confidence in others</td>
<td>Women</td>
<td>.944</td>
</tr>
<tr>
<td>Involve people in the decisions affecting them</td>
<td>Men</td>
<td>.986</td>
</tr>
<tr>
<td>Keep people informed</td>
<td>Women</td>
<td>.256</td>
</tr>
<tr>
<td>Provide encouragement</td>
<td>Women</td>
<td>.247</td>
</tr>
<tr>
<td>Provide feedback</td>
<td>Women</td>
<td>.213</td>
</tr>
<tr>
<td>Provide significant autonomy</td>
<td>Men</td>
<td>.019*</td>
</tr>
<tr>
<td>Recognize contributions and accomplishments</td>
<td>Women</td>
<td>.017*</td>
</tr>
<tr>
<td>Resolve conflicts</td>
<td>Women</td>
<td>.128</td>
</tr>
</tbody>
</table>

* = significant at the .05 level; ** = significant at the .01 level

**6. DISCUSSION**

Our assertion for hypothesis 1 was that 8th semester cadets would rank certain change-oriented and relationship-oriented leadership levers more highly than 6th semester cadets. Table 3 strongly supports this expectation. Our findings support previous research suggesting that higher level organizational roles require very different skill sets than mid-level roles. In addition our analysis demonstrates that the Academy Officer Development System produces measurable identity changes in terms of the leadership levers favored by cadets.

For hypothesis 2 we explored how differences in change readiness affected cadet rankings of our leadership levers. Change readiness was determined by each cadet’s cumulative Military Performance Average (MPA). The MPAs achieved by cadets at the Academy have been shown to be solid predictor of later Air Force success (Didier, 2012). Interestingly, relative to cadets with lower MPAs, cadets with higher MPAs favored “Assess Performance”, “Be Consistent”, “Model Appropriate Behavior”, and “Be Truthful”. These levers line up comfortably with the general expectation expressed in hypothesis 2: “Cadets with higher MPAs will demonstrate a preference for leadership levers that are likely to make them stand out among their peers.” Cadets can indeed expect to stand out if they emphasize accountability, behave and judge consistently, and serve as role models for expected behaviors. The additional emphasis on “Be truthful” is slightly surprising but should probably be expected to move in tandem with the “Be consistent” leadership lever. This finding is also consistent with De Meuse, et al (2011) who found that integrity and honesty are valued more and more highly as a lever as one moves up the hierarchy. They suggested that integrity is aligned with consistency.

Hypothesis 3 proposed that women would favor 11 of the relationship oriented levers more highly than men. While Table 5 supports this hypothesis (10 of the 11 are favored by women), the significance isn’t impressive.
7. CONCLUSIONS AND FUTURE RESEARCH

Our work supports prior research, strongly in the case of Hypothesis 1, less strongly for hypothesis 3. Our findings for hypothesis 2 provide support for the idea that change readiness is an important element in any leadership or identity development process (Avolio and Hannah, 2008; Ibarra, 1999). Finally, we also found evidence that an intentional leadership development program can change leader identity in the form of movement toward valuing leadership behaviors and skills very differently.

Further research is needed to understand why female cadets at the Academy do not favor relationship-oriented leadership behaviors as strongly as expected. Eagly (2007) reported that when they are working in male dominated environments, women tend to adopt masculine norms. Further, Eagly (2007) found that while women would prefer to employ a participative style, when there aren’t enough women to support one another, women will conform to the style of the men. Since males comprise more than 75% of the Academy student body, Eagly’s work provides a partial explanation for the weak support found for hypothesis 3.

Even in organizations where men don’t constitute such a large majority, masculine behaviors are still often viewed as “leadership behaviors” (Ely, et al, 2011). Women who lead in organizations that emphasize masculine behaviors know that calling attention to their differences may result in their being viewed as lacking leadership skills (Rutherford, 2001); hence, women often seek to minimize perceived differences. The collection of additional data from women at the Academy would help us develop a better understanding of the environment.

Additional research is needed to compare cadet rankings of the leadership levers with the rankings of graduates. Specifically, it would be interesting to examine whether cadet changes in terms of ranking the levers continues to move in the same direction after graduation. If the rankings do not continue to move in a consistent direction, that would provide support for the view that identity change is strongly driven by environmental pressures (Hogg, 2001; Kahn and Kram, 1994; Goffman, 1959). In that case it would also be interesting to explore the extent to which our change readiness measure (MPA) predicted role flexibility.

We do not expect the changes in the rankings of specific levers to apply in other environments. Since every environment possesses different leadership challenges (Conger, 2004; Blanchard, 2008), we should expect that the salient levers for each environment are somewhat different. For example, do lawyers have a different view of leadership than engineers? And does success in particular field depend on would-be leaders changing their identity to emphasize particular leadership levers?

Opinions, conclusions and recommendations expressed or implied within are solely those of the authors and do not necessarily represent the views of the USAF Academy, the U. S. Air Force, the Department of Defense, or any other government agency.

REFERENCES


