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ABSTRACT

DEVELOPMENT AND APPLICATION OF SELF-AWARENESS IN
PROJECT LEADERSHIP: A MULTIPLE CASE STUDY OF
DEPARTMENT OF DEFENSE PROJECT MANAGERS

by

Jeffrey Brian Hart

Chair: Duane Covrig

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: DEVELOPMENT AND APPLICATION OF SELF-AWARENESS IN PROJECT LEADERSHIP: A MULTIPLE CASE STUDY OF DEPARTMENT OF DEFENSE PROJECT MANAGERS

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Date Completed: May 2017

*"Always aim at complete harmony of thought and word and deed."*¹

--Gandhi

Problem

This study explored how Project Managers (PMs) in the Department of Defense (DoD) come to understand, develop, and apply self-awareness in leading their projects. The DoD invests heavily in developing their project leaders by providing training, experiences, developmental assignments, and other tools such as self-assessments presumably to help them lead more authentically and become more self-aware as a way to improve project management. Despite this investment, it is unclear how self-awareness is actually developed in PMs and integrated into their leadership

practice. In view of the importance of self-awareness in leadership, more understanding is needed on how self-awareness is being understood and made use of by DoD PMs.

Purpose

This study sought to describe how PMs in the DoD come to understand, develop, and integrate self-awareness—as a key component of authentic leadership—in leading their projects. This data, viewed within the authentic leadership construct (Gardner, Avolio, & Walumbwa, 2005) promises to inform project leaders on potentially more effective leadership practices.

Scope and Design

The study's conceptual framework was based on Authentic Leadership: a transparently connected relationship between leaders and followers, encompassing a high level of self-awareness with internalized beliefs and moral values (Avolio & Gardner, 2005). In this research, use of a multiple case study design guided the data collection process to qualitatively explore the perceptions and experiences of project managers as they develop self-awareness and use it in leading their projects. Individual PMs who completed the Defense Acquisition University's Program Manager Course (PMT 401), each representing a case, were purposefully selected and administered the Authentic Leadership Questionnaire (ALQ) to further identify those leaders with a high level of self-awareness (2.5 or above on the ALQ's self-awareness scale) resulting in a group of 24 PMs for telephonic interviews. A professional demographic survey was also administered to collect background and contextual information about the participants. A researcher's journal was kept throughout the study to record researcher reflections,

process, and unexpected discoveries. Following collection of this qualitative data, analysis using both manual and automated tools (i.e., NVivo, Excel) resulted in the study's findings for interpretation within the authentic leadership conceptual framework.

Findings

In terms of developing leader self-awareness, participants revealed that three elements contributed most significantly to their growth: the influence of others, chiefly within the DoD; the experiences they'd had as leaders in the Department; and the insights gained from intentional, thoughtful self-assessment throughout their careers.

The most common development theme shared by participants was the influence other people had on them as they grew as leaders. It was especially remarkable that PMs attributed prior commanders and other direct leaders in the DoD as the most important influences on their own leadership identity and style. Many mentioned the formative experiences they'd had early in their careers in crucial assignments, deployments, and decisive missions as enduring influences on their leadership development. Lastly, in terms of self-assessment insights, participants recalled that it was through self-assessment that they were able to reflect on themselves as leaders, and on the interactions with others. They reported gaining insights on personality preferences and leadership styles. However, participants found deeper meanings about self and identity, their purpose, and leadership perspectives only when those self-assessment insights were actuated within leadership relationships and experiences.

Three strong themes emerged from the interviews about how participants applied leader self-awareness to managing projects. Many spoke about cultivating a warfighter focus in their leadership purpose. They spoke of deep concern for the needs of the

soldiers, sailors, airmen or marines in the field. Participants also spoke of their awareness of performance as leaders in relationships with their teams and project stakeholders. Through the transitions and change they encountered in their DoD careers they gained understanding of their “strengths” and “weaknesses”, leadership traits, management styles, and leadership approaches. Finally, PMs in the study spoke about leading authentically: understanding who they were as leaders; modeling desired behaviors; putting people at the center of their leadership practice, that is, taking an interest in those they lead while training, developing, and mentoring them and maintaining an openness which fosters honesty and transparency in return. Leaders in the study also expressed that to lead authentically, one must adapt to context & situation while maintaining a consistency between one’s self-identity and leadership persona.

Conclusions

Development of leader self-awareness and the application of that self-awareness appear to merge naturally in practice. It is in relationship with others and within a context of purpose that one develops, applies, and nurtures self-awareness. It is a reciprocal process. For the participants in this study, it is in leadership practice and especially during times of professional transitions and change that self-awareness is developed and applied; not, remarkably, through self-assessment, reflection or inward searching alone. Authentic Leadership with strong self-awareness appears to emerge when there is a strong guiding purpose, positive leadership influences, and opportunities for strengths and weaknesses to be examined within the responsibilities of each new situation. The results of this study can inform the leadership community on how DoD PMs integrate and use authentic leadership, specifically a keen self-awareness, as they

lead their project teams. By understanding the development, integration to self, and application of authentic leadership in project management, the next generation of project managers and leaders may profit from employing the construct's principles in their leadership practice. Further, findings can aid researchers as well as practitioners in how authentic leadership development can best be fostered in a space of purposive and engaged responsibility.

“Trust yourself. Create the kind of self that you will be happy to live with all your life. Make the most of yourself by fanning the tiny inner sparks of possibility into flames of achievement.”² – Golda Meir

Andrews University

School of Education

DEVELOPMENT AND APPLICATION OF SELF-AWARENESS IN
PROJECT LEADERSHIP: A MULTIPLE CASE STUDY OF
DEPARTMENT OF DEFENSE PROJECT MANAGERS

A Dissertation

Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

by

Jeffrey Brian Hart

May 2017

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Jeffrey Brian Hart

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LIST OF ABBREVIATIONS

Authenticity can be characterized as reflecting the unobstructed operation of one's true, or core, self in one's daily enterprise.³

--Michael H. Kernis

ALQ	Authentic Leadership Questionnaire
BUS	Business
CAPT	Captain (US Navy)
CPD	Conflict Dynamics Profile
CDR	Commander (US Navy)
Col/COL	Colonel (US Air Force/US Army)
DAU	Defense Acquisition University
DCMA	Defense Contract Management Agency
DHA	Defense Health Agency
DiSC	Dominance, Influence, Steadiness and Conscientiousness
DoD	Department of Defense
EI	Emotional Intelligence
EQ-I	Emotional Quotient Inventory
EQ360	Emotional Quotient Inventory 360-Degree Assessment
Fac Eng	Facilities Engineering
GS	General Schedule (Federal Government civilian rank prefix e.g., GS 1-15)

GSD	Gregorc Style Delineator
IT	Information Technology
JSF	Joint Strike Fighter
Lt Col/LTC	Lieutenant Colonel (US Air Force/US Army)
MBTI	Myers-Briggs Personality Type Indicator
MDA	Missile Defense Agency
MSCEIT	Mayer-Salovey-Caruso Emotional Intelligence Test
MSFA	Multi Source Feedback Assessment
NCO	Non-Commissioned Officer
PM	Program/Project/Product Manager
<i>PMBOK</i>	<i>Project Management Body of Knowledge Guide</i>
PMI	Project Management Institute
PMT	Program Management Training
ROTC	Reserve Officer's Training Corps
SOCOM	US Special Operations Command
SOP	Standard Operating Procedure
Sys Eng	Systems Engineering
T&E	Test and Evaluation
US	United States
USAFA	United States Air Force Academy
USMA	United States Military Academy
USNA	United States Naval Academy

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*We embody our roles, our values, our stories.
We live in those stories, and we live according to them.⁴
-Thomas Asacker*

CHAPTER 1

INTRODUCTION

“Your vision will become clear only when you look into your heart. Who looks outside, dreams. Who looks inside, awakens.”¹ –Carl Gustav Jung

“Systems development is problem-prone because at its very essence, it is the integration of human behavior and technology.”²

–Defense Acquisition University: Software Acquisition Management 101

Background on the Problem

Leadership doesn't come naturally for many new “leaders”—including new project managers (PMs)—as evidenced by the \$160 Billion spent on leadership development programs in the United States in 2015 (Beer, Finnstrom, & Schrader, 2016). There can be as many reasons for this as there are leaders, but often, neophyte leaders haven't yet cultivated a leadership style, or “natural approach” to leading their teams—they are largely just playing a role they've been given, either through promotion based on exemplary performance in a functional role (engineer, contracting officer, logistician, etc.), or through completion of formal leader-producing programs (e.g., service academy, Reserve Officer's Training Corps, and so on). Often these new leaders have not spent much time reflecting on who they are as leaders. If they are fortunate, they have rehearsed their new role in training or a development program (Day, Fleenor, Atwater, Sturm, & McKee, 2014; Turner, 1978). Emerging leaders tend often to put on the role of leadership—they use as their primary source of self-identification their

positional or organizational role—rather than leading from an awareness of who they are, unconstrained by traditional role requirements (Henderson & Hoy, 1982). Nevertheless, new practitioners’ leadership improves as they learn to become aware of who they are as leaders: style, personality, core beliefs and worldview, skills & abilities, career preferences (i.e., functional area, specialty, or discipline); and thus their ease with leading, and their leadership performance improves over time (Lord & Hall, 2005).

Indeed, thousands of studies have been undertaken in an attempt to define the skills, abilities, personalities, and traits of great leaders. Moreover, many leadership “schools” have formed around the “best” leadership traits, styles, & methods to produce optimal results. However, none of these studies or branches of leadership have produced one best approach to leading people, teams, or organizations (George, Sims, McLean, & Mayer, 2007). Yet thousands of (especially new) leaders attempt to embody the style or traits of an idealized leader in order to be successful in their daily practice.

The question then, is how do leaders come to understand the critical aspects of themselves that form the essence of their leadership? How do they develop a self-awareness that informs their leadership practice? How do leaders fill any gaps in self-awareness?

The answer may be found in examining seasoned, self-aware leaders: their experience & understanding of that discovery and growth process; an examination of self-awareness developing along a career that includes formal training, experiential learning & assignments, self-assessments, and self-reflection.

A promising example that includes a component of self-awareness among the many leadership theories and ideas with which to address the complexities and challenges

leaders face today is the emerging construct of “Authentic Leadership”. As widely noted in the literature (Avolio, Griffith, Wernsing, & Walumbwa, 2010; Diddams & Chang, 2012; Gardner, Avolio, Luthans, May & Walumbwa, 2005; Goleman, 2004; Kernis, 2003; Shamir & Eilam, 2005), self-awareness is a key element to effective, authentic, leadership.

Authentic leadership is the key dynamic explored in this work. For the purposes of this study, the definition proposed by Walumbwa, Avolio, Gardner, Wernsing, and Peterson (2008), is used as a frame of reference: *authentic leadership practice includes a transparently connected relationship between leaders and followers, encompassing a high level of self-awareness with internalized beliefs and moral values* (Diddams & Chang, 2012; Walumbwa et al., 2008). Three of the authentic leadership elements: balanced processing, moral perspective, and relational transparency, are beyond the scope of this study, but are beginning to be examined elsewhere in the leadership literature (Alice, 2005; Bass & Steidlmeier, 1999; Ilies, Morgeson, & Nahrgang, 2005; May, Chan, Hodges, & Avolio, 2003).

Thus the primary authentic leadership element explored in this research is self-awareness, which many consider to be a positive solution to the many complex issues facing leaders today. The notion of self-awareness is studied widely on its own, particularly in the psychological and sociological fields (e.g., Jung, 1958; Rogers, 1951). Self-awareness is also examined in the leadership literature, and has recently been widely considered within the authentic leadership construct (Avolio & Gardner, 2005). Although there is some disagreement in the literature on how to define authentic leadership, most scholars include self-awareness or self-knowledge in their definition (Avolio et al., 2010;

Diddams & Chang, 2012; Gardner et al., 2005; Goleman, 2011; Kernis, 2003; Shamir & Eilam, 2005). Shamir and Eilam, (2005) defined authentic leaders “as having, among other things, self-knowledge and self-concept clarity.” (p.402). Erikson (1995) similarly noted that authenticity is the “relationship to one’s self” (p.124). Self- Awareness within authentic leadership is noted by a growing number of scholars (Diddams & Chang, 2012; Gardner et al., 2005; Sparrowe & Raymond, 2005) as a key to successful leadership. Successful leadership, in turn, is especially vital for institutes that provide for our nation’s defense: the United States Department of Defense’s subordinate acquisition organizations.

The context for this case study is the Department of Defense’s Acquisition environment. The leaders in defense acquisition—project managers—are faced not only with leading teams, but also with building and sustaining relationships with multiple internal and external stakeholders, influencing sponsors, working with and obtaining support from various (and often differing) functional experts, navigating through organizations with complex hierarchical and operational structures, as well as meeting stringent program performance metrics and measures—not the least of these, ever-evolving “war fighter” or customer requirements—all within tightly constrained—if not fixed—budgets and schedules (Defense Acquisition University [DAU], 2011). Project management within the defense acquisition environment is therefore a multi-layered, complex social process. For instance, projects generally, and particularly in defense acquisition, are assessed by attainment of cost, schedule, and technical objectives (DAU, 2013; Kylindri, Blanas, Henriksen, & Stoyan, 2012; Malach-Pines, Dvir, & Sadeh, 2009). Yet fundamental to a project’s performance are many factors such as available

resources, sponsorship and organizational support, and not least of these, leadership of the project team (Baker, Murphy, & Fisher, 2008; Project Management Institute, 2007; Shi & Chen, 2006).

Indeed, Toor and Ofori (2008) note the traditional technical and managerial approaches to project leadership which center on power, authority and task-orientation will not sustain successful projects in the future. In contrast, they suggest that managing projects in the 21st century will require a different approach and therefore different attributes, knowledge and skills of PMs; a new leadership style such as authentic leadership will be needed (Lloyd-Walker & Walker, 2011). However, research is lacking about how Department of Defense (DoD) PMs develop and apply self-awareness in their leadership practice. Further, little research exists on how tools for developing self-awareness such as reflection (Boud, Keogh, & Walker, 2005), experience, feedback, and self-assessment are used by leaders in managing their projects. Despite the enormity of effort spent on administering self-assessments to its managers and leaders to support their ways of thinking and operating (DAU, 2014b; Department of the Army, 2012), little is known about how this endeavor informs DoD leaders' self-awareness. For example, the Department of the Army's Acquisition Leadership Effectiveness Inventory lists 27 leadership competencies an acquisition professional should possess, yet absent from this list is a fundamental self-awareness of who they are as a leader (Department of the Army, 2013).

Given the importance of project leadership to program performance, the DoD invests heavily in producing, developing, and sustaining its own leaders based in large part, on empirical studies of successful leadership (e.g., US Army Doctrine Publication 6-

22, 2012). Some have suggested the connection between leader self-assessment and leadership effectiveness is the self-awareness it brings leaders so that when they lead, they lead from their own authentic style (Weischer, Weibler, & Petersen, 2013). Further, the DoD administers a variety of 360-degree feedback and self-assessment instruments as a component of its leadership development initiatives to help leaders improve and grow (DAU, 2012; US Army, 2011). These instruments and assessments are designed to help leaders identify, employ more fully or strengthen their individual traits and characteristics, understand their psychological type preferences, measure their adaptability to change, and focus or clarify their leadership styles. In short, they help leaders develop a keener self-awareness. For instance, many DoD organizations use instruments such as the Myers-Briggs Type Indicator (MBTI), Leadership Practices Inventory, Leadership Mirror, Realize2, The Change Style Indicator (CSI), Multi-Source Feedback Assessment instrument, and other psychological assessment instruments to inform and educate their leaders.

The Department's aim in administering the many self-assessments and inventories it sponsors is to aid its leaders in developing and improving their leadership. An essential element to developing a leadership style or approach is an understanding of factors such as one's own strengths, preferences, core beliefs, personality preferences and others that make up who we are as leaders (Lord & Hall, 2005). This understanding about oneself is commonly referred to in the literature as "self-awareness" (Avolio Walumbwa, & Weber, 2009; Diddams & Chang, 2012). However there are indications that the results or insights gained from the assessments DoD administers to its leaders are sub-optimized, or little used; the potential benefits of the self-awareness available from these instruments

often sit idle (Tucker, 2010). Additionally, the challenge of applying self-awareness in leadership practice is especially poignant in vast, multifaceted systems such as the DoD's acquisition organizations.

Defense acquisition is a multi-faceted, highly structured, and complex discipline which works within the bureaucracy of a large organization, highly defined processes, detailed and multi-layered regulations, and is constrained and influenced not only by its design, but also by political sensitivities, world events, and public input. This process, however, is crucial for maintaining technological superiority of our nation's military, including the defense industrial base, ensuring materiel readiness, and providing support to the ultimate customer, the "warfighter." Like many other fields with inordinately complex structures and equally complicated challenges, leadership plays a central role in facilitating this process towards positive or negative outcomes. Indeed, given the multidimensional nature of the discipline, many studies cite the leader, the project manager, as a key to effective project management—both within DoD and in industry (Keegan & Den Hartog, 2004).

Thus, if we can understand better how PMs develop and apply self-awareness within their own leadership practice, this knowledge could contribute to and be encompassed within an authentic leadership development framework to develop and grow future PMs within the department (van Kippenberg, van Knippenberg, De Cremer, & Hogg, 2004). Self-awareness—a key component of authentic leadership, though not the only element of it – might form the core of such a framework.

Accordingly, this study examined how project leaders in DoD learn and develop as authentic leaders using the many self-assessment instruments, surveys, and

psychometric tests administered to them, as well as reflection, experience, and other formative factors in their careers (DAU, 2012; Dept. of Army, 2012).

Statement of the Problem

The DoD invests heavily in developing their project leaders by providing training, experiences, developmental assignments, and other tools such as self-assessments presumably to help them lead more authentically and become more self-aware as a way to improve project management. Despite this investment, it is unclear how self-awareness is actually developed in PMs and integrated into their leadership practice. In view of the importance of self-awareness in project leadership development, we need to understand how self-awareness is being understood and made use of by DoD PMs.

Purpose of the Study

This study seeks to describe how PMs in the DoD come to understand, develop, and integrate self-awareness—as a key component of authentic leadership—in leading their projects. By understanding the development and use of self-awareness and authentic leadership in project management, we will enable the next generation of PMs and project leaders to learn and benefit from this emerging field (Gardner et al., 2005).

Research Questions

How do PMs become self-aware or come to understand themselves as leaders?
(Understanding and Development of Self-Awareness)

How do PMs employ self-awareness in leading their project teams? (Application of Self-Awareness in Leadership Practice)

Research Design

This study used a multiple case study design (Yin, 2014) to explore the phenomenon of how project managers come to develop, understand and use self-awareness in their project leadership practice. In this study individual project managers were considered as cases and their realities, experiences, and perceptions were considered altogether, as multiple sources of evidence (Merriam, 1998). This study's methodology was characterized by the examination of more than one individual or case, with an analysis across cases (Thomas, 2011; Yin, 2014) to draw generalizations applicable to project leadership.

Purposive sampling identified DoD PMs who completed the department's capstone project leadership course—PMT 401 (Program Manager's Course). A leader's selection to PMT 401 indicates their extensive experience and demonstrated performance in defense acquisition (Hergenroeder, personal communication, April 14, 2011). This purposeful sampling supported examining more fully—through participant interviews—PMs' understanding, development, and application of self-awareness in their project leadership practice.

Targeted participants for the study included: DoD and project management professionals—both military and civilian—from across the defense acquisition spectrum: Army (land systems); Air Force (aviation systems); Navy and Marine Corps (sea-based systems); and other DoD agencies and organizations. Individual leaders from these organizations represent the vast majority of project managers operating within the defense acquisition System.

Assumptions

Project Managers who completed the Authentic Leadership Questionnaire (ALQ) have a better comprehension of, and were able to more deeply explore, their development and application of self-awareness as it relates to their project leadership practice.

Project managers (and other leaders) increase their self-awareness when they take self-assessment instruments (e.g., MBTI, StrengthsFinder, etc.).

Conceptual Framework

Authentic Leadership guided the research design, data collection, and analysis as the overarching conceptual framework for the study. Interview questions, participants selected, how data was collected and analyzed, as well as the resultant implications discovered were viewed through a lens of Self-Awareness within the perspective of authentic leadership practice: a transparently connected relationship between leaders and followers, encompassing a high level of self-awareness with internalized beliefs and moral values (Diddams & Chang, 2012; Walumbwa et al., 2008).

Authentic leadership, as a construct, is seen by many as a way to bring a positive form of leadership to address the many complex challenges leaders face today. Indeed, leaders in fields as varied as education, healthcare, business, and government are searching for insight, tools, and methods to improve their leadership practice and their organizations; this is no different in defense acquisition. Authentic Leadership—a leadership style which has been recently supported in the literature (e.g., Lloyd-Walker & Walker, 2011) as offering leaders an approach to successfully navigate the increasingly complex, dynamic, and resource-constrained defense acquisition environment—focuses on leader self-awareness, leader transparency, fostering positive relationships with

followers (and project stakeholders), consideration of multiple sides of an issue and multiple perspectives in a relatively balanced manner, as well as positive moral perspective. This may be the approach that DoD PMs need to successfully operate in the increasingly constrained and complex acquisition environment. Accordingly, this study explored authentic leadership and its main component, self-awareness, to better understand if Authentic Leadership can meet the needs of today's project management, and provide a framework for the development of future project leaders within the DoD.

Significance of Study

This study's primary focus—to understand how successful PMs in the DoD come to understand, develop, and apply self-awareness in leading their projects authentically—may help us to begin to build an authentic leadership development framework to cultivate future project managers within the Department, and provide a foundation for increasing the use of Authentic Leadership in defense acquisition. It is hoped that these leaders will, along with the technical skills and expertise they are provided, also have a greater self-awareness. Indeed, clarifying the process of self-awareness development can move us toward a richer understanding of authentic leadership. The insights gained may not only contribute to the development of self-aware, authentic PMs, but also improvement of project leadership practice across defense acquisition. Optimally, when further research is conducted to thoroughly examine the other elements of authentic leadership (balanced processing, increased relational transparency, and internalized moral perspective), DoD PMs can gain an even better foundation from which to lead their projects.

Definition of Terms

Defense acquisition has many technical terms and acronyms. Key specific definitions are listed below. Additional terms are defined within the context of the chapter they are contained in.

Acquisition: Acquisition is the conceptualization, initiation, design, development, test, contracting, production, deployment, sustainment, modification, and disposal of weapons and other systems, supplies, or services (including construction) to satisfy DoD needs, intended for use in or in support of military missions.

Acquisition programs: are directed and funded efforts designed to provide a new, improved, or sustained weapon or information system, or services capability in response to an approved need.

Authentic Leadership: Though there is some disagreement amongst the literature on how to define authentic leadership, most scholars include self-awareness or self-knowledge in their definition (Avolio et al., 2010; Diddams & Chang, 2012; Gardner et al., 2005; Goleman, 2011; Kernis, 2003; Shamir & Eilam, 2005). Thus for the purposes of this study, the definition proposed by Walumbwa et al., (2008) was the frame of reference: a transparently connected relationship between leaders and followers, encompassing a high level of self-awareness with internalized beliefs and moral values (Diddams & Chang, 2012; Walumbwa, Wang, Wang, Schaubroeck, & Avolio, 2010).

Baseline / benchmark: Across the project management discipline, success in a project is most commonly measured by attainment of cost, schedule, and performance objectives).

Program manager: Designated individual with responsibility for and authority to accomplish program objectives for development, production, and sustainment to meet the user's operational needs. The PM shall be accountable for credible cost, schedule, and performance reporting to the Milestone Decision Authority (United States Department of Defense, 2013a).

Project: Synonymous with term "program" in general DoD usage. Specifically, a planned undertaking having a finite beginning and ending, involving definition, development, production, and logistics support of a major weapon or weapon support system or systems. A project may be the whole or a part of a program. The Project Management Institute (PMI) defines a program as a series of projects managed in a coordinated way.

Project Management: PMI defines *Project Management* as "the application of knowledge, skills, tools and techniques to a broad range of activities in order to meet the requirements of a particular project" (Project Management Institute, 2014).

Program Management: DAU defines *Program Management* as the process whereby a single leader exercises centralized authority and responsibility for planning, organizing, staffing, controlling, and leading the combined efforts of participating/assigned civilian and military personnel and organizations, for the management of a specific defense acquisition program or programs, through development, production, deployment, operations, support, and disposal. (DAU, 2011)

Self-Awareness has been defined from several perspectives:

Psychological/sociological perspective: The phenomenon of knowing that one is

the experiencer of experiences which take place both internally and externally to oneself and therefore understanding how one experiences oneself (Zahavi & Roepstorff, 2011).

Philosophical perspective: The depth and breadth of philosophical perspectives about self-identity (self-concept, self-schema, self-awareness and so on) is vast.

Philosophical perspectives on self and identity are numerous and extend back to the earliest writings in both Eastern and Western literature. Philosophers such as Confucius, Socrates, Plato, Aristotle, Seneca, Plutarch, St. Paul, St. Augustine, Descartes, Immanuel Kant, John Locke, David Hume, John Paul Sartre, and many others have written on the nature of self-awareness, self-knowledge, self-consciousness, personal identity, individuality, existence of the self, the lack of a self, and many numerous variations of the concept (Remes & Sihvola, 2008; Stanford, 2016).

Spiritual perspective. In this perspective self-awareness is intertwined with spirituality: “Spirituality is described as a possession of human beings, enabling self-awareness, heightened consciousness, and providing the strength to transcend the usual self” (Watson, 1989).

With such contrasting notions on the definition of self-awareness, it is important to select one as the study’s frame of reference. While self-awareness can be thought of simply as the demonstrated understanding of one's strengths, weaknesses, and the way one makes sense of the world (Walumbwa et al., 2010), for the purposes of this research, I refer to an Authentic Leadership perspective for the definition of self-awareness: Self-awareness is “an emerging process where one continually comes to understand his or her unique talents, strengths, sense of purpose, core values, beliefs and desires. It can include

having a basic and fundamental awareness of one's knowledge, experience, and capabilities" (Avolio & Gardner, 2005).

Summary

Project managers in defense acquisition today work within a multidimensional systematized, and nuanced field which is characterized by rigid bureaucracies, emphasis on technical solutions and technology, a high level of public scrutiny, susceptibility to changing political priorities and emerging worldwide threats, as well as diminishing budgets and obligations to multiple stakeholders. Yet like many other fields with inordinately complex structures and equally complicated challenges, key to successfully delivering projects and satisfying stakeholders is leadership (Cleland, 1995; PMI, 2007; Turner & Muller, 2005).

The study of project leadership, and in particular an examination of Authentic Leadership—a leadership approach which may offer project managers a method to successfully navigate the increasingly complex, scrutinized, and resource-constrained defense acquisition environment was the foundation of this research.

Authentic Leadership—with its focus on leader self-awareness, relational transparency, balanced processing, as well as internalized moral perspective—may be the approach that DoD PMs could use to successfully operate in the increasingly constrained and complex acquisition environment.

In fact, the DoD—though not through the lens of Authentic Leadership—already endeavors to help its leaders better understand themselves, their strengths and weaknesses, and their relationships with stakeholders through administration of various multi-dimensional feedback and self-assessment instruments. These self-assessments may

help leaders to become more self-aware, and combined with the other features of Authentic Leadership, become better leaders. However, it is unclear if these self-assessments are being integrated into leaders decisions and leadership practice.

The purpose of this research was to explore how PMs in the DoD come to understand, develop, and apply self-awareness—through the lens of Authentic Leadership—in leading their projects. By understanding the development, assimilation, and use of authentic leadership in project management, perhaps emerging and future project leaders can benefit from this promising leadership model.

Following a multiple case study research approach, this study examined DoD PMs' experience in understanding and developing self-awareness, and the way in which they apply that self-awareness in their daily project leadership practice through such questions as how do PMs become self-aware or come to understand themselves as leaders; and, how do PMs apply that self-awareness in leading their project teams?

To fully explore Authentic Leadership and in particular, self-awareness within and among DoD PMs, a deeper consideration must first be taken of the Authentic Leadership construct; the concept of self-awareness; self-assessment instruments in general and the instruments DoD administers specifically, as well as the DoD project management environment, and its leadership foundations. These concepts and disciplines will be examined in Chapter Two, a review of the literature.

Following this examination of the relevant literature on authentic leadership, self-awareness, its development and application, the study's research methodology is reviewed. Chapter Three considers the study's research questions; research design; sample population and research participants; data collection procedures and data analysis;

as well as the considerations of validity, reliability, trustworthiness, and generalizability. Lastly, relevant ethical considerations within the study's methodological approach are reviewed.

In Chapters Four and Five respectively, the research findings on development and application of self-awareness in leading projects are explored. Chapter Four examines the development of a PM's understanding of his/her own leadership identity or style, his/her strengths, core values, as well as the experiences that underpin that development. Chapter Five summarizes the application of a PM's self-awareness; his or her understanding and use of leadership preferences, talents or strengths, core values, as well as experience-based knowledge and capabilities in leading their project teams on a daily basis. Chapter Six presents a summary of the study, conclusions about its findings, and recommendations for practitioners, policy makers, and researchers.

CHAPTER 2

REVIEW OF LITERATURE

All that I know about my life, it seems, I have learned in books.¹

- Jean-Paul Sartre

Introduction

How well do DoD project leaders know themselves? How do they come to understand their own personalities, skills, talents & leadership styles? In a highly technical and diverse field such as defense project management, is a leader's self-awareness connected to project leadership practice? Is self-awareness about one's own leadership a common attribute amongst DoD PMs? These are the principal questions that have driven the explorations in this literature review.

To better explore and frame these questions within the context of this study, I will review below the relevant literature on Authenticity and Authentic Leadership, Self-Awareness, Self-Assessments, and Reflection as they relate to leadership, as well as Program and Project Management.

Project Management in the DoD is a complex, challenging, and a dynamic endeavor requiring leaders of unquestionable integrity who apply their education, training, and experience through analysis and creative, informed thought to achieve greater efficiency and productivity in defense spending (Kendall, 2012).

In his November 2012 memorandum to the Defense Acquisition Workforce expanding a “Better Buying Power” initiative for the DoD, the Honorable Frank Kendall, Under Secretary of Defense for Acquisition, Technology, & Logistics presented seven focus areas creating the foundation for successful defense procurement. These are also the daily leadership challenge of every DoD PM. The Under Secretary challenged DoD PMs to:

- First, achieve affordable programs that force prioritization of requirements; enable cost-trades; and shed overly expensive programs.
- Second, control costs throughout the product lifecycle, which includes building stronger partnerships with the requirements community because—“More than anything else, requirements drive costs”; setting aggressive cost targets and managing within them; eliminating redundant programs and initiatives across the services; and increasing data-driven analysis to measure cost performance of programs and acquisition institutions.
- Third, DoD PMs must incentivize productivity and innovation in both industry and government organizations involved in the acquisition process by taking such actions as rewarding successful contractor performance that has high value to the Department; employing appropriate contract types for the products or services being acquired; and better defining value in “best value” competitions so that it can make appropriate source selections and so that industry can bid intelligently.
- Fourth, PMs must identify, control and eliminate unproductive processes and bureaucracy by reducing the frequency of Defense Department-level reviews; re-emphasizing clean lines of responsibility and accountability, reinforcing the roles of the acquisition chain of command; and eliminating requirements imposed on industry where costs outweigh benefits.
- Fifth, they must promote effective competition, which requires creating and maintaining a competitive environment that provides the motivation to control costs; increasing small business roles and opportunities, and ensure that early technology development activities reduce the actual risk associated with the product to be developed.
- Sixth, PMs must improve tradecraft in acquisition of services by assigning senior managers to services programs; improving services requirements

definition; increasing use of market research; and increase small business participation in Department service contracts.

- Seventh, DoD PMs must; improve the professionalism of the total acquisition workforce by establishing higher standards for key leadership positions; establish stronger professional development qualification requirements; increase recognition of excellence in acquisition management; and increase the cost-consciousness of the acquisition workforce. (Kendall, 2012)

A method for PMs to meet these leadership challenges is found in the DoD's own definition of project management:

The process whereby a single leader exercises centralized authority and responsibility for planning, organizing, staffing, controlling, and leading the combined efforts of participating/assigned civilian and military personnel and organizations, for the management of a specific defense acquisition program or programs, through development, production, deployment, operations, support, and disposal (DAU, 2011).

Authentic leadership, and one of its key elements—self-awareness (Diddams & Chang, 2012)—are considered crucial for successful leadership (Gardner et al., 2005; Sparrowe & Raymond, 2005). Authentic leadership, as a construct, is seen by many as a way to bring a positive form of leadership to address the many complex challenges leaders face today. Moreover, authentic leadership may provide organizations and leaders the ability to recover from drastic changes, build resiliency in their workforce, and help their employees in their search for meaning and connection by fostering a new self-awareness; and genuinely relating to all stakeholders (Avolio & Gardner, 2005). However, despite the project and leadership challenges facing the DoD, self-awareness, and even more so authentic leadership, are often absent or only modestly explicitly considered in DoD leadership, project management, and career development programs (Air Force 2012; Army, 2012; DAU, 2012; MDA 2012).

While the DoD has no systematic or formal training programs in authentic leadership, the wide variety of self-assessment instruments the department administers provides a de facto, or informal education in its ideas. Indeed, leaders, including those in defense acquisition apply principles related to its constructs for better or worse, consciously and unconsciously, every day irrespective of formal training in them (Ladkin & Taylor 2010; Luthans & Avolio, 2003). Thus, it is important to examine these constructs and assessment tools to better understand their effect on DoD project managers development and use of self-awareness in leading their organizations.

Authenticity and Authentic Leadership

The conceptual roots of Authenticity and of Authentic Leadership are planted in the tenets, precursors, and foundations of positive psychology (Avolio & Gardner, 2005; Goldman & Kernis, 2002; Seligman & Csikszentmihalyi, 2000).

Positive psychology is “the scientific study of the strengths and virtues that enable individuals and communities to thrive. The field is founded on the belief that people want to lead meaningful and fulfilling lives, to cultivate what is best within themselves, and to enhance their experiences of love, work, and play (University of Pennsylvania Positive Psychology Center, 2014).

Additionally, Rogers (1951) and Maslow (1954, 1967) are credited with establishing the field of “humanistic psychology,” a foundational idea for considering authenticity and authentic leadership.

Gardner, et al., (2005) defined authentic leaders as people who, because they are true to themselves, are consistent in their beliefs, words, and actions. Further, authentic leadership is often noted in the literature as leadership expressing the “true self” (Avolio & Gardner, 2005; George, 2003). Although the “true self” when expressed by any leader—including narcissists, tyrants, or toxic leaders (Reed, 2004)—may seem to meet

this simple definition (Cooper, Scandura & Schriesheim, 2005). However, Authentic Leadership within the scope of this study, and in the sense that current researchers use it, may offer positive contributions to leadership practice (Gardner, Cogliser, Davis, & Dickens, 2011). Thus, as Sparrowe & Raymond (2005) point out, “the importance of self-awareness for authenticity is evident throughout the leadership literature regardless of whether the true self is understood in relation to values (Bass & Steidlmeier, 1999), purpose (George, 2003) voice (Kouzes & Posner, 2006), or positive psychological states (Luthans & Avolio, 2003).”

Although definitions vary, a common theme seen in discussions of Authentic Leadership encompasses self-awareness, balanced processing, internalized moral perspective, and relational transparency (Avolio et al., 2009; Avolio et al., 2010; Diddams & Chang, 2012; Gardner et al., 2005; George, et al., 2007; Kernis, 2003; Luthans & Avolio, 2003; May et al., 2003; Shamir & Eilam, 2005). It is to the first component, self-awareness that this study looked to in exploring the meanings for PMs’ leadership practice.

Self-Awareness

Like Authenticity, self-awareness has its roots in the field of psychology, psychoanalysis, and social psychology (e.g., Andersen & Chen, 2002; Axelrod, 2012; Csikszentmihalyi, 1993; Holstein & Gubrium, 2000; Lewis, 1991, 2010; Stryker & Burke, 2000). However, it has other mothers as well: Philosophy (e.g., see Foucault, 1988a & b; Heidegger, 1927/1996; Neisser, 1988; O’Rourke, 2009; Sartre, 1943); Spiritual Inquiry, (e.g., see His Holiness the Dalai Lama, 2006; Strozynski, 2013); Physiological/medical perspective (e.g., see Morin, 2011a); and even from a business

perspective (e.g., see Goukens, Dewitte, & Warlop, 2009). Self-awareness even has, as one of its early scholars, an evolutionary theorist (see Darwin, 1872/1965). Yet, there is a scarcity of leadership literature on self-awareness (Peck, 2008, 2009).

It follows that confusion between ‘consciousness’, ‘self-awareness’, and many related terms is widespread in the literature (Antony, 2001, 2002; Bukobza, 2007). For instance, Mead (1934) posited that “consciousness” focuses attention "outward toward the environment", while “self-awareness” occurs when our attention is focused inward toward the self. Another definition puts it this way: Self-awareness refers to the capacity of becoming the object of one’s own attention (Duval & Wicklund, 1972). Morin (2011a), speaking from a physiological point of view conceived that "Self-awareness represents a complex multidimensional phenomenon that comprises various self-domains and corollaries.” In Morin’s view, self-awareness can be thought of in terms of one’s own past or future, as well as one’s emotions, personality, attitudes, intensions, and so on. The list of potentially relevant self-aspects is extensive (see Ben-Artzi, Mikulincer, & Glaubman, 1995). Kircher and David (2003) believe that self-awareness involves a feeling of “self” as being distinct from the rest of one’s surroundings; that there is a “continuity as a person across time.”

With multiple definitions, perspectives and theories on what constitutes self-awareness, it follows that multiple measures of self-awareness also exist. Some of the foremost self-awareness measurement tools and manipulations in the psychological and medical fields (as listed by Morin, 2011b) are:

- Self-focusing stimuli (mirrors, cameras, audience, voice recording) (Duval & Wicklund, 1972);

- Self-Consciousness Scale (Fenigstein, Scheier, & Buss, 1975);
- Self-reflection/Self-rumination scales (Trapnell & Campbell, 1999);
- Situational Self-Awareness Scale (Govern & Marsch, 2001);
- Linguistic Implications Form (Wegner & Giuliano, 1980);
- Match between self- and other-ratings on cognitive, social, & emotional functioning (Cocchini, Cameron, Beschin, & Fotopoulou, 2009);
- Self-Novelty Manipulation (Silvia & Eichstaedt, 2004);
- Self-Recognition Measure (Eichstaedt & Silvia, 2003); and
- Self-recognition (Gallup, 1968).

However, most, if not all of these measures examine self-awareness from a clinical or psychological perspective. That is, they either establish the most basic of awareness levels (e.g., recognizing one's face in a mirror or photo indicates self-awareness, or they help distinguish healthy individuals from "negative" forms of cognition).

Much of the psychoanalytical, spiritual, and philosophical literature on self-awareness reduces to these essential questions: “How do we become self-aware, why are we self-aware to start with, and when are we most likely to engage in self-observation?”

Morin (2011a) answers these questions simply:

Self-awareness is beneficial (the why question) mostly because it makes self-regulation and inference about others’ mental states possible. And we especially tend to focus attention on the self (the when question) when exposed to self-focusing stimuli, when differences between the self and others are made salient, and when we engage in inner speech or imagery about the self.

While Morin’s and other researchers’ examinations of self-awareness are important to understanding the concept at a fundamental level, these answers only hint at the most basic human-psychological and physiological aspects, and do not fully explore self-

awareness at a higher, or “meta” level (Hunter, 2011; Sedikides & Brewer, 2001).

Knowledge of basic human self-awareness is a starting point, but that understanding does not satisfy the question of self-awareness’ link to, and utility in leadership practice. To examine self-awareness within an Authentic Leadership context, one has to look at another body of literature.

Leader Self-Awareness

Developing oneself as a leader is imperative to improving one’s ability to lead (Avolio & Gardner, 2005), and to one’s success at leading (Kouzes & Posner, 2006). Part of that development as a leader entails developing an awareness of one’s own abilities or strengths (Rath & Conchie, 2008; van Knippenberg, van Knippenberg, De Cremer, & Hogg, 2005), preferences for receiving information and acting on it (Kolb, 2014; Myers & Myers, 1995), one’s values, beliefs, or worldview (Wheatley, 2006), how one relates to others in the leadership environment (Capabianco, Davis, & Kraus, 2008; Gardner et al., 2005), and so on. Thus the connection between a leader’s self-awareness and his performance seems clear, as Axelrod (2012) asserts: "In the field of leadership development, increased self-awareness is strongly tied to executive effectiveness" (p. 340). Peck (2009) for instance, lists seven qualities of self-aware leaders:

- 1) being aware of and editing the beliefs that drive behaviors;
- 2) actions, and results;
- 3) remaining curious and open-minded: asking, listening, getting help, learning, and changing;
- 4) being imaginative and valuing imagination in others;
- 5) being responsible for the impact on others, the organization, community, and society;
- 6) leading with great authenticity of heart and mind; and
- 7) being humble by monitoring and addressing the periodic pitfalls of egoic behavior.

Avolio, Gardner, and Walumbwa (2007) define leader self-awareness as understanding and being confident in one's "motives, feelings, desires, and self-relevant thoughts." Self-awareness for these researchers requires that leaders be aware of their limitations and strengths, understand their personality traits, and be in tune with their emotions. Self-aware leaders use their awareness in leading others and interacting with their environment (Zigarmi, Blanchard, O'Connor, & Edeburn, 2004).

Goleman (1998) noted self-aware leaders have a rich comprehension of their emotions, their skills and shortcomings, as well as their desires and motivations. He further proffered that these leaders possess genuine self-knowledge. They are open with themselves and others; they assess themselves realistically and honestly. They readily admit mistakes and failures and are open to constructive criticism. Self-aware leaders in Goleman's (1998) view also understand how their emotions, feelings and actions affect their teams, organizations, as well as performance outcomes. Self-aware leaders know their values and the goals they set for themselves; they recognize the direction they are heading and why they are going there. Decisions these leaders make are congruent with their values and goals. Self-aware leaders are also self-confident; this trait seemingly emanating in part from a reliable understanding of their abilities and skills. They rarely undertake work or assignments they don't believe they can accomplish; these leaders successfully align the challenges they take on with their own skills and abilities.

In fact because they have candidly assessed their abilities and those of their teams, self-aware leaders will often seek out challenges they feel confident they can complete, even when those tasks are outside their normal duties or responsibility (Goleman, 1998). Further, self-aware leaders are cognizant of their beliefs, are open-minded, value others'

inputs, take responsibility for the impact they have on others and their organizations, lead with authenticity, and remain humble (Peck, 2009).

As Avolio, et al. (2007) also note, self-aware leaders demonstrate their understanding of “how one makes meaning of the world” as well as how that awareness affects their self-identity (p. 3). Comprehending one’s strengths and limitations, one’s personality preferences, and emotions helps these leaders “gain insight to the self.” (p. 3). It also helps them recognize their impact on others. Other researchers (e.g., Daire & Gilson, 2014; Lord & Hall, 2005; White, 2008) found that leaders with a strong sense of self-awareness/leader identity appear to be better able to affect positive outcomes in group and organizational settings.

Developing Self-Awareness

A primary purpose of this study was to explore how DoD PMs develop self-awareness and comprehend what characterizes self-awareness for those PMs. Thus, it is appropriate to examine the literature on the methods which leaders may use to develop it. Understanding what tools and approaches have been used in the past informed the exploratory phase of the research.

As suggested in the psychological, philosophical, and spiritual literature on self-awareness, this ability or skill can be developed in a number of ways, both formally, and informally. In the leadership or business fields, formal measures of self-awareness are often employed as part of broader leadership development programs, while leaders themselves may arrive at self-awareness through less structured, but no less influential means.

Emotional Intelligence

Daniel Goleman, in his seminal (1995) book *Emotional Intelligence* popularized and built upon the work of Salovey and Mayer (1990) by positing that Emotional Intelligence (EI) consisted of five domains: knowing one's emotions, managing one's emotions, motivating oneself, recognizing emotions in others, and handling relationships. In 2002, he refined his definition, noting that the four domains of self-awareness, self-management, social awareness, and relationship management were required to develop competence in EI (Goleman, Boyatzis, & McKee, 2002). Although many constructs of EI exist today, which perhaps clouds the efficacy of the construct (Waterhouse, 2006), there is a growing body of research which demonstrates a link between EI and leader performance (Cherniss, Extein, Goleman, & Weissberg, 2006; Goleman, 2006, 2011; Weisinger, 1998). In fact, as noted above, Goleman (1995) cites self-awareness as the foundation of EI. One must be aware of one's feelings or emotions while also being aware of how they affect a situation, interaction, or exchange – e.g., a dispute, negotiation, settlement, etc.—in order to produce positive outcomes (Weisinger, 1998). Indeed, several instruments for measuring EI have been developed: the Emotional Quotient Inventory (EQ-i) and Emotional Quotient Inventory 360-Degree assessment (EQ360) (Mult-Health Systems, Inc., 2014); Emotion Knowledge Tests (Izard et al., 2001; Mostow, Izard, Fine, & Trentacosta, 2002; Trentacosta & Izard 2007); the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) (Mayer, Salovey, Caruso, & Sitarenios, 2003); Social Skills Inventory (Riggio, 1989); Multidimensional Emotional Intelligence Assessment (Tett, Wang, & Fox, 2005, 2006), and on and on. Despite the plethora of EI measurements available, there is a lack of evidence that the DoD has

adopted EI testing as a key leadership assessment tool. Still, the wide-spread public knowledge about EI may offer an opportunity to explore the construct in relation to self-awareness with study participants.

Self-Assessments

Another set of tools organizations and individuals use to develop self-awareness are so-called “self-assessments.” These instruments’ purposes range from exploring one’s personality – e.g., MBTI (Briggs-Myers, McCauley, Quenk, & Hammer, 1998), to discovering one’s leadership strengths or abilities – e.g., Cliftons StrengthsFinder 2.0 (Asplund, Lopez, Hodges, & Harter, 2007); to improving leadership relationships and managing conflict—e.g., Conflict Dynamics Profile (Capabianco et al., 2008); and understanding one’s internal cognitive processes for learning—e.g., Kolb’s Learning Style Inventory (Kolb, 1999, 2014), or how leaders receive, process and express information—e.g., the Gregorc Style Delineator (Gregorc, 1999). Like multi-source feedback assessments, these self-assessments provide the leader with insights about their performance, leadership abilities, personality traits, preferences for processing information, managing conflict, and so on (Ashford, 1989). Though they are not universally accepted as beneficial (Kruger & Dunning, 1999; Meier & O’Toole, 2013), these assessments are designed to provide the leader with information they can use in developing their self-awareness (Chang, 2014; Gallagher & Costal, 2012; Gallagher, Costal, & Ford, 2012). A brief discussion of each of these example instruments and assessments follows.

Authentic Leadership Questionnaire

The ALQ is a theory-driven leadership survey instrument designed to measure the components that have been conceptualized as encompassing authentic leadership. The four scales which make up the ALQ address: Self-awareness, Relational Transparency, Ethical/Moral perspective, and Balanced Processing. The ALQ can be administered as a self-only, multi-rater, or rater-only instrument. “The choice of which rater source to use should be tied to the research or developmental question. If you are interested only in how leaders think about or perceive their own leadership behavior, then collect only self-ratings.” (Avolio, et al., 2007). Thus, for this study, I administered the instrument as a self-only survey in order to inform, connect, and maintain alignment with the focus on project manager’s perceptions of their self-awareness.

Details about the ALQ and its measures are listed below, taken directly from the source website used to administer the instrument to the project leader participants:

The Authentic Leadership Questionnaire (ALQ) is a theory-driven leadership survey instrument designed to measure the components that have been conceptualized as comprising authentic leadership. The four scales comprising the ALQ address the following questions:

Self-Awareness: To what degree is the leader aware of his or her strengths, limitations, how others see him or her and how the leader impacts others?

Self-awareness refers to demonstrating an understanding of how one makes meaning of the world and how that understanding process impacts the way one views himself or herself over time. It also refers to showing an understanding of one’s strengths and weaknesses and the multifaceted nature of the self, which includes gaining insight into the self through exposure to others and being aware of one’s impact on other people.

Transparency: To what degree does the leader reinforce a level of openness with others that provides them with an opportunity to be forthcoming with their ideas, challenges, and opinions?

Ethical/Moral: To what degree does the leader set a high standard for moral and ethical conduct?

Balanced Processing: To what degree does the leader solicit sufficient opinions and viewpoints prior to making important decisions? (Avolio, et al., 2007)

Myers-Briggs Personality Type Indicator

The MBTI is a psychometric instrument which measures psychological preferences in how people perceive the world and make decisions (Briggs-Myers, 1998). The MBTI was developed by Isabel Myers and her mother, Katharine Cook Briggs applying Carl Jung's theories (1921/1971) of psychological function (perceiving and judging functions of sensing, intuition; and thinking & feeling, respectively). "The essence of the theory is that much seemingly random variation in behavior is actually quite orderly and consistent, being due to basic differences in the way individuals prefer to use their perception and judgment" (Center for Applications of Psychological Type, 2009).

The MBTI instrument contains four separate indices. Each index reflects one of four basic preferences which, under Jung's theory, direct the use of perception and judgment. The preferences affect not only what people attend to in any given situation, but also how they draw conclusions about what they perceive. (Center for Applications of Psychological Type, 2009).

The MBTI provides individuals with scores in eight dichotomies: Extroversion (E) and Introversion (I); Thinking (T) and Feeling (F); Sensing (S) and Intuition (N); and Judging (J) and Perceiving (P) (Cohen, Ornoy & Keren, 2013). Educators, industry, as well as the U.S. military, have used the MBTI extensively to improve understanding about individual personality preferences, identify possible directions for occupational or professional endeavors, enhance team dynamics functioning, as well as assist leaders in understanding themselves or become more self-aware.

Multi-Source Feedback Assessments

Multi-rater, or 360 degree feedback assessments have grown in number and popularity among business professionals—for example, see Leadership Practices Inventory 360 (Kouzes & Posner, 2006), Frontline Leader Assessment (Blanchard, 2008), as well as with military leaders as well, for instance see, Multi-Source Assessment and Feedback (United States Army, 2011), and Leadership Mirror (DAU, 2013; Development Dimensions International, 2014) as a means to improve their leadership practice through multi-source, independent and objective feedback and reflection, identification of strengths and limitations, and in short, “enhance a leader's self-awareness and complement their development as a leader” (United States Army, 2011). The focus, utility, and value of the multi-rater assessments available are as varied as the number of assessments themselves, and thus an examination of the design, measurement, and application across organizations and leadership development programs is beyond the scope of this study. However, research has suggested that so-called multi-source, multi-rater, or 360-degree assessments offer leaders an opportunity for increasing their self-awareness (Blanchard, 2012; Facticeau, Facticeau, Schoel, Russell, & Poteet, 1998; London & Smither, 1995; Smither, London, & Reilly, 2005). These types of assessments give leaders an opportunity to assess themselves in areas such as leadership, communication, teamwork and cooperation, developing self, developing others (United States Army, 2012), coaching, decision making, strategic vision, change leadership, collaboration, innovation, (DAU, 2013), as well as how they see themselves as leaders, how others view them, and what actions they can take to improve their effectiveness (Kouzes & Posner, 2006).

For example, two of the DoD's 360-degree assessments are administered by the Department of the Army and the DAU. The Army's Multi Source Feedback Assessment (MSFA) program is meant to assess Army leaders, both military and civilian, based on a set of behaviors that reflect the Army's established leadership competencies: "*leads* others to *develop* the environment, themselves, others and the profession as a whole; and to *achieve* organizational goals." These categories of competencies are intended to help Army leaders build trust, lead by example, communicate and influence, as well as create a positive environment, develop themselves and others, and accomplish mission objectives (United States Army, 2012). Alternatively, the DAU relies on the "Leadership Mirror 360 degree feedback system" for assessing their students' leadership strengths and development needs. The Leadership Mirror assessment tool claims to provide a "look in the mirror" providing an understanding of an individual's strengths and growth areas. The Leadership Mirror is designed to provide feedback on such areas as coaching, customer focus, and decision making, building customer loyalty, collaboration, and innovation, as well as change leadership, and establishing strategic direction. (Development Dimensions International, Inc., 2014). In addition, the "Leadership Practices Inventory" (Kouzes & Posner, 2006) is designed to measure five leadership practices as developed and espoused by Kouzes and Posner's "Five Practices of Exemplary Leaders" model: "Modeling the Way; Inspiring a Shared Vision; Challenging the Process; Enabling Others to Act; and Encouraging the Heart."

These and other multi-source assessments are used widely in both Government and Industry to provide leaders an opportunity to assess themselves against leadership standards, or competencies, and provide feedback from subordinates, peers, & superiors

to identify congruence with—or gaps in—their own self-assessment in the same areas (Fletcher, 1999). This feedback is intended to inform the leader on areas or competencies where he or she can improve or sustain to optimize benefits for themselves and their organizations (Blanchard, 2012). For additional information and consideration of the multi-source assessment field, see (Alimo-Metcalfe, 1998; Brouwer, 1964; Chappelow, 2004; Conger & Toegel, 2003; Salam, Cox, & Sims, 1997; Sosik, Potosky, & Jung, 2002; Yarish & Kolb, 2002).

StrengthsFinder 2.0

The Clifton StrengthsFinder 2.0, or simply “StrengthsFinder,” developed by Donald O. Clifton, is an online assessment tool that measures and identifies “themes” or categories of talents where an individual’s greatest potential for building “strengths” exists (Asplund et al., 2007). The foundational premise underlying the instrument—Clifton’s “strengths philosophy”—is that “individuals are able to gain far more when they expend effort to build on their greatest talents than when they spend a comparable amount of effort to remediate their weaknesses” (Clifton & Harter, 2003). Further, according to the Gallup Organization (2007), the publisher of the instrument, an individual’s talents are defined as “recurring and consistent patterns of thought, feeling, or behavior.” Clifton StrengthsFinder 2.0 measures an individual’s degree of talent in 34 leadership “themes”, such as “Achiever”, “Analytical”, “Command”, “Communication”, “Deliberative”, “Focus”, “Ideation”, “Positivity”, “Self-Assurance”, and so on. The insights resulting from use of the StrengthsFinder instrument support individuals in developing their reported talents into strengths (Asplund et al., 2007).

Conflict Dynamics Profile

The Conflict Dynamics Profile (CDP) has been employed by DoD organizations as part of their leadership development programs for several years (Eckerd College, 2014) and is typically administered in conjunction with participation in a conflict management course. The CDP is a self-assessment instrument which helps individuals understand their behavior when responding to conflict in their organizations, and assists in improving on less beneficial conflict behaviors (Capabianco et al., 2008). The instrument measures an individual's response behavior to conflict from several perspectives: self, and others (i.e., peers, subordinates, superiors) in a 360-degree format, and additionally examines how conflict—and an individual's reaction to it—is perceived in their organization, as well as the sorts of situations and persons which are likely to provoke conflict with the individual. The instrument identifies four different categories of conflict behaviors, Active Constructive, Passive Constructive, Active Destructive, and Passive Destructive, each with 4-5 associated behaviors (e.g., perspective taking, reflective thinking, winning at all costs, avoiding, etc.) (Center for Conflict Dynamics, 2014). The intended application of the instrument is for individuals (i.e., leaders) to understand the conflict areas where they need to improve behavior and in particular, improve control of reactions to conflict provocations and ultimately apply appropriate responses to improve conflict management (Capabianco et al., 2008).

Kolb's Learning Style Inventory

Though the use of this self-assessment is not documented within military leadership development programs, the understanding of learning preferences delivered by the instruments' results perhaps, can contribute to the development of self-awareness, and

is included here because of its widespread use in industry and academia. The Kolb Learning Style Inventory is based on experiential learning theory (Kolb, 2014) which posited four learning modes and styles: concrete experience, reflective observation, abstract conceptualization and active experimentation—each providing the individual with a unique and different perspective on approaching learning and problem solving—and identifies an individual's preferred learning style: diverging, assimilating, converging, and accommodating (Kolb & Kolb, 2005). The instrument is designed to measure the learner's preferences in the four stages of learning Kolb identified, and help individuals identify the way they learn from experience (Fisher-Turesky & Gallagher, 2011). Insight from this instrument can provide the individual with information on how they particularly see and frame leadership problems (Fisher-Turesky & Gallagher, 2011).

Gregorc Style Delineator

The Gregorc Style Delineator (GSD) instrument is designed to assist participants with recognizing and identifying specific pathways through which they dominantly receive process and express information (Gregorc, 2004). The GSD employs a self-assessment of two learning dimensions: perception and ordering, resulting in four learning, or “mind-styles”: Abstract Sequential, Concrete Sequential; Abstract Random, and Concrete Random. Gregorc (2004) refers to the perception dimensions as Abstract or Concrete, which denote an individual's perception of intangible or tangible information. The ordering dimension consists of Random or Sequential. Random ordering refers to the processing of information in either a simultaneous or unstructured way. Sequential ordering entails systematic or orderly processing of information (Gregorc, 2004). Like the Kolb Learning Style Inventory, the use of this self-assessment is not documented

within military leadership development programs, however, it is an exemplar of self-assessment instruments used in academia, and the insights it provides could possibly contribute to the development of self-awareness.

In addition to (and perhaps as a key component of) the assessment process, leaders employ “reflection” in order to fully operationalize the results and insights gained from the aforementioned multi-source and self-assessments. The following is a brief examination of the reflection literature that informs leadership practice.

Reflection

In his influential work, *The Reflective Practitioner* (1983), Donald A. Schon introduced the notion of reflective practice, that is, actively thinking about past experiences or even current situations from the perspective of what happened, why one acted as they did, what were the outcomes of the decision or action, as well as exploring one’s own perspectives, feelings, and preferences during such experiences and actions, resulting in an understanding of how those data points inform one’s (leadership) practice going forward (Infed, 2014). In short, reflective practice is “the capacity to reflect on action so as to engage in a process of continuous learning” (Schon, 1983, p. 102). Taken from this “reflective practitioner” perspective, many if not all, of the aforementioned self-assessments and 360-degree feedback instruments could provide leaders with the information and means necessary to actively and purposefully reflect on various aspects of their personality, leadership styles, competencies, or strengths, as well as areas that can be improved upon. The ability to reflect on experience, self-aspects, beliefs, preferences, and so on, are foundational to learning (e.g., about oneself), and to developing one’s leadership practice (Andrews University, 2014).

In order to better understand self-awareness among DoD PMs, one must have some context, some background with which to frame their comprehension. Accordingly, the remainder of this chapter will review and summarize the project management discipline both commercially, and within the federal government.

Program/Project Management

Project Management is a relatively new professional discipline—being thus recognized as such in the mid to late 20th Century (PMI, 2014). However, project management—though not in that moniker—has been around since the earliest endeavors and inventions of man: stone tools, harnessing of fire, the great pyramids, the Great Wall of China, the Taj Mahal, medieval castles, the great monuments of ancient Greece and Rome, London Bridge, the Tower of London (“Big Ben”), the US Trans-Continental Rail Road and countless other structures, monuments, efforts and achievements would not have been possible without at least a rudimentary form of project management. All of these great creations and achievements shared the basic elements of project management: a need (or requirement), stakeholders who championed or provided the requirement and the resources, and most notably the constraints of and adherence to cost, schedule, and performance measures. To understand this challenging field, a brief review of the project management discipline may be helpful.

Project Management Body of Knowledge Guide

Project Management has, as alluded to above, been practiced for millennia. Yet, only over the last 40-50 years have the tenets of the discipline been codified into a compendium which has guided professionals worldwide as they practiced the craft. The

organization most responsible for gathering, standardizing, and promoting the project management discipline is PMI. The Project Management Institute is globally recognized in the profession as the organization which sets the standards for project management. In deed, “PMI is the world’s largest not-for-profit membership association for the project management profession” (PMI, 2014). More than 700,000 PMI members worldwide in nearly every type of project contribute to the development and sustainment of project management standards, best practices, knowledge sharing, and networking. Because of PMI’s irrefutable position as the globally recognized source for project management knowledge, this study relied on its definition as the foundation of understanding “project management: *“The application of knowledge, skills, tools, and techniques to project activities in order to meet the project requirements”*” (PMI, 2012). Moreover, project management is *“the application of knowledge, skills, and techniques to execute projects effectively and efficiently. It’s a strategic competency for organizations, enabling them to tie project results to business goals — and thus, better compete in their markets”*” (PMI, 2014). PMI consolidates and maintains the definitions, standards, and best practices of the discipline in a series of documents and standards entitled *The Project Management Body of Knowledge* or PMBOK. The *PMBOK Guide* and its associated standards are the foundation for the profession. They provide guidelines for managing individual projects and define project management related concepts (Cleland, 1995). The *PMBOK Guide* also contains the globally recognized standard and guide for the project management profession (PMI, 2013).

Government Extension to the Program Management Body of Knowledge

The *Government Extension to the PMBOK* was developed to address the unique environment of the public sector (i.e., national, regional, and local governments) (PMI, 2006). Like the *PMBOK*, the *Government Extension* provides a set of standards and processes a project manager and his team use to manage their project. In short, the *PMBOK* and its *Government Extension* describe: “knowledge and practices ‘generally recognized as good practices’ and applicable to ‘most of the projects, most of the time’ and for which there is wide spread consensus about their value and usefulness.” (PMI, 2006). The *Government Extension* builds upon the *PMBOK* and covers additional topics specific to “public sector” project management, chiefly legal constraints, accountability to the public, and utilization of public resources (PMI, 2006). The *Government Extension* covers “The Project Management Framework”; “Standards for Project Management of a Project”; and “Project Management Knowledge Areas” in similar fashion as the base *PMBOK*, but with an eye towards those unique aspects of the public sector which may have bearing on their successful execution in that domain (PMI, 2006). Both the *PMBOK* and *Government Extension* are widely known in defense acquisition and relied upon as resources, but the statutory and regulatory direction comes from government-produced legislation and documentation.

Project Management in Defense Acquisition

The challenges for the defense acquisition workforce highlighted in Chapter One and put forth by Undersecretary Kendall comprise the “what” of project management within the DoD. They are what PMs have to do every day in their leadership practice in

order to be successful in delivering the weapon systems, products, and services the U.S. Armed Forces count on to provide for our national defense. In fact, the Department's chosen approach to meeting these challenges—a project management methodology known as the *Defense Acquisition System*—was put in place to “manage the nation's investments in technologies, programs, and product support necessary to achieve the National Security Strategy and support the United States Armed Forces” (DoD, 2003).

The DoD further defines the process & methods a PM uses in his/her practice in such regulatory documents as *The Defense Acquisition System, Federal Acquisition Regulation, and the Joint Capabilities Integration and Development System*. “The Acquisition Life Cycle” found in DoD Instruction 5000.02, *Operation of the Defense Acquisition System* is useful for providing the framework with which to appreciate the complexity and dynamics of the environment in which a PM operates. Encompassing just five phases: Materiel Solution & Analysis; Technology Development; Engineering, Manufacturing Development; Production & Deployment; & Operations & Support, there are literally thousands of steps and processes available, and mandated to the project manager (DoD, 2013b). The discussion below attempts to summarize and simplify them.

Project Management is typically characterized in defense acquisition by a multi-functional, (often matrixed) team lead by a PM. The PM will often have a deputy and assistant project managers if their portfolio is large or complex enough. The PM will have functional experts on his team as well who are responsible to the PM for areas such as systems engineering; software engineering; acquisition & contracts; business & financial matters; logistics; quality assurance; information technology & systems; as well as human resource management and internal operations and administration.

Projects are typically sponsored by the requiring activity/stakeholders—the corporation, parent organization, or chief beneficiary of the project. In the DoD, the project sponsor is most often the proponent “warfighter” organization. For instance, these include the US Army Engineer School; Chief, Ordnance Branch, US Army; Assistant Secretary of the Navy for Research Development and Acquisition; the Air Force Materiel Command, and so on.

These DoD proponent or sponsoring organizations plan & develop future warfighter or force requirements (e.g., the Navy’s Littoral Combat Ship), define emergent or contingency requirements (e.g. the Mine Resistant Ambush Protected vehicles needed during the wars in Iraq and Afghanistan); and request funding for these projects in coordination with their aligned acquisition organizations (the Program Executives), for example: Naval Sea Systems Command; Program Executive Officer, Missiles & Space, US Army; US Air Force Materiel Command, Missile Defense Agency Program Executive for Command, Control, Computers, Communications, Intelligence, and Reconnaissance, etcetera.

Once Resources are obtained through the Department’s budgeting process (the Planning Programming, Budgeting and Execution System), and appropriated by Congress, the Program Executives and Executives will charter and establish a program or project office to acquire, develop, test, produce, field and sustain the weapon system, information system, application, or product for the warfighter or service. The proponent service will thus “Charter” a PM, entrusting him with the resources necessary to achieve the project’s stated goals or deliverables, and assigning him or her the responsibility for managing the project in a manner consistent with the policies and principles articulated in

the DoD directives and initiatives, throughout the product or systems' lifecycle, and within apportioned resources, program cost boundaries, technical performance parameters, and schedule constraints (DoD, 2003). The process a PM follows to deliver a capability to the "warfighter" often involves research and development (whether by government or industry) to design, prototype, and test a solution (hardware or software) that meets the "warfighter's" or stakeholder's requirements. It can often mean a source selection of an existing / commercial product to meet these requirements (e.g., "Commercial, Off the Shelf" items such as information technology, or soldier gear and uniforms; construction equipment, etc. The research and development in these cases has already been accomplished by industry). The PM's responsibility doesn't end once a materiel solution or product is procured. The PM must also ensure that the product or solution is delivered to the warfighter, training in its use and employment is provided, and finally, that the capability is sustained over its lifecycle, ending with disposal or disposition years, or decades after it was initially fielded (DAU, 2013; DoD, 2003).

Summary

This chapter reviewed the literature and concepts relevant to the development and application of self-awareness among DoD PMs. Definitions of Authenticity and Authentic Leadership – essential to framing the exploration of self-awareness—began the review, followed by a discussion of self-awareness and the various perspectives on it reflected in the literature: psychological, physiological, spiritual and philosophical. Leader self-awareness as the guiding construct in this study was also examined. Additionally, self-assessments' were considered as tools that often inform leaders' self-awareness and understanding: the MBTI, multi-source feedback and 360-survey

instruments are important self-assessments used in defense acquisition to help leaders better understand themselves. Other business and academic assessment tools such as the Clifton Strengths Finder 2.0, Kolb Learning Style Inventory, and GSD were also reviewed as the insights they provide could contribute to a better understanding of self-awareness among DoD PMs. Reflection was reviewed as it often serves as the mechanism by which leaders internalize and employ the findings and insights that self-assessments offer. Lastly, a summary of the Project Management profession offered a context for considering Authentic Leadership and Self-Awareness with DoD project leaders.

Given this background and understanding of what is cited in the literature on self-awareness and its supporting concepts, the next chapter will address the methodology used in examining them qualitatively through PMs in the DoD.

CHAPTER 3

METHODOLOGY

To be nobody but yourself, in a world which is doing its best, night and day to make you just like everybody else, means to fight the greatest battle there is to fight and never stop fighting.¹

- e.e. cummings

Introduction

Given the significance of self-awareness in leadership development, this study focused on how self-awareness is being developed and applied by DoD PMs. This study sought to describe how PMs in the DoD come to understand, develop, and apply self-awareness—as a key component of authentic leadership—in leading their projects. Thus, in this chapter I will: Restate the study’s research questions; review the research design; discuss the sample population and research participants; describe data collection procedures and data analysis; as well as review the considerations of trustworthiness (credibility, transferability, dependability, and confirmability), and generalizability; and finally, advance relevant ethical considerations within the study’s methodological approach.

Research Questions

How do PMs become self-aware or come to understand themselves as leaders?

(Understanding and Development of Self-Awareness)

How do PMs use their self-awareness in leading their project teams? (Application of Self-Awareness in Leadership Practice)

Research Design

This research used a multiple case study design to explore the experiences of PMs as they develop self-awareness and apply it in their project leadership practice. The data collected and used was primarily qualitative in nature.

Case study research, among various qualitative research methods—phenomenology, grounded theory, ethnography, narrative research (Clandinin & Connelly, 2004; Creswell, 2003; Komives, Longerbeam, Owen, Mainella, & Osteen, 2006; Quay, 2016; Small, 2009)—is an approach which focuses on the “particularity and complexity of a single case, coming to understand its activity within important circumstances” (Stake, 1995, p. xi). That is to say, case study is a research method which has as its essential feature, a bounding of the entity, or unit being studied (Merriam, 1998). The researcher in a case study can focus on one particular object, one leader, one program, or multiple leaders individually (Stake, 2005) through in-depth data collection, in order to describe, explain, or explore those individual experiences, or realities (Creswell, 2007; Yin, 2009). Yin (2014), notes that case study research is an effective method for explaining the how or why of particular “complex social phenomena” (p.4).

A multiple case study design, such as was used in this research, is characterized by the examination of more than one individual or case, with an eventual analysis across

cases (Thomas, 2011; Yin, 2014). A case study is shaped by a thoroughly qualitative approach that relies on narrative, and phenomenological descriptions (Scholz & Tietje, 2002). The study yielded distinct themes or insights about particular elements within the case. These were then aggregated to form broader insights and understandings (Stake, 2000). In other words, each case, e.g., a PM, was examined within a certain context – their leadership practice, but the themes revealed by each case were examined as a whole, without scrutiny of sub, or embedded units within the case (Yin, 2014).

Hence, in this study individual PMs were considered as cases and their realities, experiences, and perceptions were considered altogether, as multiple sources of evidence (Merriam, 1998). Following this multiple case methodology, cases in this study examined self-awareness with PMs identified through purposeful sampling in order to better understand how this group develops and use self-awareness in managing projects.

Purposive Sampling

Purposive sampling (Chein, 1981; Oliver, 2006; Tongo, 2007) is a non-probabilistic, qualitative sampling technique based on the premise that the researcher's purpose in conducting the study is to deeply explore, and gain understanding from, a unit of analysis which is most likely to provide the insight sought (Creswell, 2009; Merriam, 1998; Patton, 1990). Purposive sampling in this study yielded a rich narrative from participants on the development, understanding, and application of self-awareness within project leadership practice.

The following criteria were used to choose participants for the study:

(1) Because this study was chiefly about self-awareness, I purposefully selected PMs with a fairly developed sense of self-awareness to dialogue with. I chose the ALQ

for identifying high self-awareness participants because it is a theoretical and empirically based survey instrument (Walumbwa, et al., 2008) designed to measure the components conceptualized as encompassing authentic leadership. Participants who scored at least 2.5 on the Self-Awareness component of the ALQ were invited to participate in telephonic interviews. A high score on this authentic leadership component indicates a high level of self-awareness of one's strengths, limitations, how others see him or her, and how one impacts others as a leader (Avolio, et al, 2007).

Administering the ALQ as a self-only survey to PMs who completed PMT 401 within the last two years, who broadly represented the DoD (Army, Navy, Air Force, other DoD agencies), and selecting for interviews those who scored high in self-awareness – at least 2.5 on the Self-Awareness Scale portion of the ALQ – informed, connected, and maintained alignment with the study's focus on PM's perceptions of developing and applying self-awareness in leading projects.

(2) Individuals who were graduates of the DAU PMT 401 within the last two years, an estimated 400 graduates (DAU Student Services, personal communication, August 25, 2014). These individuals—by acceptance into the course have proven by the Department's standards—both qualification and experience in project management and leadership (see PMT 401 course description below).

These PMs, having completed the course, were found to have the Department's doctrinal project management concepts still in mind, and also more quickly recalled ways they've applied the insights gained, including self-awareness, project management & leadership principles, and other insights from self assessments given within and outside

of the course (e.g., MBTI, MSFA, etc). The anonymity of each participant was safeguarded by use of pseudonyms for identification.

This demographic—whose selection to PMT 401 indicates their extensive experience and demonstrated performance in defense acquisition—offered rich insight on how PMs come to develop and use self-awareness in their leadership practice.

PMT 401, Program Manager’s Course description:

PMT 401 is a required training course for Defense Acquisition Workforce Improvement Act (DAWIA) Level III Program Management career field members who have demonstrated the potential to become major program or project managers. Participants must be senior military officers, [Lieutenant Colonel/Commander] (O-5) or [senior DoD] civilians GS-14 or above with extensive experience in acquisition, including 4 years in or directly supporting a program organization. A small percentage of associated acquisition functional leaders (contracting, engineering, logistics, etc.), as well as industry participants with equivalent experience are also sought for each class. This course is statutorily required for the department’s program executive officers, deputy program executive officers, (General Officers or Senior Executives) and program managers/deputy program managers of Major Defense Acquisition Programs (MDAP). (DAU, 2014a)

(3) A balance of study participants. I also strove for a balance of participants representing each of the armed services, between military and DoD civilians, as well as in level of PM experience (product, project, program). This was achieved (see Appendix M). However, a balance of genders was likely impossible to obtain for the study because there is a scarcity of women in the DoD. A 2015 report on demographics in the military notes that women make up just 15.5% of the active duty military, compared to 84.5% males (DoD, 2015). The participants in this study mirror the broader military demographic with a 12.5% female to 87.5% male participant ratio.

Data Collection

In this section, I will discuss the sources of data, and the procedures I followed to obtain that data.

Sources of Data

Interviews

A common method for collecting qualitative data in research is the interview (Merriam, 1998; Seidman, 1998). Interviews in research can take the form of one-on-one, face-to-face conversations where the researcher elicits information and data, thoughts and feelings, historical recollections, interpretations, and other information one cannot physically observe. A critical outcome of interviewing in qualitative research is the perspective of the research participant (Hancock & Algozzine, 2011; Patton, 1990).

Individual interviews were conducted in this study with 24 PMs purposively selected to explore more deeply their perceptions, understanding, development, and application of self-awareness in their project leadership practice. Interview sample questions are listed in Appendix A. An interview protocol is at Appendix E.

Researcher Journal

As I progressed through the research I kept a journal recording my own observations, reflections, and reactions to the conversations with participants as well as my own project leadership practice experiences. In this way, I documented the investigative process, “made implicit thoughts explicit” (Creswell, 2007, p. 290), and enriched the narrative surrounding the research.

Data Collection Procedures

Data was collected through interview methods, as well as a review of relevant demographics and researcher journal entries.

The study participants, screened as noted above, each received an invitation letter via email summarizing and inviting them to take part in the survey portion of the study (See Appendix F). Those individuals who responded to that request were sent an email containing a fuller summary of the study, an informed consent (Appendices G & K), as well as a profession-related demographic survey, e.g., PM experience, acquisition certifications, education, etc. (See Appendix L), and a link to access the ALQ. From the provided link, each participant was taken to Mind Garden's online survey system: Transform™, to acknowledge informed consent before proceeding to the ALQ (See Appendix I). Mind Garden's Transform™ system collected completed questionnaires and scored each of them. Each respondent received an ALQ Report as part of the survey process. This report provided an overview of the Authentic Leadership model, as well as insight as to how each participant rated themselves on the ALQ scales, Authentic Leadership strengths and developmental opportunities based on their results, and importantly, suggested methods and advice for developing their Authentic Leadership. Mind Garden, Inc. provided the completed questionnaires and aggregate results to me in a comma separated value (csv) file (i.e., spreadsheet). I assigned a pseudonym to each response to maintain anonymity of the participants.

Participants purposefully selected for self-awareness scores at or above 2.5 on the ALQ were each sent an interview invitation letter with an informed consent, set of topics to be discussed—including tentative assertions for the participants to consider (Stake,

1995)—and sample interview questions to allow them time to reflect on the concepts being studied (See Appendix A).

Finally, a reflexive journal (Lincoln & Guba, 1985) was kept throughout the study to record important discoveries, reflections on the research itself, methodologies used, as well as to chronicle the study as it unfolded.

Data Analysis

As a multiple case study, I analyzed data using multiple sources, through detailed descriptions of each case in its context, as well as across cases—or cross-case synthesis (Yin, 2009), to draw out patterns (Creswell, 2007), themes and insights to yield thick descriptions and enable generalizability for the reader (Eisner, 1991). Though in practice, qualitative data collection and analysis occurred simultaneously in a recursive and dynamic fashion (Merriam, 1998), this study’s formal analysis consisted of preparing and organizing textual data (professionally produced transcripts) from interviews of participants, reducing the data into themes (through coding), and then organizing or interrelating those themes for elucidation and development into a narrative (for reader) interpretation and meaning (Creswell, 2007, 2009). I began with raw interview transcripts, formed initial coding and classified it into categories, then themes for initial interpretation, building toward an overall explanation or descriptive narrative (Rubin & Rubin, 1995) within the authentic leadership construct.

I relied on some manual coding, but primarily used automated tools such as QSR International’s NVivo – a standardized, broadly accepted qualitative data analysis tool – and Microsoft Excel to assist in data analysis and in preparation for discussion of the

study's findings and its conclusions. Use of these tools helped maintain consistency between the study's findings and the data collected (Lincoln & Guba, 1985).

Trustworthiness

Lincoln and Guba (1985) denote trustworthiness in qualitative research as proving to the reader that the study's findings are worth their focus and time; that they are "worth taking account of" (p. 290). Various criteria have been proposed to assess the rigor of qualitative research (e.g., O'Brien, Harris, Beckman, Reed, & Cook, 2014; Gioia, Corley, & Hamilton, 2013; Houghton, Casey, Shaw, & Murphy, 2013; Shenton, 2004), however it seems the most commonly accepted are those espoused by Lincoln and Guba. Guba (1981) proposed four criteria to be considered for establishing a trustworthy study: credibility, transferability, dependability, and confirmability. Credibility refers to the ability of the reader to immediately recognize the research findings as having truth to them (Cope, 2014). In other words, are the findings accurate? As Merriam (1998) posed, how congruent are they with actual experience? Transferability is the ability of the study's findings, insights, and meanings to be applied or transferred to other situations and contexts (Houghton et al., 2013). Dependability relates to the extent to which a qualitative study could be repeated by other researchers (Polit & Beck, 2012). Dependability refers to the "methodological quality" of the findings (Munn, Porritt, Lockwood, Aromataris, & Pearson, 2014). Is there congruence between the research methodology and the research questions, data collection methods, and the representation and analysis of the data? (p. 4). Finally, confirmability denotes neutrality (Lincoln & Guba, 1985) of the findings; that is, that the results are based on participants' responses

and insights, and are not biased by the researcher's own viewpoints or perspectives (Cope, 2014).

There are several provisions (Shenton, 2004) which can be used by researchers to establish a study's trustworthiness in terms of credibility, transferability, dependability, and confirmability. For example, credibility may be substantiated through techniques such as triangulation of data and methods, member checking, and thick descriptions of the issues, participants, and findings, as well as iterative data analysis. Transferability may be supported through the researcher providing enough background and contextual information and detailed description of the issue being studied in order for the reader to relate the findings to their own context, situation, or discipline. In a dependable study, readers should be able to discern the means by which a researcher has come to the conclusions and interpretations he/she has about the data (Houghton et al., 2013). While Guba (1981) espoused the idea of confirmability being akin to the quantitative notion of objectivity or repeatability, others (DeVault, 2016; Shelton, 2004) have asserted that because the findings in a qualitative study are specific to a small number of participants or contexts, it would be impossible to establish that the resultant findings could be applied to other settings and individuals. Still others (Denscombe, 1998; Stake, 1995) counter that specific qualitative studies are still examples within a larger group, and can thus offer transferability (Shelton, 2004).

Credibility, transferability, dependability, and confirmability of the study were sought through the methods of purposive sampling of PMs with high self-awareness (described earlier in the chapter), triangulation, member checking, and thick description. A summary of those methods and how I used them in this study are discussed below,

followed by a short consideration of generalizability (Eisner, 1991) and the ways in which the study's findings support it.

Credibility

Triangulation of data (Patton, 2002; Yin, 2014) is considered by researchers to support a study's credibility (Cope, 2014; DeVault, 2016; Houghton et al., 2013).

Triangulation in this study was achieved by following a research methodology whereby information was obtained from multiple sources of data: the ALQ, 24 participant interviews, as well as demographic information on each participant. These sources provided several ways to view the data, and helped confirm emerging findings (Merriam, 1998), corroborate them (Yin, 2014), and enhance this study's trustworthiness. Data triangulation shows support of the study's findings by multiple sources of evidence, and also aides in generalizability for the reader. Indeed, the use of a multiple case study methodology lent truthfulness to the research as Merriam (1998) notes—with an abundance of cases in a study, and with wide variation (i.e., similar and contrasting contexts) across the cases, the interpretation is likely to be more compelling to the reader than a single case, or homogeneous set alone. Triangulation of methods (Merriam, 1998, Stake, 1995) used in this study also supports its usefulness in other contexts, situations, and disciplines. The ALQ, career-focused demographic surveys, as well as extensive interviews with participants brought multiple sources and types of data to be considered against the study's research questions. This methodological triangulation strengthened the study's trustworthiness (Lincoln & Guba, 1985).

“Member Checking” is another technique which supports a study's credibility (Cope, 2014; DeVault, 2016; Houghton et al., 2013; Shenton, 2004). Member checking

was used in the interview phase to examine, post-interview, participants' own perspectives, and views of the credibility of the findings and recommendations (Creswell, 2007). I took interview transcriptions, my initial analysis, interpretation, and propositions to several participants to help me gauge whether my findings were realistic, accurate, and moreover, credible within the defense acquisition environment. The initial analysis and findings proved to be consistent with participants understandings of developing and using self-awareness in leadership practice. Additionally, participants appreciated the opportunity to provide additional feedback on the credibility of the study.

Transferability

Transferability of a study's findings may be achieved when readers of the study can transfer the meanings and insights to their own experience (Cope, 2014). I believe the purposively selected participants in this study, their lived experiences, their ideas and perspectives, and the skills or knowledge they reflect can be transferred and applied by readers to other contexts and situations (Merriam, 1998). The purposive sampling used in this study, that is, choosing participants with high self-awareness scores on the ALQ, increased the prospect of finding data in relation to development and use of self-awareness. Self-awareness specific insights related by participants were much greater than if I had randomly sampled DoD PMs to participate in the study.

Thick Description can also provide this transferability because this technique provides enough explanation, narrative, or detailed description (Shenton, 2004) about an occurrence, experience, or observation such that the reader can assess the degree to which the study's findings are dependable, and transferable or generalizable to other contexts, situations, or people (Creswell, 2007; Lincoln & Guba, 1985). Transferability of the

study's findings not only to defense acquisition workforce but also to the wider leadership genre were confirmed through the detailed or "thick" descriptions and perspectives provided by participants, their developmental histories and qualifications, as well as their organizational associations. These factors indicate that the findings can be transferable, or generalizable (Hancock & Algozzine, 2011; Yin, 2009) to other DoD project managers and acquisition organizations, as well as to leaders in other fields.

Confirmability and Dependability

Confirmability and Dependability of this study are indicated not only in the thick descriptions and rich narratives provided by participants (Cope, 2014), but also through the rigorous data collection process, and the iterative, recursive course of analysis I undertook in compiling the findings and conclusions. Detailed descriptions of coordinations, preparations, and procedures for data collection, as well as the multiple methods in which data was collected (demographics questionnaire, ALQ, interviews) make this evident (See appendices A-M). Throughout the data collection, and later in the coding process, I continually returned to the problem, purpose and research questions, as well as the narratives of the participants, and my own researcher journal in order to reflect on and ensure that the data analysis process was rigorous and sound. Additionally, I sought the feedback and input of fellow doctoral colleagues on both process, and findings. This allowed me to gauge my adherence to the study's objectives, truthfulness to the participants' voices, and consistency with sound qualitative methods.

Generalizability

The notions, understanding, or impressions the reader gleans from a case study is what Eisner (1991) terms "Generalizability". In this process, a person will recognize the

similarity between one situation and another, through inference of the “skills, images or ideas” (p.198) transferred or generalized between each. Terming it “Naturalistic Generalization,” Stake (1995, 2000), describes the method whereby the researcher provides adequate depth and detail in the study for the reader to determine if and how the study’s findings can be used to understand new situations. In other words, the reader should be able to recognize the utility of the resulting themes from the research findings in their own setting or environment (Hellstrom, 2008). For example, many participants spoke of the challenge they faced in transitioning to higher level leadership roles. They often found their actions had to change from the “doing” to more broadly facilitating and coordinating for their teams. These leaders learned they needn’t “do” the work, but rather, seek out their experts, support them, and facilitate their teams’ success with higher-level leaders and stakeholders. Considering this finding, one can quickly recognize the differences in roles between leaders and their teams or followers, regardless of occupation or endeavor. In another instance, a Marine Corps PM in the study noted how his leadership style has matured over his career; he’s “picked up” ideas, techniques, and approaches from people, places and experiences all around him. Each of us can likely reflect immediately on the people, events and experiences that have been significant to our own development as leaders, regardless of discipline, career field, or background. This process of making connections between what one reads in research and one’s own experience is what Eisner (1991) termed “retrospective generalization” (p.205). Once an idea or concept has been mentioned (e.g., in participant reflections or discussions), most readers can recall similar experiences of their own with analogous meanings and insights. Indeed, the ability for readers of this study to generalize or

transfer the lessons participants imparted; to use the insights in the study in their own fields or environment is a significant reason for my having done the research. It is my sincere desire that the reader of this study will come away with knowledge and insights they can apply to their own leadership journey.

Ethical Considerations

Throughout the study, I did my utmost to protect the rights and welfare of participants involved. Participation in the study was voluntary, anonymous (non-attribution), and vetted through informed consent and other applicable Institutional Review Board requirements. Andrews University and National Institutes of Health procedures were followed to obtain permission to access individuals in my study. The overarching and guiding principal for the study's research was the ethical principles of respect for persons (the requirement to acknowledge autonomy and the requirement to protect those with diminished autonomy), beneficence (“(1) do not harm and (2) maximize possible benefits and minimize possible harms.”), and justice (“fairness in distribution” both of the risks and the benefits of the research) that guide all research involving human subjects. (National Institutes of Health Office of Extramural Research, 2011).

Access to study participants was open and unrestricted. Avoidance of typical issues associated with “inside” researcher status was avoided by studying subjects outside my immediate organization. Issues such as entry and access to the participant organizations were obviated by my association in the Defense Acquisition Corps, an affiliation of project management professionals from across the DoD, as well as by my previous assignments in several of the subject organizations. Study participants each received an

individual copy of their completed ALQ in a summary report explaining it and their responses within its construct.

Summary

In this research, use of a multiple case study design guided the data collection process to qualitatively explore the perceptions and experiences of PMs as they develop self-awareness and use it in leading their projects. Individual PMs who completed DAU PMT 401, each representing a case, were purposefully selected, queried for demographic information, and administered the ALQ (Avolio et al., 2007) to identify those with high self-awareness; resulting in a group of 24 PMs for telephonic interviews (Creswell, 2009; Merriam, 1998). A researcher's journal was kept throughout the study to record researcher reflections, process, and unexpected discoveries. Following collection of this qualitative data, analysis using both manual and automated tools (i.e., NVivo, Excel) resulted in the study's findings for interpretation within the authentic leadership conceptual framework. In this research, I used triangulation, member checking, and thick description as well as purposive sampling and an iterative, recursive data analysis process to establish the transferability, credibility, dependability, and confirmability of the study. It is my hope that use of this rigorous approach to the research will convince the reader of the trustworthiness of this study.

CHAPTER 4

FINDINGS: DEVELOPMENT OF LEADER SELF-AWARENESS

We don't see things as they are, we see things as we are.1

- Anais Nin

Introduction

This study looked at the ways in which DoD PMs develop and use self-awareness in leading their teams and programs. This chapter will describe the development of a PM's self-awareness, that is, his or her understanding of their own leadership preferences, talents or strengths, core values, as well as the experience, knowledge and capabilities they possess and how they came to have that understanding.

With respect to the development of self-awareness, three strong themes emerged from the interviews. First, PMs often spoke about influential people who helped them develop their self-awareness. Next, experiences, education, both formal and informal, and self-study were cited as influential. Third, they reported an awareness of leadership behaviors influencing their sense of self, including the role of various self-assessments as well as reflection. In this chapter I report the participant demographics and then the three major themes emerging from the interviews about participants' development of self-awareness: people influences, other life influences (experience, education, etc.), and

insights gained from self-assessments.

Participant (Case) Demographics

Over 400 DoD PMs who had completed DAU PMT 401 – Program Manager’s Course within the past two years of the study were invited to take part in the research. Forty-Six of these project managers from the Armed Services (Army, Navy, Marine Corps, and Air Force), as well as DoD direct-reporting agencies responded favorably to the request to participate (see Appendix M, Participant Demographics). Initial respondents included 43 males and three females. Ten of those failed to complete the Authentic Leadership Questionnaire (ALQ) and thus were not included in the study. Six of the individuals who completed the ALQ did not agree to be interviewed, or did not complete it in time to participate in interviews. Twenty-four of the thirty remaining participants scored high in self-awareness on the ALQ (scoring 2.5 or above), and were interviewed in accordance with the approved IRB Application # 14-095 (Appendix B).

Participants possessed acquisition experience ranging from six to over 26 years, with each participant having at least 16 years in the DoD (and most with over 20 years’ service). The Armed Services (Army, Air Force, Marine Corps, Navy), as well as other DoD direct reporting organizations and agencies were equally represented in the study. A few participants did not have any prior military experience, but the vast majority were either still serving on active duty, or were retired or had military service. Just under half of the participants were in a civilian status at the time of the study. Participant ranks ranged from Lieutenant Colonel (Army and Air Force) / Commander (Navy) and General Schedule rank 14 (GS14); to Colonel (Army and Air Force) / Captain (Navy) and GS15.

Nearly all participants held Master's Degrees, and just under half had completed a Senior Service College course (e.g., Army/Air War College). More than half of the participants self-reported as Extroverts on the MBTI scale. Specifically, the participants' MBTI breakout was: ENFP (1); ENTJ (5); ESFJ (1); ESTJ (11); ESTP (1); INFP (1); INTJ (7); INTP (1); and ISTJ (2). Anonymity of each participant was safeguarded by use of pseudonyms for identification. A summary of participants' key demographic data is in Table 1.

People Influences

Project Managers described many relationships that influenced their leadership identities, including former commanders and direct leaders, mentors and coaches within DoD, as well as senior enlisted service members and assistants, program stakeholders, subordinates, and trusted agents, as well as family, teachers, and others outside of DoD.

Commander and Direct Leader Influences

Nearly all PMs interviewed cited early or prior commanders or direct leaders as key influences to their own leadership style or identity. For instance, an Air Force PM, Leonard noted of the most influential leader he'd served with:

I mean he just trusted us. Gave us the requirements, gave us adequate funding, and then got out of the way. And his whole thing was, you could never make a decision that he couldn't fix with a decision that he had to make. In other words, he trusted us to push the innovative solution sets and come up with out of the box thinking, which was great. That's what Air Force acquisitions needs.

That approach was so powerful an influence that this officer adopted it into his own leadership methodology not only personally, but also organizationally.

Table 1

Key Participant Demographics

Gender		Service Representation		Rank		PM Experience (range of years)		Additional Acquisition Certifications (collective #s)		Civilian Education		MBTI Type Distribution		ALQ Score Distribution	
Male	27	Air Force	7	COL/ CAPT/O6	4	1 to 5	2	T&E	10	Masters	27	ESTJ	11	High	4.0
Female	3	Army	7	Lt Col/ LTC/O5	13	6 to 10	11	Sys. Eng	9	Bachelors	3	INTJ	7	Low	2.0
		DoD Other	7	CIV/ GS15	12	11 to 15	12	Life Cycle Log	8			ENTJ	5	Avg	3.0
		Navy	6	CIV/ GS14	1	16 to 20	2	Info Tech	5			ISTJ	2	#>2.5	24
		Marine Corps	3			>20	3	Bus. & Fin. Mgt	2			ENFP	1	#<2.5	6
								Science & Tech	1			ESFJ	1		
								Facility Eng	1			ESTP	1		
												INFP	1		
												INTP	1		

Many PMs listed their first acquisition boss as the most significant influence on their leadership identity. Brian, a Special Operations Command (SOCOM) PM, identified the first person he worked for in the Navy as someone who influenced him to pursue a career in acquisition: “[He] started me on my path down my civilian career.”

Kevin, an Army PM, reported he was most influenced by former leaders who first and foremost took care of their people: “That’s the way he worked. He operated that way. He was very much a people person who kept morale up, who cared more about people than anything.” Kevin reported emulating that “people first” approach: “I don’t want to be the guy who sits at my desk the whole time and doesn’t come out; I want to be the one who associates with the people and knows the people and takes care of those people.”

Another influential leader inspired a participant to just “go and get [his] education done” which allowed him to transition from the enlisted corps into the officer corps, opening up “a whole new bunch of doors.” These influential leaders who encouraged their followers to develop themselves personally or professionally not only helped some participants to achieve more than they thought possible, but also helped them develop a self-efficacy which shaped their own leadership journey.

Michael, a senior leader, noted two early Navy commanders and how he synthesized what he learned from them into his own leading of projects. In one case, he was deployed at a remote location away from his commander, but maintained daily communications:

We’d talk every night, and I would serve him up some crap sandwiches, and he would always say ‘look, okay, okay, but you know, look how nicely you trimmed the crust off and you put a little toothpick in it’; he was always looking for that positive spin.

Michael said the second influential commander taught him to keep things in perspective, seeing the big picture, not get caught in the seemingly urgent, yet trivial issues:

I remember one time, there was a, you know our hair was on fire, and there was some VIP trip out of Africa or India and the commodore staff was just all flaming and upset, and the skipper walks in and I said sir, I gotta [sic] talk to you about something, and he's kind of doing his skipper thing, and he looks at me and sees I'm flustered and he says 'Michael, ah, have we lost an air plane?' And I said no sir. 'Has anybody gotten hurt?' And I said no. 'Okay, did we lose any classified material?' I said no. 'He says is this some political nonsense that somebody's got their feelings hurt?' And I said yeah. He says alright, relax, take a deep breath everything's going to be fine, we'll deal with it, because you know, it's like water off a duck's back.

From these leaders he recognized that in leading a project, "sometimes you need to set the vision, and sometimes you need to understand the details."

The notion of keeping an eye on the larger purpose in everyday leadership moments was echoed by a Marine Corps PM who learned through influential leaders of his own to always maintain a leader's perspective:

I always had to defend my position because, I did the research. And so I knew this was the right thing to do but you know what I failed to see at that time – and even sometimes now – I failed to see the view from the balcony. So you're out on the balcony, on the highest floor of the hotel, and you can see everything. You can see so many things that are common, that for me, being down on the first floor, second floor, I had no clue. That was a perspective that has taken a long time to learn and so some of those battles, even now, some of the battles that I tend to take hold of, are wrong, because there is a bigger purpose, a bigger mission out there.

Michael summarized, "Obviously, all throughout your career, you're being, you don't even realize you're being fine-tuned one way or another."

An Army PM also had early acquisition leaders, who "each had different styles of leadership and each one although they were different helped to challenge and shape me and help create what I would say more well-rounded leadership style in me."

Other PMs noted negative leaders as influences. For instance, “Zander”, recounted how one of his early Army commanders influenced him in the opposite direction by telling him, “I am here to exploit your strengths, not develop your weaknesses.” This leader’s approach of using his subordinates strengths to accomplish the mission while ignoring his responsibility to develop and grow his subordinate leaders left a lasting impression on Zander, who has since taken extra steps to ensure he guides and develops his followers.

Zander witnessed this same commander give key missions to rival peer leaders, who were by his acknowledgement better than him in some areas. That “non-selection” for important work influenced Zander to look inward—“take it to heart”—and focus on self-development and education to cultivate his strengths. Zander “exploited the unfortunate statement” his commander made which caused him to lose respect for that leader, but ultimately made him “a better person for it.”

Another PM told of a different sort of negative influence from a commander. This officer only had the opportunity to speak with his immediate commander on a quarterly basis, and otherwise he dealt with the commander’s deputy. This arrangement had a negative consequence in this case: “He was a busy guy—but, you know, I never felt an allegiance working for him personally, and that’s something, I remember reminding myself, don’t be that person if you can avoid it. I’m a people person.” Thus, without engagement, without a face-to-face, connected authentic relationship between leaders and followers, trust may not develop, and moreover, neither may loyalty or commitment.

Despite some negative influences, commanders and other direct leaders affected the study's participants' self-awareness development as well through positive leadership example, and "modeling the way". One PM recounted benefitting from having served under only positive examples of leadership, from his "cadet days, to initial active duty . . . and through 17 years . . . they've always taken care of me. . . . I've been blessed quite honestly". Another officer described being influenced by leaders he viewed as successful, who were inclusive and participative in their leadership style. They were definitely in charge, and always made the final decision, yet always sought out the advice, counsel, or input of their subordinates and stakeholders during the decision-making process:

The great leaders I've worked with, in both uniform and civilians, they've all had that one common characteristic: if a decision needs to be made, before I make that decision, I will listen to everyone around the table, in the office, in the cube, then out on the floor.

This is a key attribute to successful defense acquisition, as a PM often has many stakeholders to satisfy, does not own all of the resources he/she needs, and must make cost, schedule, & performance trades to deliver the product. Thus some leaders learn by seeing others "model the way", while other leaders already have an idea in their head about what "right looks like" and confirm it with positive examples.

Still other PMs reported that commanders and other direct leaders shaped an emphasis on technical & tactical competency in them. These were leaders whose level of expertise and ability to grasp a wide variety of topics, master them and then demonstrate that technical savvy back to their followers, in other words "show everybody that he has it and show everyone he knows what is going on" were an important element to earning the trust of followers, and examples that these leaders follow in their own practice.

Additionally, participants reported influence from leaders that supported innovative thinking and leading, delivering quick reaction capability. Brian, a PM from SOCOM felt that his leadership identity was shaped by that inventive, flexible approach, and he uses it in his own project leadership practice supporting warfighters who typically need effective weapon systems and support fielded in a rapid fashion:

I've been heavily influenced by people that are of the mindset of the "80-percent solution," right? The reason things take so long is we spend so much time trying to get that last 20-percent. So focus on getting something out there quickly, even if it's not perfect.

The Special Operations leaders Brian worked for taught him to not just "follow the checklist and do everything you're supposed to do so that you don't get in trouble," but to figure out what needs to be done and how to get it done quickly. That lesson, that innovation comes from knowing, but not simply following the "cookbook" has stuck with Brian.

Study participants also related that the types of leaders influencing them changed over time. Early in their careers, the influences were often divided in thirds between senior enlisted, direct supervisors, and commanding officers. Over time, as they became more practiced and rose in rank, the influence came more often from senior or commanding officers.

Another example of how some study participants were shaped over time by different types of leaders (good and bad), training, experiences, and so on is articulated by Oscar, an Army PM. Oscar reported, "Over a career, you're taking bits and pieces. It's everything you've been trained [on] all along—you take the good with the bad—but you pull out the good nuggets and you go forward with them."

Some PMs in the study were influenced by very exacting, self-assured, self-aware, and direct leaders who clearly communicated their leadership perspective and expectations. For instance, upon assuming his first assignment in acquisition, one participant was given clear and unambiguous guidance from his PM:

He brought me in and said I am going to teach you a couple of things that are really important.' I still remember to this day and a kind of talk to my [own] Assistant Project Managers about this. He said, 'First of all don't tell my project leaders her babies are ugly. Second, you may be a Major but you are like a Second Lieutenant [lowest officer rank] in this business. You may not speak for six months; you can listen. Third, you are going to spend 3 of those 6 months in the Pentagon learning how to be a Pentagon Action Officer; there you can talk.

The participant followed the PM's guidance, got the requisite education and Pentagon experience, and came back a few months later ready to assume a leadership role in the acquisition organization with a better understanding of how defense acquisition works, knowledge of key paradigms, and who the key stakeholders were. This clearly had an impact on this PM in terms of how to be successful in DoD Acquisition. From a self-awareness perspective this leader taught the participant to be mindful of what you know, and what you don't know, as a leader. Having a fundamental knowledge of oneself, the organization, its stakeholders, and its functions is critical to successfully leading an acquisition (or any) team.

Still other participants described how early influences by direct leaders shaped who they themselves became as leaders. Nicholas, an Army PM, developed much of his leadership identity as a young officer through the advice and council of leaders who valued "speed of analysis and decision." Those officers approach was to quickly assess the situation, identify critical information or requirements, set objectives, and execute their plan. These leaders taught him to be intentional and determined, "know where the

center of gravity is, know what you're trying to do, be focused on your mission. . . . Keep yourself poised to be flexible." Nicholas also recounted, "Frequently I find myself thinking this is what Colonel H was talking about so that's where that perspective came from." Clearly the formative experiences he had with early leaders molded his approach to leading a project. They also influenced his self-awareness, his understanding of his own leadership perspective, practices and identity.

Richard also described the leadership style he most emulates as being shaped in him by his second direct line leader early in his Army career. This leader was supportive of his followers, but placed an emphasis on technical & tactical competency and "mission first". According to Richard, this influential leader had "just a great attitude . . . could be hard when he needed to but was generally very approachable. I hope that I am [that as well], in addition to technically and tactically competent."

Influence of Mentors and Coaches Within DoD

Participants listed people who had "mentored" or "coached" them within DoD as important influences to their leadership identity as well. They also credited them with helping develop their own leadership identity, style and approach.

In DoD acquisition training for PMs, a high emphasis is placed on "cost, schedule, and technical performance" (DAU, 2011). As a consequence, coaching and mentorship may be overlooked in favor of technical, procedural, and managerial matters. While formal mentoring programs do exist in the military (Johnson & Andersen, 2010), they are seemingly minimized in defense acquisition. Indeed PMs are judged as successful leaders when they deliver an effective product or service to the warfighter on time and on budget. In view of that, it appears not every PM gets involved in developing

their subordinates personally like those that influenced Richard. Highlighting one such leader Richard recounted, “He was the first product manager that I had acquisition assignments for and he did a phenomenal job of coaching, mentoring, and training.” Recalling the other influential leaders Richard noted that though each had a different style of leadership and each one was different type of leader, they all helped to challenge and shape him, creating what he called “a more well-rounded leadership style” in him.

Nicholas noted that his mentors in the Army included a former leader—the first PM he had worked for actually, and with whom he still had an informal mentoring relationship, as well as peers and senior officers who influenced his career choices. Further, Nicholas identified that a career civil servant under his charge became a mentor and significant influence: “He supported me in my job. . . . He was the guy who really taught me how to do things.”

Victor was mentored over his entire Marine Corps career by two very successful officers (both rising to Lieutenant General) who guided, advised, and counseled him along the way with the continual message that “whatever you did to get here is okay, but it may not be the things that get you to where you want to go.” Reflecting on that message and their mentorship, Victor acknowledged that “the more senior you get, you have people and resources around you, so you have to make sure you’re doing the critical thinking, and asking the right questions. Victor also relies upon peer mentors in his leadership practice. Being able to discuss issues such as management of the “civilian” acquisition workforce (beyond his own experience with the military), to working through challenges with an objective, disinterested peer/mentor allows him to see problems from a different perspective, and improve his practice, and at the same time, inform his sense

of leader identity: “We got some of the same problems. You know, he deals with his civilians, and I deal with my civilians and Marines, but the solution set is somewhere between the both of us.”

An Army PM, Solomon, relies upon trusted agents for mentorship. Frequently seeking the guidance of retired Army PMs who now work for him, he finds a sense of balance in his leadership identity and awareness of his leadership approach:

I consider George has rounded out my human being by teaching me how to listen, sit back, and absorb information. Tom was my stupidity check. Am I about to do something stupid? Then he would provide me his honest opinion and guidance.

Other DoD Individual Influencers

Program managers in the study reported other significant influences on leader identity within the DoD as including senior enlisted service members, trusted agents, senior leaders in their reporting chain, as well as project stakeholders.

Predominantly found in the operational forces (field units), enlisted personnel serve in many capacities, with higher ranks associated with progressively higher levels of responsibility. Their titles vary from service to service, but in each, enlisted ranks range from E-1 (e.g., Private, Airman, Seaman Recruit) through E-9 (e.g., Command/Sergeant Major, Chief Master Sergeant, Command/Master Chief Petty Officer).

Senior enlisted service members can play a very formative role in the development of an officer’s (PM’s) leadership identity. They typically have many years-experience leading at the first-line level, have seen both good and bad approaches to accomplishing the mission or leading people, and can offer insight and wisdom that few commissioned officers or even PM peers can. They are the experts commanders rely on to do the first-line leading of troops in the field, as well as maintain order and discipline.

Senior enlisted personnel also typically have many more years of service than their commanding officers (or PMs), however, they serve as advisors and often trusted agents to them. Indeed, senior commanders down to junior officers rely on senior enlisted personnel to not only provide first line leadership, discipline, and high operating standards in their units, but also to provide that “wise counsel” they cannot often get anywhere else. As illustration, Samuel, a retired Navy Commander and Civilian DoD PM, reflected on the influential role senior enlisted personnel had in his development as a leader: “I think that mentorship and leadership by sergeants major and senior master chiefs really, no matter what my rank was, they were always there for me.”

Further, these senior enlisted service members “know what right looks like”, and have high expectations of their commanders. The high standard of performance these enlisted men and women expect of their superior officers can have an even greater influence than the commander’s own superiors. Thus, the officer, (e.g., commander, or PM) often feels an obligation to “live up to,” or perform to the senior enlisted member’s expectations and standards. Samuel noted as well that the most influential people in his career were “probably all of the sergeant’s major and command master chiefs that I’ve ever had the honor and sometimes discomfort to have served with.” He further reflected just how influential senior enlisted personnel could be when he said, “You know that your command sergeant major or your command master chief has some expectations of his skipper, and I would never want to let those boys down.”

This relationship between senior enlisted service members and their superiors doesn’t end when they retire from active military service, but continues, especially when they work in defense acquisition. A typical program office is staffed with individuals

who have a great deal of experience, both in their functional areas (e.g., systems engineering, logistics, finance, etc.), as well as a broad spectrum of prior military service. Often those retired sergeant majors, master chiefs, and other Non-Commissioned Officers (NCOs) work for the PM in a supporting or functional role, where they continue to provide advice, perspective, and feedback for the betterment of the program. Zander, an Army Lieutenant Colonel and PM illustrated this: “When you get two lieutenant colonels, three sergeants major—two of them former marines—and your team of 80 people has 19 former NCO’s and two warrant officers, it’s generally hard to screw up.” He added though, that key to success was to “just sit up and listen and take their recommendation.”

Additionally, commanders (and PMs) can typically count on senior enlisted personnel to “give it to them straight”, not mince words, or be political. Senior enlisted personnel have a strong reputation for being brutally honest, practical, and direct, serving as “trusted agents” to officers and PMs. Solomon reflected on that honest advising role when recounting a problematic situation caused by his team. He said, “This retired Sergeant Major who worked for me told me: ‘Sir, sometimes you have to let those people take their lumps. You may be in charge, but they have responsibility too for their own actions or inactions.’”

Other confidants reported by study participants included senior civilians, peers, retired officers, and executive officers. For instance, Jacqueline, an Air Force PM sought the counsel of one of her senior civilian employees when confronted with a time-sensitive and significant challenge from her immediate superior. She used the employee as a “sounding board” to gain insight on the situation, talk through issues and ideas, and form

her decision. Zander also relies on trusted agents for advice and perspective when leading his Army project team, noting how valuable a resource the people closest to you can be, “if you just sit up and listen.” Likewise, Michael finds it especially helpful to have somebody underneath him such as an executive officer who “can pull you aside and give you the counsel that no one else will, there’s a lot of value there.”

Project Managers also reported that senior leaders were influential to their development of leader self-awareness. In most military command structures (see Hierarchystructure.com, 2016, for an overview), there are first line leaders and commanders, those with whom a service member interacts with on a regular, if not daily basis. There are also “senior leaders” who are typically one, two, or even three levels above a service member’s commander. These senior leaders often have a formal leadership relationship with subordinates one or two levels below them through assessment and evaluation processes. For example, in the Army, brigade commanders evaluate company commanders two levels down; battalion commanders evaluate platoon leaders also two levels down the chain. Though not in the day to day chain of the service member, these senior leaders are often the service members commander’s first line supervisor, and so can play a very influential role in the junior leaders not immediately below them. For example, the Army PM mentioned above, Zander attributed his success as a leader to “being surrounded by excellent senior leaders.” Those senior leaders “cared enough to teach and mentor” him through his career, helping him build self-understanding and awareness of his own abilities as well as techniques in leading projects that allow him to “exploit opportunities.”

Walter, a former Army officer and now DoD PM attributed project stakeholders (e.g., requiring organizations, testers, resource providers, and especially end users) with influencing his development as a leader. The interaction a PM has with project stakeholders can influence not only the approaches to project leadership he or she takes, but also the awareness of one's ability to change lives through that leadership. To illustrate, Walter recalled an episode when a stakeholder – a soldier's mother – approached him at a gas station after work one day and told him, “My son was just blown up in a Stryker [an armored vehicle used by the Army] two days ago in Mosul [Iraq] and he lived.’ She gave me a big hug and broke into tears.” Somehow she had learned he had worked on the Stryker program and needed to express her joy at her son's survival because of the work Walter, and other PMs do every day to provide the systems and gear that warfighters need. Walter was moved by this event and it clearly reinforced his awareness of why he leads in the Acquisition environment: “I don't know how she found out I was on the Stryker program back in 03-05. No clue, but that was probably the culmination point of my acquisition career. . . . Everything after that has kind of been gravy.”

Familial and Other Non-DoD Influences

Participants also cited family and other non-DoD individuals as influences to development of self-awareness, and leader self-identity.

For instance, Victor mentioned above, recounted how his grandmother who was born in 1908 of parents who had been slaves, grew up picking cotton in the south, and carried the scars of that experience with her. She “actually still had the cotton thorns embedded in her leg. And I remember when I was growing up where she would actually

take my finger and rub them.” The times he spent with his grandmother were very meaningful to him, and the lessons she taught stay with him to this day. One fundamental lesson Victor’s grandmother taught him was “about how to make sure you take care of yourself first.” In fact, this concept is taught at initial officer training throughout the Services, and it’s a lesson that he’s taken with him throughout life and career: “When you’re trying to command somebody, you’re ineffective if you cannot command yourself.”

One other lesson Victor took from his family was responsibility, supporting one’s followers and stakeholders; being present. Growing up as “an inner-city kid, one of six, mom at the house”, he looked to his older brothers and sisters, and the things they did for the family: “They weren’t super-heroes, they didn’t go out and save anybody, but day in and day out, they protected us as a family.” When Victor’s mother couldn’t support school, church, or athletic events one of his siblings would be there for him, and likewise, he would be there for his family: “When they couldn’t be there, my sister who is a year older than me would be and vice versa, and we continued that.” In this way, Victor and his siblings took care of each other and his mother, and he’s carried that sense of shared responsibility, of being present for those who are important to you (family, project stakeholders, followers, etc.) with him in his life and leadership practice.

Victor also cited his own children as influences to his leadership identity, noting that through their growth and development as people, he’s learned a great deal as well: “I told them I’ve learned more from them about how to live life than I can get from anything: any movie, any script, any novel, anything.” The lessons and principles he’s taught his children, the insights they have “picked up on, good, bad, or indifferent” have

shaped how he sees himself, and how he approaches leading his project team. Thus children can be an important influence to a leader's identity.

Kevin credits family with his approach to Army project leadership. He is admittedly a “very big extrovert” and has “always put people first” trusting them to do their jobs while providing needed resources and protecting them from distractions and interference from above and outside the program: “I attribute a lot of [my] personality and taking care of people type things to how I was raised, honestly. I think it has a lot to do with it.” Kevin was raised by his family to always put others first and take care of people: “That’s the way I was raised and that’s what I think is right so that’s the way I’ve led during my career.” While he’s also seen reinforcing examples from leaders and others in the military—for example his first Battalion Commander exemplified that same “people first” approach—his core sense of leading this way was formed through the influence of his family.

Thomas, who serves as an Air Force PM, credits leaders who’ve taken the time to coach and mentor him as the most significant influence on his leadership identity: “So I’ve had really good bosses, that have not only been bosses, but they’ve been mentors and coaches.” The coach-mentor style of leadership Thomas was shown positively affected his own approach to leading projects. Having grown up playing sports, he learned many lessons from dealing with adversity, to game concept, and relying on teammates, and understanding their talents and personalities. I actually bring all that into what I do in the office or out in the field, here within my Air Force team.” The mentors and coaches in Thomas’ leadership journey were the central impact on who he is as a leader: “And so, I

would say between the team sports, and being coached and mentored, even now in my Air Force team sport, that's been a huge factor in building who I am.”

However, Thomas sets his family's influence in contrast to that of mentors and coaches he found in and out of the Air Force. Whereas through playing sports, and learning from coaches and mentors how to interact with people (team mates, project stakeholders, and so on) helped him to become the positive leader he is today, his family's influence was very different. The positive influence he received from his sports and Air Force coaches and mentors

kind of goes against self-identifying how I grew up, which was in a very, Scandinavian, and stubborn family environment, which that was great, you know it actually, it was fine, it was good, but I've realized there's other ways to do it.

Victor also identified his ninth grade English teacher as one of the essential influences in forming his leadership identity. Victor grew up in St. Louis, MO, close to Ferguson and experienced many of the challenges that impoverished inner city children face today. However, Victor was part of the initial group of African American students from his area that were accepted into a magnet school program. Meeting his English teacher (also an African American) for the first time, Victor recalled what his teacher said to him that made such an impact on his development as a leader:

So they brought us from the city out to the county. . . . And in my freshman year of high school . . . English class, I meet [my teacher], he's from Jackson Mississippi, and he says, “Little black boys and little black girls: don't think that you're special. Don't think that you're going to come out here and destroy what these nice white people have given you.” Right, which is they've given you a structure. You have to now accept the responsibility and show that you are smart enough to succeed in this system; absolutely.

Like other informal mentors and coaches, in this case, a teacher and the lesson or caution he provided deeply influenced this PM and his leadership identity. Victor took away

from this experience that you may earn or achieve a leadership position, but then you've got to accept responsibility for that role and work hard to prove that you belong in it. In other words, the phrase "what got you here, may not get you there" is something he clearly understands. It's something that he is keenly self-aware of, and self-monitoring about.

Other Life Influences

In addition to the influence "others" had on participants' development of self-awareness, conversations with them revealed three main themes within the category of "other life influences." These were: experience, education, & self-study, and they will be considered below.

Experiences

Secondary, but also significant influences on the study participants' development of self-awareness were experiences they'd had as leaders. Each PM noted how early, or significant assignments played a key role in helping them develop their own leadership style or identity. They also recognized that military deployments, participation on sports teams, experiential training, and other personal events and experiences helped shape how they came to understand themselves as leaders. For instance, Michael offered an brilliant insight when he said, "All throughout your career, you're being, you don't even realize you're being fine-tuned one way or another."

Richard also noted that a leader's identity and abilities grow and mature as they progress through a career. Building a leadership "toolkit" over time, allows a leader to apply different tools and approaches to new and unique situations. "My leadership traits,

you know, my leadership toolkit has been expanded through my professional development so that as necessary I can change my leadership style to support the events at the time.” This leader saw his prior experiences as building his “toolkit” which allows him to apply the right approach to the acquisition situation at hand.

Thomas echoed the sentiment of building “alliances”, consensus, and teamwork as important endeavors where there are multiple stakeholders and agendas such as in acquisition, when he recalled growing up playing sports and learning lessons from dealing with adversity, “to game concept, and relying on your buddies, and who has what talent that meshes well.” For example he recounted his experience on the ice as a hockey player and what it taught him about teamwork:

I’m not a fast skater, but I can anticipate play based on how I read the situation, so my body can actually—albeit I’m three steps slower than you, I’m only one step, because I can see at least, keep up with you by those two steps.

The experience he gained playing sports as a young man directly influenced his approach to leading in the Air Force and in the defense acquisition environment: “I actually bring all that into what I do in the office or out in the field, here within my Air Force team.”

Thomas’ experience with sports taught him about understanding context, and situation, as well as how to adapt and “play the game,” and advocate for his project / leadership vision: “And so, I would say between the team sports, and being coached and mentored, even now in my Air Force team sport, that’s been a huge factor in building who I am.”

Ironically, Thomas was raised in a family environment that he reported as very different than the open, team-oriented, collaboration he learned through sports and the military.

The inclusive, consensus building approach he takes today is in contrast with how he

self-identified growing up as introverted, keeping one's feelings to oneself, but through his leadership experiences, he's realized there are other approaches that work as well.

Thus, team sports and the coaching and mentoring that go with working for a common goal shaped who he is as a leader. Those concepts are clearly in his perspective and outlook on leading. He learned a different way of operating and leading from the teams and organizations he was a part of, which were very different from how he was raised and how his family conducted themselves.

Lionel, an Air Force PM, reflected that his leadership identity was shaped early in his career, both in the Reserve Officer's Training Corps (ROTC), and when he was an aircraft maintenance officer: "So I'm leading a flight of 60 enlisted maintainers. That's a completely different experience, being one of the youngest people in the entire flight and I'm in charge of lots of people from different backgrounds, very different demographic backgrounds." Lionel turned to his experience in ROTC to face this challenge, adapting his participative leadership style to lead junior in rank, but often much more experienced followers in performing their aircraft maintenance mission. Reflecting upon his "consensus building" leadership style, Lionel noted that the first few assignments he had in the Air Force shaped him for the rest of his career: "If you find something that's effective and works for you, you tend to stick with it."

Several participants remarked that leaders learn from their mistakes and from negative experiences & outcomes as much or more than positive ones. For instance, Oscar observed, "If you had to measure it, I'd say 60% of your experiences were negative. At least the ones you took most of the lessons from right?" Zander added that leaders learn not only from their own experiences, but also from others. Good and bad

examples offer insight to developing one's own leadership identity, and how those examples apply to encountered situations and/or approaches to leading teams and projects:

Watching other leaders and learning what to do and what NOT to do. That's probably number one for everybody from 2nd Lieutenant on up; even as a cadet you see a couple of people trying and a couple of people failing and you go, "Oh, lesson learned."

Victor also recognized that leadership is not static; it evolves and matures through practice. He also noted that a leader must assimilate with his surroundings before he can effect change; that a leader continues to grow and mature throughout his life and career:

So I pick up things from people and places and events all around me, and I think I'm fortunate enough to say that as I've matured in life, I've found that my leadership style has also matured; its changed. I'm not the person I was, even a year ago.

In other words, those things he learned in his previous assignments influence, but might not exactly fit, the leadership challenges he faces today; he uses "some of his background and experiences" to help him "drive in decisions and develop leaders around [him]."

In contrast, Zander pointed to several significant experiences in his career that defined who he is as a leader. One such experience shaping this officer's leadership identity was "the Stryker program where we were developing a piece of equipment that went from PowerPoint to heavy metals in less than 28 months." The crucible of urgent requirements, high visibility, focused teams, and great responsibility significantly shaped this leader:

You couldn't do it by yourself. Each of my IPT's [integrated product teams] had well over 90 people. And you are doing \$4.5 Billion dollars for each of us Majors for two vehicles, so your program was a \$2 Billion dollar Striker variant. That was a significant emotional experience as a young Major.

In a sense, this challenge helped Zander prove to himself the leader he was and could be: “That was the environment I would tell you was the defining force or moment where I decided what my acquisition leadership style was going to be.” This experience reinforced that he must “be sure of himself, be sure of what he stood for and advocated.” To do that, he had to understand who he was as a leader, to have self-awareness about his leadership identity and the approach that worked best for him. Zander also noted a mantra he kept: “know who you are as a leader”. His early experiences in the operational army taught him that “your self-confidence and your professionalism mattered” to the soldiers he led, and that “your personal confidence and professional attributes mattered” to his followers, peers and superiors.

Other leaders noted that experiences in complex organizational structures and processes such as the defense acquisition system Integrated Product Team construct influenced their development. For instance, Charles, an Air Force officer credited his leadership style; that of participation, soft influence, and cooperation (i.e., gaining support from stakeholders whom you have no formal control chain or relationship) to the experiences he had early in his acquisition career. Charles reflected that the experience that likely shaped him the most was serving as a project leader (responsible for a component of a larger system, or a low dollar product or service, below the level of a program manager). In that role, he often had integrated product teams that didn’t formally report to him, they were assigned to his team but he didn’t have personnel evaluation, tasking, or funding control over them:

So I would have to work with those individuals in sort of a coaxing way to get them to accomplish the goals of the team. So I think that probably those experiences helped form my approach more than anything else.

Nicholas also reflected that his leadership identity was influenced by his vocational or assignment experiences, but the lessons he took from the operational side of the military steered his approach in a different direction from Charles—that of quick, focused decision making, without an emphasis on consensus: “I grew up in what was called ‘maneuver warfare’... it was very focused, know where the center of gravity is, know what you’re trying to do, be focused on your mission, be flexible, keep yourself poised to be flexible.” His approach thus shaped has translated into a refrain for his project leadership today: “Figure out what the 20% of the effort is to get the 80% of the value, do that and then get on the road.” In other words, his leadership approach to defense acquisition is “very much about speed of analysis and decision.”

This officer also had very formative experiences when he transitioned from the operational force, to the Acquisition workforce. In his first acquisition assignment his PM, a COL, brought him in and told him he would teach him “a couple of things that are really important.” This first meeting strongly influenced Nicholas and effects how he mentors his own junior leaders today. The COL brought him into his office and said:

First of all don’t tell my project leaders her babies are ugly. Second, you may be a Major but you are like a Second Lieutenant in this business [lowest officer rank]. You may not speak for six months; you can listen. Third, you are going to spend three of those six months in the Pentagon learning how to be a Pentagon Action Officer. There you can talk.

So Nicholas went off to the Pentagon and when he finished there he completed some additional acquisition training and returned an additional two or three months later as the Assistant Program Manager for an important part of the COL’s portfolio of systems. This very clear-cut guidance and strong perspective from his superior gave him a deep appreciation for the defense acquisition climate, structure, and culture, and thus

influenced his leadership identity. Through this experience, Nicholas reflected, he “understands who he is and where he fits in the larger acquisition or leadership picture.”

Nicholas also reflected upon assignments such as teaching at West Point Military Academy that influenced his approach to leading in the defense acquisition environment: “to this day I am using stuff that I taught there and I would have to say in that three years I spent a lot of time doing a great deal of studying on my own. So I came out of there with a lot of technical background.” These previous assignments and experiences developed a technical expertise in him which influences his leadership approach today. Thus, he can understand the technical “so what” when making programmatic decisions and trades.

Another Army Officer and PM, Oscar, provided an additional example of a formative experience reinforcing the notion that quick assessment, decision, and execution are favored over lengthy consensus building and collaborative participation by some leaders in program management. Early in his military career as an enlisted soldier, he served as a drill sergeant—a non-commissioned officer who is charged with training and indoctrinating civilians “off the street” into the military. In Oscar’s experience, he reflected that the initial entry training environment demanded “pretty much direct rapid fire orders – there really wasn’t any discussion” which reinforced that often the situation dictates the approach taken: “whether there needs to be [discussion] or not that was the facts. That was again, another lifetime ago. But it does form some of your thoughts and processes.”

Steven, who served 29 years in the Navy and today is a DoD PM echoed this sentiment. Though he finished his service as a commissioned officer, his prior enlisted

experience formed the core of who he is as a leader. Steven was a true “Mustang”, meaning he was never out of the service from when he enlisted as a young man, to when he was commissioned an officer straight from enlisted, without missing a day of service. Steven sees himself as “someone who has been in the trenches and knows what its like to ‘work for a living.’” Indeed, “Mustangs” are highly respected in the military, for they garner the respect of enlisted soldiers (i.e., “they’ve done what I do, and they understand me”), as well as traditionally commissioned officers who recognize that they’ve “been there” and “done the hard work” that many commissioned officers are never really challenged with.

These leaders’ testimonies indicate that the experience of leading people and teams can have a significant influence on a leader’s development of self-awareness. Significant individuals, such as first supervisors and commanders, senior enlisted personnel, peers and confidants, as well as powerful experiences all played a key role in helping them develop their own leadership style or identity. Yet one other element of leadership influence was reported in conversations with participants: education.

Education

The leaders in the study acknowledged that education, both formal and informal in civilian and military contexts also influenced development of their awareness about leadership style, strengths, and approach. Indeed one participant cited a “life changing” educational experience. Study participants also cited self-study and educational self-assessment as having influenced their leader self-awareness.

For Leonard, education helped change the course of his life, in fact setting him up to become an Air Force leader: “It [education] got me out the enlisted corps into the officer corps, and that just opened up a whole new bunch of doors for me.”

Richard has used education and training to hone his leadership skills and abilities: “my leadership toolkit has been expanded through my professional development so that as necessary I can change my leadership style to support the events at the time.”

Christopher, a civilian Air Force PM found influence from a senior leader development program he was a part of. Though the program did not change his leadership approach significantly, it provided new perspectives on the “elements . . . that make good leadership—managing change, managing people, business acumen” and as a whole, reinforced what he was aware of about himself.

Lionel felt that his early leadership education had the most influence on his leadership identity and approach: “the ROTC experience that was sort of a seminal moment in my leadership development probably.” Lionel reflected that “cadets don’t have a lot of credibility with each other; they’re all new.” Lionel further related that he felt like he didn’t have any particular special knowledge, “wasn’t endowed with any incredible charisma,” and so he worked hard to “get folks to believe in whatever project, whatever goal [he] was trying to achieve and get people to contribute to it.” That experiential leadership environment was a catalyst for Lionel’s leadership development. Given that lack of credibility, that novice status as an ROTC cadet leader, Lionel formed his leadership identity through applying the only “tool” he had: consensus building:

I think that’s where my style developed – I’m going to try to get buy-in from as many people as possible to move forward - because I’m not well established, I don’t have any special knowledge, at least in that point in my life I didn’t. . . . You lead different groups of people across different ages, different backgrounds, and you just have to

learn to – if you want to get anything done – you have to adapt your style to those different groups of folks.

Lionel gave an example of his early leadership style development in the field training conducted over six weeks between a cadet's sophomore and junior year which presents teams of cadets in rotating leadership and follower roles with series of tactical, operational, or time sensitive challenges to be overcome: “you go off to field training, that was a good experience too because now you're dealing with complete strangers, and still have to use similar sorts of things, - adapt your style to lead complete strangers.” In deed, Lionel credits his leadership identity today to that early experiential learning in ROTC:

So the way I could push a project forward was to get people to buy into it, 'cause I didn't have any other special credibility at that point in my life. . . . That's how I was able to get things done when I was younger, and it just stuck with me.

Oscar also acknowledged that professional military education influenced his self-awareness of leadership approach. Reflecting upon the Army's Command & General Staff Officer's Course—a 10-month graduate level seminar, lecture, and practical exercise based learning experience—Oscar recalled that his sense of collaboration as a leadership approach was strengthened through the experience:

They basically, make an example of collaboration, and how you had people who are firewalled one way or the other. If you work together—while you might not get along very well—you're going to come out with a better product collaboratively. That stuck with me.

Elaine, a former Air Force civilian now working as a Marine Corps PM related that mentors helped shape her participative leadership style, but so too, did a variety of educational experiences. Defense Acquisition University courses, other leadership training, the Air Force's Squadron Officer School, a master's degree in business, PMT

401, a senior leader's seminar, and the Air War College all influenced her leadership approach. The Squadron Officer's School was the first leadership school Elaine went to and it was "life-changing" for her: "you know, it was seven weeks long . . . and it was all about leadership, every day; every day all kinds of ways of being a leader." Her master's degree in Business Administration taught her group dynamics and team building, while PMT 401 was a significant influence on her leadership. Elaine felt that course was an "eye-opening" experience and much more useful than a "sit in the classroom" kind of leadership class: "It feels like you're not learning anything at first, but it's learning in a different way and it's adjusting or using what you learned differently."

Paul, a Navy PM, recalled that courses early in his military career were focused more so on "systems and operations" aspects, such as functional or specialized skillset training, organizational management, and so on. Later in his career, as he advanced into command roles, the courses shifted towards including leadership in addition to the functional topics. Focusing partly on the expertise it takes to manage a large, complex organization with diverse missions, and partly on the leadership necessary to make such an organization successful, the Navy's senior leader courses gave Paul an opportunity to reflect on his own leadership style and approach. Still, for this PM, education only played just one role in his development as a leader: "So those [courses] heavily influenced me as well. But I would say even with all that leadership training, where I think I probably learned the most was on the job from the people I worked for."

Victor reflected that he has learned and grown as a leader far more through difficult challenges, and even failure than from unhindered successes. This reality was reinforced for him at DAUs PMT 401 course, a 10-week case study intensive seminar for

DoD PMs. Through multiple case study analysis over the 10-week course, Victor found that “failure has a way of forcing success.” Victor related that he hadn’t been in one leadership position that wasn’t facing significant challenges, “not one yet in the Marine Corps [Acquisition] where I’ve come in and it’s been a highly effective organization: programs have been all on schedule, you have all the funding you need.” However the PMT 401 case studies showed him that “other people have gone through [similar] situations so the networks that you have they can always give you some insight.” Further he found that in a large and dynamic organization such as DoD Acquisition, “there isn’t one answer that I can’t get or that we can’t get that doesn’t already exist” to aid the PM in leading his team and organization.

Steven also found PMT 401 to be an “enriching experience.” He related the value was found in being able to “do some serious introspection, and think about the way you think.” Priding himself on being an “intelligence over emotion” kind of leader, he never really through introspectively before completing the course. The PM’s course forced him to “think about things in a completely different way, to “slip into the moccasins of someone else” to gain perspective and leadership insight.

Zander, an Army PM however, had a much different experience in PMT 401, perhaps because of the “personality” of the class, where the learning objectives were overcome by student’s own opinions: “I had twenty-three people in my small group. Seventeen of which required the ability to have their hand raised and be acknowledged and speak profusely and talk about their experiences.” What Zander thought would be a wonderful opportunity to learn how other PMs approach leading and acquisition, turned into a daily argument about the facts of the case studies without ever getting to the

broader picture or insight the cases were meant to deliver. Zander found another DAU executive program management course (PMT 402) much more rewarding. That other course for Zander was “where philosophy and thought and conjecture all occurred and sharing and knowledge and wisdom passed between people.” That executive course included cabinet level speakers, key senior acquisition leaders, and “had the mix of joint [services] and we had some civilians in our class and those of us who had some experience and really wanted to talk about big thinking topics.”

Self-Study

Self-study was also cited by some participants as being influential to their leadership identity. For instance, Christopher was influenced through self-study, reading “tons of management books”, and in making “personal observations” of leadership approaches that worked in the various organizations he was a part of over his career. Nicholas stated: “I’ve got to tell you the Internet is a wonderful tool. I’ll bump into something and be like ‘what the heck is this?’ and I will dig into it on the Internet and I’ll start tracking things and down and I will learn a great deal.” In slight contrast, Victor develops his “leadership philosophy” through reading non-traditional leadership offerings: “like Simon . . . and ‘Leaders Eat Last’ . . . Colin Powell’s book . . . as well as ‘Psychology Today’ and other psychological magazines.”

Self-Assessment Insights

The previous two sections described the influence “others” and “other life influences” had on participants’ development of self-awareness. The last section in this chapter considers the influence that self-assessment insights provided the study’s

participants: insights from self-reflection in PMT 401, personality type preferences revealed through the MBTI, as well as awareness gained from other self-assessments participants have taken in their careers.

PMT 401 Insights

The Program Manager's Course is designed to improve DoD acquisition outcomes by strengthening the analytical, critical thinking and decision-making skills of potential leaders of major defense acquisition programs and program support organizations (DAU, 2016). The course format is designed around small groups of five - six students—facilitated by faculty—who come together to review and discuss nearly 100 short program management case studies covering the full spectrum of defense acquisition. The PMT 401 course - which was used as purposeful sampling in this study—also provides a great deal of self and other assessment for PMs who complete the course.

Solomon noted that going into the course, what he thought was going to be a “wonderful opportunity to hear how other program managers do things,” turned out for him to be a “waste of time”; an exercise in “arguing about the facts and the cases.”

Solomon lamented that

In [PMT] 401 I had 23 people in my small group; 17 of which required the ability to have their hand raised and be acknowledged and speak profusely about their experiences. So every hour we played BINGO with certain members of our class because they had to provide their opinion on a topic. After week three I was done.

Other PMs had exactly opposite experiences in the course and found PMT 401 a thought-provoking, beneficial, and insightful course. Elaine found PMT 401 a very beneficial course and one filled with insights and a source of leadership awareness that

she has employed in her practice. The course is structured to press each participant to ask themselves, “what are you all about”, but also the focus is on helping participants reflect on understanding themselves and their interactions with others, as Elaine points out:

How do you need to adjust to be heard by this other person that isn't like you, right? . . . PMT 401 and the work I did there, really changed my interactions here with my current organization, to the point where [on a recent 360-degree feedback assessment] they said, “Hey, I marked you way better on all of these categories.” I got several comments about that.

Elaine had had made changes that were for the better, and she felt like PMT 401 was an “eye opening” course, “where at first you don't think you're learning anything, but then at week three or four, you're like ‘Oh! I think I'm getting it.’”

Victor remarked, “It took the first three weeks before my eyes opened a little bit; because it really wasn't about answering the questions in the case. They really wanted you to move to a deeper understanding.” After accepting the course's intent, Victor was able to ask himself of each case “what were some of the triggers that led to this event, and what would I do now [in the same situation], to ensure success” and so on. He found the challenge of inward reflection “interesting too because a lot of the questions were assuming you were the project manager . . . and knowing what you do now, what would you do?” Without explicitly stating it as a goal, the case study process seemed to help Victor become more self-aware.

Samuel appreciated the ideas shared during PMT 401 that forced him to reflect upon his own self-awareness. Although he hadn't “really thought about it before” taking the course, he found the process of self-assessment enriching: “You know that was some of the stuff that I really appreciated in the [PMT] 401 course, was the opportunity to do some serious introspection, and think about the way you think.” During PMT 401 Samuel

enjoyed exploring “furrows in the brain housing group” that he hadn’t ever explored before. In fact, as he recalled, the course structure “demanded you followed that crevice, even though you suspected it would go nowhere, you just went, because you’d never been there before.” He also added, “it forces you to think about things in a completely different way.” In addition, Samuel found “The Looking Glass” exercise “where you have to play different roles, and understand all the different roles, and I think that was extremely enriching, it really was.”

Robert also spent a lot of time in PMT 401 focusing on self-awareness and self-development:

But the problem is, the DAU classes don’t focus on that stuff, right? They’re more about the multiple-choice questions for even up to 300-level classes. So unfortunately, you know, I know a lot of people they just don’t want to do it; don’t want to be introspective and all that, but there wasn’t ever anything to push me in that direction until you get to those [400-level] classes.

Thus Robert was able to use his time in PMT 401 “to be more introspective, of hey, what do I wish I would’ve done better, where do I think I could’ve improved going into my new job, what type of style and tone works for me, etc.” The self-assessments provided during PMT 401 also caused him to be more “self-aware” of developing skills, and improving the weaknesses identified by his colleagues in the 360-degree assessment completed before the course.

Nicholas found PMT 401 “educational, enjoyable, and enriching.” Through the MBTI, Part II assessment and discussions held in the course, he developed an appreciation for others’ personality preferences: “the epiphany from 401 was, okay this is the way people are and they may not be able to change.” Nicholas has since been able to apply that understanding in his project leadership practice, where it has helped him

overcome some “personality challenges” with his staff.

Once he arrived at his next assignment after PMT 401 Thomas realized, “oh, man, all this stuff we talked about at DAU [PMT 401] is no joke, from: everybody’s personality being different; to you’re going to have organizational structure issues; to actual program issues; to the power of question; it was interesting, and it’s been good.”

Myers Briggs Type Indicator

Every participant in the study completed a MBTI assessment as part of PMT 401; each had also taken the MBTI multiple times throughout their career, as the instrument is administered widely in the DoD. Study Participants were represented in seven of the 16 Myers Briggs Types: ENFP; ENTJ; ESTJ; ESTP; INFP; INTJ; and ISTJ. The majority of participants were “Extroverted” as opposed to “Introverted”, with the most common Type being ESTJ (see demographics matrix in Appendix M). The MBTI was meaningful for the majority of participants, and most were very aware of their own Myers Briggs type and preferences. They also understood how those preferences impacted who they were as leaders, and how they functioned in and with their teams.

Brian, for example, vocalized a common sentiment among “Introverted” participants:

If you look at my MBTI scores I’m a hard, hard over “I” (introvert). And that doesn’t necessarily fit with the role, at least not the role I’m in now [PM] or was in the last 2 years. You have to interact with a lot of people, it’s constant and it’s day to day and it’s on a daily basis. I find myself coming home and not wanting to talk to anybody. Give me an hour or two to have no external stimulus. That is way outside my comfort zone but I’m learning to work like I have to because I think the job demands it.

Richard also noted awareness that he often filled a role in his leadership practice that wasn’t congruent with his personality type: “I mean I am a fairly solid INTJ but I can

adjust to be in a work environment with people 24/7 coming in and out of my office.”

However, he observed, that after about a week or maybe a bit longer of filling the extroverted role required of his leadership position, he still needs to “go catch my breath every once in a while and go for a hike or get away, and knowing that, it allows me to maintain a better balance in my life.” He also recognized that his personality Type assessed when a young man differed once he began his career: “It changed once when I was a cadet, I think, right as I was getting commissioned. I was an ENTJ and then as I progressed through college or flight school or whatever it was, I switched from an E to an I.”

Thomas echoed: “I’m a little bit of an eccentric, gregarious kind of guy, but it kind of wears me out to some degree. If you get into that Myers-Briggs thing right, I’m actually an E, but I tend towards the I.” In his new assignment leading a test team on a major Air Force acquisition he initially suppressed his natural personality preference in order to make a good impression with his team and leaders: “I was a little bit apprehensive because I didn’t want to come across as the goofy guy or that it was just a front; that he doesn’t really know anything.” After observing others in his organization and becoming fully integrated, he was able to act and operate more like himself in everyday situations: “And so now it’s all coming together and I’m okay with being a little bit happy-go-lucky and goofy, because that’s me.” Easing Thomas’ mind and role-play concerns has been the validation he’s received from his colleagues who now understand that besides seeming carefree he “can juggle all the technical, all the budget stuff, with an understanding of how to fit it into a timeline, because that’s what we do.” This ability to operate more like himself has made a positive effect on his self-esteem and “leadership

performance.”

Others spoke of the degree to which their Type preferences had developed or changed throughout their career. Elaine—like several other participants—remarked that her Myers Briggs Type had stayed consistent over much of her career, except for early iterations of the assessment. In her case, her Type hadn’t changed, but her scores were much stronger in each of the preferences: “Initially I was much more borderline on many of the categories, but now I’m just way, way over there, on all of them, E, S, T, and J.” She’s also learned how to balance her Type preferences with others to best relate, connect, and accomplish her program objectives, noting that through an understanding of how Type differences could be used constructively, “I was able to adjust enough of my personality to be heard.”

Christopher noted that his Myers Briggs Type changed substantially from when he first took it as a Lieutenant to when he took it as a field grade (senior) officer. He attributed the change to a better understanding of the Type dichotomies and preferences:

I really didn’t understand the test when I took it the first time—introverted and extroverted in Myers Briggs is not the normal definition of introverted and extroverted—I think that misperception influenced how I took the test the first time.

He also noted that he had changed from when he was a young man, to today: “how I was born is not how I am now. I grew up relative shy, but very empathetic, very rational; I’m a very logical person. As I’ve grown through the Air Force, I do get my energy from working with people.” He also acknowledged a good understanding of the MBTI preferences: “I can Perceive and Judge at the same time, I Think and Feel; I try to be a person that can look at both sides of an issue and try to understand it before coming to a conclusion.”

Hugh was likewise keenly aware of his Type preferences. Having taken the instrument four times in his career, he noted that his results were generally consistent with each other, but that because his Sensing (S), and Intuition (N) were so close to zero, the “dichotomies” had reversed on different iterations of the assessment. Hugh then related that three of the four type indicators for him were slight to moderate in terms of clarity of preferences: “I’m ESTP, but I’m not strong, I’m a very weak E, I’m a very, very weak S; T is about the only one that’s slightly off center, and I’m a very weak P. So I’m mostly right down the middle.” Hugh also attributed some of his success as a leader to his understanding of Type preferences and differences: “it really has helped my awareness of ‘sometimes you have to deal with different kind of people a little bit differently.’”

Leonard relayed,

I’m a firm believer in the MBTI, so as a starting point, I would recommend that somehow, if we could all wear our own little badges, like I’m an INTJ, or I’m an ENFP, etc., then you could best figure out how to relate and interact with other people, rather than people not understanding who you are.

He explained his idea, which was based on his own experiences with personality type preferences when others misunderstood him:

Like I ask a lot of questions right, and if you start asking people a lot of questions, they get offended by that. But it’s not because I’m doubting anything, it’s just I ask a lot of questions. . . . So if people knew that about me up front and ahead of time, then there would be less conflict later on, and vice versa, if I knew more in depth about other people we could work together better.

Kevin too, held an awareness of his Myers Briggs Type, noting a consistency over the several times he’s taken the instrument in his career: “The F and the T are very close to each other, but the others are pretty much right on. No doubt I’m an E. The P is not even close compared to the J. So yes it’s pretty right on.”

Victor also recounted a self-awareness of personality type and how it influenced his leadership style. Recalling his experiences during the initial period after taking command of his current program management office, he noticed a change in his Type preferences revealed in a MBTI he took in the same timeframe: “In a matter of months I shifted from being a strong introvert – my ‘I’ has always been strong to the right—but this particular time, my ‘E’ was dominant, so I was thinking okay, how was this possible?” After some reflection and study of the MBTI, he attributed his preference change to the role he had recently assumed: “I’d just taken over as the PM, so I had to be the extrovert, getting out, meeting the people, talking about my intent and so on.”

Nicholas, observed, “When I was first introduced to Myers-Briggs it immediately resonated with me because for me it solved a puzzle that I really never understood.” He further expressed his self-awareness with his own personality type stating: “I’m naturally an INTP, extremely strong N, extremely strong T, and extremely strong P. Kind of a weak I. Kind of a cusp between an E and an I. As I operate in the office though, I am an ENTJ.” Nicholas went on to describe positive differences between himself and two of his colleagues:

The three of us were working together and at some point “Ted” said “we’ll we have to get the three-thirds of my brain together so we can make a decision” meaning the three of us. It had become very obvious to me that we had synced up and we understood each other. We were very different personalities but we understood each other and we worked very well together.

Reflecting upon that vignette through the lens of the MBTI assessment he took at PMT 401, Nicholas noted he understood one of his colleagues to be a certain personality and the other one another Type, interacting with his own (INTP): “we were all different but all three of us moved into an ENTJ mode when we were in the office trying to lead.”

They were able to come together and communicate effectively with one another and know where the other person was coming from while still benefitting from their own basic personalities. For example he stated he found the meshing of those three personalities “intriguing”: “So when Ted brings in his way of thinking about things we can still converse about it, but he’s bringing it in from a different perspective. So we didn’t have the culture clash that might otherwise come in.”

Nicholas also noted insight about the clash that can occur when personality type differences are not used constructively. Recalling an ongoing conflict between his immediate supervisor and his boss, he described why he believes it often results in negative feelings and an ineffective organization:

Part of the reason is the micromanager [the next level manager] is an ISTJ. My immediate boss is ESFP. So the micromanager feels like he’s got to get his hands into everything while the ESFP thinks that he’s being trespassed upon.

Nicholas also understood how his own personality preferences could become a negative influence on his team and organization, but works to counter it as best he can:

In my ENTJ role I’m kind of a mission-oriented get-it-done kind of a guy, so I tend to not suffer idiots well. I have to remind myself to tune that down because even when I don’t think I am being particularly critical, other people hear it very differently.

Not all participants found full value in the MBTI, however. Leon reported, “I think not so much on the Myers Briggs, the Myers Briggs just kind of confirms, reaffirms what I already know about myself, or suspicions I had about my personality.”

Michael, echoed Leon’s words, asserting an observation that is repeated about many self-assessments: “You know the Myers Briggs thing, again, interesting, but not necessarily compelling because I think, you know, I think you can give somebody that exam three times on three different days, and maybe come up with different results.”

Michael believes that “some folks they look at those questions, they think, I’m going to answer this way ‘cause that’s how I would like to be, as opposed to how I really am.” He elaborated on this point with a hypothetical response to a generic self-assessment prompt: “I really like to fix things—okay, do you really like to, or do you, fix things? Right? I mean there’s a difference in wanting to fix things and fixing things.” Michael’s observation an inherent weakness in most if not all self-assessment instruments—the ability of the participant to “game” the answers to get the result he or she is seeking. This is a bias that developers of self-assessment instruments work very hard to overcome. (Carter & Dunning, 2008).

Finally Samuel concurred with Michael and Leon on the utility of the MBTI and other self-assessments, emphasizing his skepticism by recalling a comment he made following a recent MBTI assessment: “I do remember making kind of a crude comment about it being analogous to my horoscope.” Talking more seriously he added an assertion that the context, over any inherent personality preferences often takes precedence in leadership situations: “I think on the MBTI and on the 360 mirror thing, I think I take it with a little bit of salt, if you will because many things are situational.”

When it comes to leadership practice, many problems, solutions, and actions are contextually based, and a leader must apply his technical knowledge, skills, experience, and self-awareness for the best result. It is to the application of self-awareness that the study will now turn.

Other Self-Assessments

Kevin’s awareness of the shortcomings he identified earlier—of going “off-script” and losing focus with his team—came partially through self-assessment at PMT

401, taking the “Leadership Mirror” 360-degree assessment, and partially through reflecting on his leadership identity and approach: “If you really sit back and reflect like they ask you to do, you can learn a lot.” Kevin finds a great deal of value in self-assessment. He recounted,

If you do it [self-assessment] right and really reflect on what you’re doing as a leader and really look in the mirror I think you can do wonders. I think it changed me in 401 in terms of some of the things I do as a leader.

Kevin also felt that conducting self-assessment is better for leaders than the 360-degree surveys, because, he says, “I think you are a little bit more true to yourself . . . than what others [who may not really know or understand you] tell you in an anonymous survey.”

He went further:

I’m going to be honest; I’m not a big fan of the 360 because I don’t think people take it seriously. I think people just look at it as: ‘oh, I’ve got to do a 360 on them’ and then they just go right down and click the same the whole way down.

Thus Kevin doesn’t value 360-degree assessments nearly as much as he values “straight personal feedback” or the feedback he received in PMT 401 or in other advanced leadership courses, or “even just talking directly with peers.”

Other PMs also talked of the better self-awareness they gained through self-assessment instruments & practices, and feedback, both formally, and informally. For instance, Leonard believes “heavily” in self-assessment, noting the MBTI, the Influence Style Indicator, the Change Style Indicator, Eric Campbell Leadership Index, the Thomas Kilman Conflict Assessment and others as instruments he found valuable, particularly when he was able to compare his results with General Officers and other senior leader results on the same instruments, “. . .how they changed over time, or what they scored on a good portion of these tests.” Leonard has taken several of these instruments more than

twice. This perhaps allowed him to be reflective of the self-assessment process as well: “So at the nuts and bolts level [self-assessment] is a prerequisite, but then, what do you do with the information, that you [gained], do you use it to your advantage, or don’t you use it to your advantage?”

Brian, in describing the role that self-assessment played in his development as a leader recounted that he feels it has helped him engage other people who have more experience than he does in certain types of roles, and that he can learn from their experience: “They can help me maybe humble myself to accept that others have a value in being part of the conversation before decisions are made.” He also acknowledges that informal feedback has helped him more than formal assessment instruments through his career. For example “sitting down with peers and just discussing their experiences and bringing up problems; asking them how they have solved the problems and what lessons they have learned when they stubbed their toes and made mistakes.”

Oscar likewise stated: “I go to sounding boards, mentors, whether they be subordinates, or laterally I’ve got a deputy I sound off on all the time. Sometimes we don’t agree, but we trust each other to be able to say the truth.” Oscar believes that “honest and relevant” feedback is key to developing as a leader, and in building one’s self-awareness.

Leon noted that although he had taken 360-degree feedback surveys and other instruments through his Air Force career (in educational settings), he hadn’t seen an institutionalized, recurring process for prompting leaders to conduct self-assessments: “There’s no mechanism to say “hey, it’s time to do your leadership mirror . . . although that might be a good idea.” He also regretted not receiving as valuable, or substantial

feedback as he'd expected on the 360-degree assessment as part of PMT 401: "I want to improve what I'm doing wrong, and it's great to have sunshine blowing up your rear, but its not valuable in improving who you are as a leader and as a manager." However, Leon did receive useful feedback when he was an Air Force Squadron Commander as part of a "unit climate assessment" an organization-wide feedback and assessment tool used in most military units: "I got very pointed feedback as the commander, which was very valuable, because sometimes people will highlight things that you're completely oblivious to, or sometimes you made decisions you didn't think were controversial but they inflame passion in somebody." Through this feedback Leon developed a better self-understanding, and awareness of others' sentiments, such that he now tries to "be sensitive or more aware that something that may be a minor issue to me, just be more mindful that hey, this may have much more significance or emotional impact to somebody else."

Commenting on her experience working for the Marine Corps Elaine remarked that "people will give you more direct feedback anonymously, than in person." She also reflected that the self-results obtained from the 360-degree assessments she had taken were generally consistent with the feedback she received from others, "but really, where there were differences, I was usually grading myself lower." For example, she explained that compared to her own scores, her peers and subordinates had "graded" her evenly in all but one area, which she had assessed herself as having more ability in. While Elaine felt she was strong in "Strategic thinking", her peers and counterparts felt she was less so. Elaine's self-awareness about this assessment was apparent when she observed that, "I look at that [feedback] as, I'm not asked to do strategic planning here, so they really

haven't seen it. So my score is based on my history; they only have 4 years with me.”

Though some of the feedback Elaine received from her peers and associates may have been incongruent with her own, she did recognize that, “it was helpful feedback. It helped me adjust how I approached the day to day business, you know, the interactions, to make it smoother, not only for me, but for others as well.”

Not all PMs reported that they gained self-awareness through self-assessment. Hugh found that he didn't gain much from taking self-assessments like the “Leadership Mirror” 360-degree feedback instrument, though he did admit it helped him better understand what he already knew about himself: “I think my perception is that after being in the submarine force for 22 years, I probably learned that stuff already, but not thought about it in those [self-awareness] terms.”

Michael felt similarly towards self-assessments, but from a perspective that several other leaders in the study echoed: a lack of time to reflect on the insights available from self-assessments: “So I take it at face value, there's a couple of nuggets in there, certainly about the aspects that I mentioned I know are kind of a weakness.” Responding to an inquiry about what insights he took away from the various assessments he'd taken in his career, Michael, in reinforcing his opinion responded, “Not much, to be honest with you. So I find it mildly, it's interesting for a short period of time, but you know I hate to say it this way, but I'm too busy to sit around and think about it.”

In contrast, Richard found great value in self-assessments and used them on a regular basis: “In general, I try to do one almost annually and I also try to synchronize that with a team survey. So not only do I like the feedback on me as an individual but us

as an organization.” Richard went on to recount the benefit he derived from self-assessments:

So the nice thing about those assessments is that when you do critically look at yourself through other people’s eyes, it can help you to either determine if [the feedback] would be a beneficial change, to help you succeed in the mission or in relationships, or maybe it’s something you weren’t aware of in someone else’s perception. That [insight] can allow you to explain and understand that.

Simply including his whole team in the assessment paid Richard benefits as a leader.

“They were actually surprised that I did it at first and they were fairly open in their comments” What was more beneficial was Richard’s actions following the assessment: “I think that they were extremely pleased about the fact that I read and listened and digested their comments, and actually took actions to try to improve areas where they thought we were lacking.

Richard also recalled that his higher organization had administered a 360-degree like survey, with mixed responses: “And many of the folks said ‘I don’t do surveys because they’re either going to identify it as me and get upset, or it doesn’t matter because the command won’t make any changes.’” Richard took away from that interaction a lesson about people’s perception of the utility of self and organizational assessments: “So I think there is a little bit of distrust when you have events like that . . . but overall you still got to try and do it [assessments].” In short, assessments have to be seen as a genuine tool for improving strengths, performance, not as a device for “fixing” problems perceived by leadership, or they won’t be fully embraced by the workforce.

Richard also finds benefit in conducting informal self-assessment: “I am one of those guys who, usually at the beginning of the week—not necessarily everyday—I will sit down and do a little bit of reflection on the tasks ahead of me and what needs to get

done.” As the week continues, Richard will repeat the reflection process, considering progress, changes or new direction needed: “I’ll also stop then on a daily basis and think about my interactions with individuals and I will pay attention to how they talk, or discuss or ask me questions, and so on.”

Summing up his thoughts on the topic, Richard reflected that self-assessment works to “help develop me to be an even better leader as long as I listen to the feedback and assess it, because it allows me to see blind spots that I may not have known.” He also believes that self-assessment “allows me to explore different styles to determine their applicability and use in other situations.”

Frank, in reflecting on the role self-assessment has played in developing his leader self-awareness recounted that in his time with the Air Force, he hadn’t had many opportunities for reflection, self-assessment or leadership until he was a mid-grade field officer. However, he recalled that during PMT 401,

I was able to stop working on what I was doing, and then use that time to be more introspective, of “Hey, what do I wish I would’ve done better? Where do I think I could’ve improved going into my new job? What type of style and tone, etc.?”

Reflecting on the lack of self-assessment opportunities Frank said,

I know a lot of people they just don’t want to do it; don’t want to be introspective and all that, but at the same time, there wasn’t ever anything to push me in that direction until I got to those [senior-level] classes.

Nicholas also finds utility in self-assessments. For instance, he found the MBTI he took in PMT 401 to be very helpful in bringing him an awareness about others’ personality preferences, and also about his own expectations in dealing with them: “the epiphany from 401 was okay, this is the way people are and they may not be able to change.”

In another instance, Nicholas gained better self-awareness through a 360-degree assessment taken through DAU. In particular, the assessment was valuable because the individuals who provided him feedback were people who “were both close friends and really knew [him]”. Additionally, they had shared experience in working in “an extremely high stress environment for about four years.” Nicholas summarized his experience with the assessment noting that receiving that rich, personal feedback “allowed me to see some places where I personally had weaknesses that I didn’t recognize.”

The MBTI assessment also helped Nicholas improve his self-awareness and gain a better awareness of how his organization’s different personalities worked best together. For example, the MBTI helped Nicholas see that “I don’t do paperwork well.” That fact wasn’t one he was really aware of as a more junior acquisition officer. However, after taking the MBTI, Nicholas realized that “Once you understand [that weakness in organization and paperwork] you can say, okay I need a ‘keeper.’ So I arranged that there are ‘keepers’ in our organization.”

Nicholas also uses the insights he gained from the Myers-Briggs assessment in organizing his team for their best effectiveness. He now sees that his team needs

to have someone who is going to be anal retentive. We can’t have all ‘N’s. The ‘N’ will be off with lots of ideas, going ‘We could do it this way,’ . . . and I will say that’s very interesting, but somebody needs to come over here and tidy up the office.

Relating the insights Nicholas gained from self-assessments, and especially with the MBTI back to his prior service in the Army, he recalled what a former senior enlisted soldier, who had no academic training in personality preferences had told him about how different people interact, and about effective team make up:

I had a First Sergeant who used to talk to me about tank crews. He said, you need to have a panic master and you need to have a Cool Hand Luke. If you have two panic masters, tank crews fold under pressure. You have two Cool Hand Lukes and it doesn't rise to the occasion. You need one panic master and one Cool Hand Luke.

This practical, real-world advice about effective team configuration and leadership has helped Nicholas in organizing, and leading his team in their project missions, and has also become part of who he is as a leader—one who is intentional about the make-up of his teams.

Samuel, a retired Navy Captain and now a civilian DoD PM, believes that many things are situational: “I've had the honor of leading as many as 140 professional people into pretty hazardous duty all around the world, and I think you've got to vary your approach, if you will; it's not one size fits all.” Samuel acknowledges that some of the basic leadership traits and characteristics will “stay the same, regardless, but you do have to be a little bit flexible from time to time.” Thus, when it comes to formal self assessments and other parametric instruments, Samuel remains skeptical: “So like the insights I got from that [MBTI], my thought would be that it's not quite analogous to your horoscope, but you know, take it with a grain of salt.”

Thomas found affirmation in the 360-degree assessment he took as part of PMT 401. Thomas is self-aware regarding his character and approach to leading; his sense is that he is amicable and calm in most situations. The 360-degree assessment in which he received feedback from peers and colleagues confirmed his understanding, and reinforced his desire to be accessible and open-minded as a leader. Thomas' 360-degree respondents appreciated that he listens, and that he has an approachable demeanor. This resonated with him because, as he remarked, “quite frankly that's what I tend to lean towards: the bombastic personalities and the flamboyant ‘the sky is falling!’ doesn't

appeal to me. And so I try to not be that with others.”

Thomas also realized he had actually internalized many insights from the PMT 401 curriculum once he arrived at his next assignment:

I was like, “Oh, man, all this stuff we talked about at DAU [PMT 401] is no joke, from everybody’s personality being different, to you’re going to have organizational structure issues to actual program issues, to the power of question, it was interesting, and it’s been good.

Another self-assessment that Thomas drew self-insights from was the Change Style Indicator, though he didn’t realize he had until he met with change in his current leadership role. Assessing the workload in his PM, he saw that the office was doing work that was “not being managed properly . . . people are doing the work properly, its just [he] doesn’t feel like they are doing it as effectively or efficiently as they could.”

Thomas isn’t certain if his trepidation is just “the new guy factor”—coming into an organization and seeing a different path than the one it’s on—but what he is concerned about is “how are people going to feel when I change the organization?” That understanding Thomas attributes to the awareness he gleaned from the Change Style Indicator.

Solomon observed that feedback can come from places one doesn’t expect: “A secretary actually told me about my sarcastic and condescending tone after a conference call in my office she overheard. So feedback comes from the strangest places.” Going further, Solomon noted that feedback can also come from events and tone in a leader’s organization. In one instance, he’d received positive feedback from his team during a particularly trying situation: “If you’ve got your team’s back and you’re standing in front of them and defending them from all the nonsense that seems to go very far.” Going further he noted that he’d received positive feedback in a more general way when he

learned that he had people external to his organization wanted to transfer into his team. “It’s my little personal signal that success has been reached and I need to maintain or excel.”

Feedback and assessment has played a fairly large role in Zander’s leadership development as well. Discovering strengths and weaknesses, understanding his personality preferences, and applying them in transparent and authentic leader relationships have served him well. As mentioned above, Zander is intentional about seeking feedback, disclosing emotions (transparency), and using his personality during leadership interactions. He also is aware of other areas of focus. For instance, Zander recalled improvement feedback he received on a recent 360-degree survey:

Listening carefully to different points-of-views before coming to a conclusion. That’s always been very difficult [for me] in the acquisition community because, growing up as an infantrymen you are taught to attack, attack, attack; make a plan, and then execute violently.

Zander recognizes that an infantry approach may not be the most effective because

in acquisition you have so many more working parts and then you have these things called civilians who operate for profit and they don’t go home and work on your project for the next 6 hours at the kitchen table.

Another important awareness Zander has taken from feedback during self-and other assessments is “Admit mistakes when they are made.” Zander acknowledged that he has that shortcoming on his developmental opportunities list, but notes,

I will be the first one to tell you that on my teams I’ve always attempted to the best of my abilities that when something bad happens ‘I’ made a mistake, but [in the opposing situation] that ‘we,’ the team, succeeded.

However, a particular incident conveyed the opposite approach, which Zander also noted he follows when appropriate:

I had a retired Sergeant Major Marine Corp—in fact he was a Command Sergeant

Major. He pulled me aside one time and he said, “You know you really need to stop accepting all the responsibility for mistakes when other people make them and point them out to those folks.

So Zander occasionally, takes the tact such that, “Every now and then when something screws up and it’s attributable to somebody rip their head off in public.” Although this tactic seems harsh, and is (hopefully) applied only rarely, Zander, through the various self-assessments and feedback instruments he has completed over his time as an Acquisition officer, has learned a leader must “develop that type of personality and figure out how and where you need to focus your energies on other folks and get them motivated to do the job.”

Zander also recalled the feedback he took from the ALQ given as part of this study:

It basically says I’m a Type A personality; ESTJ and I don’t take criticism or seek enough self-development and corrective measures from my peers or my subordinates. Go figure. I’m an Army officer. I blame it on my infantry upbringing.

Summary

This study looked at the ways in which DoD PMs develop and use self-awareness in leading their teams and programs. This chapter reviewed the development of a PM’s self-awareness, that is, his or her understanding of their own leadership preferences, talents or strengths, core values, as well as the experience, knowledge and capabilities they possess and how they came to have that understanding. Three strong themes about the development of self-awareness emerged from the interviews with participants. First, PMs often spoke about external influences to the development of their self-awareness. For example, participants in the study often referred to leadership influences from leaders and others within DoD, and to a lesser extent the people outside of DoD. Secondly, they

related other life influences such as experience in the DoD, education, and self-study. Lastly, they discussed the role of various self-assessments in developing leader self-awareness.

Participants also spoke at length about the ways in which they use or apply the self-awareness they've developed over their careers: the application of leader self-awareness in leading projects. A review of those findings follows in the next chapter.

CHAPTER 5

FINDINGS: APPLICATION OF LEADER SELF-AWARENESS

Who we are at any one time is largely dependent on the context in which we find ourselves.¹

-Ellen J. Langer

Introduction

This study looked at the ways in which DoD PMs develop and use self-awareness in leading their teams and programs. This chapter describes the application of a PM's self-awareness, that is, his or her awareness or understanding, and use of leadership preferences, talents or strengths, core values, as well as experience in leading their project teams. The last chapter illuminated the development of self-awareness among PMs—through influential people, life experiences, and self-assessments. This chapter will examine how those influences thus assimilated into the participants' self-awareness and leadership practice, are then used in leading their projects, teams, and organizations.

Three strong themes emerged from the interviews regarding application of leader self-awareness. First, the PMs spoke of the guiding purpose they followed; the driving attitudes and beliefs that shape the way they lead their teams and projects. Second, they relayed an awareness of their performance as leaders in the various exchanges and interactions with their teams and project stakeholders—their “strengths” and “weaknesses.” Lastly, the participants talked about leading authentically—modeling

desired behaviors, putting people at the center of their leadership practice, mentoring followers, and adapting to context and situation.

Guiding Purpose

Discussions with study participants uncovered a fundamental component to applying leader self-awareness—that of the guiding purpose a leader looks to in performing his mission, tasks, or work. Participants largely related their guiding purpose to their awareness of leadership identity: how they saw themselves as leaders. The guiding perspective they take in leading their teams then seems to reciprocally drive their self-definition.

Four themes were articulated in participant conversations about guiding purpose: first, maintaining a “warfighter” focus; next, maintaining an “acquisition” focus; third, the differences between leading service members in operational units (in the “field” or “fleet,”) and leading predominantly civilians in the acquisition environment (from the “front office”); and fourth, making the transition between the roles of action officer—working individual components of a project—and that of PM, responsible for an entire project, program, or portfolio.

Warfighter Focus

As an example of the guiding purpose PMs in the study articulated, Robert offered a common viewpoint, focusing on those he “really serves” as an acquisition leader:

I take a warfighter focus – there’s an 18 year-old with a wrench, rifle, whatever, and he’s a guy with a family that’s got to come home, so you want to make sure you’re giving him the best equipment you can.

Robert elaborated that this guiding purpose then translates into a leadership style. He often asks

probing questions to make sure the people working for me understand the “why” they’re doing what they’re doing; that they’ve weighed the pros and cons, the risks, and they’ve got a well-thought out reason for how they’re executing a program.

Victor spoke not only of balancing participative and authoritarian leadership identities; he also related the obligation he feels as a leader: “In the Marine Corps, we talk about accountability and responsibility: holding your people accountable, good, bad, or indifferent. Then also, you’re making sure that you’re responsible to delivering your product.”

Oscar shared Victor’s perspective of living up to the commitment one has as a leader in defense acquisition; leading projects to support soldiers, sailors and airmen worldwide. Asking rhetorically, “Do you stop and rest on your laurels, or do you continue to grow?” He spoke of the self-improvement or continual improvement he challenges himself with in his daily leadership practice: “If you model yourself trying to be a leader and that’s what your mission is, you owe it to the people you serve, and serve with, to make improvements. If you can’t make improvements you might as well quit.”

Zander strives to be of worth to his stakeholders. Identifying a need to be “value-added” to the project, he also reflected on the late stage of his career that he finds himself in and what that means to his leadership:

It’s still a challenge, being value added. You know quite frankly I am old and broken up, so I can ride a desk and let some young stud go out and do the hard stuff, okay? But if I lose heart and lose the motivation to do my best then I’ll probably be the first to hang up my uniform.

The statement above and the others previously noted are representative of most participants and seem to show a strong sense of warfighter support as the guiding purpose

that frames these leaders' work in managing defense acquisition projects. Another common theme articulated among participants within the notion of guiding purpose was having an acquisition focus. That guiding purpose is summarized in the stories of several PMs below.

Acquisition-Focus

Several PMs in the study noted an approach to leading project teams that doesn't negate a focus on their ultimate customer—the warfighter—but at the same time, provides them with a leadership methodology well-suited to the complex, multi-stakeholder, and at times lengthy project environment.

For example, in his civil servant role today, Leon takes a less personal, and more pragmatic approach to leading his project team than he did as an operational force officer and commander. He feels that when it comes to decisions a PM doesn't have to make right away—especially in an acquisition environment—it seems most valuable to take the time and get input from all the key stakeholders. This bifurcated approach “sets the path” for success down the road: “There are certain program decisions that look, we can wait forever and I'm never going to get anything that really moves the ball down the field so lets just move out now.” Conversely, Leon noted, many complex problems in acquisition call for a logical, measured approach: “And then there's other things where you know what, I want to get as many opinions as possible.”

Other participants echoed Leon's pragmatic approach. For example, Zander remarked: “First and foremost you need to have integrity and perspective to do this job because I go back to the basics: everything I do, plan, say, or prepare for has got to be executed by an 18-year-old kid.” Samuel as well believed in a practical methodology:

“I’ve always prided myself on being an ‘intelligence over emotion’ kind of dude right?”

Noting that in leading, often one’s initiatives or ideas aren’t well received, or can just flat-out fail: “You know everybody’s feelings get hurt, but get over it and move on. How is this going to affect us going forward? How does this need to look when you’re done? Regardless of how you may feel about it.” He also noted that his approach is an “up front and personal” one. Leading “from the front” Samuel—like many of the participants in the study—works to know the mission, the organization, the functions of the project as best he can to enhance his leadership of the team:

I jump in there, and if we’re driving tanks, I better be able to drive a tank; if it’s rotary wing, I’ll learn how to fly it. It’s not that I have to shoot an X-Ray to command an organization that has an X-Ray department, but I’ll probably go down there and find out who’s doing it and how it works.

Victor also recognized that complex problems in acquisition often called for measured, unemotional, deliberate decision-making. In fact, he noted, a PM should often *not* make a decision on the spot: “In the heat of the moment, when everybody’s pressing you for a decision, take in the information and say, ‘I got it, see you in 24 hours.’” Explaining this unorthodox technique, Victor clarified, “In this [acquisition] business, I have yet to encounter any decision that’s so time sensitive, that you have to make it now.” Indeed, Victor operates from a perspective that time is always on a PM’s side. “It’s always on your side, which allows me to sort of sit back and not rush into some poor decisions.” He also acknowledged that leadership in acquisition—as in any leadership endeavor—required the courage to do what is right, rather than what is popular: “I’ve made decisions that I felt were right but were totally opposite of my teammates. I cut against the grain—I went against the popular and the norm, but you know, my gut feeling said it was right.”

PMs in the study, whether they took a “warfighter” focused approach to leading projects, or a more pragmatic, “acquisition” focused tack, also articulated a phenomenon perhaps unique to defense acquisition: making the transition from leading service members on the front lines, to managing multi-dimensional, multi-billion dollar acquisition programs staffed primarily by a civilian workforce. A summary of that experience follows below.

Transitions: Fleet to Front Office

With the warfighter and acquisition foci as background, several participants then spoke of changes in leadership approach from the times they led soldiers, airmen, sailors and marines in the field, to the current phase in their careers leading in the defense acquisition environment and how that change reinforced their sense of purpose. In fact, most military officers in the study noted some change or nuance between leading in the “fleet” or “the field”—where they enjoyed unity of command, hierarchical authority and execution structures, and rank on everyone’s collar—to leading in the acquisition environment—“the front office”—where they went from a well-defined, structured, military hierarchy, to one containing many stakeholders to appease, shifting requirements and priorities, often little authority over the functional support they receive, and not insignificantly, a large number of experts that they have to trust and rely on to do their jobs.

For background, all of the services employ manpower structures whereby officers from the “operational” side of the service are accessed into Acquisition career fields, with some variations among the services. For example, the Army typically accesses officers into its Acquisition Corps at the senior Captain, or Major rank, following successful

company command and other operational assignments. The Navy and Marine Corps follow a similar practice, though occasionally at more senior ranks. While some of its officers follow this methodology, the Air Force also accesses officers directly from commissioning into its “Acquisition Manager” career field. Each of the approaches reportedly works well for the services to develop the most qualified PMs, though some participants lamented having too little experience either in the operational (e.g., Air Force), or Acquisition side (e.g., Navy, Army), once they became PMs.

Considering whether his leadership style or approach had changed or evolved from the time he lead sailors in the fleet to today as he leads a DoD project team, Hugh remarked that it had changed only slightly, and any change was attributable to the dichotomy between leading service members and DoD civilians or support contractors (contract employees). Noting that his staff was 45% civilians, 45% support contractors, and 10% military, Hugh observed, “I have really no authority over the [support] contractors. I have, as a program manager almost no authority over the government civilians.” Going further, he commented that his civilian deputy has the authority over those civilian individuals, and that he had the “normal military authority” over the military service members that work for him. This arrangement is not uncommon in DoD program management offices where the majority of the workforce is civilian, with similar, but different evaluation/rating schemes, motivational sources, and punishment systems than military service members. Hugh, like other participants in the study was keenly aware of this difference between leading in the field and leading in an Acquisition organization:

So, I’ve had to modify my behavior a little bit, because I really can’t swing a stick at any civilians—not that I would really ever hold a stick over someone’s head—but at

least as a captain on a submarine, the crew knows you've got that in your back pocket.

However, Hugh noted that the mix of workforce employees doesn't change how he approaches leading his team on a day to day basis: "Fortunately I don't have any deadwood civilians—government or contractor—that I'd like to get rid of. I really think they all believe in what we do and they all work hard." Moreover, his approach to leading his team has influenced his results much more than any differences in the team's make up have. Hugh recounted how his approach on a submarine leading "19-year old kids" continued to work well for him in the defense acquisition environment. When he received a new submariner on his boat he would hold a one-on-one counseling session with them, providing his "command philosophy", rules and procedures on the sub, and so on. The most important discussion he would have with them revolved around three themes: "forceful back up; questioning attitude; and open communications." He would say that it was okay for them to question him, and tell him he was wrong (this is a strong taboo in the military, where junior service members do not question superior officers, except in rare, ethical challenges or immoral circumstances). He would caveat his invitation to question with the reality that he probably wouldn't be wrong more times than the new sailor would because he'd been in the Navy for twenty-plus years and the new sailor had just arrived, but he also encouraged their questioning: "I still want you to tell me I'm wrong, because the one time out of 100 that you're right and I'm wrong, something really bad can happen that time." He also reminded his young sailors that he would be back them up: "Trust me that if something bad is happening, and you tell me about it, we're going to do the right thing. And I need you to question what I do and back me up—because I don't know everything." Summing up his reflection on leadership

approach, Hugh relayed that the three themes he applied in leading submarines, “forceful back up; questioning attitude; and open communications” had worked well for him in the defense acquisition environment because those themes were universal, not specific to one category of employee or another, and perhaps were more germane to project management with its many different functional components, employee statuses, subject matter experts, and stakeholders, each with uncommon backgrounds, agendas, and points of view.

Michael—also a Naval officer—reflected the sentiment that good leadership relationships and approaches to leading people were effective regardless of context—military or civilian organizations: “my ability to make decisions and sway or motivate a crew has always been one of those things that I’ve been able to do, and I’ve tried to bring that same openness and humility to program management.” Michael observed that his leadership approach had grown over his career and in the transition from the “fleet” to the acquisition environment: “So it evolves, but the basic core fundamentals are the same.”

Kevin found that his approach to leading teams had not changed since transitioning to program management. Though he admitted it was “easier to give directives to soldiers”, Kevin felt that his participative style worked well in the field and in acquisition. “I tried to be part of whatever my team was challenged with. I was in the motor pool with the troops, I put up tents with them; I didn’t just sit there, I was out with them.” Another aspect of Kevin’s approach to leading that has remained the same over his career is delegation and trust of his subordinates. He relies on them “to do the right thing and get the job done.” Kevin has always believed that

if you provide clear direction and trust your people who are very educated in the acquisition world and you take care of all the other stuff above so it doesn’t get down to them, they will make the program shine.

In contrast, Leonard has found challenges in applying the same leadership approach he used in Air Force rapid fielding and “black world” acquisition programs to the “white world” or unclassified acquisition program leads today. Having come from an environment that thrived on individual expertise and responsibility, swift decision-making, and often directive leadership styles, Leonard has had to “put the brakes on” his approach to the mission as well as his leadership:

So this is one thing that I’m developing. So I am who I am, I make no bones about that. Now, how do you take the rough edges off, or how do you learn to operate [within a more traditional acquisition organization] and not alienate people? I still know who I am and my capabilities, but it’s trying to figure out how to best use those in order to solve complex problems. So maybe I need to delegate more and actually trust more, you know, hold people accountable for what they need to do to bring me back answers.

Richard found that his leadership approach had transformed since he moved into the acquisition field: “I think that two key points that change between the operational forces and the acquisition forces. The first big difference is that when you’re in the operational forces mission focus is ramped everywhere and Army values are embodied everyday.” He acknowledged however, that he’d also seen a great amount of dedication in the acquisition workforce “but not to the extent that you have it in an operational unit.” Going further, Richard observed that the other difference between the operational (unit) and acquisition environments was that “the method with which you interact with the team is different because in the unit there is the clear cut rank structure; ‘I work for so and so, this is my task, and this is our mission’” while in acquisition “matrix organizations” or “product-oriented organizations” there is still “a fair bit of questioning and concerns or conflicts as to how things are to be run.” He also noted that a source of dispute or confrontation can come from “those not familiar with the “brashness of the military” or

the harshness of how service members can talk with one another: “That’s not something that occurs in the primarily civilian work force because they don’t understand, they haven’t lived that lifestyle, they don’t realize that it’s not a personal attack it’s more of a professional challenge.”

Oscar too, found that leading in the operational side of the military services was often not well suited to leading an acquisition workforce. In fact he observed that he sees that challenge with many of the new Acquisition Officers he leads:

You know they come out of the operational field as a senior Captain, or a junior Major—and they’ve been fighting a war—they come into this environment, they look around like “What the hell is going on around here?”

Thus, at times, military leaders are challenged with adapting from a strictly military context “where everybody kind of gets it, and nobody has a real problem with you being direct and somewhat abrasive” to the more professional atmosphere of defense acquisition. Oscar punctuated this sentiment when he said: “I started as a combat arms guy—so the first instinct is: what’s the spirit of the bayonet? Let’s fix bayonets, charge - let’s go kill those bastards.” But, he admitted “that’s how you want to act; it’s fun to do that [attack problems belligerently], but it’s not very effective at this level.” Oscar summarized that in the more businesslike defense acquisition setting, a leader has to make the transition “away from the ‘fix bayonets’ approach and into the ‘let’s call the state department’ mode.”

Nicholas conversely, noted that his approach to leading hadn’t really changed from the time he served in the field to now when he is leading a project team. As an acquisition leader he behaves essentially the same way he did when he was a “Battle Captain” in the Army’s 1st Cavalry Division:

So I am usually assessing things very quickly and I almost run through the troop leading procedures in a very quick fashion. I run through an estimate of the situation in a very quick fashion. I conduct reconnaissance the way I was taught to conduct reconnaissance. Of course it's very different in the acquisition business. It's mostly about making telephone calls or going to a plant or something like that. But it's very much the same thought process that is involved.

Samuel as well applies his leadership approach in the same manner as he did when he was leading Sailors and Marines in the Navy medical corps. "I guess it's the way I am and not likely I'll ever change. Flex to meet the requirements and mission and take care of our folks, no matter what their category, but that's what I've done forever." Moreover, as a Naval medical officer Samuel was assigned primarily supporting the Marine Corps, and those experiences heavily influenced his leadership approach, noting that "most Marines" are imbued with a philosophy of "you put up the horses and clean up your gear, then the troops can eat, and if there's any left over the NCOs and officers can have some chow. . . . The officers are up first and go to bed last." Additionally, for Samuel, it comes down to focusing in on the mission, regardless of context. "So its kind of like leading your away teams like we did when we were expeditionary right?" That is, knowing and understanding the team he's supporting or leading, and recognizing the objectives for success:

This is the project; we're going to prepare, deploy, employ, and then redeploy back home again. Make sure we do everything we were supposed to do, and bring everybody back as inexpensively as possible in terms of blood and treasure.

In terms of leadership approach differences between the operational and acquisition sides of the service, Leon recognized that "you tweak at the margins a little bit based on the environment and the situation you find yourself in." Going further he acknowledged that in the field [operational environment], fast decision-making is called for: "the Air Force really drills into the officer corps pretty intense leadership – I mean

they even teach you to walk fast - which then becomes problematic when you cross over into the civil service.” Leon acknowledged that the transition was one he had to be deliberate about; that he had to “unlearn the active duty mindset” and figure out how to better fit into a “more collegiate environment”: “I’m trying to bridge that gap between what I learned as an air force officer for many, many, years to now learning how to be more oriented on team consensus, and knowing your emotional intelligence.”

In addition to adjusting their leadership styles from the time they led in the field and fleet to today as they lead defense acquisition projects, the participants in the study also highlighted another adjustment they’ve had to make. Once they initially learned the business of defense acquisition—learned how to manage cost, schedule, technical performance, and risk—these leaders were called upon to transition from action-officer-level tasks (assistant product/program managers) to product, project, and program managers leading much broader, complex and cost intensive projects. That transition is discussed below.

Transitions: Action Officer to Project Manager

One other theme emerged from participant conversations with respect to guiding purpose and focus of leader behaviors and actions: making the transition from action officer—one who is responsible for a particular product, component, or function—to that of PM, the leader responsible for an entire project, program, or portfolio of programs.

A number of PMs offered examples of this transition. For instance, Brian noted the challenge with making the transition from “doer,” technical or functional expert to PM in terms of being effective, and collaborating with a team of technical and functional experts that now work for him; who look to him for leadership and guidance rather than a

technical answer. Acknowledging it as a weakness, and as something his team has pointed out to him, Brian pledged to himself to improve on it, while elaborating on the source of his role discordance:

It's a result of being an engineer and technical expert for quite some time and now I'm moving into the position of not necessarily being the smartest in the room on all the subjects and having to engage a lot of different people on the team to come up with the right answer.

Olivia echoed Brian's response when she remarked about making the transition from junior or mid-level leader to senior PM, noting the struggle to balance leading and mentoring, or even "micro-managing": "it's really stopping myself and saying, okay, they're not going to do it exactly as I'd do it, but you have to teach them to fish as opposed to doing it for them." She also noted a corollary to balancing leading and mentoring juniors – transitioning from a subject matter expert role within a project, to being the liaison to senior leadership who can "make or break" a PM's endeavors: "you have to make that translation from subject matter expert and manager to communicating strategically to senior decision makers so they can understand the pros and cons of alternatives and then give your project support and guidance."

Thomas relayed a hesitation felt by several participants in the study, which he reported comes from a lack of expertise in a new leadership role. Like other specialties in the Services, acquisition officers serve in rotational assignments from one to four years on average. With each new assignment may come a completely new product, service or specialty area. Often the project leader is a "generalist" in acquisition, or may have expertise in one area—for example in software development—but not in another, say, aviation programs. This can cause some trepidation, as Thomas explained: "You don't want to throw yourself out there as not good enough on day one, and that's something

I've dealt with over my career." Thomas feels that sometimes he minimizes his own talent to a degree because he tells himself "I'm not as good as the others because I don't have the [aircraft] background, but the bottom line to me is I can still lead, I just have to find the subject matter experts and catch up." For example he illustrated,

You get comfortable [in an assignment] and then you move, right, and so you come in and people start talking about 'the actuator on the boom and the airflow that comes across is actually going to throw us if we're at 28,000 feet and at 320 knots. I'm like: I just started, I have no idea what you're talking about."

However, having served in several PM roles, Thomas now puts it all in perspective: "it's okay to not know everything; it just took me a while to realize that again."

Thomas also noted being challenged with the transition from action officer to project leader. Through some 360-degree assessments as well as personal reflection, Thomas recognized that often he would find himself wanting to take too much on, and say, "Well, I'll do it, I'll do it." However now he understands that he has a team who he can lean on to do the work: "They're the experts in it—I am not." And so he is getting comfortable with that role: "I used to be the guy that would say 'I'll write that for you boss', and 'Oh, I'll find that for you boss.' . . . I know how to do all that stuff, but I don't have to do it anymore." He elaborated further that it's the team working for him that is best suited to execute the work, and his role is leading the team, facilitating and coordinating "up the chain" for them. "I don't have to do the work of building answers, but, I have to challenge the team: 'Hey, what about this?' 'The boss is going to think about this.' . . . It's just a different mentality in terms of where I sit now."

Most of the participants in the study also reflected on applying self-awareness in leading others and recognized that beyond a driving or guiding purpose, leaders had to understand how their own behaviors impacted their teams, their performance as leaders,

and their project outcomes. A review of the participants' awareness of those leader behaviors follows below.

Leader Behaviors – Strengths and Weaknesses

In reflecting on their performance as leaders, PMs interviewed for the study relayed their perspectives on strengths and weaknesses, insights they gained from various self-assessments they'd taken throughout their careers, as well as understandings and lessons they took away from PMT 401. They also imparted meanings they'd gained from taking multiple iterations of the MBTI throughout their careers. In short, they relayed an awareness of leader behaviors, and how those behaviors impacted their performance leading projects. A review of that awareness follows.

Strengths

In reflecting on the awareness that they'd gained from experience and experiences, the results of self-assessments, education, mentoring by others, and so on, many participants discussed the things that helped make them successful day to day in leading their projects and teams; their strengths. For instance, several PMs interviewed relayed that they were considered to be, or considered themselves "technical experts": "very mission-focused," and "able to grasp program details" with "quick understanding of the problem and solution sets." They noted being "detail-oriented, good at multi-tasking," handling "a variety of projects at once with a variety of details." Other PMs had an acute awareness of the products or systems they were leading teams to deliver, which added an additional element to their leadership ability. For example, Richard, an Army Aviation PM offered this insight in addition to the "people skills" he feels are a

strength: “I also understand the application of how we use the helicopter because that’s what I did for the first ten years of my career.” More often, however, PMs identified themselves as generalist leaders—“intermediaries”, coordinating various elements in acquisition to accomplish the goals of the project. For instance, Leonard categorized his strength as being “very well organized, [I] can take the complex and decompose it into manageable piece-parts, and then set-out and hit [my] targets.” Richard, while having technical expertise on the system his project team delivers, is also aware of his strength in conceptualization: “I can look at how independent smaller things combine into a holistic solution and I also have a good conceptualization as to how efforts or actions have second or third order effects.” Solomon recalled his awareness of strength in this area as well: “I understand the synchronization of the acquisition process that brings the money, the requirements, and the resources, and the people together to make a project.”

Participants reported that using an open, direct approach while listening to their teams and trusting in them to accomplish their tasks and missions was a strength that contributed to their success. For instance, Michael understands that one of his core strengths is allowing people “to do their jobs and trust them to do them right and tell me if they’re having problems, or if they’re going to be late with something, and not micromanage.” Victor recalled his success in the project he leads facilitated by an “ability to spend a lot of time listening, and allowing people to voice their opinions.” Other PMs also displayed an awareness that their successes have come from openness to differing opinions and approaches to problem solving from their teams, encouraging “dissenting opinions” and hearing “both sides of an argument” before coming to a conclusion. For instance, Christopher summarized this notion:

If somebody comes to me and says, ‘You know I think we’ve made a mistake here or you’ve made a mistake and here’s why,’ I’m open to that. . . . If I say something and someone doesn’t agree, I expect them to challenge me.

Jacqueline remarked that maintaining a balance between work and personal lives for her followers was a strength that has served her well. “When it was time to work, I pushed everybody to work, but when there was no work and it was time to leave, I expected everybody to leave; disengage, go and actually live your life.” Jacqueline applies this approach to herself as well, seeking balance, but as a dual-military family with a husband deployed overseas she is functioning as a single parent, and that has forced her to “swing the balance” towards her family at times, even at the expense of telling her superior she’ll be late to work to fulfill a family commitment: “I am 100 million percent dedicated to my family. . . . So when my kids, say ‘at 0800 on this day I want to have breakfast,’ then at 0800 on that day I’m having breakfast.”

Participants also observed that understanding people was a key enabling strength for a PM. For example, Thomas, new to his Air Force assignment draws upon his abilities to understand not only himself, but also those he interacts with: “My ‘spidey senses’ are pretty good. You know, I can read people pretty well, and so I’ve tried to take advantage of that, even though I don’t necessarily know everybody that well.” Thomas also elaborated on influence as a leadership strength: “It comes back to that influence thing, every person is different, you can’t just run up to someone and say ‘hey I need this done!’ they’ll be like ‘who are you?’” Rather, he notes, a leader has to get to know their followers—“walk around a bit and see what the dynamic is”—and establish a relationship in order to have real influence on them: “You know, its like you have to know how to turn on and off different people.”

Other PMs in the study noted their understanding of a transparency, an authenticity that their teammates, followers, and stakeholders see, and which positively influences their project outcomes. For example, Christopher recounted, “People are willing to talk to me because they know that what they see is what they get. I’m honest, I have integrity, at least I think I do, and people see that.” Adding to this Authentic Leadership notion of transparency, Leonard added: “So I am who I am, I make no bones about that.” Leonard clearly understands himself as a leader and individual: “I’m comfortable in who I am—in my self-awareness—my INTJ fits me, and my ‘Type Talk at Work.’ I mean it just totally hits me 100 percent.” Zander—who credits much of his leadership identity to “being raised as a leader” in the infantry—provided a unique perspective on authenticity, transparent relationships, and awareness of his role in them:

Personally you and I can have a business relationship and as long as it is professional that’s great; if we get to go out and have a beer after dinner, even better. But if you don’t like me, I don’t care. That’s okay because the only person that really has to like me is my dog.

Zander elaborated on the authentic approach to leading his project team, citing that he’s not afraid to disclose his emotions; getting upset when he needs to: “You can’t always be a level-headed and perfectly emotionless robot. It’s not my personality; I mean ESTJ. You and I know exactly where we stand when we walk out of the room.” This PM also touched on the Authentic Leadership component of ethical/moral values when, in reflecting on taking on a new leadership role, he posited that “I know right away that the morals, ethics, and values of an organization have to be in line with mine and that it’s above reproach across the board.”

Understanding his strengths quite clearly, Christopher reflected that his experience on active duty, as a contractor, reservist, and also as an Air Force Civilian

working for the service at various stages of his career have provided him with perspectives and insights that many of his colleagues don't have, and he works to share those freely. He also noted his calm demeanor as a strength in leading his project team: "I don't get excited. . . . The staff seems to like that, because I keep tough discussions pretty calm, and I think I'm pretty accessible, easy to talk to; I try to be non-threatening." His "even-keel" approach is isn't mistaken for apathy or softness: " I don't get mad a lot, but I'm not afraid of taking strong action."

Hugh, a Navy PM elaborated on the concept of situational leadership. Hugh feels that one of his strengths is applying leadership resources where they're needed. For example, with his trusted, experienced subordinates, he spends less internal, leadership resources motivating, evaluating, and assessing their work: "so depending on the situation, depending on the person—their talent level, their experience, and the consequence of getting whatever it is they do wrong, I may be completely and utterly uninvolved." In contrast, with his new, inexperienced, or less skilled subordinates, he invests more leadership resources to ensure that their decisions, actions, or initiatives fit within the his intent and guidance, and represent a smart or intelligent investment in project resources and also represents acceptable risk: "And if somebody else who's less experienced, who's less talented, and/or the consequence of getting it wrong is very high, I might spent hours on that [issue]."

Kevin demonstrated a keen understanding of authenticity when he said,

I think some leaders don't do well by trying to fit a certain mold and not being themselves. I don't think you can do that, cause people catch that, you know? People catch if you are not real and you're not true to yourself.

Kevin attributed success he had with being an authentic leader who was self-aware: “I’ve been lucky because almost every job in my Army career it’s been, I’ve been able to be myself. I haven’t had to try to fit a role.”

Leon, an Air Force PM articulated an awareness of his “fairly good” communication skills, “particularly at written, but pretty decent oral too.” and how that positively affected his team’s performance. He also noted a belief that most of his team would say he was fair in his assessment of issues and situations, and also revealed a certain self-awareness when he said: “I’m not rash in my decision-making; I lead you to the appearance that I’m accepting, which gets me as many inputs as possible before I make a decision.”

Nicholas, an Army PM related that he is aware of the significance of his leadership position, and often reflects on how to “explain things to people,” that is, to teaching, mentoring, and coaching; specifically with passing on a legacy to his junior officers:

I have got to pass on to the juniors, especially to my Majors and my Captains the training that I received and try to get their heads right so that they will be successful and so that the Army will be successful.

Michael, a Navy PM seemed very self-aware, and understood that who he is as a leader effects his team’s outcomes. Moreover, Michael embodied the authentic leadership construct (self-awareness, relational transparency, balanced processing, and ethical/moral values) in his personal leadership philosophy: “[Be] approachable, approach life with a little bit of humor, and then the things that are absolutes, you can’t waiver on, and make sure they understand what is an absolute must-do.”

Oscar, an Army PM recounted that self-awareness is a critical component to

improving both oneself and one's team: "It's an awareness thing. If you think you're perfect, what are you improving? It might be cliché but if you think you're perfect, look around; somebody's flanked you . . . you've got to look at yourself somewhat continually." Oscar underpinned this sentiment when he said, "Well you know, I think I'm like most fools: you only learn what you screw up." Oscar went on to reflect that he uses his self-awareness to influence his followers' behavior: "I use it as a coaching tool. Because I think that if they're not aware, they're not growing. You have to know what's wrong, you have to look at yourself, before you think, before you act." Summarizing his use of self-awareness and authenticity in leading his project Oscar revealed the purpose of his approach: "I also think that if they're seeing me as genuine, they'll be the same person. If they see me trying to improve, that's going to inspire them somewhat to try to do it."

Weaknesses

In addition to talking about the strengths that helped them lead projects, many participants also spoke about their awareness of leader behaviors that detracted from, or impeded leading projects to successful outcomes. In short, they discussed their perceived leadership weaknesses. The participants spoke of specific leader behaviors they were cognizant of and working to correct. For example, Brian, a Special Operations Command PM noted that he'd become aware of a leader behavior he considers a "weakness"—that of his steering the decision-making process of his team one way or another by simply declaring his opinion, conclusion, or preference on key decisions without input from his subject matter experts. Recognizing this fault, and "being more self-aware" of it, this PM now works to lead team meetings on important matters without

“making any declarative statements.” He’ll “only ask questions with the hopes of drawing more information out of more people rather than jumping to a conclusion” [himself] or “getting there without the input of the other people.” By “drawing more people into the conversation” he is able to get as much “insight and information” as he can before making a decision. A project team looks to the PM for guidance as they execute their mission, however this participant recognized that well-meaning or not, he was limiting his team’s abilities by commandeering the process. He now actively applies that understanding in a specific leader behavior that benefits his team and his mission. Brian also noted that he has employed “a lot more self-reflection” over the last few years than in his past. Brian credits that self-reflection and patience with being able to engage others who have more experience in various roles and he now sees that he can learn from their experience: “They can help-me maybe humble myself to accept [that] others have a value in being part of the conversation before decisions are made.”

Another “weakness” this PM affirmed he was aware of was interestingly related to a trait he considered a strength. He’d earlier described how he was a technical expert in the technology his program acquired, and as such was quickly able to grasp important program details, and gain understanding of “the problem and solution sets.” However, when speaking about perceived or reported weaknesses, he reported that although he was able to quickly understand the relevant information about a problem, he often took a long time to render decisions due to his “willingness to consider all possible solutions before making [that] decision.” Other times he saw the inverse as a weakness, that is, “not getting enough input from as many folks as [he] should before making up his mind” on a path forward, instead relying on his own technical abilities and expertise to guide him.

The feedback on weaknesses he got from others in his 360 assessment was not one that was unexpected. Brian admitted that “it’s something I need to work on.” He attributed his more recent willingness to consider all possible solutions to being an engineer and a “technical expert in the engineering field” for a number of years. Now that he is in a senior leadership role, he feels that he’s in the “position of not necessarily being the smartest in the room on all the subjects and having to engage a lot of different people on the team to come up with the right answer.”

In contrast to Brian’s high technical expertise, Michael, a Navy PM, noted awareness of his “weakness” in the opposite direction; that as a PM and leader, he was often more focused on the strategic rather than the specifics, and not always willing to “dive deep, deep into details.” Michael put it this way:

You know I’m not an engineer, so I have to press the “I believe” button a lot; I’ve learned a lot over the years, but there’s so many issues that arise of a technical nature that I just don’t have the background.

Kevin echoed Michael’s sentiment about awareness of his lack of technical skill versus more general leadership ability:

I self proclaim that to my bosses I am not a mechanical or design engineer that has all those answers; I know enough to cause trouble. But I can’t get into an engineering discussion and come out of it looking any smarter than I am already.

Kevin was also aware of his “leadership style and the ENFP part of it” and how that effected his performance and interaction with his team. Citing his style and personality preferences as sources of weakness at times, he recalled, “I don’t make rash decisions. And I can talk and I can just go on and on instead of hey this is the agenda that I need to follow” ... “I still like to talk and I’ll still get up in front of my folks without an agenda and talk from the heart but I’ve also learned that there are places that you can’t do

that.” Kevin credited his awareness both from experience, but also from feedback: “you have to stay on track and that has helped me a lot, learning from, that’s mostly not trial by fire or anything but feedback from peers.”

Christopher listed a lack of awareness of political issues as a weakness:

I can gauge people pretty well, but I don’t think about political implications; I’m focused on what I think is doing the right thing. So sometimes I don’t necessarily recognize the political ramifications, until they’re staring me in the face.

Elaine was self-aware of a weakness others identified with her “making decisions too quickly,” or appearing to not listen to all inputs in a decision-making situation: “It’s not that I’m not listening to all sides. It’s actually that I’ve heard it, made my decision, and moved on. But others have not made their decision yet, so they feel like I’m moving on too quickly.”

Leonard also noted quick decision-making with little input as a “weakness” that he works to overcome: “I tend to overlook other people’s opinions, and I’m trying to work on that right now.” Leonard qualified that admission, noting: “So in other words you get to moving fast, where you have to make a quick decision—so maybe you don’t include everybody’s opinion—and you miss that one opinion that could’ve saved, you know, cost or schedule.” Yet Leonard also was aware of how he can make steps toward transcending this shortcoming as a leader: “So maybe I need to delegate more and actually trust more, you know, hold people accountable for what they need to do to bring me back answers.”

Michael also sometimes struggles with allowing his team to do the work. Having developed a drive to “dig in” and action tasks until their completion earlier in his Navy career as a staff officer, and later in the Pentagon, Michael often finds it “hard to let other

people do certain aspects of the job [program management]”, ‘jumping in’ and doing work for his team that really belongs in their ‘job jar’. Michael recognizes this can be frustrating to some on his staff, but acts with the best of intentions:

Something will come in and I will just grab it and fix it in 5 minutes and I get told, “Hey, you should have let the team do that and let you take a look,” and I view it as I’m trying to help them, that’s one less thing for them to do; but then they don’t learn that way.

Richard also finds it difficult to delegate as much as he should as a PM, and sees it as a recurring theme in 360-degree multi-source feedback assessments: “guys will say that I micromanage. I sometimes get too technical when dealing with tasks—and again I don’t necessarily see that, I see this as me helping when necessary—but that’s what a lot of people will say.” Richard did acknowledge however, that one of his “weaknesses” can be “sometimes not letting people learn—do it themselves and learn—sometimes you want to just take it over and do it yourself.” This sort of theme was commonly stated by the PMs in this study. The participants saw transition from action officer (assistant or deputy PM) to organizational leader and PM, as often one of the more challenging aspects of leadership they strove to be aware and conscious of.

An associated shortcoming that many participants noted was the converse of “actioning” others work as discussed above. Brian, a Special Operations Command PM noted that one of his strengths as an assistant PM was being detail oriented, while also being “good at multi-tasking”, able to action “a variety of projects at once with a variety of details.” This made him very successful as a young acquisition officer. As a PM though, he’s seen his ability to do those things constrained by both the sheer volume of projects under his responsibility, and the structure of the team accomplishing the work. With his subordinates “actioning” the majority of the work, Brian was aware that he must

focus his leadership energies less at “doing”, and more at providing top-level direction and vision to his team. In a practical way of addressing this, Brian recognized where he could better his leadership practice: “People always want more of your time to focus on something, but you have to move on to the next thing, so maybe time management would be an area for improvement.” He also understood that his ability to be “detail-oriented” was a positive attribute in his junior years, but as a senior leader, he sees that it can be a detriment if not applied judiciously: “I think that the detail-oriented [ability] can drive people nuts, until they learn your style, that you’re not questioning their capability, you’re just trying to understand.”

Thomas also struggles with prioritizing issues and focusing resources in his Air Force PM role, because

you always want to just do it, and show you can get it done, but in terms of time management, and especially now – things are frantic around here – and being able to go to your own juniors, and say, “I need you to do this, and yes it out prioritizes the other stuff I wanted you to do, just even 12 minutes ago.

Thomas articulated that in his junior years, he often wanted to take too much on, telling his superiors, “well, I’ll do it, I’ll do it.” But today as a PM, he is aware that his leadership position calls for him to provide direction, resources, and support, rather than action:

And now, like I said, I have 12 other people and I can lean on them to do work—they’re the experts in it—I am not. And that is a getting comfortable thing, based on the position I sit in.

Jacqueline gained self-awareness of areas she needs to improve upon through the 360-degree feedback assessment tool. She sought out senior staff consisting of her senior logistician; financial manager; contracting officer; as well as her military Assistant PMs to provide her feedback through the DAU 360-degree instrument (used in PMT 401) not

long after taking leadership of her PM office. What she took away from their feedback was the need to provide guidance, direction, & resources, and then get out of her team's way: "I learned that . . . I needed to trust the team—meaning that on separate occasions I had, I would issue the orders, I would give my intent, and then during execution I was somewhere in the area, overshadowing." Jacqueline recognized this "flat spot" in her leadership through personal, immediate feedback from her subordinates as well:

Sometimes . . . it takes one of my senior assistant product managers to come in and say, "Ma'am, you got to stop, I mean you just got to go ahead and cut this off at the neck because it's not producing anything fruitful."

Jacqueline doesn't perceive that she is a "micro-manager" per se, but does now have a better awareness of when to be involved with tasks and actions, and when to let her team run with them.

Awareness of an important PM skill often cited by participants was the ability to critically think, and question information from stakeholders (contractors, sponsors, etc.), who often can have their own agendas. Thomas, the Air Force PM discussed above was self-aware of his shortcomings in this area. Noting that in terms of his own self-assessment, he saw that a "weakness" was in "trying to be critical against what people say." He attributed this to his upbringing and family life:

So, my family, we don't like to deal with conflict. We prefer, if something happens and you don't like it, you just kind of don't talk about it for 12 years, and then you might bring it up in year 13.

In previous acquisition roles Thomas would tend to follow this conflict-avoidance method reared in his family: "so, if I disagreed I would just shut down and I might have to hold on to it for a little while and then I'd go back to the person, which was awkward." Often this made the situation worse because his colleagues would be surprised and

disappointed at Thomas' change in opinion: "they were like, "I thought we were good, and now you're bringing this back up and we lost 4 days." Thomas' self-awareness about this shortcoming has helped him improve his ability to provide critical feedback and deal with conflict as it happens: "so I'd say it's in my field grade days I've become better with that, because I think I have to be right?" However, his wife has also been a positive influence on him:

My wife is totally different, if something happens, we're going to deal with it right then and there, and so I've actually probably gotten better [because of that], in the last, you know I've been married now for thirteen years.

Solomon is very self-aware of his frustration when others don't perform to the standards that he expects or communicates to them. For example he noted "I get very frustrated when a 'subject matter expert' knows less than I do about a topic. He also recognizes that he can be "very sarcastic and have a condescending tone when I become angry." Awareness of these traits is helping Solomon to adjust his behavior and interaction with his team for the better.

The last two sections talked about guiding purpose and awareness of one's leadership behaviors. Both of these notions seem to factor in to how the participants in the study lead their projects. The next section will discuss how they use those factors to lead authentically.

Leading Authentically

Leading authentically was another main theme that arose from discussions with participants about applying self-awareness in leading project teams. This Leading Authentically theme was manifested in several ways in participant stories and discussions. The notion, described below, encompasses "modeling desired behaviors,"

leading in a “people-centered” way, “mentoring and coaching,” and “adapting leadership style to context and situation.”

Modeling Desired Behaviors

Modeling desired behaviors as a leader—modeling the way as Kouzes and Posner (2006) put it—entails not only a sense of self-identity and awareness and of knowing one’s guiding values, principles or purpose, but also setting the example, “aligning actions with shared values.” (p. 22). The participants in the study conveyed this theme through several examples: leading from the front and setting the example for others to follow; maintaining a positive, consistent leadership outlook; and employing active, calm engagement with one’s followers were repeated often. Brief exemplars of each approach follow below.

Lead from the Front

Samuel described his leadership identity as “up front and personal; I lead from the front.” Samuel “jumps in” to the work and teams he leads, getting to know as much as possible about the mission, organization, and functions of his team. This allows him to be participative, but “from the front” in a clear leadership role. Moreover, in maintaining a participative leadership style or identity, Samuel fosters an environment that is “truly non-attribution – if you will—with absolute freedom of intellectual navigation. You will be able to say what you think, and be who you are—and we embrace the eccentrics, and we expect brutal honesty—and that’s okay.”

Lead by Example

Brian represented several participants in the study when he described his

leadership identity this way:

My style is lead by example. I'm more of an introvert; not as much as a "rah-rah" [charismatic] guy. I grew up as an engineer so I tend to gravitate towards technical and detail elements, and lead through example behavior.

Brian asserts that as he sets the example, aligning his actions with his values or guiding purpose, and those of the organization—showing others what's important to him—he often sees his team follow suit. Not that he doesn't give specific direction or take an active leadership role when necessary, but his "introverted" nature is more comfortable showing others the behavior and actions he expects rather than play a cheerleader role outside himself.

Elucidating the results he's had with this leadership approach in the program office Michael offered another perspective: "I think that while we're not perfect by any stretch, I think that it [openness and humility] works; it kind of keeps people grounded." The open and humble approach Michael takes with his team "breaks down barriers" between the leader and the led, fostering a more positive, productive environment in which to accomplish the acquisition mission: "if folks can see that the front office is advocating for them, and clearly is fallible also, I think that brings a level of humility, and humanization." Recalling an experience he himself had and didn't want to repeat with his followers, Michael noted that he emphasizes personal interaction with his team to develop the open, constructive atmosphere he is looking for. As a senior Commander (Navy O5), he only had the opportunity to speak with his immediate boss on a quarterly basis, and otherwise would deal with his deputy: "he was a busy guy—but, you know, I never felt an allegiance working for him personally, and that's something, I remember reminding myself, don't be that person if you can avoid it. I'm a people person."

Positive Leader

As a PM, Victor for instance, related that he understands the role he plays in the organization, as well as interpersonally, with his team. For example, Victor describes himself as a type of leader that likes to “roll up his sleeves;” he likes to be part of the team’s mission or execution: “I like to get into stuff and whether it’s develop some document, or do some design work, or being out on the maintenance floor, I like doing that, but then I also understand where my role stops, where it ends. He also related that he sees his role as a project leader as one that must be consistent and reliable. Speaking from a “leadership perspective” and describing the facets of his private or “true” self, that he allows to come through in his leadership interactions Victor noted, “Number one is my positivity. I’m a very positive, optimistic, easy-going guy. I honestly believe in the goodness of people, right? And so every day, every day, regardless of how I feel inside, my teammate never knows.” He went further, noting that the role of positive leader he puts on when he walks in the office is not inauthentic; he genuinely is a positive person. As in any leadership role though, adversity is part of the transaction sooner or later. However he does not allow that to pull him out of his positive role: “When I’m challenged for whatever reason, there are a couple of people who come to me, shut my door and they’ll say, ‘you’re eyes tell me, something’s wrong.’ But my face never tells it, right? I’m always smiling.”

Active Calm Engagement

Describing his leadership identity as “active, calm, engagement”, Christopher noted he tends to “manage by walking around.” Further, he wouldn’t call himself a

“charismatic leader.” Christopher can “get a team functioning,” but he doesn’t feel like he inspires people, remarking, “I don’t have that type of personality.” Thus explaining his moniker, Christopher remarked that he uses logic, sometimes debate, as well as reasoning to encourage people to do the things that he wants or needs them to do:

I’m not excitable, I try to be rational; people are willing to talk to me because they know that what they see is what they get. I’m honest, I have integrity—at least I think I do—people see that.

Going further, he noted that he encourages dissenting opinions, “I always like to hear both sides of an argument before coming to a conclusion.” He often leads in this way, even entertaining dissent once a decision is made: “if somebody comes to me and says, you know I think we’ve made a mistake here or you’ve made a mistake and here’s why, I’m open to that.”

Modeling desired behaviors as a leader was just one way that participants expressed how they lead authentically. The next section discusses another element of authentically leading project teams: being “people-centered.”

People-Centered

In addition to modeling desired behaviors reviewed in the last section, PMs also reflected the notion of leading authentically through a focus on being people centered in their leadership approaches. Taking a people-centered approach to leading projects is reflective of transparent relationships in the authentic leadership construct. The idea participants relayed was that a leader must “take care of” his or her followers; train them, help them develop their skills, provide support, and have genuine relationships and interactions with them. Several examples participants gave illustrate this “people-centered” notion well, and are summarized among the subcategories of people first, and

inclusive and approachable below.

People First

Victor, illustrating this people centered technique, noted his leadership style included personally interacting with each of his staff, getting to know them, sharing his own stories, and fostering a sense of team: “I spend the first hour of every day, not because I have to, but because I want to, sitting down and talking to every individual that’s present, in my office.” Victor also frequently reaches out on a personal level to his “teammates” making phone calls to his team “when they least expect it.”

I think that having that type of demeanor, building that type of atmosphere, its sort of like contagious—and you see some teammates stepping up and showing that, but its showing how important the people are, not necessarily the process, or the job, the numbers, or the diagrams, because, at the end of the day, if people aren’t happy when they walk into my organization, we won’t get the best out of them, which means the Marines suffer.

Solomon’s approach also focuses on the people in his organization, but from more of a procedural and functional way. He recognized early on that as a leader in the “acquisition community” the only things one can affect are “money, people, and resources”... “If you have enough money you can buy time but that’s really hard to do.” Thus, his approach as an acquisition leader is to identify and understand what his team needs and then provide them the time, the money, the schedule to accomplish the mission while “mitigating the risks.”

Kevin also identifies his leadership with “always putting other people first and taking care of people.” He recalled he was “raised that way” and feels it is right so has led that way throughout his career. Leading in the project environment nevertheless, has posed its challenges to his style: “In an acquisition program it’s not the most common

thing to do is cause you are worried about program, and cost, and schedule.” However, Kevin noted, “if you provide clear direction and trust your people—who are very educated in the acquisition and engineering worlds—then you take care of all the other stuff above them, they will make the program shine.”

Inclusive and Approachable

Leaders in the study also shared a notion related to putting people first in their leadership approach; that of being inclusive and approachable as a leader; finding a balance between being the “boss” and being “one of the guys.” Several participants spoke about this idea, but Thomas exemplified the sentiment among them.

Thomas strives to be an “inclusive” leader, using an “approachable style” in leading his team. He also relies on his “gregarious nature” to boost morale and maintain buy-in among his team. “I try to make it fun. I want people to laugh; I want them to be serious, but it should be fun and we shouldn’t be uptight. So, in terms of ‘modeling the way’, that’s kind of the mantra.” Holding an “opener” session with his followers when he took charge, Thomas relayed that “it wasn’t necessarily about me, but it was so they could understand me, and saying simple things about: remembering who you represent and taking pride in what you do every day, the rest kind of takes care of itself.” Thomas emphasized, “I believe in personal responsibility, and daily effort, so give it your all.” He also told his team not to worry about failure, providing some examples of challenges he’d not met, in order to build trust and report: “You’re going to make mistakes, and you should make mistakes because you should be getting out of your comfort zone. So that kind of behavior I think is important. You want folks to be comfortable with being creative.” Thomas has tried to build a culture of innovation in his team, noting that his

maxim of “creative and fearless but not fearless and reckless” has begun to be embraced among his team. He also observed that his organization is “starting to take on his personality” but explains his statement is made not from an “arrogant perspective”, but believes if his team reflects his character and leadership identity, he’s making a difference in the role.

In addition to being people-centered, another important approach to leading authentically was described by participants as being engaged as mentors and coaches to their teams.

Mentoring/Coaching

Participants also relayed that they’d found mentoring or coaching styles of leadership to be well-suited to leading acquisition projects and programs. From particular mentoring roles and actions, to simply enabling and supporting their followers or focusing on developing their subordinates, the PMs in the study took a coaching or mentoring approach to leading their project teams. Brief examples of these mentoring, enabling and development approaches follow.

Mentor

Oscar spoke of understanding his role as a PM, often playing the part of mentor or coach to facilitate his team’s execution of project goals: “So you really have to almost get to a situation where you see the decision is made by others, and you’re really just supporting . . . because they brought you the right answer. You try to guide and coach them into that.” This approach is also congruent with the broader idea of leading authentically. Oscar feels that beyond the “functional” or facilitating roles he plays as a leader, he is not very different outwardly as he is inwardly:

I don't think you can be, personally I don't know how to be untrue. I don't know if untrue is the right statement – I don't know how to be anything other than a heart on the sleeve kind of guy.

Robert, like Oscar described his leadership identity as a supporting or mentoring one. He remarked that his leadership style, rather than directing actions and tasks, is to

ask probing questions and make sure the people that are working for me understand why they're doing what they're doing; that they've weighed the pros, cons and risks, and they've got a well-thought out reason for how they're executing a program.

Enabling and Supportive

Richard, describing a slightly different style, but one that was still people-focused, denoted his leadership identity in this fashion: “I would consider myself a subordinate empowering, technically competent leader.” Explaining himself he added, “I enable and support my junior leaders so that they know that they have the authority to make decisions according to my intent and in the event they need support I will back them up or provide them guidance.”

Subordinate Development

Other participants' approaches to leading projects focused on developing subordinates as a means to their overall success. For example, Christopher often takes part in civilian development programs and other mentoring programs: “I offer to mentor junior civilians and military all the time, and quite frequently they take me up on it.” Developing them in this way, those mentored leaders then are “equipped” with the tools and knowledge they need to “lead their programs to successful completion.”

Brian, the senior SOCOM PM, focuses on developing his junior leaders as well. He noted that PMs need to “build their people right”...“taking decisions or the ability to

make decisions away from them isn't always a good thing. It's not going to help them grow." Thus Brian's approach balances how much he intervenes in his junior leaders' efforts to make sure that "it's staying on the path that I think is the correct one versus letting things play out a little bit so someone has the ability to develop their own leadership style." Brian admitted though that in the process of harmonizing between leading the program's efforts, and allowing his subordinates to develop through trial and error, "I'm still learning what my level of tolerance is and how I balance the two conflicting ideas."

Nicholas too, often struggles with the balance between directing tasks, and developing his junior leaders. However, his compelling motivation is to ensure his junior leaders are ready to take charge of acquisition programs themselves in the future:

I've got to pass on to the juniors, especially to my Majors and Captains the training that I received, and try to get their heads right so that they will be successful and so that the Army will be successful.

Oscar takes a developing approach one step farther, where success to him is a collaborative process: "what its come down to for me to be effective is, you have to have the participation of your subordinates, your stakeholders and your peers; you can't be unilateral. And when you are, you end up being ineffective." He also commented on being aware of one's interaction with the team, and one's effect on project success: "If you want to be effective you've got to be aware of what your impact is; how your actions are impacting other people." The ultimate outcome of his leadership though, is when his team solves the problem(s) or brings him recommended solutions rather than looking to him for guidance and direction: "So you really have to almost get in a situation where you see the decision is made by others, and you're really just supporting . . . because they

brought you the right answer.”

Brian also endeavors to foster a developmental approach to leading project teams. For Brian, this method is something of a necessity given the realities of program management at “more senior levels.” Remarking on changes in leadership as he’s gained higher rank and responsibility he said his transition has happened

over the last few years, more so now as I start to move from being an engineering technical expert on smaller programs into leading more of a portfolio of programs where I can’t be the expert any more. It’s a lot of asking the right questions. Drawing more people into the conversation to get as much insight and information as you can before coming to a conclusion. That’s the main thing I’m trying to do now and being more self-aware of.

Lawrence is also using this approach by “trying to draw in the quiet people in the room, the people who just sit there and don’t participate. I try to draw them in and say hey, what do you think about this? Get their opinions; they count.” Lawrence’s admitted style of working to “get buy-in from as many people as possible to move forward” worked for him when he was a junior officer as well:

Because I wasn’t well established, I didn’t have any special knowledge or credibility—at least in that point in my life I didn’t—so the way I could push a project forward was to get people to buy into it.

Today, he finds that because he is more “senior” he can “actually move projects along” just because he is an established leader and authority on project management: “people know me, they know what I’ve accomplished in the past and it seems they’re often willing to contribute by virtue of my reputation.” In fact, other participants noted as well that “the more senior you get, you have people and resources around you, so you have to make sure you’re doing the critical thinking, and asking the right questions.” Even so, Lawrence prefers to lead through consensus building and partnered solutions with stakeholders: “it’s just ingrained in me at this point. I just do my absolute best to try to

get folks to believe in whatever project, whatever goal I'm trying to achieve and get people to contribute.”

The participative and subordinate-developing approach has meant that these PMs focus less on envisaging the solutions to problems, and instead rely on those individuals they've developed to find the answers; they seek out the counsel of their “subject matter experts” and other stakeholders to resolve issues.

The last component to leading authentically described by participants was the ability to adapt their leadership style and approach to the setting, to different individuals they were encountering, as well as the varied circumstances they found themselves in. A description of those adjustments to context and situation follows.

Adapting Leadership Style to Context and Situation

In discussing the application of their self-awareness to context and situation, PMs also referred to the relationships they had with their followers, peers, superiors, and project stakeholders. Participants noted how they changed leadership approaches depending upon the individuals or groups associated with their projects. Indeed, the styles portrayed by participants were as varied as they were. The PMs also relayed perspectives on consistency or conflict with leadership roles they held, though few spoke of inconsistencies or conflicts with self-identity and leadership roles. Synopses of these ideas within the theme of adapting one's leadership style to situation or context are summarized below.

Role Consistency

Speaking of the various leadership positions he's held throughout his career,

Hugh relayed that he doesn't feel like there are roles that he has to play outside of his comfort zone, or that there are activities or organizations where he's felt like he wasn't able to "be himself as a leader." He stressed that he tries to instill in his team the importance of the work they do [supporting Sailors with the equipment and capabilities they need], but also to enjoy it noting, "they're going to feel the stress of it, but I don't want that to overcome their life." Hugh also noted he felt consistent in his personality/identity at work and in his personal life with his family as well: "I really think that I behave with them very much the same as I do people at work." Illuminating the consistency between his work and private life Hugh emphasized,

I don't feel like I flip the light switch between when I go home and when I go to work. I enjoy what I do, I try to have everybody else enjoy being at work, and I'd like to say that's how I am at home too.

Christopher also felt a consistency in leader identity or role across situations, organizations, and groups, but did acknowledge some slight dichotomy: "I try to be myself all the time. Obviously I want to be professional, so there are times when being the professional, I'm not necessarily being a friend, so that's probably the times when I'm less like myself." Thus he lamented that because of his desire to be professional, he often doesn't make as many friends at work as he could: "I'm in a military environment, and there's so much structure around relationships, that kind of shapes my interaction to some degree as well." He also recalled an event in his professional life that helped him realize that he was most comfortable in simply being himself, rather than act in a role he felt a leadership situation called for. In competing for a Senior Executive development program position, he was required to participate in a "role playing assessment" as a Senior Executive in charge of a certain project. During that initial assessment, he admittedly

behaved differently than he normally would have, and it taught him a valuable lesson:

I was trying to game the system, and it didn't work out so well. Even though I made that mistake, I was still selected, but that did teach me something: that the [leadership] style I've developed works best for me.

Samuel, a DoD PM, focused his perspective about his leadership identity on authenticity, and not sheltering behind a role or rank: "Be yourself, and be honest, say what you think—they're paying you for your brainpower aren't they?"

In addition to the commitment one has as a leader, Oscar also spoke of being authentic. Noting, "pretty much I am what you get." He relayed that he "doesn't know how to be untrue" not so much from an ethical point of view, but from an authentic one: "I don't know how to be anything other than a heart on the sleeve kind of guy." He also spoke about how he employed his authenticity in leading his team members: "if they're seeing me as genuine, they'll be the same. If they see me trying to improve, that's going to inspire them somewhat. It's just basically trying to set an example. It goes back to living leadership principles."

Michael too holds that authenticity and consistency is a key attribute for a leader. He conveyed that he tries to be an "open book", and uses personal stories and admissions to influence his followers. "I'm fairly open book and you know I talk a little bit about my family, you know I use family and stories and things to bring home a point." He also allows his subordinates to see his shortcomings in order to build relational transparency with them: "I try to be a little bit self-deprecating, because if I can laugh at myself, and let other folk's chuckle a little, I don't view it as undermining my authority. For the most part I try to be pretty real." Like Robert, Michael also spoke of supporting the warfighters with the "right equipment, at the right time, at the right cost" but takes a more

relaxed, or accomplished perspective to leading his team. He spoke of a sort of “luxury” he has as a leader, in that he’s served 29 years with the Navy, and knows he’s been “promoted for the last time.” This fact seems to allow him the freedom to be his authentic self regardless of leadership situation or context, disconnected from career aspirations and pressures to perform. It drives his perspective as well: “so there’s a piece of me that says ‘it is what it is’ and I’m doing the best I can and I’m not terribly worried about what other people are going to be thinking about me.” Elaborating on not having anything to “prove” as a leader, Michael also remarked, “As long as my boss says I’m doing a good job and my people seem like they’re executing to the tasking and morale is decent, then I’m not going to change anything.”

Role-Identity Conflicts

One case summarized role-identity conflict among participants in the study well. This PM’s experience epitomized the notion of conflict among authenticity and leadership role. That is, her natural leadership style is participative, however the role she finds herself in forces her into conflict with her innate leadership identity.

Elaine’s challenge with leadership role involved a dichotomy between being authentic, and maintaining a successful posture as a leader. For instance, she responded, “I’m just kind of out there so . . . about 80 % of the time you get all of who I am. I’ll pull back sometimes, depending on the situation, but for the most part, everybody gets my true self; good and bad.” At the same time, the type of leader Elaine is naturally doesn’t fit well with the organization she’s currently serving in. Coming from an Air Force Civilian background, but now leading a Marine Corps acquisition team, Elaine often finds herself putting on the role of a more authoritarian leader than she would otherwise.

Noting her leadership identity initially as “directive,” Elaine caveated her answer this way: “But it’s the nature of the job I have right now. Previous jobs I’ve had I would have been more participative. So it’s the nature of the job I have now, that it has to be very directive.” Recalling her prior work in Air Force acquisition, Elaine described the atmosphere there as more collaborative, with all the various acquisition functions “chiming in on what the art of the possible is.” She added, “so it just by nature becomes a much more participative environment because you work in all those Integrated Product Teams.” Unfortunately, she’s found that the context where she leads now to be much less collaborative, much more inauspicious. One that tends to frown on participative leadership: “My ‘Hey what do you think about this?’ ‘What do you think about that?’ is seen as weak. So I’ve had to become very directive.” This contextual change has forced her into a leadership role she’s able to fulfill, but is not very comfortable with: “The participative style fits, I think better, I like it better. [In this organization] I feel like I’m yelling at people all the time.”

Personal-Professional Roles

The dichotomy between participants’ personal and professional lives was less pronounced than the conflict between leadership role and personal leadership identity described above. In most cases, leaders in the study saw no difference between their professional, PM roles, and their identities outside of work.

For instance, Richard conveyed that he maintains a separation between his personal and professional lives, but otherwise is “fairly open” about who he is and what he thinks in his leadership role. Noting that he occasionally “let’s through” personal events, happenings, thoughts, etc., but the “biggest things” in his personal life he does not

allow to come into his professional life:

I am very guarded on my emotions; my frustration or my excitement that will show through. But when it comes to sorrow and the loss of friends whether they have been killed in action or family or whatever; I won't show that emotion as much in the professional work place.

However, in contrast, Frank reported that he doesn't maintain any separation between his private self, and his outward role as a project leader. He qualified his position though, observing that the only way in which he might hold back would be in making sure he doesn't "do something to excess," or overcompensate between his personal feelings, and the leader role he's in: "I think it's part of normal self-assessment, right? Push, but don't push too far type of style, but nothing where I held back my natural leadership style because of the situation."

Kevin also affirmed that his personal and professional or outward identities were in unison; that he's fortunately "never had to try to fit a role." His role as a leader defines who he is. "I try to come in each day and lead the way people need to be led. It's sort of like a pact I make with myself—I'm not going to let anything change who I am." As an example he recalled his interaction with his higher project leadership and how he doesn't let that relationship influence his leader identity:

One of the things I pride myself on is no matter what situation I'm in, I'm going to be myself and you know, I like to have fun—probably to the chagrin of my bosses—like my ISTJ type boss, he just looks at me sometimes like "Oh my gosh I can't believe he just said that!" But it doesn't matter to me, that is who I am.

Kevin feels very fortunate to have been "raised in the Army" to be himself and find methods that work for him. [In the Army] "I can continue to be the way I am; be who I am. All my friends back home, for instance, they thought I was going to come back and be a robot. Not going to be myself; they were surprised."

Leon like most of the participants, felt his inward and outward “selves” were coherent, and that he saw no need to separate the roles, or even try to make them different. Recalling advice from former commanders early in his career about leadership styles, he remarked, “I’ve had bosses who told me to experiment with my leadership styles, not because of who I am, but just in general; from the philosophy of trying out different leadership styles.” While he found that approach an “interesting philosophy,” Leon never took that advice and cautioned, “I don’t know about that, because if you have something that works, I don’t know that you’d want to stray too far from it. Why change something that you find is effective for you?”

Collaborative

One way in which the participants in the study adapted their leadership style to context was in taking a collaborative approach to leading their teams. Recognizing that the defense acquisition environment was in a sense not that much different from the tactical environments they lead soldiers, sailors, airmen and marines in during their time in the field or fleet, they only had to adapt their leadership styles and identity slightly to fit and support this new context.

For instance, Hugh identifies his leader identity in a collaborative way. Explaining his identity through the three themes he used commanding nuclear submarines and in leading project offices: “They’re words like forceful back up, questioning attitude, open communications, and I’ve tried to express that to my staff here as much as I did on the submarine.” Hugh has led through that approach through most of his career, counseling new sailors and project staff alike. Truly believing in and using phrases such as “it’s okay for you to tell me I’m wrong” and “I want you to trust me that

if something bad is happening, and you tell me about it, we're going to do the right thing", as well as "I need you to question what I do and back me up—because I don't know everything", Hugh has imparted an authentic, engaging, and collaborative leadership identity to those he's served with.

Hugh also applies his leadership how and where he feels it's needed most. For Hugh, knowing when and where to apply his leadership is as important as the style itself: "sometimes you need to set the vision, and sometimes you need to understand the details." Hugh explained his flexible approach as something he applies variably according to the importance of the task, the skillset of the individual working the action, and so on:

So, depending on the situation, depending on the person—their talent level, their experience, and the consequence of getting whatever it is they do wrong, I may be completely and utterly uninvolved—so that may be the low risk area with a super-talented person leading it. If that person puts something in front of me I'll sign it. And if somebody else who's less experienced, who's less talented, and/or the consequence of getting it wrong is very high, I might spend hours on that piece of paper.

Summarizing his leadership with the "mantras" ingrained in him during his service with the Navy: "forceful back up, questioning attitude, open communications", Hugh related that leadership identity to the approach he's taken leading project teams noting that he's worked to express those themes to his project staff as much as he did with his Sailors on the submarine. Hugh wants his project staff to openly communicate with him: "if my vision is to go down this road, and they think that that's a dumb road, I want them to tell me, so we don't go down that road. Noting, however, the differences between leading in a military environment, and a civilian one, Hugh remarked, "I was always very worried as the senior leader, about communications. In that I mean both ways, I talked to my crew a lot. It's much harder for me here because my program is so much more diverse." With

his project office, he approaches communication in a number of ways, but opines the ease of communications in a military setting: “on a submarine it’s easy to get them all in the same place; trapped in a steel tube.” Having been in command for 18 months at the time of the study, Hugh relayed that his leadership style had been validated however: “I don’t think we’ve gone down any dumb roads. We’ve had a lot of good, open conversation so in general I think those three processes have worked well for me and I intend to keep them.”

Variable/Situational

For many PMs in the study, the application of their self-identities—their self-awareness—to leading their projects was influenced by the context or situation they found themselves in. Collaborative, engaged leadership styles and identities represented the majority of PMs leadership application in the study. However, often they spoke of having to take a directive, even authoritative tact in their approach to leading their team because of the urgency, importance, or lack of their team’s progress in a task or mission.

For example, Leon hadn’t considered naming his leadership identity before, but after a short reflection remarked, “I guess if I had to put a label on my leadership style, I’m more of a consensus builder; I tend to try to get buy in from as many of the team members as possible.” He also spoke of using that style in leading his project team in the day to day work of acquisition: “I try to give folks the leeway, the latitude to accomplish tasks; I set a vision or a goal and try to let folks contribute to the goal in whatever way is effective for them.” However, like most leaders, there is a limit to his hands-off approach: “I try not to be prescriptive in how they do their work, unless it’s not working, and then I become very prescriptive.” Recalling such a situation when the need was

urgent, Leon explained, “I had to be very directive in the way that we did our business, it was neither the time nor the place for me to get everyone’s opinions. He didn’t ask his team, “So, how should we solve this problem?” Rather, he took a directive approach and told them, “This is how we’re going to do this, this is how we’re moving out.”

Victor also walks the dichotomous line between consensus-building or participative, and directive leadership. “So I would say, if I had to term myself, I would say I can be authoritative, I can be dictatorial; I generally prefer to deal with consensus.” For example, there have been times in meetings with his team when Victor has said, “this is what we’re going to do and I don’t have time for feedback.” Going further he clarified that “there’s some events where you just have to say ‘I’m actually going to give you the course of action that is preferred, and I just need you to execute.’” However, given his preference for consensus, he has afterwards approached his team and apologized for the lack of inclusivity. Victor believes a consensual approach “feeds into the emotional aspects of us as human beings, and our innate ability to always want to do something better, for others first.”

Oscar walks a fine line between being a participative and directive leader as well. “If I have my preference, I’ll be as participative as possible up until it’s time to make a decision, then I’m pretty dictatorial after that.” Elaborating on his style Oscar observed, “I like to follow the problem-solving model and be as participative as possible, until we arrive at a course of action, or people aren’t listening, or basically trying to resist, I’ll get direct and become more directive.” Oscar also tries “not to be micromanaging because you know, that doesn’t work; doesn’t get the best out of them, so I’m participative, but direct when need be.” He described at the same time that he allows his team the freedom

to work out solutions for themselves as much as possible: “I empower my troops, let them lead their own little element. Only when they need help, that’s when you jump in and help them.” Moreover, he noted “it’s difficult to be anything but participative when you’re in a significant stakeholder environment. In other words, it’s much easier to be dictatorial and be effective when you have a low number of stakeholders.” However, as Oscar related, in defense acquisition, a PM has many stakeholders to deal with: users, developers, contractors, sponsors, functional supporters (such as finance, logistics, and engineering) just to name a few.

Transformational

Transformational leadership styles were represented by several PMs in the study. Yet, one PM exemplified the others’ stories when he spoke about leading change and motivating his team to follow the new directions he set for them.

Nicholas described his leadership identity as a “little transformational”:
“sometimes you have to lead change because you find a mission set that’s in disarray, you’ve got to rearrange that, give it guidance, purpose, and end-state, and then move on from there.” In other words, he noted, “Exhibit the change they need to make. Share your vision, then drive to the vision.” Nicholas also believes that to be an effective leader a PM must have the willing participation of his/her subordinates, stakeholders and peers; a PM can’t be unilateral.

Servant Leader

Several PMs also reflected a style of leadership that has come to be known as servant leadership (e.g., see Bennis, Covey, Wheatley, & Bogle, 2002; Greenleaf, 1977;

van Dierendonck, 2011). These leaders noted in their stories that they place an emphasis on serving others and the larger mission their project teams are tasked with. They see their role as leader secondary to the needs of their teams and the charter of their projects.

For instance, Michael likens himself to a baseball manager: “I’m not the best pitcher, or batter, or second baseman, I’ve done that, but, I’m the guy who can look around and apply the resources where they’re needed, help stamp out roadblocks and obstacles.” Michael elucidated on his baseball manager analogy within the defense acquisition environment thus: “The folks that work for me are making everything happen. My job is to advocate for them, get them the resources they need to be successful, and when necessary, make a decision.”

This section summarized the last major theme to emerge within application of self-awareness in leading teams: leading authentically. The participants discussed the approaches to leading authentically in their projects, from modeling desired behaviors, to focusing their leadership on the people they lead, mentoring and coaching them through challenges, as well as the roles and leadership approaches they take on to adapt and address changes in context, event, or organization. The following section will summarize the entire chapter and theme of applying one’s self-awareness to leading in defense acquisition.

Summary

This study looked at the ways in which DoD PMs develop and use self-awareness in leading their teams and programs. This chapter described the application of a PM’s self-awareness, that is, his or her use of their own leadership preferences, talents or strengths, core values, as well as the experience, knowledge and capabilities they possess

in leading their project teams on a daily basis.

Three strong themes emerged from the interviews with participants about application of leader self-awareness. First, participants spoke about the guiding purpose they follow in leading their teams. Second, participants' interpretation of the role of awareness of leadership behaviors in influencing self-awareness was also examined. Third, PM's spoke about leading authentically and the use of self-awareness in the practices they took in leading. The notion of "leadership identity"—how participants saw themselves as leaders—and how it was used in leading project teams was entwined in each of the major themes within application of self-awareness.

The findings of the study; the ways in which DoD PMs develop and use self-awareness in leading their programs and teams, have been summarized and detailed in the last two preceding chapters through the stories and voices of the participants. They indicate a keen awareness of self and its importance and impact upon the project team among the participants. The study will now turn to a summary of its research methods, limitations of the research, a review of the conceptual framework, as well as a holistic and integrated discussion and conclusions of the findings. Recommendations for additional research will also be offered.

CHAPTER 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

There's no separation between self and other. . . . Everything is interconnected.
--Thich Nhat Hanh

Overview of the Study

Defense acquisition is a multi-faceted, highly structured, and complex discipline which works within the bureaucracy of a large organization, highly defined processes, detailed and multi-layered regulations, and is constrained and influenced not only by its design, but also by political sensitivities, world events, and public input. This process, however, is crucial for maintaining technological superiority of our nation's military, including the defense industrial base, ensuring materiel readiness, and providing support to the ultimate customer, the "warfighter." Like many other fields with inordinately complex structures and equally complicated challenges, leadership plays a central role in facilitating this process towards positive or negative outcomes. Project Managers play a key role in this leadership process.

Project management is a many-sided, complex, and at times, highly technical discipline (DAU, 2011; Kendal, 2012, 2017). Indeed, given the multidimensional nature of the discipline, many studies cite the leader or PM, as a key to effective project management—both within DoD and in industry (Keegan & Den Hartog, 2004).

Project managers are faced not only with leading teams, but also with building and sustaining relationships with multiple internal and external stakeholders, influencing sponsors, working with and obtaining support from various (and often differing) functional experts, navigating through organizations with complex hierarchical and operational structures, as well as meeting stringent program performance metrics and measures—not the least of these, ever-evolving “war fighter” or customer requirements—all within tightly constrained—if not fixed—budgets and schedules (DAU, 2011).

Given the importance of project leadership to program performance, the DoD invests heavily in producing, developing, and sustaining its own leaders based in large part, on empirical studies of successful leadership (e.g., US Army, 2012). Some have suggested the connection between leader self-assessment and leadership effectiveness is the self-awareness it brings leaders so that when they lead, they lead from their own authentic style (Weischer et al., 2013). Further, the DoD administers a variety of 360-degree feedback and self-assessment instruments as a component of its leadership development initiatives to help leaders improve and grow (DAU, 2014b; US Army, 2011). These instruments and assessments are designed to help leaders identify, employ more fully or strengthen their individual traits and characteristics, understand their psychological type preferences, measure their adaptability to change, and focus or clarify their leadership styles. In short, they help leaders develop a keener self-awareness.

Problem

How do leaders come to understand the critical aspects of themselves that form the essence of their leadership? How do they develop a self-awareness that informs their leadership practice? How do leaders fill any gaps in self-awareness?

The DoD invests heavily in developing their project leaders by providing training, experiences, developmental assignments, and other tools such as self-assessments presumably to help them lead more authentically and become more self-aware as a way to improve project management. Despite this investment, it is unclear how self-awareness is actually developed in PMs and integrated into their leadership practice. In view of the importance of self-awareness in project leadership development, we need to understand how self-awareness is being understood and made use of by DoD PMs.

Purpose

This study sought to describe how PMs in the DoD come to understand, develop, and integrate self-awareness—as a key component of authentic leadership—in leading their projects. By understanding the development and use of self-awareness and authentic leadership in project management, we may enable the next generation of leaders to learn and benefit from this emerging field (Gardner et al., 2005).

Research Questions

How do PMs become self-aware or come to understand themselves as leaders?
(Understanding and Development of Self-Awareness)

How do PMs employ self-awareness in leading their project teams? (Application of Self-Awareness in Leadership Practice)

Conceptual Framework

Authentic leadership is a conceptual approach to leadership that includes the role of self-awareness with which to address the complexities and challenges leaders face today. As widely noted in the authentic leadership literature (Avolio et al., 2010; Diddams & Chang, 2012; Gardner et al., 2005; Goleman, 2004; Kernis, 2003; Shamir & Eilam, 2005), self-awareness is a key element to effective, authentic, leadership.

Authentic leadership was the conceptual framework which guided this study: A transparently connected relationship between leaders and followers, encompassing a high level of self-awareness with internalized beliefs and moral values (Diddams & Chang, 2012; Walumba et al., 2008).

Authentic leadership may be a way to bring a positive form of leadership to address the many complex challenges DoD PMs face. This construct has been supported in the literature (e.g., Lloyd-Walker & Walker, 2011) as offering leaders an approach to successfully navigate the increasingly complex, dynamic, and resource-constrained defense acquisition environment.

Authentic Leadership encompasses four components: leader self-awareness, namely, understanding of one's strengths and limitations, how others see you, and how one impacts others; transparency, that is, self-disclosure and developing common understanding and trust which fosters positive relationships with followers; a balanced approach to considering issues and perspectives which promotes a leader's image as fair and trustworthy; as well as a positive moral perspective consisting of high standards for ethical conduct (Avolio et al., 2007). Authentic leadership may be the approach that DoD PMs need to successfully operate in the increasingly constrained and complex

acquisition environment. Accordingly, this study explored authentic leadership and its main component, self-awareness, to better understand if Authentic Leadership can meet the needs of today's project management, and provide a framework for the development of future leaders within the DoD.

Research Methods

A multiple case study design (Yin, 2014) was used to explore how PMs come to develop, understand and use self-awareness in project leadership. Individual PMs were considered as cases and their realities, experiences, and perceptions were considered altogether, as multiple sources of evidence (Merriam, 1998). The study's methodology was characterized by the examination of more than one individual or case, with an analysis across cases (Thomas, 2011; Yin, 2014) to draw generalizations applicable to project management leadership.

Data Collection

The major source of data used to create findings addressing the above research questions was participant interviews. Demographic information, and the ALQ also provided important information.

Those who responded to an email invitation were asked first to complete a short survey of demographics information identifying branch of service, acquisition experience, Defense acquisition Workforce Improvement Act certification levels, civilian and military education, as well as self-assessments and other leadership training taken during their careers. They were then asked to complete the ALQ, a four-part questionnaire designed to define what constitutes authentic leadership, and provide

feedback on the specific behaviors comprising the four Authentic Leadership scales: Self-Awareness, Transparency, Ethical/Moral, and Balanced Processing (Avolio et al., 2007). See Appendix J for a sample ALQ report and description. Those participants who scored 2.5 or above on the Self-Awareness Scale were invited to participate in telephone interviews.

Telephone interviews were conducted in this study with 24 PMs purposively selected through their ALQ scores. These interviews explored more deeply their perceptions, understanding, development, and application of self-awareness in their project leadership practice. Representative interview questions and the interview protocol are at Appendix A & E, respectively.

Sample (Participants)

Twenty-four Product, Project, and Program Managers, purposefully sampled as noted above, were interviewed from each of the U.S. Armed Services: Army, Navy, Marines, and Air Force, and other DoD organizations and agencies. Participants consisted of three females (12.5% of the purposive sample) and 21 males (87.5% of the purposive sample). This reflects the broader military as well which is comprised of 15.5% females and 84.5% males (DoD, 2015). Each participant interviewed possessed acquisition experience ranging from six to over 26 years, with each having at least 16 years in the DoD (and most with over 20 years of service). The Armed Services as well as other DoD direct reporting organizations and agencies were equally represented. A few participants did not have any prior military experience, but the vast majority were either still serving on active duty or were retired/prior military. Participant ranks ranged from Lt Col/LTC (Army & Air Force)/CDR (Navy) and Civilian GS 14 to Col/COL

(Army & Air Force) / CAPT (Navy) and Civilian GS15. Nearly all participants held Master's Degrees, and just under half had completed a Senior Service College course (e.g., Army/Air War College).

Summary of Findings

The study's two research questions, "How do PMs become self-aware or come to understand themselves as leaders?" And, "How do PMs employ self-awareness in leading their project teams?" drove the research. Accordingly, the study examined two leadership phenomena within project management: leadership development, especially related to self-awareness, and use of that self-awareness by DoD PMs in leading their teams. Analysis of each of these concepts revealed several themes perceived by the study participants. The key themes to emerge are summarized below.

Development of Leader Self-Awareness

The three major influences with respect to development of self-awareness were people, other life influences (including experience, education, & self-study), and self-assessment. A review of these three follows.

People Influences

The most commonly recurring influence theme shared by study participants was the influence other people had on their development as leaders. It was particularly striking that PMs credited prior commanders and other direct leaders in the DoD most of all as truly important influences on their own leadership identity and style. Participants' reported that their self-awareness as leaders was often also influenced by leaders they encountered early in their careers. These individuals who influenced participants most—

commanders and other direct leaders in the DoD—were conveyed by participants as self-assured, self-aware leaders who communicated vision and leadership perspectives well, earned the trust of followers and stakeholders through their own positive example, and demonstrated expertise technically, tactically, as well as interpersonally. They were inclusive and participative, encouraged personal and professional development in their subordinates, and were innovators who were intentional and focused. In short, they instilled leadership best practices in the participants, and that seems to have helped shape who those participants, in turn, became as leaders.

Influence of negative leaders was also cited by participants as having value in developing their sense of leader identity and self-awareness. Interactions with caustic leaders often taught these leaders—in one participant’s words—to be sure of themselves, to be clear about what they stood for and advocated. Several participants noted how negative examples of leadership they’d seen affected their own outlook on leadership as well. For example, seeing leaders who exploited their subordinates for their skills, while not working to develop and grow those individuals out of weaknesses, taught participants to help subordinates manage their shortcomings. Others noted how a lack of connection to leaders who took no time to get to know them, understand their abilities, interests, or goals affected not only how they performed, but who they became as leaders (again taking the example of how not to lead). Applying the lessons taught by those negative examples required that the participants have or quickly develop an understanding of who they were as leaders; a self-awareness about their leadership styles, preferences, and identity.

Other influencers included trusted agents, supporters, and advisors within the DoD such as senior enlisted service members, and others outside their chain of command like prior commanders, peers, and project stakeholders. These additional influencers often counseled participants over their entire career, guiding and advising them on leadership and management issues, acquisition and project challenges, and professional development as they rose in rank and into positions of greater responsibility.

Somewhat unexpectedly, the influence of those outside the DoD—teachers, coaches, family and others—were not cited as having noteworthy influence on participants' leader self-awareness. Though some reported some early influences at crucial periods in their development to be intentional and determined; focused and accept responsibility or deal with adversity—the majority of participants related professional, military, and other DoD influencers as the principal inspiration shaping their leadership self-identity.

Other Life Influences

Three major themes appeared under the category of “other life influences”: experience, education, and self-study. Experience was mentioned frequently by participants in reflecting upon how they came to understand themselves as leaders.

Participants noted that experiences—almost exclusively in the DoD—early in their careers, in formative experiences in crucial assignments, deployments, and other high-risk, high-importance tasks had a lasting effect on them. These leaders clearly recognized that experience played an important role in the development of their leadership style, approach, and identity.

PMs in the study also noted that they'd developed and matured leadership styles and approaches over time (i.e., through various leadership positions and assignments), as well as in leading different constituencies and types of people. They also noted the development of a "leadership toolkit" over those experiences, adding lessons learned, successful approaches, reflection, etc., to their leadership practice.

Study participants remarked that their experiences taught them about understanding context and situation—that situation often dictated the leadership approach they took. It taught them that at times quick, focused decision-making was essential ("perfection is the enemy of good enough" as one participant put it), or conversely that measured, deliberate judgment would be their best ally. Participants' experiences also helped them understand the interaction and influence of personalities on leadership situations. Further, they learned how to adapt leadership styles to lead and influence others older and more experienced than them. Experience taught participants the value of inclusion, of building alliances, consensus, and negotiating positive outcomes for every stakeholder in successful acquisition endeavors. Indeed, experiences over years working and leading in complex, large organizations such as the DoD, applying participative decision making, soft influence, and other cooperative approaches in leading diverse stakeholders towards a common acquisition goal had a direct influence on several participants who credited their leadership identity (their self-awareness) to it.

The stories and commentaries from participants in the study reveal that the experience of leading others can have a substantial effect on a leader's development of self-awareness and leader identity. Early or formative experiences, challenging

deployments, demanding training, and other personal experiences and events helped shape how the PMs in the study came to understand themselves as leaders.

Education and self-study, however, appear to have influenced participants' development of leader self-awareness to a much lesser degree than experience. While several participants reflected that to some degree education had supported development of their awareness of leadership identity, where they learned the most about themselves was in relationship with others and in the act of leading through experience. Yet one other important influence for these leaders was the insight they took away from the many self-tests, instruments, and assessments the military provides its leaders.

Self-Assessment Insights

The third theme to emerge from conversations with participants about developing leader self-awareness related to insights from self-assessment. Participants related gaining awareness of leader behaviors through PMT 401 surveys and appraisals, MBTI assessments, and other self-reflections. Though the self-assessments taken through military service are only a subset of the self-assessments used in the wider commercial world – for instance the Dominance, Influence, Steadiness and Conscientiousness (DiSC) assessment tool, various personality and other EI assessments, etc. (Free Management Library, 2017; Gallo, 2016; Personality Profile Solutions, 2017), as well as others noted in Chapter 2, they do reflect the realities and lived experience of the participants. While opinions about these DoD assessments differed among participants, each recognized the value in participating in self-assessment through leadership or professional courses such as PMT 401, through so called 360-degree feedback tools, or self-rating instruments such as the ALQ or MBTI, if they are undertaken with sincerity and intention.

Participants reported self-assessment activities gave them opportunities for reflection and discussion which deepened their self-understanding. They gained insights on their personality preferences and leadership styles and about self and identity, purpose, and leadership perspectives. Courses, instruments, and assessments taught or reinforced the benefits of reflection, and inspired self-development in several participants. For example, the understandings one PM gained through completing self-assessments helped her positively adjust how she approached the day-to-day business of leading her team; making her leadership interactions more effective and genuine.

Further, one participant—who exemplified the sentiment of several PMs in the study—came to realize through a self-assessment process that the approach he took to leading in combat units was not the most effective in the DoD acquisition environment, where there are many more stakeholders, functional equities, and a workforce that can often have different motivations than professional soldiers. Self-assessment had helped him to better understand his strengths, personality preferences, and often led to discovery of areas he could improve upon. That self-awareness enabled him to lead more authentically.

The application of leader self-awareness gained from those assessments and leadership influences was the focus of the second half of this study and is summarized below.

Application of Leader Self-Awareness

Three strong themes emerged about applying leader self-awareness to managing projects. Participants first spoke of the guiding purpose they followed—the focus, beliefs, and attitudes that drive the way they lead their teams and projects. Next, they

demonstrated an awareness of their performance as leaders in relationships with their teams and project stakeholders; their “strengths” and “weaknesses.” Lastly, the PMs spoke about leading authentically—modeling desired behaviors, putting people at the center of their leadership practice, mentoring followers, and adapting to context and situation.

Guiding Purpose

Reflecting upon how self-awareness developed over the course of their careers, most participants spoke of the guiding purpose that drove their leadership journey. Four themes emerged: First, maintaining a “warfighter” focus—concentrating everything they did towards the needs of the soldier, airmen, marine, or sailor in the field was central. Second, many spoke of maintaining an “acquisition” focus—an approach to operate in the most efficient, cost-effective way in order to deliver the systems and services needed. Third, making the transition between leading service members in operational units (in the “field” or “fleet,”) and leading predominantly civilians in the acquisition environment (from the “front office”). Fourth, making the transition between the roles of action officer—working individual components of a project—and that of PM, responsible for an entire project, program, or portfolio with multiple stakeholders, success factors, and deliverables.

Leader Behaviors—Strengths and Weaknesses

PMs in the study also reflected on awareness of the leader behaviors that influence and impact their projects outcomes. Self-perceived and other-rated strengths and weaknesses, as well as leadership traits, management styles, and leadership

approaches were some of the insights participants offered about leadership behaviors that influenced their development and use of self-awareness in leading their projects.

Throughout the interviews, various leadership behaviors were mentioned as part of effective project leadership. Participants connected them both to self-awareness and previous leadership influences.

In terms of understanding their “strengths,” PMs noted abilities much like those of other leaders: the ability to organize and be detail-oriented, to motivate their followers, having technical expertise in their discipline, and being able to understand (and relate) to people. They understood that every individual is unique and it takes different sorts of influence to effect results with different people. Getting to know one’s followers and establishing a real relationship with them was reported as necessary in order to have lasting influence. Further, PMs widely reported an awareness that being open and direct, listening, team building, communicating, and motivating team members to achieve the project’s mission while applying trust, rather than micromanaging or overshadowing, and “hearing both sides of an argument” before reaching a decision served them well. Yet, they also distinguished their ability to conceptualize; to see the end state of the project from the beginning with various inputs and factors interacting at the same time with second and third-order effects on the outcome. These leaders also talked about self-awareness; understanding themselves as they led others. They saw the value in being authentic, that is, not trying to fit a leadership mold; having transparent relationships where followers and stakeholders could see their “true selves.” Indeed, these PMs were intentional about being authentic: self-aware, transparent and trustworthy, because, they understood the impact that had on their followers/stakeholders and their projects. They

also comprehended how understanding themselves helped them to improve as leaders and thus improve their projects.

Participants in the study also spoke of leader behaviors (“weaknesses”) that often detracted from, or limited the success of their teams and projects. This included prejudicing the decision-making process by declaring their opinion or preference on key decisions early in the progression without waiting for inputs from their subject matter experts and important stakeholders. The nature of the military—even the more business-like environment of defense acquisition—is prone to obedience; that is, once the commander (or PM) makes the decision, the staff and subordinates will follow, no questions asked. In battle, this can mean the difference between life and death, and is absolutely necessary. In defense acquisition however, this approach can limit successful (often long-term) outcomes. Participants recognized the detrimental effect of singular decision making on projects: any beneficial debate or deliberation may be thwarted in favor of what the leader has already decided without coordination, and that can increase program risk.

Other participants reflected a challenge they still struggle with—that of making the transition from action officer or assistant PM (doer) to PM (leader). As assistant product managers, system acquisition managers, and in other entry-level acquisition and supporting roles, officers and civilians are often responsible for a singular product, service, component, or function, serving under a product, project, or program. When these leaders make the transition to PM, they become responsible for an entire program or project, often with many disparate parts, products, and/or stakeholders. This new role seemed to challenge many participants who had to make the transition from technical

expert and action officer to more broadly facilitating and coordinating for their teams “up the chain” and with different stakeholders. They had to understand that they didn’t have to go do the work, find the answers, but rather lean on their teams of functional experts to bring them solutions for the program. Project teams look to the PM for leadership and guidance rather than technical answers. A PM’s role the participants realized, is not building the answers, but rather challenging their teams to think about alternatives, impacts, and interdependencies among actions and stakeholders to effect positive project outcomes.

Leading Authentically

Participants also expressed their views about leading authentically through “modeling the way” (Kouzes & Posner, 2006) as leaders: leading from the front and providing a positive example to their followers through active calm engagement with their teams and stakeholders. They also spoke of placing people in the center of their leadership practice; taking care of those they led, while also mentoring, supporting, and developing their followers. The participants discussed as well adapting their leadership styles to the context and situations they find themselves in. This encompassed their leadership relationships—the use of self-awareness in the approaches they took to leading, as well as the roles they play as leaders, and the dichotomies they sometimes encounter among those roles.

In order to lead authentically, participants cited as a prerequisite an understanding of who they are as leaders; a self-awareness of their leadership identities. Sometimes referred to by the participants as “leadership style” the leadership identities expressed embodied a broad range and were manifested in self-reflections, stories, as well as

nascent discoveries as participants named their leadership identity, sometimes for the first time. Like other aspects of the PMs studied, leadership identities among them varied widely. Yet the understanding of one's "leadership identity" seemed essential to leading with authenticity.

Additionally, the idea of putting people at the center of one's leadership practice espoused by the PMs in the study is reflective of relational transparency in the Authentic Leadership construct (Diddams & Chang, 2012). Study participants relayed that a leader must focus first and foremost on those he or she leads. To be sure, it's often noted within popular business literature, management books, government circles, and other organizational settings that "people are our most valuable resource." However, not all agree with that idea. The counter argument is that people are not resources that one can replace; they're people (Taylor, 2007). Regardless, the idea that a leader must take care of his followers or people, train and develop them, understand their issues and support them, maintain an openness with them which promotes sincerity, candor, and transparency in return, seems a universal maxim.

Participants also discussed adjusting one's leadership style to situation or context; further, to adapting the leadership approaches they took with the individuals and groups of stakeholders associated with their projects and organizations. They spoke too of the consistency, and conflicts they encountered in those leadership roles, as well as in their personal and professional lives. The techniques participants took in adapting their styles to leading projects were as varied as the participants themselves and included: collaboration, situational, transformational, and servant leadership styles. However, the majority of participants felt that there was a good deal of consistency between their self-

identity and the roles they fulfilled as leaders. Fewer PMs recounted an inconsistency or conflict between their leadership identity and the leadership roles they held.

Given the insights participants relayed about developing and applying self-awareness in leading their projects it is perhaps not surprising that the PMs' stories in this study conveyed the idea that who these leaders are is less a function of role, and more about awareness of core beliefs values and attitudes, abilities and opportunities for growth. Further, that their self-awareness is activated through and embodied in the lived experiences of leading people every day in a multitude of complex, dynamic acquisition contexts, relationships, and conditions. A discussion of these findings follows below.

Discussion

In this section I discuss the major findings of this study, expanding them and connecting them to research and practice.

Project managers often referred to other leaders and people in their lives, leadership experiences, and the insights they had gained from self-assessment. PMs recognized that their leader self-awareness originated for the most part from within their work environment—influences encountered on the job, day in and day out, over extended periods; indeed over the course of careers. One especially self-aware participant illustrated this idea succinctly:

So I pick up things from people and places and events all around me, and I think I'm fortunate enough to say that as I've matured in life, I've found that my leadership style has also matured; it's changed. I'm not the person I was, even a year ago.

Accordingly, none of the three key themes uncovered by examining development of self-awareness—others, experience, and self-assessment insights—alone fully explain how the leaders in the study came to understand themselves as leaders. It was often these

elements in combination with each other that affected how participants developed a sense of leader identity.

For instance, one of the clearest findings of this study was that PMs felt their leadership development was influenced most by the leaders and others they worked with and for in the DoD (i.e., leaders who took care of their people, who set positive examples, provided mentorship, and earned followers trust). Each interaction and experience they synthesized into their own styles and approaches to leading. This finding is consistent with leadership literature that noted individuals often learn leadership through experience, mentoring and by observing others lead (Bennis 2003; Cohen 2000; Kotter 1990; Muir, 2014; Thomas & Cheese, 2005; Walesh 2004).

Though some participants did mention teachers, coaches, & family as influences, curiously the majority of participants didn't mention them as much as influencers within the DoD. It seems that individuals outside of the DoD did not provide a meaningful source of influence to project leadership and self-awareness. This finding was unexpected, and is largely contradicted in the literature (e.g., Gardner et al., 2005; Shamir & Eilam, 2005; Whiston & Keller, 2004). Nonetheless, given the social nature of leadership, it's not surprising that relationships with other leaders in the DoD were reported to have deep influences on PM self-awareness. Indeed, researchers have found that relationships play a key role in effective leadership (Brower, Schoorman, & Tan, 2000; Cunliffe & Eriksen, 2011; Gerstner & Day, 1997; Graen & Uhl-Bien, 1995; Kezar, 2004; Liden, Erdogan, Wayne, & Sparrowe, 2006; Uhl-Bien, 2006). Wheatley (2006) too noted that regardless of structure, purpose, discipline or field, people and the relationships among them are at the center of organizations.

The role of personal leadership experience in leadership development (i.e., experiential learning) is widely noted in the literature (e.g., Dewey, 1938; Kolb, 2014; Kolb & Kolb, 2005; McCall, 2004; McCall, Lombardo, & Morrison, 1988; Mumford, Marks, Connelly, Zaccaro, & Reiter-Palmon, 2000; Skipper, 2004; Skipper & Lansford, 2006; Yardley, Teunissen, & Dornan, 2012; Yukl, 2002). In fact, the stories and commentaries from participants in the study reveal that the experience of leading others can have a substantial effect on a leader's development of self-awareness and leader identity: early or formative experiences, challenging deployments, demanding training, and other personal experiences and events helped shape how the PMs in the study came to understand themselves as leaders.

As noted in the findings section, education was not reported as a meaningful influence on participants' development of leader self-awareness. This finding seems to run contrary to the stated purpose of the many leadership development courses and efforts in each of the armed services (e.g., see Department of the Army, 2013; United States Air Force Academy [USAF], 2016; USMA, 2016; USNA, 2016a, 2016b). These education centers aim to prepare young men and women for their roles in the service as leaders while developing "their identities as servants of the nation, warrior professionals, and leaders of character" (USAF, 2016). Though their first experience in the military was most often formal leadership training, most participants did not mention education as an important influence to the development of their leadership identity.

Indeed, the literature supports the idea that leadership isn't something that is merely trained into people; it is more a process than a role, and develops over time (Day, 2001; Hughes, 1993; Yardley et al., 2012). Nevertheless in this study, even though

experience came up as a main theme, it was only experience in conjunction with the influence of others and insights gained from self-assessment that seemed to have developed participants' sense of self and leader identity. Furthermore, when the leaders in the study considered their own development of self-awareness, instead of looking at themselves, they looked at other leaders, experiences with others, and the insights that those people taught them about themselves.

With regards to self-assessment insight, the majority of PMs in the study—perhaps reflecting leaders more generally—expressed that there is a great deal of insight and utility to be gained from self-assessment if it is approached with honesty and objectivity (Boyce, Zaccaro, & Wisecarver, 2010; Brett & Atwater, 2001). Self-assessment offers leaders an opportunity to gain self-awareness; to “know where to focus their developmental efforts and motivate them to better understand their strengths and improve their weaknesses” (Chappelow, 2004, p. 31). Self-assessment—whether through individual instruments such as the MBTI or from formal and informal feedback and 360-degree surveys—can be an important leadership development & application tool for PMs (DAU, 2014b; Kouzes & Posner, 2006). Yet it is only within the context of experience with others that the insights from self-assessment seem to have been synthesized and incorporated into participants' leadership practice. Though one of the original goals for the study was understanding how self-assessments influence leaders and leadership development, it became clear through the research that the “self” seemed to disappear into the work context as the people and experiences encountered there resulted in deeper self-awareness.

There seems to be something about leadership that forces one outside of oneself to relationships with others, shared experience, self-knowledge, and the dynamics of integration among those influences. It also appears that the lived reality for the participants in this study is that the relationship between the self and others (i.e., on the job) is where the development of leadership identity and self-awareness takes place. It was the fact that self-awareness came about through the integration of those things—experience with others, and the insights taken from self-assessments—that made the findings somewhat unique.

Considering how the PMs in the study apply or employ the self-awareness they've gained to leading their project teams, what seemed common among the varied participants was first the idea of a guiding purpose to the work they do. Understanding and focusing every leadership effort or professional methodology towards supporting warfighters in the field seemed to be a fundamental element of how these leaders applied their self-identity to leading defense acquisition projects. Further, participants spoke of using their understanding of the leader behaviors that affect their followers and their projects—most commonly referred to in the study as strengths and weaknesses—in leading their teams to positive project outcomes. In other words, having an awareness of ones' strengths and abilities, shortcomings, “blind spots”—as one participant put it—personality preferences, ethical standards & values allows leaders to better interact with their followers and stakeholders, building trust and stronger relationships. That awareness of leader behaviors, specifically their strengths and weaknesses also allowed participants in the study to incorporate individuals with complementary skills into their teams, ultimately improving project outcomes.

This consistency between leadership role, personal values, self-awareness, and outward behavior seemed to help the PMs in this study lead authentically, especially during crucial transitions: from leading in the field, to assuming a more business-like role as a PM; or, transitioning from a lower level leader and acquisition officer, to PM with wide-ranging responsibilities and impacts.

Transitions appeared to give leaders a space and place to use self-awareness intentionally. In those transitions, participants had to rethink, or relearn, or at least reflect on, their strengths, weaknesses, personality preferences, and other individual traits from the past, and determine if those leader behaviors could still carry them forward. When these leaders were faced with change, when they had to change, that's when they grew. This notion is reflective of Kolb's experiential learning theory (Kolb, 2014). Kolb described experiential learning this way: "Learning is the process whereby knowledge is created through the transformation of experience" (p. 38). His Experiential Learning Theory, which refined and simplified the experiential learning concepts introduced by Lewin, Dewey, and Piaget (Kolb, 1999; Miettinen, 2000) describes a four-stage model of learning that encompasses: concrete experience; observations and reflections; formation of abstract concepts and generalizations; and testing implications of concepts in new situations (Miettinen, 2000, p. 57). Complementary to the idea of learning through transition, Skipper and Lansford (2006) found that top performing PMs in the construction industry perceived job experience as the most significant influence to their leadership development. Second to that in influence was "observing" (p. 72) other PMs and leaders, learning through various assignments and projects; again, experience. The ideas in Kolb's theory seem evident in participant discussions of growing through the

various transitions (and experiences) they'd encountered. Through the transitions these leaders faced it was an imperative that to thrive in the new environments they encountered, they had to do some new learning (Dotlich, Noel, & Walker 2004; Dragoni, Park, Soltis, & Forte-Trammell, 2014; Guthrie & Jones, 2012; Levin, 2010). Thus applying awareness of their strengths and weaknesses through the transition, fully understanding the purpose of their leadership and what their leadership style was going to be in the new environment, and recognizing who they were as leaders allowed participants to grow and lead more authentically.

Participants' understanding and employment of leader behaviors which effect positive project outcomes seems to capture the essence of self-awareness and authentic leadership: a leader needs to have an awareness of his or her own health, qualification or knowledge levels, as well as an internal understanding of his/her values, personality, strengths, weaknesses, etc., in order to be effective (Luthans & Avolio, 2003). Leading oneself, or being "in command" of the leader behaviors one exhibits was seen as a key component to effective leadership by the PMs in the study. This was an area well documented among several leadership theories. For example, Furtner, Baldegger, and Rauthmann (2013) conducted studies on the associations with self-leadership using self and follower reports among hundreds of professionals. Through their inquiry, they found that self-leadership (understanding and use of one's strengths and weaknesses) was positively associated with "active" styles of leadership such as transformational leadership, and negatively associated with "passive" styles of leadership such as "laissez-faire" leadership. As Collins and Jackson (2015) noted, self-awareness of one's leader behaviors also allows leaders to improve their self-regulation and authentic behavior.

Additionally, Gardner et al. (2005) proposed that “as authentic leaders gain self-knowledge and awareness, they achieve self-concordant identities as their decisions and actions become increasingly self-determined and consonant with their internalized values and goals” (p. 356).

Developing awareness of positive leader behaviors and aligning them with one’s self has also been cited in the literature as “self-regulation” by Yeow and Martin (2013), and recorded as essential to authentic leadership (Luthans & Avolio, 2003). Participants in the study reflected an awareness of self-regulation through stories demonstrating consistency between their message to followers, their personal values, and their outward behaviors. Sparrowe and Raymond (2005) also noted this consistency through self-awareness as central to authentic leadership. Thus, “authentic leaders are effective in leading others because followers look for consistency between their leaders’ true selves—as expressed in values, purpose, or voice—and their behaviors.” (p. 423). The self-awareness gained through experiences and transitions between roles, assignments, and other challenges (Dotlich et al., 2004) seems to help leaders develop that consistency, that authenticity (George et al., 2007).

In summary, the two main foci of this study: the development of leader self-awareness and the application of that self-awareness appear to blend together in practice. It is on the job that self-awareness is developed as well as applied. It is in relationship with others and within a context of purpose that one develops, applies, and nurtures self-awareness in an interconnected, reciprocal process. Leading authentically then may be learned and practiced in those environments where there is a strong guiding purpose, positive leadership influences and opportunities for growth through job transitions where

strengths and weaknesses are continually examined to meet the requirements of the new situation. This reciprocal leadership process of purpose, awareness, influence and authentic application is depicted in the Authentic Leader Self-Awareness Model below, and in Appendix N.



Figure 1. Authentic Leader Self-Awareness Model

Delimitations of the Research

The study was delimited to PMs in the DoD.

Limitations of the Research

Several limitations of the research were discovered during the study. The study was limited by the scarcity of literature on self-awareness and authentic leadership within defense acquisition and the project management profession. The study was also limited by the lack of prior knowledge or understanding among the participants of the key concepts of self-awareness and authentic leadership. Interviews with participants were constrained to telephone and electronic communications; this may have also impacted the depth of the understanding and narrative. Another limitation of the study may be that it did not examine the insights of those leaders who scored below 2.5 in Self Awareness on the ALQ. It is unknown what sorts of insights those PMs might have had on the areas studied in this research.

Recommendations

The findings, discussion and conclusions offered in this dissertation raise several possible applications or recommendations to acquisition practitioners and the DoD, to policy, and to research.

Practitioners

The DoD's emphasis on completing projects under cost, within schedule, and to the highest technical performance standards can sometimes overshadow the need to understand and manage the development of project leaders. Crucial in the acquisition process is the role of self-aware leaders who can set the program's vision, provide resources, trust their teams to successfully complete the mission, and advocate for them

with stakeholders all along the way. Thus to better meet project leadership development needs, the following recommendations are offered:

(1) The results of this study show that in transitions, leaders are going through a quandary of identity but also face an opportunity to better define their leadership. In new roles, leaders often don't have any external, or personal support to make the change effectively. They naturally experience doubt, anxiety, and self-searching, asking fundamental identity questions about who they are and what they're supposed to be doing in their new leadership role. Participants illustrated that it is possible to work through transitions, taking advantage of their prior experience, leader behaviors, and self-awareness while also learning from the new environment and situation. Thus it behooves leaders to pay attention during those transitions, as much can be learned about ourselves and our leadership identity through change. Project managers also need time to learn from others. Accordingly, project leaders and acquisition professionals should seek a balanced variety of assignments where they can be exposed to diverse experiences, and importantly, different leaders and approaches to solving project problems.

(2) Acquisition and project leaders should also seek out opportunities for gaining better self-awareness through individual and group feedback (one-on-one and 360-degree assessments), other specific assessments such as the ALQ & MBTI, and other self-awareness centered instruments. They should also incorporate self-reflection into their daily leadership practice in order to better utilize the feedback gained through such assessments, as well as the continual interpersonal feedback and input provided by lived leadership experience.

(3) Project leaders should be intentional with reflection through experiences, and especially during transitions. Follow up is important to integrating and applying what one learns through self-assessment. Self-assessment by itself will not impart all the self-understanding a leader needs. Leaders should make a personal plan for revisiting the insights gained in self-assessments and for actively applying them in their leadership practice. They should be patient, however and realize that they are growing as leaders with each new experience, leadership challenge, interaction, and educational opportunity.

(4) In terms of developing followers, leaders should consider compelling (positive) transitions on people who are “stuck” in their development, or are having a hard time finding a purpose, or simply can’t fully embrace their role or mission. Given that it is through transitions that people can often reflect and grow, if leaders can help followers who are “stuck” move into new positions or into new roles & responsibilities, those individuals would have an opportunity to rethink who they are and what they’re trying to accomplish.

(5) Project management professionals should seek to staff their teams with a diverse workforce. As the stories and insights in this study, as well as recent studies (Allen, Dawson, Wheatley, & White 2008; Choi & Rainey, 2010; Pitts, 2009; Ting-Peng, Chih-Chung, Tse-Min, & Lin, 2007) suggest, an acquisition workforce with a diverse make up not only in typical diversity measures (age, race, gender, ethnicity, etc.), but also in others such as socio-economic backgrounds, education, nationalities, working styles, life-experiences, and other unique characteristics (Bailey & Bailey, 2014; Cherbneau, 1997; Sears, 1998) contribute to greater project or organizational success. Thus, PMs should seek to staff their projects with a diverse team, and strive to understand not only

their self-identity, but also the differences in values, perspectives, goals, behaviors; and others that diverse teams can contribute to project success.

Policy

This study suggests project leaders have rich narratives from which to draw learning about leadership. However, leaders need to be taught to be aware of these narratives and to mine them for guidance on project leadership. Awareness of strengths, limitations, and effects of personality in interactions with subordinates and stakeholders can help project leaders develop stronger leadership practices. Thus, self-awareness training is needed throughout military leaders' training curriculums from initial, to mid-career and senior leadership courses to integrate acquisition and other technical training with self-awareness development. The following recommendations address this shortcoming:

(1) Self-awareness conceptual frameworks should be introduced in early leadership courses. Teaching young leaders to understand the concepts involved in self-awareness—given all the other technical content they have to learn—may equip them with the self-awareness tools they can use throughout their development as leaders. Research indicates that for complex and abstract topics such as self-awareness, conceptual understanding offers novices a positive method for grasping the material over rote memorization (Mills, 2016). As Mills' research indicates, conceptual understanding can help leaders connect self-knowledge and awareness to actions in leadership practice; thus facilitating “the knowledge transfer that occurs between theory and practice.” (p. 546). Given leaders' self-awareness seems to be heavily influenced by others: commanders, peers, family, mentors, etc., training young leaders in self-awareness will

help them to better recognize and assimilate the lessons they take from those individuals earlier in their careers and perhaps form a stronger sense of self-awareness they can in turn use to more effectively lead their teams, organizations, and projects as they mature throughout their careers.

(2) The DoD should formalize self-awareness training and self-assessment opportunities for acquisition leaders later in their careers as well. Self-assessment tools, while influencing self-awareness development less than that of other people in PM's lives offer acquisition leaders—who are often senior in rank and experience—opportunities to discover additional facets of themselves they can use in their leadership practice. This could be implemented by DAU incorporating more self-assessment into its leadership and higher-level certification residence courses.

(3) Additionally, self-development and self-study should augment formal self-awareness training by the DoD. Sparrowe and Raymond (2005) suggested that leader self-awareness could be developed through writing autobiographies, self-obituaries, journals and other methods that help establish a “narrative identity” (p. 426). Narration of one's experiences, beliefs, discoveries, and so forth should be incorporated into DoD's leadership development programs and annual appraisal cycles to further improve project leaders' self-awareness.

Researchers

One limitation of this study was the scarcity of research on self-awareness and authentic leadership within defense acquisition and the project management profession. To address this shortcoming for future leadership practitioners, the following recommendations are proposed:

(1) Future research should examine and interview leaders (PMs) who score below 2.5 on self-awareness on the ALQ to see if any of the themes to emerge using the same research questions and methodology are similar, or different than those that flowed from PMs in this study who scored high on the ALQ for self-awareness.

(2) Further research on leader self-awareness should be conducted with a purposive sample more representative of the population in terms of male to female ratio. While this study's purposive sample paralleled the demographics of the wider military (DoD, 2015), it did not reflect the broader United States population gender demographic which is more evenly distributed 50.8% female to 49.2% male (US Census Bureau, 2011).

(3) Future studies should examine the level of agreement between a leader's self score on the ALQ, and that reported by his/her peers, subordinates, and leaders on the same instrument. A self-awareness-focused 360-degree assessment might also be used to qualitatively explore the degree to which a leader's self-rated self-awareness score is congruent with the scores reported by others.

(4) Further study could also be done to examine the relationship between an individual's ALQ score, and their own qualitative insights and perspectives on use of self-awareness in leadership. For example through a self-only narrative survey included with a self-awareness focused 360-degree assessment.

(5) Future research should also more deeply examine the nature or mechanism of influence and effect of other individuals on an (acquisition) leader's development of self-awareness. Such detailed looks at these mechanisms of influence, as well as the overall phenomenon of developing self-awareness through the looking glass of others' lives,

examples, and feedback might show patterns that can be intentionally used in training attention and reflection of acquisition professionals on previous experiences in their narrative. Given the influence that was shared between people identified in the stories of these project leaders, research should also be conducted to support development of training curriculums for leaders on how they influence others.

(6) Future studies should also examine how each of the armed services are training their acquisition leaders in self-awareness concepts, e.g., understanding one's strengths and limitations, one's emotions, actions congruent with one's values, authenticity, self-assessment, personality preferences, etc., in order that the knowledge gained may be used to synchronize and share best practices among the armed services. This research could serve to help self-awareness be institutionalized in much the same way that DAU standardizes acquisition training across the DoD.

Final Thoughts

*In interiore homine habitat veritas (In the inward man dwells truth).*¹

- Latin expression

“Self-leadership is the beginning of effective leadership in teams, organizations, and society” (Clawson, 2009, p. 136). That insight, echoed in the stories, reflections and perceptions of participants' lived experiences, and repeated by many researchers (Avolio & Gardner, 2005; Blanchard, 2006; Demming, 1982; Mantz, 1983) applies to leadership in any discipline one can think of, including project leadership in the DoD.

In addition to the major findings of the study, what I found on a more personal level was that despite the uniformity, obedience to orders, strict cultural norms and expectations of our service men and women; despite the common belief that these people

are somehow devoid of individuality, each one of those people wearing this country's uniform is a unique individual with a strong identity, a developed self-awareness, and a real passion for serving others. How they express and use those individualities to lead and serve our great nation is as varied as their number; and perhaps more importantly, the nation stands safer for their individuality.

I've also re-learned a lot about leadership from the amazing leaders I interviewed and conversed with. Each in their own way reminded me of why I chose to pursue a career as a leader – a genuine concern and love for people; a deep satisfaction I gain from seeing followers I lead and connect with, grow as professionals and as leaders themselves.

The journey this study has taken me on, through years of preparation, over 30 hours of interviews, ten times that amount in transcription, coding and analysis, reflection, writing, re-writing, more reflection, and yet more re-writing has been at times exhausting, continually challenging, often exhilarating, and nothing short of amazing! It was an invaluable experience that I only wish I'd begun sooner. I've learned so much about the research process, about the value and uses of both qualitative, and quantitative research, and about the value in gathering many and diverse perspectives on issues to draw deeper meanings and utility from them. I hope that I will be able to pass on the knowledge I've learned to others just as the many brilliant, dedicated, and generous faculty, staff, and participants of the Andrews University Leadership Program have done for me.

*“To be human,
is to become visible
while carrying
what is hidden
as a gift to others.”²*

– David Whyte

APPENDIX A INTERVIEW QUESTIONS

Opening: “This study is seeking an understanding of self-awareness and its use among DoD project managers.”

- Tell me your name and the project or organization you lead/work in.
- What assignments in acquisition or project management have you had?

Introduction

- Tell me about the key leadership training or educational experiences you’ve taken in your career.
- Tell me about the influences, experiences, or relationships in your career that are the most significant to you.

Transition

- Think of leaders you know of or have worked with who really seem to know themselves well, and who use that knowledge in leading others. Tell me about them.
 - Probes:
 - Define a self-aware leader
 - A leader who functions within their true identity
- How would you define your own identity as a leader?

Key Questions:

- Think about your leadership style. What or who has influenced you to lead in the way that you lead?
 - Probes:
 - Leaders or assignments, teams, deployments, relationships or events
 - Insights gained from those influential leaders, events, or training
 - Uses of insights or lessons gained from those leaders, events, challenges, etc. in managing a project

- What facets of your private, or “true” self do you allow to come through in your daily leadership interactions?
 - Probes:
 - Leadership situations, tasks, or processes which allow trueness to self
 - Situations/contexts that inhibit sense of self

- Now, reflecting on the self-assessments you’ve taken (MBTI, Leadership Mirror, MSFA, etc.). Tell me about the insights or lessons you took away from those instruments.
 - Probes:
 - Changes in insights from the assessment taken at different time periods (e.g., as a cadet or in training, mid-career, later, etc.)
 - Aspects of the knowledge gained from the self-assessments which resonated, and which didn’t
 - Post-assessment research or effort taken to apply or develop an insight gained
 - Insights or lessons actually applied in leading teams/organizations/projects

Ending question:

Prompt: General feedback / other insights

- Is there anything else you’d like to say? What other questions or insights would you explore?

APPENDIX B ANDREWS IRB APPROVAL



October 31, 2014

Jeffrey Hart
Tel: (256) 541-2812
Email: jeffreyh@andrews.edu; Jeffrey.Hart@mda.mil

RE: APPLICATION FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS
IRB Protocol #: 14-095 Application Type: Original Dept.: Leadership
Review Category: Expedited Action Taken: Approved Advisor: Duane Covrig
Title: Project managers' perceptions of self-awareness: A holistic multiple case study in the United States Department of Defense.

This letter is to advise you that the Institutional Review Board (IRB) has reviewed and approved your IRB application of research involving human subjects entitled: *"Project managers' perceptions of self-awareness: A holistic multiple case study in the United States Department of Defense"* IRB protocol number 14-095 under Expedited category. This approval is valid until October 31, 2015. If your research is not completed by the end of this period you must apply for an extension at least four weeks prior to the expiration date. We ask that you inform IRB whenever you complete your research. Please reference the protocol number in future correspondence regarding this study.

Any future changes made to the study design and/or consent form require prior approval from the IRB before such changes can be implemented. Please use the attached report form to request for modifications, extension and completion of your study.

While there appears to be no more than minimum risk with your study, should an incidence occur that results in a research-related adverse reaction and/or physical injury, this must be reported immediately in writing to the IRB. Any project-related physical injury must also be reported immediately to the University physician, Dr. Reichert, by calling (269) 473-2222. Please feel free to contact our office if you have questions.

Best wishes in your research.

Sincerely

A handwritten signature in black ink, appearing to read "Mordekai Ongo".

Mordekai Ongo
Research Integrity & Compliance Officer

Institutional Review Board - 4150 Administration Dr Room 322 - Berrien Springs, MI 49104-0355
Tel: (269) 471-6361 Fax: (269) 471-6543 E-mail: irb@andrews.edu

APPENDIX C DAU CONFIRMATION OF DATA COLLECTION PROCESS

From: [Siragusa, Penny](#)
To: [Hart, Jeffrey CIV MDA/DA/SNX/DIFR](#)
Cc: [Scheduling](#)
Subject: RE: Short Survey regarding Competencies of Department of Defense (DoD) Program Managers
Date: Monday, August 25, 2014 7:12:23 AM

Mr. Hart,

We cannot release the students email address. However, I can send an email to a number the PMT 401 graduates from Sterling Height, MI or Kettering, OH and ask them to contact you directly if they would like to participate in your survey. If this will work for you, please provide a DRAFT email of what you would like to be sent to the PMT 401 graduates.

FYI - the email address of student.services@dau.mil was deactivated and replaced by Scheduling@dau.mil Thank you,
Penny

-----Original Message-----

From: Hart, Jeffrey CIV MDA/DA/SNX/DIFR [<mailto:Jeffrey.Hart@mda.mil>]
Sent: Thursday, August 21, 2014 1:33 PM

To: Gomez, Debbie
Subject: FW: Short Survey regarding Competencies of Department of Defense (DoD) Program Managers

Importance: High

Ma'am,

Reference the subject and message below. I am a DoD Acquisition professional, graduate of PMT401, and doctoral student at Andrews University, Berrien Springs, MI. I'm writing to gain insight as to how Mr. Budzichowski was able to access PMT 401 graduates because, I too, would like to survey them for my research. I've tried contacting Mr. Budzichowski without success, but presume he interfaced with SSCF in the Midwest region to contact possible respondents.

I'd be grateful for referral to the individual or office who can help me navigate the process to access DAU PMT 401 graduates for survey and interview research. I'd be especially interested to learn any Institutional Review Board or research permission/approval process DAU has for such research.

Thanks very much for your time and assistance,

-Jeffrey B. Hart
Andrews University/
Missile Defense Agency

Jeffrey B. Hart

Deputy Product Manager

Sensors Directorate Foreign Military Sales Missile Defense Agency O: 256.313.9913

BB: 256.541.2812

jeffrey.hart@mda.mil jeffrey.hart@mda.smil.mil

APPENDIX D PURPOSEFUL SAMPLING

PURPOSIVE SAMPLING SUMMARY: ADMINISTRATION OF THE AUTHENTIC LEADERSHIP QUESTIONNAIRE	
<p>The Authentic Leadership Questionnaire (ALQ) will be administered to an twenty to thirty PMT 401 graduate project managers from across Defense Acquisition. The Authentic Leadership Questionnaire (ALQ) is designed to measure the components that comprise Authentic Leadership: Self-awareness, relational Transparency, Ethical/moral perspectives, and Balanced Processing. This study will focus on the ALQ scale for Self-Awareness in order to connect and align with deeply exploring the understanding, development, and application of self-awareness in project leadership.</p>	<p>The ALQ scale for self-awareness examines this question: To what degree is the leader aware of his or her strengths, limitations, how others see him or her and how the leader impacts others? For the purposes of this study, a score of 2.5 on the self-awareness scale indicates a high degree of self-awareness and will be the criteria for inviting participants to take part in interviews.</p>

Authentic Leadership Questionnaire

Note: The other ALQ scales will not be explicitly examined in this study, but are a worthwhile subject of future study to fully understand the balance of elements within Authentic Leadership.

APPENDIX E INTERVIEW GUIDE

1. Introduction and review of the Informed Consent:

- Thank for the opportunity and advise on the expected time required.
- Summarize Problem and Purpose of the study
- Review and answer questions on the Informed Consent.
- Describe your use of digital and audio recording, including safeguarding and anonymity of the data.

2. Transition

- Ask each participant for their Acquisition Career Record Brief (ACRB), military or civilian resume, or any other artifact or documentation they'd like to share.
- Explain purpose for studying documentation as part of the case study

3. Review of Acquisition Career Record Brief / Resume / Other documentation

- Review education and training completed, (self) assessments taken as part of training/education, as well as assignment history and other relevant experiences.
- Ask about insights or takeaways from that education and experience.

4. Key Questions:

- Review the key research questions and explain that other related topics may be discussed as they emerge.
 - Understanding and Development of Self-Awareness: How do Project Managers become self-aware or come to understand themselves as leaders?
 - Application of Self-Awareness in Leadership Practice: How do PMs employ self-awareness in leading their project teams?

5. Understanding and Development of Self-Awareness

- What or who has influenced you to lead in the way that you lead?

- Reflecting on the self-assessments you've taken (MBTI, Leadership Mirror, MSFA, etc.). Tell me about the insights or lessons you took away from those instruments.

6. Use of Self-Awareness in project leadership practice

- What facets of your private, or “true” self do you allow to come through in your daily leadership interactions?
- What leadership situations, tasks, or processes do you find allow you to be yourself?
- Which ones inhibit your sense of self?

7. Conclusion

- Be assured that your responses and demographic information will remain anonymous.
- Is there anything else you'd like to say? What other questions or insights would you explore?
- Do you have any questions on what we've spoken about, or have any other comments you'd like to share with me?
- Thank-you for participating in this study. Your insights and perspectives have been very helpful.

APPENDIX F PARTICIPANT INVITATION LETTER

Dear PMT 401 graduate,

My name is Jeffrey B. Hart, and I'm a fellow PMT 401 graduate, DoD Program Management professional, and doctoral student at Andrews University in Berrien Springs, Michigan. I am completing research on perceptions of self-awareness in project management leadership. My case study will focus on DoD Program Managers' development, understanding, and use of self-awareness in leading their teams and organizations. You are invited to take a short survey to support this research. All responses are voluntary and will remain anonymous.

The survey takes about 10 minutes to complete. If you are interested in participating, please send a reply to this address: jeffreyh@andrews.edu. I will then provide you a fuller summary of the study, and a link to the survey.

This research is being carried out under the oversight of an Institutional Review Board in accordance 42 U.S.C. 289(a). Research at Andrews University that involves human participants is carried out under the oversight of the university's Institutional Review Board. Questions or concerns regarding this research may be addressed to: Office of Research and Creative Scholarship, Institutional Review Board; Administration Building 322, 4150 Administration Drive; Andrews University; Berrien Springs, MI 49104-0355; Phone: (269) 471-6361; Email: irb@andrews.edu

Please note: The survey is intended for current or previous Department of Defense (DoD) Acquisition Program Managers. This includes both civilian and military Program/Project/Product Managers or Directors; as well as Deputies and Assistant PMs/PDs or their equivalents. If you are not, or have not served as a DoD Program Manager (as noted), please accept my apologies and disregard this message.

Thanks for your time and consideration.

Respectfully,

Jeffrey B. Hart
PMT 401 Class 11-07
Jeffreyh@andrews.edu
256-541-2812

APPENDIX G AUTHENTIC LEADERSHIP QUESTIONNAIRE INFORMED CONSENT

As an adult 18 years of age or older, I agree to participate in this research about how Project Managers in the Department of Defense come to understand, develop, and apply self-awareness in leading their projects. This survey is being conducted to support research efforts being performed by Jeffrey B. Hart, Andrews University Leadership Department, jeffreyh@andrews.edu.

I understand that my participation is entirely voluntary; I can withdraw my consent at any time. By agreeing to participate in this study, I indicate that I understand the following:

1. The purpose of the research is to describe how Project Managers in the Department of Defense come to understand, develop, and integrate self-awareness – as a key component of authentic leadership – in leading their projects. Should I choose to participate in the survey, I am aware that my feedback will remain anonymous, but will be consolidated with my peers' and the research outcomes will be briefed to the Defense Acquisition University leadership in Huntsville, AL, allowing them to consider the study's findings in making decisions for the education and training of Department of Defense Program Managers.

2. If I choose to participate in this research, I will be asked to complete an online questionnaire.

The questionnaire will include items relating to the degree to which the respondent (leader) is aware of his or her strengths, limitations, how others see him or her and how he or she impacts others. The questionnaire will take approximately 10 minutes to complete.

3. There is no incentive for participation.

4. All items in the questionnaire are important for analysis and my data input will be more meaningful if all questions are answered. However, I do not have to answer any that I prefer not to answer. I can discontinue my participation at any time without penalty by exiting out of the survey.

5. This research will not expose me to any discomfort or stress beyond that which might normally occur during a typical day. There are no right or wrong answers; thus, I need not be stressed about finding a correct answer.

6. There are no known risks associated with my participating in this study.

7. Data collected will be handled in a confidential manner. The data collected will remain anonymous.

8. The purpose of this research has been explained and my participation is entirely voluntary.

9. I understand that the research entails no known risks and by completing this survey, I am agreeing to participate in this research.

Research at Andrews University that involves human participants is carried out under the oversight of the university's Institutional Review Board. Questions or concerns regarding this research should be addressed to:

Office of Research and Creative Scholarship, Institutional Review Board
Administration Building 322, 4150 Administration Drive
Andrews University
Berrien Springs, MI 49104-0355
Phone: (269) 471-6361
Email: irb@andrews.edu

I have read the Informed Consent and recognize that by completing and returning this survey, I am giving my informed consent to participate.

APPENDIX H INTERVIEW INVITATION LETTER

Dear PMT 401 graduate,

Thank you for participating in the Authentic Leadership Questionnaire portion of this study; I hope that you found the time well spent and informative. I'd like to invite you to continue to support this research through a face to face interview at a time and location convenient for you.

As a refresher, please note that I am completing research on perceptions of self-awareness in project management leadership. My case study will focus on DoD Program Managers' development, understanding, and use of self-awareness in leading their teams and organizations. All responses are voluntary and will remain anonymous.

The study's key research questions are designed to explore understanding and development of self-awareness, as well as application of self-awareness in leadership practice. In our interview we'll explore these questions as well as associated ideas, themes and constructs. The key research questions are:

- How do Project Managers become self-aware or come to understand themselves as leaders?
- How do PMs employ self-awareness in leading their project teams?

The research will also rely on artifacts as a data source. Thus, I'd ask that you bring with you to the interview a copy of your latest Acquisition Career Record Brief, or Officer Record Brief with any personally identifiable information removed. If you have other documentation you'd like to share, such as self-assessment reports, training & education accounts, or other artifacts that have been significant in your development as a leader, please bring those as well.

If you cannot meet face to face, but would like to participate, please contact me at jeffreyh@andrews.edu and we'll arrange a telephonic or electronic interview.

This research is being carried out under the oversight of an Institutional Review Board in accordance 42 U.S.C. 289(a). Research at Andrews University that involves human participants is carried out under the oversight of the university's Institutional Review Board. Questions or concerns regarding this research may be addressed to: Office of Research and Creative Scholarship, Institutional Review Board; Administration Building 322, 4150 Administration Drive; Andrews University; Berrien Springs, MI 49104-0355; Phone: (269) 471-6361; Email: irb@andrews.edu.

Thank you for your participation in this study.

Best Regards,

Jeffrey Hart

PMT 401 Class 11-07

Jeffreyh@andrews.edu

APPENDIX I AUTHENTIC LEADERSHIP QUESTIONNAIRE

Authentic Leadership Questionnaire (ALQ Version 1.0 **Self**)

Bruce J. Avolio, Ph.D.

Name: _____ Date: _____

Organization ID #: _____ Person ID #: _____

Instructions: The following survey items refer to your leadership style, as you perceive it. Please judge how frequently each statement fits your leadership style using the following scale:

Not at all Once in a while Sometimes Fairly often Frequently, if not always
0 1 2 3 4

As a leader I...

- | | | | | | |
|--|---|---|---|---|---|
| 1. say exactly what I mean | 0 | 1 | 2 | 3 | 4 |
| 2. admit mistakes when they are made | 0 | 1 | 2 | 3 | 4 |
| 3. encourage everyone to speak their mind | 0 | 1 | 2 | 3 | 4 |
| 4. tell you the hard truth | 0 | 1 | 2 | 3 | 4 |
| 5. display emotions exactly in line with feelings | 0 | 1 | 2 | 3 | 4 |
| 6. demonstrate beliefs that are consistent with actions | 0 | 1 | 2 | 3 | 4 |
| 7. make decisions based on my core values | 0 | 1 | 2 | 3 | 4 |
| 8. ask you to take positions that support your core values | 0 | 1 | 2 | 3 | 4 |
| 9. make difficult decisions based on high standards of ethical conduct | 0 | 1 | 2 | 3 | 4 |
| 10. solicit views that challenge my deeply held positions | 0 | 1 | 2 | 3 | 4 |
| 11. analyze relevant data before coming to a decision | 0 | 1 | 2 | 3 | 4 |
| 12. listen carefully to different points of view before coming to | 0 | 1 | 2 | 3 | 4 |
| 13. seek feedback to improve interactions with others | 0 | 1 | 2 | 3 | 4 |
| 14. accurately describe how others view my capabilities | 0 | 1 | 2 | 3 | 4 |
| 15. know when it is time to reevaluate my position on important issues | 0 | 1 | 2 | 3 | 4 |
| 16. show I understand how specific actions impact others | 0 | 1 | 2 | 3 | 4 |

APPENDIX J ALQ SAMPLE REPORT

**Authentic Leadership Questionnaire (ALQ)
Multirater Report**

Prepared on September 24, 2010 for
Sample Person

The last rating received was at 10:41 pm EDT on August 09, 2010.



Published by Mind Garden, Inc. | www.mindgarden.com

Copyright 2007 Authentic Leadership Questionnaire (ALQ) by Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa. All rights reserved in all medium.

Authentic Leadership Overview

What is Authentic Leadership?

Descriptive words for authenticity are *genuine, reliable, trustworthy, real, and veritable*. Authenticity can be conceived as both owning your personal experiences (thoughts, emotions, or beliefs, "the real me inside"), and acting in accord with your true self (behaving and expressing what you really think and believe). The Authentic Leader is confident, hopeful, optimistic, resilient, transparent, moral/ethical, and future-oriented. The authentic leader is true to him or herself and exhibits authenticity through behaviors that when positively modeled by followers transform and develop them into becoming authentic leaders themselves. Authentic leaders are active and positive in the way they behave in their world and how they interact with others.

First, authentic leaders are guided by a set of ultimate or end values that represent an orientation toward doing what is right for those in their team, unit, organization or community. Central to this is a belief that each individual has something positive to contribute.

Second, authentic leaders try to operate with no gap (or at least consistently narrow the gap) between their espoused values (their true self) and the values they use each and every day. This requires that they deepen their understanding of their own core values, enabling them to communicate them and to behave with consistency to colleagues.

Third, authentic leaders remain aware of their own vulnerabilities and openly discuss them with associates so that they ensure they continue to head in the "right" direction. They turn a high level of transparency regarding their vulnerabilities into a strength based on people's respect for knowing what the leader can and cannot do.

Fourth, authentic leaders model confidence, hope, optimism, and resiliency, which inspire others to action. Such "walking the talk" has been shown to be much more effective in sustaining one's positive influence with others versus coercing or persuading them.

Fifth, authentic leaders consistently think about building authenticity in their associates, helping to build for each one their psychological capacity and strength.

Finally, authentic leaders have developed the moral capacity to judge issues and dilemmas that are characterized by "shades of gray." They have the credibility to explore such dilemmas from all angles, and seek alternative ways of approaching them without being perceived as disingenuous or shifting with popular opinion. They can change their mind and be seen to be acting consistent with their ultimate values and therefore authentic.

What Does the Authentic Leadership Questionnaire (ALQ) Measure? Self Awareness

To what degree is the leader aware of his or her strengths, limitations, how others see him or her and how the leader impacts others?

Self-awareness refers to demonstrating an understanding of how one makes meaning of the world and how that understanding process impacts the way one views himself or herself over time. It also refers to showing an understanding of one's strengths and weaknesses and the multifaceted nature of the self, which includes gaining insight into the self through exposure to others, and being aware of one's impact on other people.

The awareness component refers to having awareness of, and trust in, one's motives, feelings, desires, and self-relevant thoughts. It includes, but is not limited to, being aware of one's strengths and weaknesses, personality characteristics, and emotions.

As individuals function with greater authenticity, they are aware that they possess multifaceted aspects of themselves, and they utilize this awareness in their interchanges with others and with their environments.

The items rated on the Self Awareness scale are:

As a leader I . . .

seek feedback to improve interactions with others.

Self Awareness item 2 here.

Self Awareness item 3 here.

Self Awareness item 4 here.

Transparency

To what degree does the leader reinforce a level of openness with others that provides them with an opportunity to be forthcoming with their ideas, challenges and opinions?

Transparency refers to presenting one's authentic self (as opposed to a fake or distorted self) to others. Such behavior promotes trust through disclosures that involve openly sharing information and expressions of one's true thoughts and feelings.

In relationships authenticity involves endorsing the importance for others you are close to to see the real you, both the positive and negative aspects. Toward that end, authentic relationships involve a selective process of self-disclosure and the development of mutual intimacy and trust.

Authentic Leaders communicate to others their true intentions and desires. They say exactly what they mean.

The items rated on the Transparency scale are:
As a leader I . . .

say exactly what I mean.
Transparency item 2 here.
Transparency item 3 here.
Transparency item 4 here.
Transparency item 5 here.

Ethical/Moral

To what degree does the leader set a high standard for moral and ethical conduct?

Moral perspective refers to an internalized and integrated form of self-regulation. This sort of self-regulation is guided by internal moral standards and values versus externally derived standards such as those from one's social group, work organization, or the current society one lives in. Ethical/Moral behaviors provide evidence showing decision making and behavior that is consistent with internalized values.

The items rated on the Ethical/Moral scale are:

As a leader I . . .

demonstrate beliefs that are consistent with actions.

Ethical/Moral item 2 here.

Ethical/Moral item 3 here.

Ethical/Moral item 4 here.

Balanced Processing

To what degree does the leader solicit sufficient opinions and viewpoints prior to making important decisions in order to be seen as fair and just?

Balanced processing refers to leaders who show they go through the due diligence to objectively analyze all relevant data before coming to a decision. Such leaders also solicit views that challenge their deeply held positions.

Balanced processing is represented by leaders who are able to take input from diverse points of view and consider how those views may fairly and objectively shape their interpretation and decisions regarding a particular challenge or opportunity.

The items rated on the Balanced Processing scale are:

As a leader I . . .

solicit views that challenge my deeply held positions.

Balanced Processing item 2 here.

Balanced Processing item 3 here.

Leadership

Why are authenticity and the authentic characteristics of Self Awareness, Transparency, Ethical/Moral, and Balanced Processing important to leadership and its development? Think about working for someone who exhibits a genuine desire to understand their own leadership in order to serve you more effectively. They act in accordance with their deep personal values and convictions to build credibility and win the respect and trust of you and your colleagues. They encourage diverse viewpoints and build networks of collaborative relationships with you and your colleagues. It is easy to understand the power of working with someone like this and why striving for greater levels of authenticity makes practical sense in any leadership role or relationship with followers.

Direct Effects

Being aware of how one effects others, the balanced processing of information, transparency in relationships, and consistency between values, words, and deeds (i.e., internalized moral perspective and ethical behaviors) exhibited by Authentic Leaders instills elevated levels of commitment, willingness to perform behaviors outside the work role (e.g., good citizenship in the organization), and higher satisfaction with the leader.

Indirect Effects

In terms of indirect effects, Authentic Leaders lead by example (e.g., role modeling) as they display high moral standards, honesty, and integrity, thereby eliciting followers to personally identify with them and to then model their style of leadership. Here, personal identification refers to the process whereby one's beliefs about the leader become self-defining and self-referential. Thus, as followers model authentic leaders, they come to view themselves as honest persons of high moral standards and integrity. Also, through this modeling, they begin to cascade the authenticity of their leader to subsequent levels of leadership, in a sense operating as surrogates of their leader.

Social identification refers to a process through which individuals come to identify with a group, take pride in belonging, and see group membership as an important part of their identity. Authentic leaders increase followers' social identification by creating a deep sense of high moral values that characterize their group and expressing high levels of honesty and integrity in their dealings with followers. Authentic leaders don't encourage identification with the leader as a particular person but as a representative of the core values of their team, unit or organization. Reinforcing social identification elicits in followers their commitment and satisfaction to the 'group' and to achieving positive work outcomes together. Authentic leaders become a role model for self awareness, transparency, balanced processing and high moral/ethical standards, which can become modeled throughout the organization.

Purpose of this report

What makes an authentic leader and how does being an authentic leader result in how you transmit leadership to others? The purpose for creating the Authentic Leadership Questionnaire (ALQ) was:

to begin addressing what constitutes authentic leadership, and

to provide feedback on the specific behaviors comprising the four Authentic Leadership styles.

Fundamentally, the ALQ -- and the model that supports it -- was designed to help you get a better estimate of how genuinely you are perceived by others as well as how you see yourself in your leadership role.

Originally, the ALQ was created to complement and important measure of Transformational Leadership, the Multifactor Leadership Questionnaire (MLQ). Specifically, the ALQ authors were interested in being able to measure what constituted "*authentic transformational leadership*", and the scales comprising the ALQ were developed for this purpose.

Part of the power of this report is that it is based on your self rating and the rating of others on the ALQ leadership styles. This ALQ report provides something that many other inventories do not: insight into others' perceptions of your behaviors and your interactions with them. This tends to be a very eye-opening experience, as we oftentimes do not come across to others in the way we intend or think we come across to them. Others' perceptions of us are their reality whether we agree or disagree with their perceptions.

Your goal -- beyond developing your own authenticity -- is to develop insight into the difference between how you rated yourself compared to how you were rated by others. This is especially important since self-awareness and being transparent are both important aspects of your authentic "brand" as a leader. Narrowing the gap between how you view yourself and how others view you is also important because one of your roles as an authentic leader is to develop in others the qualities you exhibit when you are viewed as authentic. How you are perceived by your followers and respected will constitute what they will model in their behaviors of you, as they perform their tasks as followers, and also when they assume a leadership role.

About This Report

This tool is provided to help you reflect on your current level of authenticity as you and your raters perceive it. You will find this report structured into six useful sections:

- Authentic Leadership Overview
- Authentic Leadership Scales Profile and Normative Comparison
- Strengths and Developmental Opportunities
- Authentic Leadership Item Ratings
- Narrative Feedback
- Personal Leadership Development Section

The **Authentic Leadership Overview** provides you with the Authentic Leadership Development (ALD) model and why it is important for your own well being and performance, as well as that of your followers and organization.

The **Authentic Leadership Scales Profile and Norms** is designed to give you insight into how you rated yourself on the ALQ scales, how your raters rated you, and (for comparison how a population of several norms of people rated others on the ALQ) additionally, there may be norms for your organization.

To provide you with even more insight about how you are perceived by your raters, two scales reflect your impact on your raters, **Satisfaction** and **Extra Effort**. These provide ratings of how satisfied your raters are with your leadership and how much extra effort they expend because of your leadership.

The **Strengths and Developmental Opportunities** section of the report sorts the items in the four ALQ scales. Your Strengths are show in your eight highest ratings and your Developmental Opportunities are show in your eight lowest ratings.

The **Authentic Leadership Item Ratings** section shows the ratings by item, how you rated yourself and how your raters rated you. This section is valuable for understanding the difference between your perception of yourself and that of your raters. You can see if your raters perceive you the same or differently by the spread in their ratings.

Often one of the most effective tools in this report for gaining insight into how others perceive you is the **Narrative Feedback** section where your raters have answered three narrative questions:

What are two or three things that would help Sample Person be more effective as a leader?

One thing that gets in the way of Sample Person's effectiveness as a leader is...

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What I admire most about Sample Person leadership is...

The narrative feedback section can be quite informative and it may be helpful for identifying behaviors that relate to your Authentic Leadership. Look for behaviors described by your raters that you should **start** doing to increase your Authentic Leadership, **continue** doing because they are effective in your becoming an Authentic Leader, or **stop** doing because they hinder your being an Authentic Leader.

The **Personal Leadership Development Section** will provide you with methods and tips for developing your Authentic Leadership.

Consider your results in three separate but related phases.

Phase I: What does the feedback tell me?

First, resist the temptation to rush through or gloss over this phase in order to see how you are being rated. Try to stay as impartial and objective as you can. Ask how you rated yourself on the four ALQ scales, how others rated you on the scales and what where their narrative suggestions? Were their scale ratings similar to yours or very different? To what extent (i.e., were the differences large or small)? In this first phase, stick to the ratings as closely as you can. Look for trends, gaps, summaries, and metrics. Look for a comparison between how you see yourself and how others perceive you, and where gaps exist. Assume these will be good starting points for your development.

Phase II: What does the feedback mean?

The second phase of your process is concerned with making sense of your feedback. This is the interpretive step of the process that seeks to identify the implications of your results. It is at this interpretive phase that you should initially consider and evaluate whether your results -- and the similarities and differences of your self-rating scores to the ratings of others -- are favorable or something you need to develop. Remember that perception is yours and their reality. Keep this in mind as you consider the implications of what your raters are telling you through the means of this inventory. If your perceptions differ from theirs in significant ways, you either have to adjust your behavior or seek to understand how to change the way you are perceived in order to see useful progress. The optimal goal is having the highest ratings on these scales from **both** you and your raters.

Phase III: What are my next steps?

The third and most important phase of your process, is your Individual Development Plan (IDP).

What one or two key things will you focus on in order to increase your authenticity? We recommend a maximum of two pivotal actions that will have optimal payback in

terms of time and effort expended. An optimistic laundry list of many areas to develop is neither realistic nor practical.

Usually, the one or two points in your IDP will reflect some aspect or combination of **stop, start, continue**; that is, according to the analysis of your results and the perceptions of others:

What are some things you should **start** to do (because you rarely, if ever, show them at work)?

What are some things you should **continue** to emphasize? Is it possible that these are strengths that could be brought forward more often and leveraged for further benefit?

What are some things you could **stop** doing (perhaps because you over-rely or overdo them at present).

Did some aspect of this report challenge your thinking about your authenticity?

In your next steps, be sure to include some metrics, as well as some statements of appreciation to your raters for providing you with this feedback. In working out your IDP:

Clearly state specific steps you intend to take in order to see consistent, lasting improvement.

Include a metric that is a clear and obvious way to measure whether you are making progress.

After gaining an understanding of what it is to be an authentic leader, you will need to brainstorm and discuss with others behaviors and actions you can take to build your authenticity.

Once you choose these, you can build ways to clearly measure and track the frequency of these behaviors. This should allow you to see the growth of your authenticity.

Finally, it is highly recommended that you approach those you work with and those who contributed to your ratings in this exercise. You should deliver these four key messages:

Thank you for your valuable input.

This is what I heard... (reveal some strengths and a developmental opportunity or two).

I am working on my plan to address these issues...

I would appreciate if I can come back to you for additional feedback as I work through the execution of my plan.

Above all else, remember that "change" is the main goal of the ALQ and to successfully sustain change you will need both discipline and support.

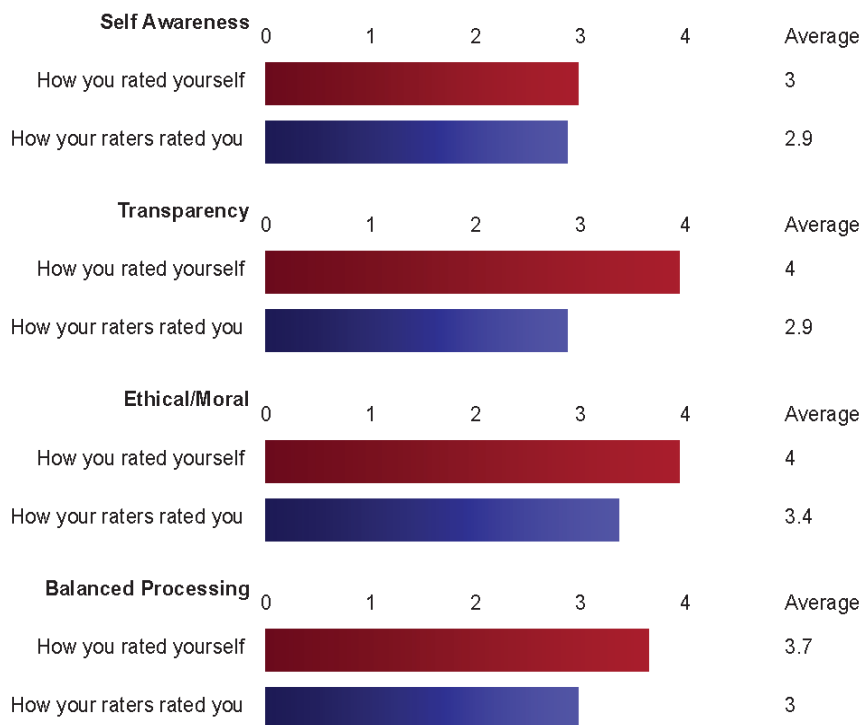
Authentic Leadership Scale Profile

The graphs below show the aggregate ratings for your raters and your self rating on the four Authentic Leadership scales. They also show how satisfied (Satisfaction) raters are with your leadership and how much effort they expend because of your leadership (Extra Effort).

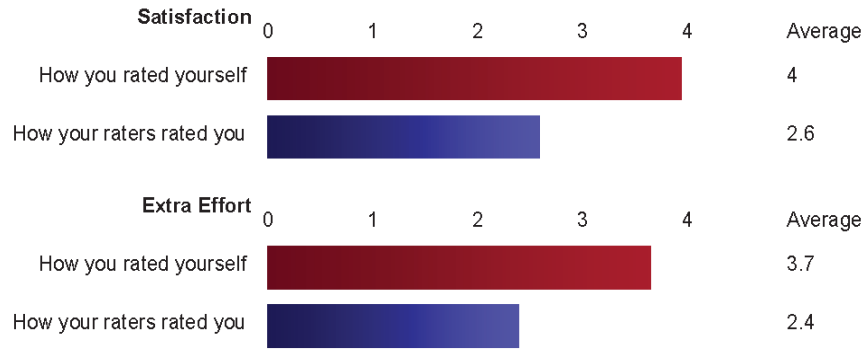
The average frequency of the scores in the graphs can be interpreted with the following frequency scale:

- 0 = Not at all
- 1 = Once in awhile
- 2 = Sometimes
- 3 = Fairly often
- 4 = Frequently, if not always

Authentic Leadership Scales



Outcomes of Authentic Leadership Scales



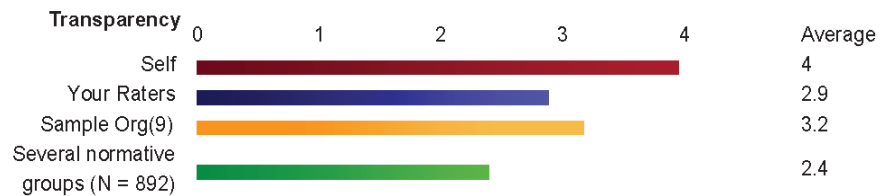
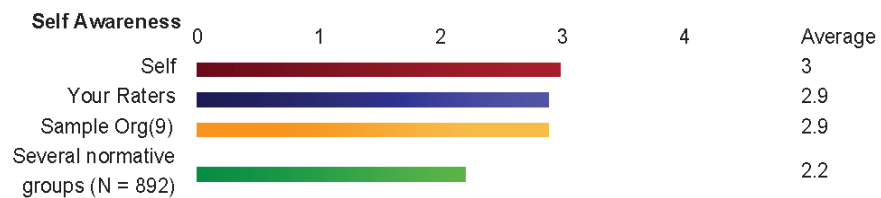
Authentic Leadership Scales Normative Comparison

The graphs below show how you and your raters perceive the frequency of each leadership style or scale compared to the aggregate rater ratings of several normative groups. Descriptions of the several normative groups outside of your organization are described in the references section at the end of this report. Numbers in parenthesis are the number of rater ratings in that normative group. No self ratings are included in the norms.

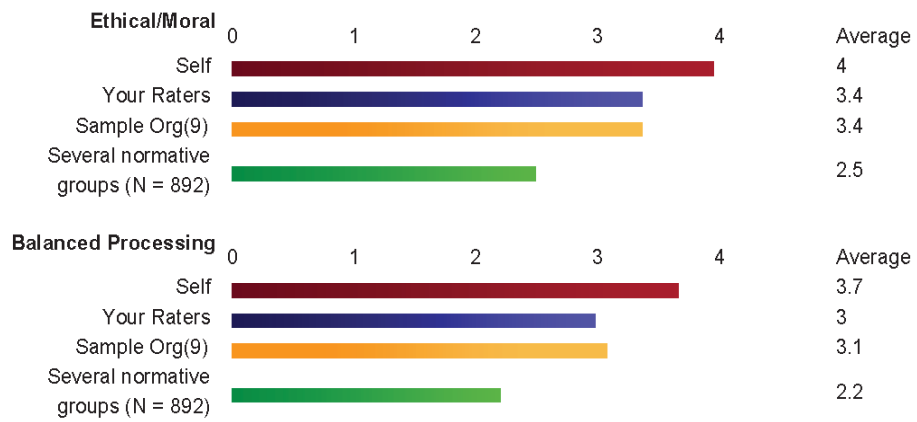
The average frequency of the scores in the graphs can be interpreted with the following frequency scale:

- 0 = Not at all
- 1 = Once in awhile
- 2 = Sometimes
- 3 = Fairly often
- 4 = Frequently, if not always

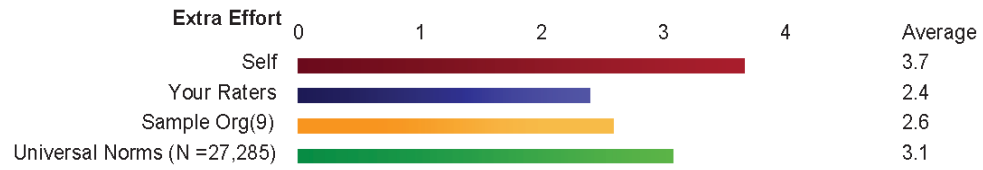
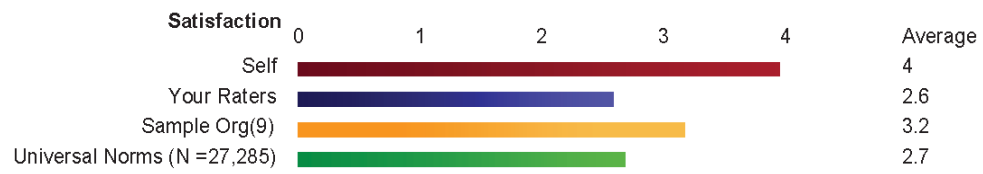
Authentic Leadership Scales



Sample Person



Outcomes of Authentic Leadership Scales



Strengths and Developmental Opportunities

Your Authentic Leadership Strengths

This section lists your Authentic Leadership strengths. The items listed below are those for which you received **your highest eight average ratings by your raters**, sorted from the highest rated item. Your rater average and the Leadership scale are included below. In general, aim for achieving an Authentic Leadership behavior frequency of 3.0 (Fairly often) to 4 (Frequently, if not always).

Rater Average	Item	Scale
3.5	make difficult decisions based on high standards of ethical conduct	Ethical/Moral
3.4	Item text.	Ethical/Moral
3.4	Item text.	Ethical/Moral
3.3	Item text.	Ethical/Moral
3.3	Item text.	Balanced Processing
3.2	Item text.	Balanced Processing
3.2	Item text.	Self Awareness
3	Item text.	Self Awareness

Your Authentic Leadership Developmental Opportunities

This section lists your Authentic Leadership areas for development. The items listed below are those for which you received **your lowest eight average ratings by your raters**, sorted from your lowest rated item. Your rater average and the Leadership scale are included below. In general, aim for achieving an Authentic Leadership behavior frequency of 3.0 (Fairly often) to 4 (Frequently, if not always).

Rater Average	Item	Scale
2.3	seek feedback to improve interactions with others	Self Awareness
2.5	Item text.	Balanced Processing
2.8	Item text.	Transparency
2.8	Item text.	Transparency
2.8	Item text.	Transparency
2.8	Item text.	Transparency
2.8	Item text.	Transparency
2.9	Item text.	Self Awareness
3	Item text.	Transparency

Authentic Leadership Item-by-Item Ratings

Complete Ratings of All Authentic Leadership Behaviors Across All 4 Scales

The tables below highlight any differences between how you perceive yourself on each Authentic Leadership behavior item and how your raters rated you. The numbers are a count of the frequency of each rating, and the dot shows the rating you gave yourself.

Self Awareness

	Not at all 0	Once in awhile 1	Sometimes 2	Fairly Often 3	Frequently 4	Average
seek feedback to improve interactions with others						
Self				•		
Your Raters (12)	2	1	3	3	3	2.3
Item 2 Self Awareness is here.						
Self				•		
Your Raters (12)	1		1	7	3	2.9
Item 3 Self Awareness is here.						
Self				•		
Your Raters (12)			2	6	4	3.2
Item 4 Self Awareness is here.						
Self				•		
Your Raters (12)		1	1	7	3	3

Transparency

	Not at all 0	Once in awhile 1	Sometimes 2	Fairly Often 3	Frequently 4	Average
say exactly what I mean						
Self					●	
Your Raters (12)	1	1		5	5	3
Item 2 Transparency is here.						
Self					●	
Your Raters (12)	1	1	1	5	4	2.8
Item 3 Transparency is here.						
Self					●	
Your Raters (12)	1		3	4	4	2.8
Item 4 Transparency is here.						
Self					●	
Your Raters (12)	1	1		7	3	2.8
Item 5 Transparency is here.						
Self					●	
Your Raters (12)		2	2	5	3	2.8

Ethical/Moral

	Not at all 0	Once in awhile 1	Sometimes 2	Fairly Often 3	Frequently 4	Average
demonstrate beliefs that are consistent with actions						
Self					●	
Your Raters (12)		1		4	7	3.4
Item 2 Ethical/Moral is here.						
Self					●	
Your Raters (12)			1	5	6	3.4
Item 3 Ethical/Moral is here.						
Self					●	
Your Raters (12)			2	5	5	3.3
Item 4 Ethical/Moral is here.						
Self					●	
Your Raters (12)		1		3	8	3.5

Balanced Processing

	Not at all 0	Once in awhile 1	Sometimes 2	Fairly Often 3	Frequently 4	Average
solicit views that challenge my deeply held positions						
Self				●		
Your Raters (12)		3	2	5	2	2.5
Item 2 Balanced Processing is here.						
Self					●	
Your Raters (12)		1	2	2	7	3.3
Item 3 Balanced Processing is here.						
Self					●	
Your Raters (12)		2	1	2	7	3.2

Extra Effort

	Not at all 0	Once in awhile 1	Sometimes 2	Fairly Often 3	Frequently 4	Average
get others to do more than they expected to do.						
Self					●	
Your Raters (12)	1		5	4	2	2.5
Item 2 Extra Effort is here.						
Self					●	
Your Raters (12)	1	2	4	1	4	2.4
Item 3 Extra Effort is here.						
Self				●		
Your Raters (12)	1	2	3	3	3	2.4

Narrative Feedback

What are two or three things that would help Sample Person be more authentic as a person and leader?

The rater comments below are unedited and in random order.

Try to control his mood swings and live in a world which is sometimes grey rather than black or white. Place data gathering and analysis alongside opinions of others before coming to a conclusion; it's great to be 'people led' but facts and analysis play a role particularly in his new Group sustainability role.

Keeping abreast of issues/challenges across the whole Sample Corp. Seeking to understand the impact that some decisions may have on other areas of the Business.

Sample needs to spend more time on his leadership responsibilities [ie for his team]: on 1 on 1's, quality conversations etc

could spend more time getting to know his teams, and more focus on personal develop of direct reports Needs to spend more time with his people to understand where they are coming from.

I regard Sample as a role model for authentic leadership

One thing that gets in the way of Sample Person's authenticity in our organization is... The rater comments below are unedited and in random order. Sample's emotions can cloud his judgement on occasions.

Could share what he knows more often.

He doesn't always create an environment which enables his team members to be "true to themselves"

A willingness to, more of the time, see working with people as a way of getting things done rather than seeing people as getting in the way.

Lack of authenticity from others

What I admire most about Sample Person's authenticity is..

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The rater comments below are unedited and in random order.

He is passionate about his people, the business and the issues that they impact. He does what he says he will do.

He is very clear about what is important to himself, is very approachable, and is a source of good advice, honesty, great sense of humour, balanced perspective, calm - unflappable,

He is at least able to have tough conversations with people - but interactions with his team are too infrequent, which makes the tough conversations tougher than they need to be.

His commitment to openness, honesty, integrity, energy and courage at all levels.

Personal Leadership Development Section

Individual Planning and Goal Setting Suggestions

Consider the outcomes of your Authentic Leadership style at present. Know that authentic behaviors relate to the behaviors and self identity of those you interact with, so don't be surprised if you see in others what they saw in your behavior.

Carefully consider agreements and disagreements between yourself and others' ratings. These differences can be the result of a number of different factors. Differences at the scale level of .5 or higher should be taken seriously.

Accept that the ratings reveal how others perceive your Authentic Leadership behaviors that really count in influencing others, for better or worse.

Consider increasing your authentic behaviors rather than just comparing yourself to normative groups. Knowing you are 'above' or 'below average' of others in your group is often not very helpful for developmental purposes. The norms comparisons provided in this report are for getting a sense of the culture of the groups you may be part of and do not necessarily offer the type of guidance needed to show you how to develop. Where the norms are most helpful is in providing you with some relative idea of how you compare to others.

To understand yourself and how others come to see you, you must really think about what constitutes your core values, beliefs and perspectives. You might simply start by asking, if I could only have one core value what would that be and how would I always express it consistently with my followers?

Develop an action plan based on increasing or decreasing the frequency of your behaviors on particular items in the ALQ. By increasing the frequency of how you display these styles of authenticity, you are changing the way you transmit leadership to others. By transmission we mean how you communicate to them your leadership. Pick items which will have the biggest effect (most different item rating) on your overall average for a particular style and to which you can visualize yourself committing with your followers or associates. Don't assume you can change in less than three months how authentically others perceive you. It will likely take even longer to stabilize how they view you and the changes you have made to your leadership.

Where appropriate, share your plan with at least one trusted advisor who can help you with feedback, suggestions and encouragement. Consider working with a "coach" to

help you achieve these goals. Routinely seek and review feedback from these people about the progress you are making towards achieving your development goal.

Avoid putting raters "on the spot" about their ratings, or giving them the impression that you know how they may have rated you. Such behavior undermines confidence in the whole process and will shut down any other useful feedback.

Consider setting a specific time when you will review your progress by repeating the ALQ and checking with trusted advisors on how they view your progress.

Specific Sample Actions for Each Authentic Leadership Scale

Self Awareness

After taking some action as a leader, ask a trusted follower or peer how they viewed your actions. Was it in line with your self-evaluation and more importantly, your initial intentions?

Pick an area to monitor in terms of your leadership over the next week, e.g., how you start meetings, how you build trust, how you develop others. Identify how you feel you go about doing these things and then ask for feedback from others to see if what you think is congruent with their perceptions.

Spend time reflecting each day on the area you are working on. Think about how you behaved in specific situations, how you were perceived, what you had an impact on, and what you would have done differently.

When you are working with a new group, try to jot down your earliest interactions and what you were trying to accomplish. Do you have any evidence that what you did with your group had the intended impact?

Talk with a leader whom you feel is very self aware. Ask them to describe strategies they use to become more self aware.

Transparency

Set standards with your followers on what you feel should be shared in terms of information. Be clear on what you expect in terms of openness and levels of transparency and how you can assure that occurs perhaps by doing a debriefing with them.

Use examples of leaders who you feel are transparent and what they did to accomplish a higher level of transparency.

Talk with your followers or peers or your personal leader about their reservations about being 'too transparent'. In what situations is it possible to be too transparent?

Identify how you see being transparent links to being more highly trusted. Provide specific examples where you see the links between transparency and trust. Also, talk about where too much transparency could lead to mistrust.

Ethical/Moral

What do you consider your “red lines” or boundaries for moral and ethical conduct? Have you made these explicit to your followers, peers or supervisor?

Identify specific cases or stories of unethical behavior in organizations and use these to discuss how you would have handled those situations based on your moral and ethical values.

Talk about a situation where you deviated from the ethical or moral path and how you were able to come back to a way of behaving that you were more comfortable in dealing with the situation.

What is your single most important core value that underlies your ethical decision-making?

Balanced Processing

Plan to go through and debrief with those involved important decisions and the process you used to arrive at those decisions. Try to see how others viewed the process in terms of fairness and justice.

When making an important decision as a leader, be sure to identify who are all of the major stakeholders.

What are the aspects you weigh most in terms of coming to a decision? Do others know what aspects you consider when coming to a decision?

Go back to a decision that people felt was not fair or balanced. What did you do in that situation that may have created or contributed to their perspective. In retrospect, how could you have changed that situation to be perceived as more balanced and fair?

Individual Planning and Goal Setting

Based on information I've received from my ALQ feedback, here are two or three specific developmental goals:

Actions I will take to improve my effectiveness:

Expected Outcome

Timeframe

How I will monitor my progress?

Resources or support I need to achieve my development plan:

Recommended Reading and References

Books:

Avolio, B.J. (2005). *Leadership Development in Balance: Made/Born*. NJ: Erlbaum & Associates.

Avolio, B.J., & Luthans, F. (2006). *High Impact Leader: Moments matter in authentic leadership development*. NY: McGraw-Hill.

Avolio, B.J., & Wernsing, T. S. (2008). *Practicing authentic leadership*. In Lopez, S. J. (Ed.) (in press). *Positive psychology: Exploring the best in people*. Westport, CT: Greenwood Publishing Company, pp. 147-165.

Gardner, W.L., Avolio, B.J., & Walumbwa, F. (2006). *Authentic Leadership Theory and Practice: Origins, effects and development*. Amsterdam: Elsevier JAI Press.

Articles:

Avolio, B.J., & Chan, A. (In press, 2008). The dawning of a new era for genuine leadership development. Hodgkinson, G., & Ford, K. (eds.). *International Review of Industrial and Organizational Psychology*, 23.

Avolio, B.J., & Gardner, W.L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *Leadership Quarterly*, 16, 315-338.

Avolio, B.J., Gardner, W.L., Walumbwa, F.O., Luthans, F., & May, D. (2004). Unlocking the mask: A look at the process by which authentic leaders' impact follower attitudes and behaviors. *Leadership Quarterly*, 15, 801-823.

Gardner, W.L., Avolio, B.J., Luthans, F., May, D.R., & Walumbwa, F.O. (2005). Can you see the real me? A self-based model of authentic leader and follower development. *Leadership Quarterly*, 16, 434-372.

Walumbwa, F. O., Avolio, B.J., Gardner, W.L., Wernsing, T.S., Peterson, S.J. (2008, February). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 34(1), 89-126.

Norms in This Report

Three normative groups are included in what is referred to as "several norms" for the authentic leadership scales. All three Sample norms are from Walumbwa et. al. 2008.

Sample 1 was 178 working MBA and evening adult students. The average age of participants was 26 years ($SD = 7.23$), with 3.44 mean years ($SD = 3.17$) of work experience; 56% of the participants were female.

Sample 2 was 236 adult evening students with full-time jobs. The average age of the participants was 24.49 years ($SD = 5.92$), with 3.28 years ($SD = 2.55$) of work experience; 48% were female.

Sample 3 was 478 working adults drawn from 11 diverse U.S. multinational companies operating in Kenya, Africa. Approximately 98% of respondents indicated they were Africans.

The normative comparison for the five items in the Satisfaction and Extra Effort scales came from the Multifactor Leadership Questionnaire (MLQ) since these are the same items as are used in the MLQ. These scale scores are based on ratings by others evaluating a target leader from the 2004 normative sample ($N = 27,285$ leaders) reported in the 2004 MLQ Manual.

APPENDIX K ANDREWS UNIVERSITY INFORMED CONSENT FORM

I am conducting a research study as part of my dissertation, in partial fulfillment for my doctoral degree at Andrews University, Berrien Springs, Michigan. Your participation in this study is greatly appreciated.

Research Title: Project Managers' Perceptions of Self-Awareness: A Holistic Multiple Case Study in the United States Department of Defense

Purpose of Study: The purpose of the research is to describe how Project Managers in the Department of Defense come to understand, develop, and integrate self-awareness – as a key component of authentic leadership – in leading their projects. Should I choose to participate in the research, I am aware that my feedback will remain anonymous, but will be consolidated with my peers' responses, and the research outcomes will be included in an unpublished dissertation.

Duration of Participation in the Study:

Survey Research: If I choose to participate in this research, I will be asked to complete an online questionnaire. The questionnaire will include items relating to the degree to which the respondent (leader) is aware of his or her strengths, limitations, how others see him or her and how he or she impacts others. The questionnaire will take approximately 10 minutes to complete.

Interview & Focus Group Research: If I choose to participate in this research, I may be asked to take part in face to face or telephonic interviews and/or focus groups to further examine perceptions, understanding, development, and application of self-awareness in project leadership practice. Interviews and focus group sessions are expected to take approximately one hour each and will be recorded.

Benefits: Participation in this study may provide participants with greater insight about their Authentic Leadership strengths and opportunities for development (i.e., how one affects others, balances processing of information, maintains transparency in relationships, and remains consistent between their values, words, and deeds); as well as a better self-awareness of who they are as leaders (e.g., preferences, values, strengths, impact on others).

Risks: There are no known risks associated with my participating in this study. This research will not expose me to any discomfort or stress beyond that which might

normally occur during a typical day. There are no right or wrong answers; thus, I need not be stressed about finding a correct answer.

Voluntary Participation: I have been informed that my participation in this study is completely voluntary. I am aware that there will be no penalty or loss of benefits I'm entitled to if I decide to cancel my participation in this study. And that there will be no cost to me for participating in this study.

Confidentiality: I understand that my identity in this study will not be disclosed in any published document. Data collected will be handled in a confidential manner and will remain anonymous. The researcher will keep electronic or paper documentation or records from the research secured for a period of two (2) years after conclusion of the study; after which the records will be deleted and/or destroyed.

Contact: I am aware that I can contact the research supervisor for this study, Dr. Duane Covrig, Covrig@andrews.edu, 269-471-3475, or Jeffrey Hart, jeffreyh@andrews.edu, 256-541-2812 for answers to questions related to this study.

I have read the contents of this Consent and received explanations to questions I had. My questions concerning this study have been answered satisfactorily. I hereby give my voluntary consent to participate in this study.

Participant Signature

Date

J.B. Hart
Researcher Signature

256-541-2812
Phone

10/31/2014
Date

APPENDIX L ACQUISITION DEMOGRAPHICS QUESTIONNAIRE

Demographic questions related to Post-PMT 401 Research on DoD Project Managers Understanding, Development, & Application of Self-Awareness

1. This research is intended for current or previous Department of Defense (DoD) Acquisition Program Managers. This includes both civilian and military Program/Project/Product Managers or Directors; Deputy Program/Project/Product Managers or Directors; Assistant Program/Project/Product Managers, or their equivalents.

Do you currently manage or have you previously managed a Department of Defense (DoD) Acquisition Category (ACAT), I, II or III Program?

- Yes
- No

2. What DoD organization are/were you assigned to while managing the Acquisition Program(s)?

- Army
- Air Force
- Navy
- Marine Corps
- Coast Guard
- Other DoD Agency (please specify)_

3. How many years of experience do you have in the military, or as a government civilian managing a DoD Acquisition Program(s)?

- <1yr
- 1-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- >20 years

4. Please specify your level of Defense Acquisition Workforce Improvement Act (DAWIA) certification in Program Management:

- Level I
- Level II
- Level III
- N/A

5. What other Defense Acquisition Workforce Improvement Act (DAWIA) certifications do you hold?

DAWIA Certification Area	Level (I, II, or III)
Auditing	
Business & Financial Management	
Contracting	
Facilities Engineering	
Industrial Property	
Information Technology	
Life Cycle Logistics	
Production, Quality, Manufacturing	

Purchasing	
Requirements Management	
Science & Technology	
Systems Engineering	
Test & Evaluation	

6. Have you completed a Senior Service College program at any of the following: Army War College; Air War College; Naval War College; Marine Corps War College; Defense Acquisition University (DAU) Senior Service College Fellowship (SSCF) Program; National War College (NWC); or the Industrial College of the Armed Forces (ICAF)?

- Yes
- No

7. What is the highest civilian education level you hold?

- High School
- Associates Degree
- Bachelor's Degree
- Master's Degree Doctoral
- Degree
- Other

8. Please list any significant self or leadership assessment instruments you've completed in your time with the Department of Defense, e.g., Myers-Briggs (MBTI), 360 instruments, Strengths Deployment Inventory, etc.

9. Please list any significant leadership or personal development training you've completed in your time with the Department of Defense, e.g., Leading in the Defense Acquisition Environment; Leadership for a Democratic Society; Harvard University Senior Executive Fellows Program; emotional intelligence, personality type, strengths based leadership, etc.

Thank you for participating in this research. Your efforts are greatly appreciated. Point of contact for this questionnaire is Jeffrey Hart, Andrews University.

jeffreyh@andrews.edu.

APPENDIX M PARTICIPANT DEMOGRAPHICS

PARTICIPANT PSEUDONYM	Gender	SERVICE OR AGENCY	Status	Rank	Length of Service	Acq Experience	PM Time	PM Cert Level	Other Acq Certifications	Highest Civilian Education	Senior Service College	MBTI	Self-Awareness ALQ Score
Christopher	Male	Air Force	CIV	GS15	29	26	6-10	3	Bus & Fin Mgt; IT	Masters	Y	ENTJ	4.0
Richard	Male	Army	MIL	LTC	>20	10	6-10	3	None	Masters	N	INTJ	3.8
Elaine	Female	Marine Corps	CIV	GS15	23	20	6-10	3	T&E	Masters	Y	ESTJ	3.5
Kevin	Male	Army	MIL	LTC	20	12	6-10	3	Contracting	Masters	N	ENFP	3.5
Oscar	Male	Army	MIL	LTC	20	12	11-15	3	None	Masters	N	ENTJ	3.5
Robert	Male	Navy	MIL	CDR	>20	13	11-15	3	Sys Eng	Masters	N	ESTJ	3.5
Thomas	Male	Air Force	MIL	LTC	18	18	16-20	3	T&E	Bachelors	N	ESTJ	3.5
William	Male	Army	CIV	GS15	>20	15	11-15	3	Info Tech	Masters	N	ENTJ	3.5
Xavier	Male	DAU	MIL	LtCol	25	20	11-15	3	Info Tech; Sys Eng; T&E	Masters	Y	INTJ	3.5

Frank	Male	Air Force	MIL	LtCol	>20	20	>20	3	Life Cycle Log	Masters	Y	ESTJ	3.3
Michael	Male	Navy	MIL	CAPT	29	10	6-10	3	Life Cycle Log	Bachelors	N	ESTJ	3.3
Victor	Male	Marine Corps	MIL	LtCol	20	10	6-10	3	Life Cycle Log; T&E	Masters	N	INFP	3.3
Jacqueline	Female	Air Force	CIV	GS15	>20	20+	6-10	3	Science & Tech; Sys Eng	Masters	Y	ESTJ	3.0
Leon	Male	Air Force	MIL	LtCol	16	8	6-10	3	Sys Eng; T&E	Masters	N	ISTJ	3.0
Leonard	Male	Air Force	CIV	GS15	>20	15	16-20	3	Life Cycle Log	Masters	Y	INTJ	3.0
Nicholas	Male	Army	CIV	GS14	25	15	6-10	3	None	Masters	N	ENTJ	3.0
Samuel	Male	DHA	CIV	GS15	30	10	6-10	3	None	Masters	Y	ENTJ	3.0
James	Male	USMC	CIV	GS15	20	>20	>20	3	Sys Eng	Bachelors	Y	ESTJ	3.0
Zander	Male	Army	MIL	LTC	20	15	11-15	3	Contracting; IT; Life Cycle Log	Masters	N	ESTJ	3.0
Brian	Male	SOCOM	CIV	GS15	20	20	11-15	3	Sys Eng; T&E	Masters	N	INTJ	2.8

Olivia	Female	Air Force	CIV	GS15	30	15	11-15	3	Bus & Fin Mgt; Life Cycle Log	Masters	Y	INTP	2.8
Paul	Male	Navy	CIV	GS15	20	15	11-15	3	None	Masters	N	ESTJ	2.8
Walter	Male	MDA	CIV	GS15	20	5	1-5	3	Contracting	Masters	N	ISTJ	2.8
Hugh	Male	Navy	MIL	CAPT	28	6	1-5	3	T&E	Masters	Y	ESTP	2.5
ALQ Score below purposive sample of 2.5 (n=6)													
George	Male	Navy	MIL	CAPT	22	6	6-10	3	None	Masters	Y	ESTJ	2.3
Henry	Male	DCMA	Mil	Lt Col	>20	>20	>20	3	IT; Life Cycle Log; T&E	Masters	Y	INTJ	2.3
Keith	Male	Navy	MIL	CAPT	>20	>20	11-15	3	Sys Eng; Life Cycle Log	Masters	N	INTJ	2.3
Ian	Male	Army	CIV	GS15	15	15	11-15	3	Sys Eng; T&E; Fac Eng	Masters	N	ESFJ	2.0
Peter	Male	SOCOM	MIL	LtCol	17	17	11-15	3	Sys Eng; T&E	Masters	N	ESTJ	2.0
Quentin	Male	JSF	Mil	Lt Col	>20	17	11-15	3	Sys Eng	Masters	N	INTJ	2.0

APPENDIX N AUTHENTIC LEADER SELF-AWARENESS MODEL



FOOTNOTES

ABSTRACT

1. Mehta, A. J (2014). *Lessons in non-violent civil disobedience: From the life of M.K. Gandhi, and his legacy*. Retrieved from https://books.google.com/books?id=27_fBQAAQBAJ&source=gbs_slider_cls_metadata_9_mylibrary
2. Lewis, J. J. (2017). Golda Meir Quotes. *About Women's History*. Retrieved from http://womenshistory.about.com/od/quotes/golda_meir.htm
3. Kernis, M. H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry*, 14, 1–26.
4. Asacker, T. E. (2016). *I am Keats*. Retrieved from <http://www.amazon.com/keats-escape-your-mind-free-ebook/>

CHAPTER 1

1. Jung, C. G. (1989). *Memories, dreams, reflections*. A. Jaffe (Ed.). (R. Winston & C. Winston, Trans.). New York, NY: Vintage Books. (Original work published 1961)
2. Defense Acquisition University. (2013). *Software acquisition management*. Retrieved from <http://www.tuckertalk.net/Files/Personality2Program.pdf>

CHAPTER 2

1. Sartre, J. P. (1969). *Nausea*. New York, NY: New Directions Publishing. Retrieved from https://www.goodreads.com/author/quotes/1466.jean_paul_sartre

CHAPTER 3

1. Norman, C. (1973). *e. e. cummings, the magic maker*. New York, NY: Little Brown. Retrieved from <https://www.goodreads.com/work/editions/285622-e-e-cummings-the-magic-maker>

CHAPTER 4

1. Nin, A. (1961). *Seduction of the minotaur*. Chicago, IL: The Swallow Press. Retrieved from <http://quoteinvestigator.com/2014/03/09/as-we-are/>

CHAPTER 5

1. Langer, E. J. (2014). *Mindfulness: 25th anniversary edition*. Boston, MA: Da Capo Press.

CHAPTER 6

1. McLeod, M. (2010). *This is the Buddha's love: Melvin McLeod interviews Thich Nhat Hanh*. Retrieved from <http://www.pbs.org/thebuddha/blog/2010/jun/3/buddhas-love-melvin-mcleod-interviews-thich-nhat-h/>

FINAL THOUGHTS

1. Taylor, C. (1992). *Sources of the self: The making of modern identity*. Cambridge, England: Cambridge University Press.

2. Whyte, D. (2013). *What to remember when waking*. Retrieved from <http://www.awakin.org/read/view.php?tid=994>

REFERENCES

- Alice, H. E. (2005). Achieving relational authenticity in leadership: Does gender matter? *The Leadership Quarterly*, *16*(3), 459-474. doi: 10.1016/j.leaqua.2005.03.007
- Alimo-Metcalfe, B. (1998). 360 degree feedback and leadership development. *International Journal of Selection & Assessment*, *6*(1), 35. doi: 10.1111/1468-2389.00070
- Allen, R. S., Dawson, G., Wheatley, K., & White, C. S. (2008). Perceived diversity and organizational performance. *Employee Relations*, *30*(1), 20. doi:<http://dx.doi.org/10.1108/01425450810835392>
- Andersen, J. A. (2006). Leadership, personality and effectiveness. *Journal of Socio-Economics*, *35*(6), 1078-1091. doi: 10.1016/j.socec.2005.11.066
- Andersen, S. M., & Chen, S. (2002). The relational self: An interpersonal social-cognitive theory. *Psychological Review*, *109*(4), 619.
- Anderson, D. W., Krajewski, H. T., Goffin, R. D., & Jackson, D. N. (2008). A leadership self-efficacy taxonomy and its relation to effective leadership. *The Leadership Quarterly*, *19*(5), 595-608. doi: 10.1016/j.leaqua.2008.07.003
- Andrews University (2014). *Leadership Handbook 2013-2014*. Retrieved from https://www.andrews.edu/sed/leadership_dept/leadership/resources/handbooks/index.html
- Antony, M. V. (2001). Is “consciousness” ambiguous? *Journal of Consciousness Studies*, *8*(2), 19-44.
- Antony, M. V. (2002). Concepts of consciousness, kinds of consciousness, meanings of “consciousness.” *Philosophical Studies*, *109*(1), 1-16.
- Ashford, S. J. (1989). Self-assessments in organizations: A literature review and integrative model. *Research in Organizational Behavior*, *11*, 133.
- Asplund, J., Lopez, S. J., Hodges, T., & Harter, J. (2007). *The Clifton StrengthsFinder® 2.0 technical report: Development and validation*. Princeton, NJ: The Gallup Organization.

- Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, *16*(3), 315-338. doi: 10.1016/j.leaqua.2005.03.001
- Avolio, B. J., & Luthans, F. (2005). *The high impact leader: Moments matter in accelerating authentic leadership development*. New York, NY: McGraw-Hill.
- Avolio, B. J., Gardner, W. L., & Walumbwa, F. O. (2007). *Authentic leadership questionnaire*. Menlo Park, CA: Mind Garden, Inc.
- Avolio, B. J., Griffith, J., Wernsing, T. S., & Walumbwa, F. O. (2010). What is authentic leadership development? In P. A. Linley, S. Harrington, & N. Garcea (Eds.), *Oxford handbook of positive psychology and work* (39–51). New York, NY: Oxford University Press.
- Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, *60*(1), 421–449.
- Axelrod, S.D. (2012). Self-Awareness: At the interface of executive development and psychoanalytic therapy. *Psychoanalytic Inquiry*, *32*, 340–357. doi: 10.1080/07351690.2011.609364
- Bailey, R. & Bailey J. (2014) *Diversity and Team Performance: Selecting Your Travel Squad*. Retrieved February 24, 2017 from: <http://www.pmi.org/learning/library?topics=Scope+Management>.
- Baker, B. N., Murphy, D. C., and Fisher, D. (2008) Factors affecting project success. In D. I. Cleland & W. R. King (Eds.), *Project management handbook, Second Edition*, 902-919. Hoboken, NJ: John Wiley & Sons, Inc. doi: 10.1002/9780470172353.ch35
- Bass, B. M., & Steidlmeier, P. (1999). Ethics, character, and authentic transformational leadership behavior. *The Leadership Quarterly*, *10*, 181–217.
- Beer, M., Finnstrom, M., & Schrader, D. (2016). Why leadership training fails—and what to do about it. *Harvard Business Review*, *94*(10), 50-57.
- Ben-Artzi, E., Mikulincer, M., & Glaubman, H. (1995). The multifaceted nature of self-consciousness: Conceptualization, measurement, and consequences. *Imagination, Cognition and Personality*, *15*(1), 17–43.
- Bennis, W. (2003). *On becoming a leader*. Cambridge, MA: Perseus Publishing.
- Bennis, W., Covey, S., Wheatley, M., & Bogle, J. (2002). *Focus on leadership: Servant-leadership for the 21st century*. New York, NY: John Wiley & Sons, Inc.

- Blanchard, K. (2006). *Self-leadership and the one-minute manager*. New York, NY: Harper Collins.
- Blanchard, K. (2008). *Frontline leader assessment data sheet*. Retrieved from [http://www.kenblanchard.com/Solutions/Assessments/Frontline-Leader-Assessment-\(FLA\)](http://www.kenblanchard.com/Solutions/Assessments/Frontline-Leader-Assessment-(FLA)).
- Blanchard, K. (2012). *Everything you ever wanted to know about multisource feedback*. Retrieved from <http://www.kenblanchard.com/Leading-Research/Research/Multisource-Feedback>
- Boud, D., Keogh, R., & Walker, D. (Eds.). (2005). *Reflection: Turning experience into learning*. New York, NY: Nichols Publishing. (Original work published 1985)
- Boyce, L. A., Zaccaro, S. J., & Wisecarver, M. Z. (2010). Propensity for self-development of leadership attributes: Understanding, predicting, and supporting performance of leader self-development. *The Leadership Quarterly*, *21*(1), 159-178.
- Brett, J. F., & Atwater, L. E. (2001). 360° feedback: Accuracy, reactions, and perceptions of usefulness. *Journal of Applied Psychology*, *86*(5), 930-942. doi: <http://dx.doi.org/10.1037/0021-9010.86.5.930>
- Briggs, K. C. (1998). *The Myers-Briggs Type Indicator, Form M*. Mountain View, CA: Consulting Psychologists Press.
- Briggs-Myers, I., McCaulley, M. H., Quenk, N. L., & Hammer, A. L. (1998) *MBTI manual: A guide to the development and use of the Myers-Briggs Type Indicator, 3rd Edition*. Mountain View, CA: Consulting Psychologists Press.
- Brouwer, P. J. (1964). *The power to see ourselves*. Cambridge, MA: Harvard University Graduate School of Business Administration.
- Brower, H. H., Schoorman, F. D., & Tan, H. H. (2000). A model of relational leadership: The integration of trust and leader–member exchange. *The Leadership Quarterly*, *11*(2), 227-250.
- Bukobza, G. (2007). The epistemological basis of selfhood. *New Ideas in Psychology*, *25*(1), 37-65. doi: 10.1016/j.newideapsych.2006.11.001
- Cannon-Bowers, J., Tannenbaum, S., Salas, E., & Volpe, C. (1995). Defining competencies and establishing team training requirements. In R. A. Guzzo & E. Salas (Eds.), *Team effectiveness and decision making in organizations* (333-380). San Francisco, CA: Jossey-Bass.

- Capabianco, S., Davis, M., & Kraus, L.A. (2008) *Managing conflict dynamics: A practical approach*. St. Petersburg, FL: Leadership Development Institute at Eckerd College.
- Center for Applications of Psychological Type. (2009). *About the MBTI instrument*. Retrieved from <http://www.capt.org/take-mbti-assessment/mbti-overview.htm>
- Center for Conflict Dynamics, (2014). *In-depth review of the Conflict Dynamics Profile*. Retrieved from http://www.conflictdynamics.org/products/cdp/CDP_In-depth.pdf
- Chang, L. (2014). *Self-other agreement in 360-degree leadership ratings: A cross-cultural measurement equivalence study* (Doctoral dissertation). Retrieved from <http://digitalcommons.uconn.edu/dissertations/305>
- Chappelow, C. T. (2004). 360-degree feedback. In C. D. McCauley & E. Van Velsor (Eds.), *Handbook of leadership development* (2nd ed., 58-84). San Francisco, CA: Jossey-Bass.
- Chein, I. (1981). Appendix: An introduction to sampling. In L. Kidder (Ed.). *Selltiz, Wrightsman, & Cook's Research Methods in Social Relations* (423-440). New York, NY: Hold, Rinehart & Winston.
- Cherniss, C., Extein, M., Goleman, D., & Weissberg, R. P. (2006). Emotional intelligence: What does the research really indicate? *Educational Psychologist*, 41(4), 239-245. doi: 10.1207/s15326985ep4104_4
- Choi, S., & Rainey, H. G. (2010). Managing diversity in US federal agencies: Effects of diversity and diversity management on employee perceptions of organizational performance. *Public Administration Review*, 70(1), 109-121.
- Clandinin, D. J. & Connelly, R. M. (2004). *Narrative inquiry: Experience and story in qualitative research*. San Francisco, CA: Jossey-Bass.
- Clawson, J. G. (2009). *Level three leadership: Getting below the surface* (4th ed.). Upper Saddle River, NJ: Pearson Education, Inc.
- Cleland, D. I. (1995). Leadership and the project-management body of knowledge. *International Journal of Project Management*, 13(2), 83-88. doi: 10.1016/0263-7863(94)00018-8
- Clifton, D. O., & Harter, J. K. (2003). Strengths investment. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.), *Positive organizational scholarship* (111-121). San Francisco, CA: Berrett-Koehler.

- Cocchini, G., Cameron, A., Beschin, N., & Fotopoulou, A. (2009). Anosognosia for motor impairment following left brain damage. *Neuropsychologia*, *23*(2), 223–230.
- Cohen, W. (2000). *The new art of the leader*. Paramus, NJ: Prentice Hall.
- Cohen, Y., Ornoy, H., & Keren, B. (2013). MBTI Personality types of project managers and their success: a field survey. *Project Management Journal* *45*(3), 78-87. doi: 10.1002/pmj
- Collins, M. D., & Jackson, C. J. (2015). A process model of self-regulation and leadership: How attentional resource capacity and negative emotions influence constructive and destructive leadership. *The Leadership Quarterly*, *26*(3), 386-401. doi: 10.1016/j.leaqua.2015.02.005
- Conger, J., & Toegel, G. (2002). Action learning and multi-rater feedback as leadership development interventions: Popular but poorly deployed. *Journal of Change Management*, *3*(4), 332-348.
- Cooper, C. D., Scandura, T. A., & Schriesheim, C. A. (2005). Looking forward but learning from our past: Potential challenges to developing authentic leadership theory and authentic leaders. *The Leadership Quarterly*, *16*(3), 475-493. doi: 10.1016/j.leaqua.2005.03.008
- Cope, D. G. (2014). Methods and meanings: credibility and trustworthiness of qualitative research. *Oncology nursing forum*, *41*(1), 89-91.
- Creswell, J. W. (2003). *Research design* (2nd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Csikszentmihalyi, M. (1993). *The evolving self*. New York, NY: Harper-Collins.
- Cunliffe, A. L., & Eriksen, M. (2011). Relational leadership. *Human Relations*, *64*(11), 1425-1449.
- Daire, J., & Gilson, L. (2014). Does identity shape leadership and management practice? Experiences of PHC facility managers in Cape Town, South Africa. *Health Policy and Planning*, *29*(suppl 2): ii82-ii97. doi:10.1093/heapol/czu075: ii82-97ii
- Darwin, C. R. (1965). *The expression of emotions in man and animals*. Chicago, IL: University of Chicago Press. (Original work published 1872)

- Day, D. V. (2001). Leadership development: A review in context, *The Leadership Quarterly*, 11(4), 581-613. doi: 10.1016/S1048-9843(00)00061-8
- Day, D. V., Fleenor, J. W., Atwater, L. E., Sturm, R. E., & McKee, R. A. (2014). Advances in leader and leadership development: A review of 25 years of research and theory. *The Leadership Quarterly*, 25(1), 63-82, doi: 10.1016/j.leaqua.2013.11.004
- Defense acquisition University (2011). *Program Management Definition*. Retrieved from <https://dap.dau.mil/glossary/pages/2484.aspx>
- Defense Acquisition University (2012). *DAU Self-Assessment search results*. Retrieved from <http://www.dau.mil/search.aspx?q=SELF+ASSESSMENTS>
- Defense Acquisition University (2013). *Defense acquisition Framework*. Retrieved from <https://dag.dau.mil/Pages/acqframework.aspx>
- Defense Acquisition University (2014a). *iCatalog, PMT 401 Program Manager's Course*. Retrieved from http://icatalog.dau.mil/onlinecatalog/courses.aspx?crs_id=85
- Defense Acquisition University (2014b). *360 Survey Workshop*. Retrieved from http://icatalog.dau.mil/onlinecatalog/courses.aspx?crs_id=1966
- Department of the Army (2013). *Army Leader Development Strategy 2013*. Retrieved from: https://atn.army.mil/dsp_template.aspx?dpID=426
- Department of Defense (2015). *2015 Demographics Profile of the Military Community*. Washington, DC: Office of the Deputy Assistant Secretary of Defense for Military Community and Family Policy (ODASD (MC&FP)).
- Department of Defense (2003). *Department of Defense Directive (DODD) 5000.01, The Defense Acquisition System*. Retrieved August 23, 2013 from <https://acc.dau.mil/CommunityBrowser.aspx?id=337952>
- Demming, W.E. (1982). *Out of the crisis*. Cambridge, MA: Massachusetts Institute of Technology.
- Denscombe, M. (1998). *The good research guide for small scale social research projects*. Milton Keynes, UK: Open University Press.
- DeVault, G. (2016). *Establishing trustworthiness in qualitative research*. Retrieved March 7, 2017 from: <https://www.thebalance.com/establishing-trustworthiness-in-qualitative-research-2297042>.
- Development Dimensions International, Inc. (2014). *Leadership Mirror*®

An automated 360-degree feedback system. Retrieved from <http://www.ddiworld.com/products/leadership-mirror>

- Dewey J. (1938). *Experience and education*. New York, NY: Collier Books.
- Diddams, M., & Chang, G. C. (2012). Only human: Exploring the nature of weakness in authentic leadership. *The Leadership Quarterly*, 23(3), 593-603. doi: 10.1016/j.leaqua.2011.12.010
- Dotlich, D. L., Noel, J. L., & Walker, N. (2004). *Leadership passages: The personal and professional transitions that make or break a leader* (1st ed.). San Francisco, CA: Jossey Bass.
- Dragoni, L., Park, H., Soltis, J., & Forte-Trammell, S. (2014). Show and tell: How supervisors facilitate leader development among transitioning leaders. *Journal of Applied Psychology*, 99(1), 66-86.
- Duval, S., & Wickland, R. A. (1972). *A theory of objective self-awareness*. New York, NY: Academic Press.
- Eckerd College (2014). *Mastering conflict dynamics*. Retrieved from <http://www.eckerd.edu/ldi/programs/open/mcd/index.php>
- Eichstaedt, J., & Silvia, P. J. (2003). Noticing the self: Implicit assessment of self-focused attention using word recognition latencies. *Social Cognition*, 21, 349–361.
- Eisner, E. W. (1991). *The enlightened eye: Qualitative inquiry and the enhancement of educational practice*. Columbus, OH: Merrill.
- Erikson, R. J. (1995). The importance of authenticity for self and society. *Symbolic Interaction* 18(2), 121-144. doi: 10.1525/si.1995.18.2.121
- Facteau, C. L., Facteau, J. D., Schoel, L. C., Russell, J. E. A., & Poteet, M. L. (1998). Reactions of leaders to 360-degree feedback from subordinates and peers. *The Leadership Quarterly*, 9(4), 427-448. doi: 10.1016/s1048-9843(98)90010-8
- Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology*, 36, 1241–1250.
- Fisher-Turesky, E., & Gallagher, D. (2011). Know thyself: Coaching for leadership using Kolb's Experiential Learning Theory. *The Coaching Psychologist*, 7(1), 5-14.

- Fleishman, E. A., Zaccaro, S. J., & Mumford, M. D. (1992). Individual differences and leadership III: An overview. *The Leadership Quarterly*, 3(2), 77-80. doi: 10.1016/1048-9843(92)90027-d
- Fletcher, C. (1999). The implications of research on gender differences in self-assessment and 360-degree appraisal. *Human Resource Management Journal*, 9(1), 39–46.
- Fletcher, C., & Bailey, C. (2003). Assessing self-awareness: Some issues and methods. *Journal of Management Psychology*, 12(3), 41–48.
- Fletcher, C., & Baldry, C. (2000). A study of individual differences and self-awareness within the context of multi-source feedback. *Journal of Occupational and Organizational Psychology*, 73, 303–319.
- Foti, R. J., Bray, B. C., Thompson, N. J., & Allgood, S. F. (2012). Know thy self, know thy leader: Contributions of a pattern-oriented approach to examining leader perceptions. *The Leadership Quarterly*, 23(4), 702-717. doi: 10.1016/j.leaqua.2012.03.007
- Foucault, M. (1988a). *Technologies of the self*. Luther Martin, Huck Gutman, & Patrick Hutton (Eds.). Amherst, MA: University of Massachusetts Press.
- Foucault, M. (1988b). *The care of the self: The history of sexuality (Vol. 3)*. (R. Hurley, Trans.). New York, NY: Vintage.
- Free Management Library (2017). *Various self-assessments for personal and professional development*. retrieved February 25, 2017 from: <http://managementhelp.org/personaldevelopment/self-assessments.htm>.
- Fung, C. (2011). *Exploring individual self-awareness as it relates to self-acceptance and the quality of interpersonal relationships*. (unpublished doctoral dissertation). Pepperdine University, Malibu, CA.
- Furnham, A., & Crump, J. (2015). The Myers-Briggs Type Indicator (MBTI) and promotion at work. *Psychology*, 6, 1510-1515. doi: <http://dx.doi.org/10.4236/psych.2015.612147>
- Furtner, M. R., Baldegger, U., & Rauthmann, J. F. (2013). Leading yourself and leading others: Linking self-leadership to transformational, transactional, and laissez-faire leadership. *European Journal of Work and Organizational Psychology*, 22(4), 436-449. doi: 10.1080/1359432X.2012.665605
- Gallagher, D., & Costal, J. (2012). *The self-aware leader: A proven model for reinventing yourself*. Alexandria, VA: ASTD Press.

- Gallagher, D., Costal, J., & Ford, L. (2012). Validating a leadership model pinpointed self-awareness as key to success. *T+D*, 66(11), 50-53.
- Gallo, A. (2016). The 8-Self-Assessments You need to Improve at Work this year. *Harvard Business Review*. Retrieved February 25, 2017 from: <https://hbr.org/2016/01/the-8-self-assessments-you-need-to-improve-at-work-this-year>.
- Gallup, G. G., Jr. (1968). Mirror-image stimulation. *Psychological Bulletin*, 70, 782–793.
- The Gallup Organization. (2007). *Strengths Development*. Retrieved from <https://www.gallupstrengthscenter.com/Home/en-US/Index>
- Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. (2005). “Can you see the real me?” A self-based model of authentic leader and follower development. *The Leadership Quarterly*, 16(3), 343-372. doi: 10.1016/j.leaqua.2005.03.003
- Gardner, W. L., Cogliser, C. C., Davis, K. M., & Dickens, M. P. (2011). Authentic leadership: A review of the literature and research agenda. *The Leadership Quarterly*, 22(6), 1120-1145. doi: 10.1016/j.leaqua.2011.09.007
- Gardner, W. L., Lowe, K. B., Moss, T. W., Mahoney, K. T., & Cogliser, C. C. (2010). Scholarly leadership of the study of leadership: A review of The Leadership Quarterly's second decade, 2000-2009. *The Leadership Quarterly*, 21(6), 922-958. doi: 10.1016/j.leaqua.2010.10.003
- Garsten, C., & Grey, C. (1997). How to become oneself: Discourses of subjectivity in post-bureaucratic organizations. *Organization*, 4(2), 211-228. doi: 10.1177/135050849742004
- George, B. (2003). *Authentic leadership: Rediscovering the secrets to creating lasting value*. San Francisco, CA: Jossey Bass.
- George, B., Sims, P., McLean, A. N., & Mayer, D. (2007). Discovering your authentic leadership. *Harvard business review*, 85(2), 129.
- Gerstner, C., & Day, D. (1997). Meta-analytic review of leader–member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, 82(6), 827–844. doi:10.1037/0021-9010.82.6.827
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods*, 16(1), 15-31.

- Goldman, B. M., & Kernis, M. H. (2002). The role of authenticity in healthy psychological functioning and well-being. *Annals of the American Psychotherapy Association* 6(5), 18.
- Goleman, D. (1995). *Emotional intelligence*. New York, NY: Bantam.
- Goleman, D. (1998). *Working with emotional intelligence*. London, England: Bloomsbury Publishing.
- Goleman, D. (2004). What makes a leader? *Harvard Business Review*, 82(1), 82-86.
- Goleman, D. (2006). *Emotional intelligence: Why it can matter more than IQ* (10th anniversary ed.). New York, NY: Bantam.
- Goleman, D. (2011). *Leadership: The power of emotional intelligence*. Northampton, MA: More than Sound.
- Goleman, D., Boyatzis, R., & McKee, A. (2002). *Primal leadership: Realizing the power of emotional intelligence*. Boston, MA: Harvard Business School Press.
- Govern, J. M., & Marsch, L. A. (2001). Development and validation of the situational self-awareness scale. *Consciousness and Cognition*, 10(3), 366-378.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly*, 6(2), 219-247. doi: 10.1016/1048-9843(95)90036-5
- Greenleaf, R. K. (1977). *Servant leadership*. Mahwah, NJ: Paulist Press.
- Gregorc, A. F. (1999). *Gregorc style delineator: the development, technical and administration manual*. Columbia, CT: AFG
- Gregorc, A.F. (2004). *Gregorc style delineator (4th ed.): A self-assessment instrument for adults*. Columbia, CT: AFG.
- Goukens, C., Dewitte, S., & Warlop, L. (2009). Me, myself, and my choices: The influence of private self-awareness on choice. *Journal of Marketing Research*, 46(5), 682–692.
- Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Communication and Technology Journal*, 29(2), 75-91.
- Guest, G., Bunce, A., & Johnson, L. (2006). How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability. *Field Methods*, 18(1), 59–82. doi: 10.1177/1525822X05279903

- Guthrie, K. L., & Bertrand Jones, T. (2012). Teaching and learning: Using experiential learning and reflection for leadership education. *New Directions for Student Services, 140*, 53-63.
- Hall, S. L. (2015). Linking the leadership identity development model to collegiate recreation and athletics. *New Directions for Student Leadership, 147*, 33-41. doi: 10.1002/yd.20141
- Hamman, D., Gosselin, K., Romano, J., & Bunuan, R. (2010). Using possible-selves theory to understand the identity development of new teachers. *Teaching and Teacher Education, 26*(7), 1349-1361. doi: 10.1016/j.tate.2010.03.005
- Hancock, D. R., & Algozzine, B. (2011). *Doing case study research: A practical guide for beginning researchers*. (2nd ed.) New York, NY: Teachers College Press.
- Heidegger, M. (1996). *Being and time*. (Joan Stambaugh, Trans.). Albany, NY: SUNY Press. (Original work published 1927)
- Hellstrom, T. (2008). Transferability and naturalistic generalization: New generalizability concepts for social science or old wine in new bottles? *Quality & Quantity, 42*, 321-337. doi: 10.1007/s11135-006-9048-0
- Henderson, J., & Hoy, W. (1982, March). *Leader Authenticity: The development and test of an operational measure*. Paper presented at the Annual Meeting of the American Educational Research Association, New York, NY.
- HierarchyStructure.com. (2016). *Military command hierarchy*. Retrieved from www.hierarchystructure.com/military-command-hierarchy/
- Hiller, N. J., Day, D. V., & Vance, R. J. (2006). Collective enactment of leadership roles and team effectiveness: A field study. *The Leadership Quarterly, 17*(4), 387-397.
- His Holiness the Dalai Lama. (2006). *How to see yourself as you really are*. J. Hopkins, J. (Ed. & Trans.). New York, NY: Atria Books.
- Hogg, M. A., Fielding, K. S., Johnson, D., Masser, B., Russell, E., & Svensson, A. (2006). Demographic category membership and leadership in small groups: A social identity analysis. *The Leadership Quarterly, 17*(4), 335-350. doi: 10.1016/j.leaqua.2006.04.007
- Hogg, M. A., & Knippenberg, D. V. (2003). Social identity and leadership processes in groups. *Advances in Experimental Social Psychology, 35*, 1-52.
- Hollander, E. P. (1992). Leadership, followership, self, and others. *The Leadership Quarterly, 3*(1), 43-54. doi: 10.1016/1048-9843(92)90005-z

- Holstein, J. A., & Gubrium, J. F. (2000). *The self we live by*. New York, NY: Oxford University Press.
- Hooijberg, R., & Choi, J. (2000). Which leadership roles matter to whom? An examination of rater effects on perceptions of effectiveness. *The Leadership Quarterly*, *11*(3), 341-364.
- Hornstein, H. A., Heilman, M. E., Mone, E., & Tartell, R. (1987). Responding to contingent leadership behavior. *Organizational Dynamics*, *15*(4), 56-65. doi: 10.1016/0090-2616(87)90044-1
- Houghton, C., Casey, D., Shaw, D., & Murphy, K. (2013). Rigour in qualitative case-study research. *Nurse researcher*, *20*(4), 12-17.
- Howell, J. P., Bowen, D. E., Dorfman, P. W., Kerr, S., & Podsakoff, P. M. (1990). Substitutes for leadership: Effective alternatives to ineffective leadership. *Organizational Dynamics*, *19*(1), 21-38. doi: 10.1016/0090-2616(90)90046-r
- Hughes, R. L. (1993). *Leadership: Enhancing the lessons of experience*. Burr Ridge, IL: Richard D. Irwin.
- Hunter, M. (2011). Perpetual self-conflict: Self-awareness as a key to our ethical drive, personal mastery, and perception of entrepreneurial opportunities. *Contemporary Readings in Law and Social Justice*, *3*(2), 96-137.
- Ilies, R., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaemonic well-being: Understanding leader-follower outcomes. *The Leadership Quarterly*, *16*(3), 373-394. doi: 10.1016/j.leaqua.2005.03.002
- Infed (2014). Donald Schon (Schön): *Learning, Reflection and Change*. Retrieved from <http://infed.org/mobi/donald-schon-learning-reflection-change/>
- Izard, C. E., Fine, S., Schultz, D., Mostow, A. J., Ackerman, B., & Youngstrom, E. (2001). Emotion knowledge as a predictor of social behavior and academic competence in children at risk. *Psychological Science*, *12*, 18-23. doi: 10.1111/1467-9280.00304.
- Johnson, W. B., & Andersen, G. R. (2010). Formal mentoring in the US military: Research evidence, lingering questions, and recommendations. *Naval War College Review*, *63*(2), 113.
- Jung, C. G. (1958). *The undiscovered self*, (R.F.C. Hull, Trans.). New York, NY: A Mentor Book, New American Library.
- Jung, C. G. (1971). *Psychological types*. In *The collected works of C.G. Jung* (Vol. 6). Princeton, NJ: Princeton University Press.

- Keegan, A. E., & Den Hartog, D. N. (2004). Transformational leadership in a project-based environment: A comparative study of the leadership styles of project managers and line managers. *International Journal of Project Management*, 22, 609-617.
- Kendal, F. (2012). *Better buying power 2.0: Continuing the pursuit for greater efficiency and productivity in defense spending*. Washington, DC: US Under Secretary of Defense, Acquisition, Technology, and Logistics.
- Kendal, F. (2017). *Getting acquisition right*. Fort Belvoir, VA: Defense acquisition University Press.
- Kernis, M. H. (2003). Toward a conceptualization of optimal self-esteem. *Psychological Inquiry*, 14, 1–26.
- Kezar, A. (2004). What is more important to effective governance: Relationships, trust, and leadership, or structures and formal processes? *New Directions for Higher Education*, 2004(127), 35-46.
- Kircher, T., & David, A. S. (2003). Self-consciousness: An integrative approach from philosophy, psychopathology and the neurosciences. In T. Kircher & A. S. David (Eds.), *The Self in Neuroscience and Psychiatry* (445–474). Cambridge, United Kingdom: Cambridge University Press.
- Kolb, D. A. (1999). *Learning style inventory, version 3*. Boston, MA: Hay Group, Hay Resources Direct.
- Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*, (2nd ed.). Upper Saddle River, NJ: Pearson Education, Inc.
- Kolb, A. Y., & Kolb, D. A. (2005). *The Kolb learning style inventory—Version 3.1 2005 technical specifications*. Cleveland, OH: Case Western Reserve University.
- Komives, S., Longerbeam, S., Owen, J., Mainella, F., & Osteen, L. (2006). A leadership identity development model: Applications from a grounded theory. *Journal of College Student Development*, 47(4), 401–418. doi: 10.1353/csd.2005.0061
- Kotter, J. P. (1990). *A force for change: How leadership differs from management*. New York, NY: Free Press.
- Kouzes, J. M., & Posner, B. Z. (2006). *The leadership challenge* (Vol. 3). San Francisco, CA: John Wiley & Sons.

- Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology*, 77(6), 1121–1134.
- Kylindri, S., Blanas, G., Henriksen, L., & Stoyan, T. (2013, June). *Measuring project outcomes: A review of success effectiveness variables*. Paper presented at the 8th Annual MIBES International Conference, Larissa, Greece.
- Ladkin, D., & Taylor, S. S. (2010). Enacting the “true self”: Towards a theory of embodied authentic leadership. *The Leadership Quarterly*, 21(1), 64-74. doi: 10.1016/j.leaqua.2009.10.005
- Levin, I. M. (2010). New leader assimilation process: Accelerating new role-related transitions. *Consulting Psychology Journal: Practice and Research*, 62(1), 56.
- Lewis, M. (1991). Ways of knowing: Objective self-awareness or consciousness. *Developmental Review*, 11, 231-243.
- Lewis, M (2010). The origins and uses of self-awareness or the mental representation of me. *Consciousness and Cognition*, 20(2011), 120-129.
- Liden, R. C., Erdogan, B., Wayne, S. J., & Sparrowe, R. T. (2006). Leader-member exchange, differentiation, and task interdependence: Implications for individual and group performance. *Journal of Organizational Behavior*, 27(6), 723–746. doi: 10.1002/job.409
- Lincoln Y. S., & Guba E. G. (1985) *Naturalistic inquiry*. Beverly Hills, CA: Sage.
- Lloyd-Walker, B., & Walker, D. (2011). Authentic leadership for 21st century project delivery. *International Journal of Project Management*, 29(4), 383-395. doi: 10.1016/j.ijproman.2011.02.004
- London, M., & Smither, J. W. (1995). Can multi-source feedback change perceptions of goal accomplishment, self-evaluations, and performance-related outcomes? Theory-based applications and directions for research. *Personnel Psychology*, 48(4), 803-839. doi: 10.1111/j.1744-6570.1995.tb01782.x
- Lord, R. G., & Hall, R. J. (2005). Identity, deep structure and the development of leadership skill. *The Leadership Quarterly*, 16(4), 591-615. doi: 10.1016/j.leaqua.2005.06.003
- Luthans, F., & Avolio, B. (2003). Authentic leadership development. In K. S. Cameron, J. E. Dutton & R. E. Quinn (Eds.), *Positive organizational scholarship: Foundations of a new discipline* (241–258). San Francisco, CA: Berrett-Koehler.

- Malach-Pines, A., Dvir, D., & Sadeh, A. (2009). Project manager-project (PM-P) fit and project success. *International Journal of Operations & Production Management*, 29(3), 268-291. doi:<http://dx.doi.org/10.1108/01443570910938998>
- Manz, C. (1983). *The art of self-leadership: Strategies for personal effectiveness in your life and work*. Englewood Cliffs, NJ: Prentice Hall.
- Maslow, A. H. (1954). *Motivation and personality*. New York, NY: Harper & Row.
- Maslow, A. H. (1967) *Toward a psychology of being* (2nd ed.). Princeton, NJ: Van Nostrand.
- May, D. R., Chan, A. Y. L., Hodges, T. D., & Avolio, B. J. (2003). Developing the moral component of authentic leadership. *Organizational Dynamics*, 32(3), 247-260. doi: 10.1016/s0090-2616(03)00032-9
- Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion*, 3, 97-105. doi: 10.1037/1528-3542.3.1.97
- McCall, M. W. (2004). Leadership development through experience. *The Academy of Management Executive*, 18(3), 127-130.
- McCall, M. W., Lombardo, M. M., & Morrison, A. M. (1988). *The lessons of experience*. Toronto, Canada: Lexington Books.
- Mead, G. H. (1934). *Mind, self, and society*. Chicago, IL: University of Chicago Press.
- Meier, K. J., & O'Toole, L. J., Jr. (2013). I think (I am doing well), therefore I am: Assessing the validity of administrators' self-assessments of performance. *International Public Management Journal*, 16(1), 1. Retrieved from <http://search.proquest.com/docview/1411807819?accountid=8313>
- Merriam, S. B. (1998). *Qualitative research and case study applications in education: Revised and expanded from case study research in education*. San Francisco, CA: Jossey-Bass Publishers
- Miettinen, R. (2000). The concept of experiential learning and John Dewey's theory of reflective thought and action. *International Journal of Lifelong Education*, 19(1), 54-72.
- Mills, S. (2016). Conceptual understanding: A concept analysis. *The Qualitative Report*, 21(3), 546-557.

- Morin, A. (2011a). Self-awareness part 1: Definition, measures, effects, functions, and antecedents. *Social and Personality Psychology Compass*, 5(10), 807–823. doi: 10.1111/j.1751-9004.2011.00387.x
- Morin, A. (2011b). Self-awareness part 2: Neuroanatomy and importance of inner speech. *Social and Personality Psychology Compass*, 5(12), 1004–1017. doi: 10.1111/j.1751-9004.2011.00410.x
- Mostow, A. J., Izard, C. E., Fine, S., & Trentacosta, C. J. (2002). Modeling emotional, cognitive, and behavioral predictors of peer acceptance. *Child Development*, 73, 1775–87. doi: 10.1111/1467-8624.00505
- Muir, D. (2014). Mentoring and leader identity development: A case study. *Human Resource Development Quarterly*, 25(3), 349-379. doi: 10.1002/hrdq.21194
- Multi-Health Systems, Inc. (2014). *EQ-I and MSCEIT assessment*. Retrieved from <https://ei.mhs.com/Assessments.aspx>
- Mumford, M. D., Marks, M. A., Connelly, M. S., Zaccaro, S. J., & Reiter-Palmon, R. (2000). Development of leadership skills: Experience and timing. *The Leadership Quarterly* 11(1), 87–114. doi: 10.1016/S1048-9843(99)00044-2
- Munn, Z., Porritt, K., Lockwood, C., Aromataris, E., & Pearson, A. (2014). Establishing confidence in the output of qualitative research synthesis: The ConQual approach. *BMC Medical Research Methodology*, 14(1), 108.
- Myers, I. B., & Myers, P. B. (1995). *Gifts differing: Understanding personality type*. Mountain View, CA: Davies-Black Publishing.
- National Institutes of Health Office of Extramural Research. (2011). *Protecting human research participants: Online course material*. Retrieved from <http://phrp.nihtraining.com/>
- Neisser, U. (1988). Five kinds of self-knowledge. *Philosophical psychology*, 1(1), 35-59.
- Oliver, P. (2006). Purposive sampling. In V. Jupp (Ed.), *The sage dictionary of social research methods*. (244-245). London, England: Sage.
- O'Brien, B. C., Harris, I. B., Beckman, T. J., Reed, D. A., & Cook, D. A. (2014). Standards for reporting qualitative research: a synthesis of recommendations. *Academic Medicine*, 89(9), 1245-1251.
- O'Rourke, S. J. (2009). *Understanding self-awareness: A heuristic study of the relationship with self and other*. (unpublished doctoral dissertation, The George Washington University, Washington, DC.

- Osborn, R. N., Hunt, J. G., & Jauch, L. R. (2002). Toward a contextual theory of leadership. *The Leadership Quarterly*, 13(6), 797-837. doi: 10.1016/s1048-9843(02)00154-6
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Peck, D. (2008). *Beyond effective: Practices in self-aware leadership*. Bloomington, IN: Trafford Publishing.
- Peck, D. (2009). Self-aware leadership. *Leadership Excellence*, 26(6), 9. Retrieved from <http://search.proquest.com/docview/204621126?accountid=8313>
- Personality Profile Solutions (2017). *What is DiSC / DiSC Overview*. Retrieved February 24, 2017 from: <https://discprofile.com/what-is-disc/overview/>
- Pitts, D. (2009). Diversity management, job satisfaction, and performance: Evidence from US federal agencies. *Public Administration Review*, 69(2), 328-338. doi: <http://dx.doi.org/10.1111/j.1540-6210.2008.01977.x>
- Polit, D. F., & Beck, C. T. (2012). *Nursing research. Generating and assessing evidence for nursing practice*. Philadelphia, PA: Lippincott Williams and Wilkins.
- Project Management Institute. (2006). *Government extension to the PMBOK guide third edition*. Newtown Square, PA: Project Management Institute.
- Project Management Institute. (2007). *The human side of project leadership*. Newtown Square, PA: Project Management Institute.
- Project Management Institute. (2012). *PMI lexicon of project management terms, version 2.0.*, Newtown Square, PA: Project Management Institute.
- Project Management Institute. (2013). *A guide to the project management body of knowledge (PMBOK Guide)* (5th ed.). Newtown Square, PA: Project Management Institute.
- Project Management Institute. (2014). *What is project management?* Retrieved from <http://www.pmi.org/About-Us/About-Us-What-is-Project-Management.aspx>
- Quay, J. (2016). Learning phenomenology with Heidegger: Experiencing the phenomenological 'starting point' as the beginning of phenomenological research. *Educational Philosophy and Theory*, 48(5), 484-497.

- Rath, T., & Conchie, B. (2008). *Strengths based leadership: Great leaders, teams, and why people follow*. New York, NY: Gallup Press.
- Reed, G. E. (2004). Toxic leadership. *Military Review*, 84(4), 67-71.
- Remes, P., & Sihvola, J. (Eds.). (2008). *Ancient philosophy of the self*. New York, NY: Springer Science + Business Media.
- Riggio, R. E. (1989). *Social skills inventory manual*. Mountain View, CA: Consulting Psychologists Press.
- Rogers, C. R. (1951). *Client-centered therapy: Its current practice, implications, and theory*. Boston, MA: Houghton Mifflin.
- Rubin, H. J., & Rubin, I. S. (1995). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage.
- Salam, S., Cox, J. F., & Sims, H. P. (1997). In the eye of the beholder: How leadership relates to 360-degree performance ratings. *Group & Organization Management*, 22(2), 185-209.
- Salovey P., & Mayer J. D. (1990). *Emotional intelligence*. Amityville, NY: Baywood Publishing.
- Sartre, J. (1984). *Being and nothingness*. (H. Barnes, Trans.). New York, NY: Washington Square. (Original work published 1943)
- Scholz, R. W., & Tietje, O. (2002). *Embedded case study methods: Integrating quantitative and qualitative knowledge*. Thousand Oaks, CA: Sage.
- Schön, D. A. (1983). *The reflective practitioner. How professionals think in action*. London, England: Temple Smith.
- Sedikides, C., & Brewer, M. B. (Eds.). (2001). *Individual self, relational self, collective self*. Philadelphia, PA: Psychology Press.
- Seidman, I. (1998). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York, NY: Teachers College Press.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5-14.
- Shamir, B., & Eilam, G. (2005). "What's your story?" A life-stories approach to authentic leadership development. *The Leadership Quarterly*, 16(3), 395-417. doi: 10.1016/j.leaqua.2005.03.005

- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for information*, 22(2), 63-75.
- Shi, Q., & Chen, J. (2006). *The human side of project management: Leadership skills*. Newtown Square, PA: The Project Management Institute.
- Shokri-Ghasabeh, M., & Kavousi-Chabok, K. (2009). Generic project success and project management success criteria and factors: Literature review and survey. *WSEAS Transactions on Business and Economics*, 8(6), 456-468.
- Silvia, P. J., & Eichstaedt, J. (2004). A self-novelty manipulation of self-focused attention for Internet and laboratory experiments. *Behavior Research Methods, Instruments, and Computers*, 36(2), 325–330.
- Skipper, C. O. (2004). *An analysis of leadership behaviors in the construction industry: Identification of influences that develop top performing project managers and engineers*. Retrieved from <http://search.proquest.com/docview/305202260?accountid=8313>
- Skipper, C. O., & Lansford C. B. (2006). Influences impacting leadership development. *Journal of Management in Engineering*, 22(2), 68-74.
- Small, M. L. (2009). How many cases do I need? On science and the logic of case selection in field-based research. *Ethnography*, 10(1), 5-38.
- Smither, J. W., London, M., & Reilly, R. R. (2005). Does performance improve following multisource feedback? A theoretical model, meta-analysis, and review of empirical findings. *Personnel Psychology*, 58(1), 33–66. doi: 10.1111/j.1744-6570.2005.514_1.x
- Sosik, J. J., Potosky, D., & Jung, D. I. (2002). Adaptive self-regulation: Meeting others' expectations of leadership and performance. *The Journal of Social Psychology*, 142(2), 211-232.
- Sparrowe, R. T. & Raymond T. S. (2005). Authentic leadership and the narrative self. *The Leadership Quarterly*, 16(3), 419-439. doi: 10.1016/j.leaqua.2005.03.004
- Stake, R. (1995). *The art of case study research*. Thousand Oaks, CA: Sage.
- Stake, R. (2000). The case study method in social inquiry. In R. Gomm, M. Hammersley, & P. Foster (Eds.), *Case Study Method*, (98-115). London, England: Sage.
- Stake, R. (2005). *Multiple case study analysis*. New York, NY: Guilford Publications.
- Stanford University. (2016). *Stanford Encyclopedia of Philosophy*. Retrieved from <https://plato.stanford.edu/search/searcher.py?query=self+identity>

- Strozynski, M. (2013). There is no searching for the self: Self-knowledge in book ten of Augustine's De Trinitate. *Phronesis*, 58(3), 280-300.
- Stryker, S., & Burke, P. (2000). The past, present, and future of an identity theory. *Social Psychology Quarterly*, 63(4), 284–297.
- SurveyGizmo (2014). *Survey response rates*. Retrieved from <http://www.surveygizmo.com/survey-blog/survey-response-rates/>
- Taylor, D. (2007). *People are our greatest asset—you just can't say it*. Retrieved from <https://donaldhtaylor.wordpress.com/2007/03/20/people-are-our-greatest-asset-%E2%80%93-you-just-can%E2%80%99t-say-it/>
- Tett, R. P., Fox, K. E., & Wang, A. (2005). Development and validation of a self-report measure of emotional intelligence as a multidimensional trait domain. *Personality & Social Psychology Bulletin*, 31(7), 859–88. doi: 10.1177/0146167204272860
- Tett, R. P., Wang, A., & Fox, K. E. (2006). *MEIA: Multidimensional emotional intelligence assessment manual*. Port Huron, MI: Sigma Assessment Systems.
- Thomas, G. (2011). *How to do your case study: A guide for students & researchers*. London, England: Sage.
- Thomas, R. J., & Cheese, P. (2005). Leadership: Experience is the best teacher. *Strategy & Leadership*, 33(3), 24-29.
- Ting-Peng, L., Chih-Chung, L., Tse-Min, L., & Lin, B. (2007). Effect of team diversity on software project performance. *Industrial Management & Data Systems*, 107(5), 636. doi:<http://dx.doi.org/10.1108/02635570710750408>
- Tongo, D. C. (2007). Purposive sampling as a tool for informant selection. *Ethnobotany Research & Applications* 5, 147-158.
- Toor, S., & Ofori, G. (2008). Leadership for future construction industry: Agenda for authentic leadership. *International Journal of Project Management*, 26(6), 620-630. doi: 10.1016/j.ijproman.2007.09.010
- Trapnell, P. D., & Campbell, J. D. (1999). Private self-consciousness and the Five-Factor Model of personality: Distinguishing rumination from reflection. *Journal of Personality and Social Psychology*, 76(2), 284–304.
- Trentacosta, C. J., & Izard, C. E. (2007). Kindergarten children's emotion competence as predictor of their academic competence in first grade. *Emotion* 7, 77–88. doi: 10.1037/1528-3542.7.1.77

- Tucker, J. (2010). Optimizing Myers-Briggs Type Indicator training: Practical applications. *CROSSTALK, The Journal of Defense Software Engineering*, 23(3), 22-25.
- Turner, J. R., & Muller, R. (2005). The project manager's leadership style as a success factor on projects: A literature review. *Project Management Journal* 36(2), 46-61.
- Turner, R. H. (1978). The role and the person. *American Journal of Sociology*, 84(1), 1-23. Retrieved from <http://www.jstor.org/stable/2777976>
- Uhl-Bien, M. (2006). Relational leadership theory: Exploring the social processes of leadership and organizing. *The Leadership Quarterly*, 17(6), 654-676.
- United States Air Force Academy. (2016). *Center for Character and Leader Development mission statement*. Retrieved from <http://www.usafa.edu/Commandant/cwc/?catname=cwc>
- United States Army. (2011). *MultiSource Assessment and Feedback (MSAF) program, MSAF training resources*. Retrieved from <https://msaf.army.mil/LeadOn.aspx>
- United States Army. (2012). *Army leadership*. (Army Doctrine Publication 6-22). Washington, DC: Headquarters, Department of the Army.
- United States Department of Defense. (2013a). *The Defense Acquisition System*. (Department of Defense Directive No. 5000.01). Washington, DC: Under Secretary of Defense, Acquisition, Technology & Logistics.
- United States Department of Defense. (2013b). *Operation of the Defense Acquisition System*. (Department of Defense Instruction—Interim—No. 5000.02). Washington, DC: Under Secretary of Defense, Acquisition, Technology & Logistics.
- United States Department of Defense. (2014). *Defense Acquisition guidebook*. Retrieved from <https://acc.dau.mil/CommunityBrowser.aspx?id=289207&lang=en-US>
- United States Military Academy. (2016). *Department of Military Instruction mission statement*. Retrieved from <http://www.usma.edu/dmi/SitePages/Home.aspx>
- United States Naval Academy. (2016a). *Leader development vision statement*. Retrieved from: <https://www.usna.edu/LDR/>
- United States Naval Academy. (2016b). *LEAD Division Courses and Programs Description*. Retrieved <https://www.usna.edu/LEAD/>

- United States Census Bureau (2011). Age and Sex Composition: 2010, in 2010 Census Briefs. Retrieved February 25, 2017 from: <https://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf>
- University of Pennsylvania Positive Psychology Center. (2014). *Positive Psychology Center*. Retrieved from <http://www.positivepsychology.org/index.html>
- van Dierendonck, D. (2011). Servant leadership: A review and synthesis. *Journal of Management*, 37(4), 1228-1261. doi: 10.1177/0149206310380462
- van Knippenberg, B., van Knippenberg, D., De Cremer, D., & Hogg, M. A. (2005). Research in leadership, self, and identity: A sample of the present and a glimpse of the future. *The Leadership Quarterly*, 16(4), 495-499. doi: 10.1016/j.leaqua.2005.06.006
- van Knippenberg, D., van Knippenberg, B., De Cremer, D., & Hogg, M. A. (2004). Leadership, self, and identity: A review and research agenda. *The Leadership Quarterly*, 15(6), 825-856. doi: 10.1016/j.leaqua.2004.09.002
- Walesh, S. G. (2004). *Managing and leading: 52 lessons learned for engineers*. Reston, VA: ASCE Press.
- Walumbwa, F., Avolio, B., Gardner, W., Wernsing, T., & Peterson, S. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 34, 89-126. doi: 10.1177/0149206307308913
- Walumbwa, F. O., Wang, P., Wang, H., Schaubroeck, J., & Avolio, B. J. (2010). Psychological processes linking authentic leadership to follower behaviors. *The Leadership Quarterly*, 21(5), 901-914. doi: 10.1016/j.leaqua.2010.07.015
- Waterhouse, L. (2006). Multiple intelligences, the Mozart effect, and emotional intelligence: A critical review. *Educational Psychologist*, 41, 207-225. doi: 10.1207/s15326985ep4104_1
- Watson, J. (1989) Watson's philosophy and theory of human caring in nursing. In J. Riehl-Sisca (Ed.), *Conceptual Models for Nursing Practice* (3rd ed.) (488-489). Norwalk, CT: Appleton & Lange.
- Wegner, D. M., & Giuliano, T. (1980). Arousal-induced attention to self. *Journal of Personality and Social Psychology*, 38(5), 719.
- Weischer, A. E., Weibler, J., & Petersen, M. (2013) "To thine own self be true": The effects of enactment and life storytelling on perceived leader authenticity. *The Leadership Quarterly*, 24(4) 477-495, doi: 10.1016/j.leaqua.2013.03.003
- Weisinger, H. (1998). *Emotional intelligence at work: The untapped edge for success*. San Francisco, CA: Jossey-Bass.

- Wheatley, M. J. (2002). *Turning to one another: Simple conversations to restore hope to the future*. San Francisco, CA: Berrett-Koehler Publishers.
- Wheatley, M. J. (2006). *Leadership and the new science* (3rd ed.). San Francisco, CA: Berrett-Koehler Publishers.
- Whiston, S. C., & Keller, B. K. (2004). The influences of the family of origin on career development: A review and analysis. *The Counseling Psychologist*, 32(4), 493-568.
- White, T. D. (2008). *Developing effective leadership in infantry junior leaders: The value of self-awareness*. (unpublished doctoral dissertation). Royal Roads University, Victoria, BC.
- Whyte, D. (1994). *The heart aroused: Poetry and the preservation of the soul in corporate America*. New York, NY: Currency Doubleday.
- Yardley, S., Teunissen, P. W., & Dornan, T. (2012). Experiential learning: Transforming theory into practice. *Medical Teacher*, 34(2), 161-164. doi: 10.3109/0142159X.2012.643264
- Yarrish, K. K., & Kolb, J. A. (2002). Multi-source feedback appraisal in two types of organizational structures: How self, supervisor and other ratings differ. *Proceedings AHRD 2002 Conference: Honolulu, Hawaii, February 27-March 3, 2002*, 27-34. Baton Rouge, LA: Academy of Human Resource Development.
- Yeow, J., & Martin, R. (2013). The role of self-regulation in developing leaders: A longitudinal field experiment. *The Leadership Quarterly*, 24(5), 625-637.
- Yin, R. K. (2009). *Case study research: Design and method* (4th ed.). Thousand Oaks, CA: Sage.
- Yin, R. K. (2014). *Case study research: Design and method* (5th ed.). Thousand Oaks, CA: Sage.
- Yukl, G. A. (2002). *Leadership in organizations*. Englewood, NJ: Prentice Hall.
- Zaharna, R. S. (1989). Self-shock: The double-binding challenge of identity. *International Journal of Intercultural Relations*, 13(4), 501-525. doi: 10.1016/0147-1767(89)90026-6
- Zahavi, D., & Roepstorff, A. (2011). Faces and ascriptions: Mapping measures of the self. *Consciousness and Cognition*, 20(1), 141-148. doi: 10.1016/j.concog.2010.10.011

Zigarmi, D., Blanchard, K., O'Connor, M., & Edeburn, C. (2004). *The leader within: Learning enough about yourself to lead others*. Upper Saddle River, NJ: Pearson Prentice Hall.

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Missile Defense Agency, Redstone Arsenal, AL Acquisition Integrator and Acquisition Lead	2009-2011
United States Army Reserve, Huntsville, AL Brigade Executive Officer	2009-2011
United States Army Tank/Automotive Command, Detroit, MI Assistant Product Manager	2008-2009
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United States Army Tank/Automotive Command, Detroit, MI Contingency Contracting Officer	2002-2004

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