

Leadership in the Profession of Arms

Sean T. Hannah
Center for the Army Profession and Ethic
Training and Doctrine Command, Combined Arms Center,
West Point - United States Military Academy
646 Swift Road
West Point, NY 10996
(845) 496-8747
Sean.hannah@usma.edu

Walter J. Sowden
U.S. Army Medical Service Corps
and University of Michigan
Department of Psychology
University of Michigan
530 Church St., 3249 East Hall, Ann Arbor, MI 48109-1043
734-763-5146
walter.sowden@us.army.mil

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Abstract

We outline the unique causations and contingencies influencing leadership in military contexts. After defining what constitutes a Profession of Arms (internal context) and the combat operating environment (external context), we offer a working definition of leadership in military professions as well as define a professional military leader. Based on these definitions and facets of the internal and external contexts, we discuss unique phenomenon influencing leadership at the individual level of analysis, such as ethos, emotions, sensemaking, cognition and judgment, identity and self-complexity, individual differences, and motivation. Next, we apply the military context to the dyad and collective levels, and discuss effects on leader-follower relationships, leader prototypes, unit composition types, group processes and goals, shared leadership, and collective influences on ethical behavior. We close with future directions to extend this work by studying more macro organizational effects of the military context as well as the routinization of extreme contexts.

Keywords: Military, leadership, extreme, ethos, profession of arms, combat

The term *military leadership* is vague and open to numerous definitions. The term has often been used by writers when discussing commanders' employment of military strategy or tactics, entailing the synchronization of complex battlefield systems to generate combat power. These roles of military leaders, however, are more akin to strategic *management* than to *leadership*. Leadership in the military context is about the human element, of guiding the social interactions of people fighting wars to achieve victory. It is not about the management of tactics or strategy or great 'generalship' or the employment of weaponry (Department of the Army, 2006; Jans & Schmidtchen, 2002; Stouffer, et al., 1965). Instead, we will focus on the influence of the unique context of the profession of arms on the socially created construct of organizational leadership.

What then, if anything, requires us to qualify leadership as 'military' leadership? Is there a particular style or model of leadership that is most effective in military contexts and should thus be taught to military leaders? Hannah, Uhl-Bien, Avolio, and Cavarretta (2009) have argued that military and other extreme contexts are too complex and multifaceted to call for any limited set of leadership behaviors. Indeed, we will show that military doctrine commonly does not specify specific leadership styles to be used by their leaders, and that definitions of leadership, such as those used by the U. S. Army and Air Force, are quite general and mirror generic definitions of leadership normally found in the general leadership literature. Thus the question remains as to what makes military leadership distinctive and worthy of study?

What is unique is not leadership itself, but the military context that leadership is operating within. Specifically, military contexts impose unique contingencies, constraints and causations on leadership processes. Osborn, Hunt and Jauch (2002) note that leadership is embedded and "socially constructed in and from a context" (p.798), and therefore, "leadership

and its effectiveness, in large part, are dependent upon the context. Change the context and leadership changes” (p. 797).

We address two levels of military context that influence leadership processes. The first level is the institutional context. We define the general characteristics and tenets of Professions of Arms and outline the unique cultures, social systems, social processes, social identity forces, and other factors operating within such professions. Focusing on professional militaries limits our scope to military forces representing nation states that are granted legitimacy and professional jurisdiction and develop and employ their expertise under a professional military ethic. We therefore do not address leadership in non-state actors, terrorist groups or other non-professional military or paramilitary forces.

The second level of context uniquely influencing leadership in the military is the combat operating environments military forces operate in. We outline how these contexts, marked by their austerity, lethality, complexity, and moral intensity impose distinct contingencies and causations on leaders and followers individually, and to groups and organizations collectively (Hannah, Campbell, & Matthews, 2010).). Despite calls for leadership researchers to better incorporate contextual factors in the development and operationalization of leadership theories over the last two decades (e.g., Avolio, 2007; Tosi, 1991), Porter and McLaughlin (2006, p. 573) recently noted that “it is apparent that the impact of organization context on leadership is an under-researched area.” Our approach can be described as a contextual one to describing military leadership, as the context is the primary construct of interest.

This paper begins with describing these two levels of context. The rest of the paper is then organized by level of analysis and describes the influence of the internal and external contexts on each level. Specifically, we discuss how the context influences individual, dyadic,

and collective leadership processes. In this analysis we take the approach that leadership is a dynamic system of formal and informal leadership processes, versus a discrete set of interactions or strictly a hierarchical positional phenomenon (Day, 2000).

The Internal (Professional) and External (Combat) Contexts

The Profession of Arms

Professions are organizations formed to produce uniquely expert work. Professional expertise requires years of study and experiential learning before one is capable to practice effectively, e.g., a medical doctor doing surgery, a lawyer arguing a brief before the bar, or an Army commander leading soldiers while employing and synchronizing complex battlefield systems. Members of the society served are dependent on these professionals for their health, justice, and security, respectively. Therefore, a deep moral obligation rests on the profession, and its professionals, to use their unique capabilities only in the best interests of that society (Chadwick, 1998). Military professionals are thus inherently servants, morally bound to a “social trustee” relationship with the society served to acquire the knowledge and expertise to do something that the society cannot do for itself, but yet without which the society cannot survive; and to use that expertise according to the values held by the client (Abbott, 2002; Huntington, 1957).

Effectiveness, rather than pure efficiency, is the hallmark of professions. The ill seek a cure, the accused wants acquittal, and the citizen seeks security. While the professions’ clients desire a reasonable level of efficiency, efficacious results are their overriding desire. Professions are thus largely self-forming and self-regulating organizations that provide expert services to a client which the profession is ethically constrained to serve and to not exploit. A military’s professional Ethic, therefore, is built on a trust relationship with the society it serves (Abbott,

2002). Because of this trust, societies grant significant autonomy to military professions to create their own expert knowledge and to regulate the application of that knowledge by individual professionals (Snider & Matthews, 2002).

While organizations traditionally motivate their workers by reliance on extrinsic factors such as salary, benefits, and promotions, military professions must rely on more inspirational, largely intrinsic factors such as the life-long pursuit of expert knowledge, the privilege and honor of service, the satisfaction of nurturing and protecting life and enabling society to flourish, and the social status of membership in an ancient, honorable, and revered occupational group that self-polices its membership. Thus, true military professionals are more personally motivated by the intrinsic aspects of their service, rather than by its extrinsic benefits (Huntington, 1957).

The preeminent military task, and what separates [the military profession] from all other occupations, is that soldiers are routinely prepared to kill...in addition to killing and preparing to kill, the soldier has two other principal duties...some soldiers die and, when they are not dying, they must be preparing to die.

James H. Toner, *True Faith and Allegiance: The Burden of Military Ethic*

As noted in the epigraph above, what makes militaries distinct is the lethality of their craft. Because of this, to professionals their life of service is a calling, not a job. Militaries are certainly called to do many things, from disaster relief to rebuilding civilian infrastructure, but these are neither why professional militaries exist nor their core competencies. Their primary purpose is to project or employ force under the direction of nation states to defend their peoples or their rights and interests (Abbott, 2002; Snider & Matthews, 2002). This core purpose not only influences who is attracted to and selected to serve in the military, but the culture of the organization.

An exemplary Ethic is thus a necessity for any Profession of Arms given the lethality inherent in its practices. Militaries must establish and enforce an Ethic that governs the culture, and the actions of individual professionals to inspire exemplary performance in order to guard the integrity of the profession (Chadwick, 1998). If a military fails in this regard it will lose legitimacy and therefore the right to autonomy. To maintain their status, militaries, like all professions, thus seek to test and certify their members to ensure each meets standards of both competence/expertise and morality/character required to ethically apply expert lethal force.

Further, the vast majority of the world's professional militaries are 'closed systems', in that there is no provision for lateral entry into the profession. Except in rare cases, every enlisted person begins as a private and every officer begins service as a lieutenant. This is required due to the need for professional expertise that must be gained through repetitive practice over many years. Therefore, unlike many other organizations, such as business, where tenure may be expressed in amounts of months, military professionals may serve for twenty or more years. We recognize that many junior members of militaries may serve limited enlistments, such as three years, but the professional cadre that serve as the core of such militaries serve for careers. Therefore, militaries have great need to invest in leader development over the career span and to maintain a culture of continuous development. While this is common in law enforcement, fire fighting, intelligence and a few other public professions, it is distinct from most organizations, to include other governmental organizations. In the U.S., for example, regulation allows federal employees to move from any federal agency job for which they qualify to another, from the treasury to the department of labor, to the department of defense, for example.

While we have provided a general understanding of what sufficient conditions must be present for a military to be classified as a Profession of Arms, we recognize that many military

forces do not meet these standards (e.g., lack adequate expertise, an exemplary Ethic, or legitimacy). We made clear such organizations are outside our scope of inquiry. As a final clarification of scope, our use of the term Profession of Arms is an intra-organizational phenomenon. Specifically, military *organizations* are not by definition Professions of Arms, but contain Professions of Arms within them. Within a large military organization one will find uniformed military members, government civilians, and perhaps contractors, as well as everything from a landscaper, a sniper, a cook, an attack aircraft pilot, an infantryman, and an optometrist. While some of these occupations might be called professions in their own right, they are not all Professions *of Arms* as defined. We limit our theorizing to the ‘tip of the spear’ and the unique contextual influences occurring on that subset of military organizations under arms.

The External Context – The Combat Operating Environment

As professional militaries produce their own expert knowledge, what is often called doctrine, and a professional Ethic to govern the behavior of their members, they do not do so in a vacuous manner. Instead military forces man, equip, and train their forces to operate and succeed in specific jurisdictions. For Armies, that is loosely the employment of land combat power, for the air forces that is air combat power, and for navies, sea combat power. Militaries then prepare to conduct specific missions in their jurisdiction, often under legal or policy direction. The U.S. Army, for example, is charged with conducting major combat operations, strategic deterrence, stability operations, and homeland security; and more specifically, offensive and defensive combat operations on land (Department of the Army, 2008). Each of any given nation’s services (air, sea, land) thus prepare for different missions in different jurisdictions. Across nations, militaries also plan to engage different potential adversaries in different geographical locations. This diversity in purpose and missions makes developing a general “military leadership” theory

further problematic, as each nation and service develops unique expertise, organizational cultures and other factors as they learn to successfully adapt to their environment. Discussing these nuances is beyond the scope of this paper. Here we focus on the commonalities that exist across military operating contexts—they are all *extreme contexts*.

Very little work has been done in the leadership field related to leadership in extreme contexts (Campbell, Hannah, & Matthews, 2010). In a review article, Hannah and colleagues (2009a) provided a general taxonomy for extreme contexts and proposed researchers should not dichotomize between dangerous and non-dangerous contexts, but that danger can come in many forms, levels of extremity, probability of occurrence, and other dimensions. They made the case that each of these dimensions creates specific contingencies and causations influencing leadership and therefore should be discriminated when researching leadership in extreme contexts.

The first dimension noted by Hannah et al. (2009a) is temporal phasing. They note a clear difference between extreme *contexts* and extreme *events*. While a combat zone, for example, may be considered an extreme context, one's deployment there is likely punctuated by a series of extreme events, i.e. episodic periods of direct combat operations. A soldier may rotate between the relative safety of base camp to 'outside the wire' to conduct combat missions, and then return to base camp. Therefore, leadership in military settings may vary between stages of preparation, in situ action, and recovery from dangerous events. What constitutes effective leadership may therefore vary across stages (Bruning, 1964; Leonard & Howitt, 2007). These stages are also intertwined such that what a leader does in one stage will influence other stages. How a leader handles his unit's psychological and physical recovery, for example, will influence the unit's preparation for the next extreme event. Therefore, it is important that leadership theories address

how leadership influences these transitions. Finally, this suggests that a given approach to leadership in one phase (e.g., an influence technique) may be ineffective in another stage. While encouraging stoicism may be required in the heat of battle, for example, stoicism may deter psychological healing during the recovery phase when soldiers may be better served by openly discussing and making meaning out of their traumatic experiences.

The second and third dimensions of extreme contexts proposed by Hannah et al. (2009a) entail the potential magnitude of consequences that may occur, and the level of probability those consequences may in fact occur, both of which can vary in extreme contexts (Laporte, 2007; Leonard & Howitt, 2007). Research suggests that more intense threats can create responses such as mortality salience and produce terror, high levels of stress, and other debilitating emotional responses (Arndt, Greenberg, Pyszczynski, Solomon, & Simon, 1997; Foa & Kozak, 1986; Lazarus & Alfert, 1964; Lazarus, Speisman, Mordkoff, & Davison, 1962). The extent of potential consequences will also raise the moral intensity (Jones, 1991) perceived in a given situation, which raises the salience of the ethical implications of individuals' actions, and influences their moral processing. Further, the level of probability that the threat will be realized will also influence unit readiness. When the immediate threat level is low, organizations will likely be more complacent, whereas when realization of a threat is highly probable, people are intrinsically motivated to prepare for danger (Pauchant & Mitroff, 1992; Pearson & Mitroff, 1993). Therefore, the magnitude and probability of extreme events will influence various forms of human reaction and thus leadership processes.

Fourth, Hannah et al. (2009a) suggested that extreme contexts vary in *proximity*. Proximity can be defined by physical proximity, such as whether one is on the front lines, or in a rear echelon unit. Proximity can also be classified as psychological or social proximity, such as

how close one *feels* to the danger and those affected. Even if not physically close to danger, individuals may experience high levels of danger extremity if those they feel psychologically or socially close to are in harm's way. Differences in amount of 'closeness' between command levels can also become problematic and thereby negatively influence leadership processes (Little, 1964; Mack & Konetzni, 1982; Yagil, 1998). For example, a leader in a command post may have difficulty empathizing with and understanding actions on the front lines, while those in the action may feel that the leader is out of touch and not sharing hardships and risk. Those closer to the action will of course also experience greater magnitude and probability of consequences, and thus experience intense emotional and other responses not imposed on those farther from the action, which may reduce information flow and create social friction as the two groups interact.

The final dimension is the form or type of threat. Hannah et al. (2009a) stated that the consequences of extreme events can "be classified as physical (e.g., death, injury, exhaustion), psychological (e.g., post-traumatic stress, shell shock), or material (e.g., hurricane or fire damage to a city)" (p. 908). In military combat contexts, threats may be multidimensional. A soldier may face death or injury, but also potential psychological threats such as post-traumatic stress disorder, while also faced with balancing the restraint of force so as to limit the destruction of civilian infrastructure with the need to accomplish the mission and protect his own force. Each form of threat, however, may impose distinct effects. Only physical danger, for example, will likely create mortality salience, a fear of death in leaders and their followers (Arndt, et al., 1997).

Therefore, military services within and across nations operate in different contexts and perform varied missions. What is consistent is that they all train and otherwise prepare to operate in extreme contexts. The five dimensions of extreme contexts can thus serve as one starting point to assess what makes military leadership unique from non-military leadership, as well as to

identify differences in leadership across militaries. A review of history makes clear that some nations' militaries are more likely to engage in mortal combat than others, as well as to conduct major versus minor level combat operations, thus varying in magnitude and probability of extremity. Within any country's militaries, these factors also vary. In Iraq and Afghanistan between October 2001 and June 2010, for example, of the U.S. combat deaths sustained, 73.2% came from the Army and 23% from the Marine Corps. The Navy and Air Force combined represented less than 3% of overall deaths, even though they comprised over 40% of the deployed force (Powers, 2010). Based on the factors of extremity, members of these militaries therefore, in general, have likely perceived or experienced relatively differing levels of extremity. Yet 'all combat is local', in that regardless of probability, when one is personally in the action, the effects noted in this paper apply.

A recurring theme in this chapter is that military leadership is a contextualized phenomenon, where leadership is influenced by both intra- and extra-organizational contexts. Further, the extra-organizational context is dimensional and leadership related to one typology of the five dimensions of extreme contexts cannot necessarily be generalized to another. Therefore, while there are likely some constructs such as emotional stability (Goldberg, 1993) or courage (Goud, 2005) that may be generally effective across any military context, the multidimensional nature of these contexts make it inappropriate and not scientifically useful to create a generalized or normative theory of military leadership. With this understanding of what constitutes a Profession of Arms as well as extreme context, we can begin to interpret the causal and contingent effects of these two levels of context on leadership processes. Before proceeding, we first describe and define leadership in the military context.

Leadership in the Profession of Arms

Wars may be fought with weapons, but they are won by men. It is the spirit of the men who follow and of the man who leads that gains the victory.

Gen. George S. Patton

As made clear in this epigraph, military leadership is a human endeavor, not unlike leadership (versus management) in any organization. Yet, military leadership occurs in the arena of armed combat where leaders' decisions have direct and immediate as well as long term effects on human life and the fate of nations. We believe that from studying leadership in military contexts, and understanding how the context bears on leadership processes, we can gain a deeper understanding of leadership in general. To understand leadership in combat, it is critical to take a systems approach, as the complex, extreme and volatile environment of the military make it difficult, if not impossible for any leader to control the tension, instability, and unpredictability of the context by oneself (Marion & Uhl-Bien, 2001).

It is thus not surprising that militaries often define leadership from a system or process approach. The United States Army Leadership Field Manual 6-22, for example, defines that, "Leadership is the process of influencing people by providing purpose, direction, and motivation while operating to accomplish the mission and improving the organization" (p. 1-2). This definition is clearly not 'military-centric' and does not differ markedly from those found in common leadership textbooks. The U.S. Air Force definition focuses less on leadership as a system, but on the practice of individual leaders: "Leadership is the art of influencing and directing people to accomplish the assigned mission. Leadership does not equal command, but all commanders should be leaders and all leaders should simultaneously serve as both leaders and followers at every level of the Air Force." Again, removing the words "commander" and "Air Force" make this a fairly generic definition of leadership. Within these organizations,

however, an understanding that such leadership operates within an extreme context is taken as a given and thus not need be made explicit.

For purpose of clarity to a broad audience and to guide future research, we offer a more explicit working definition that emphasizes, 1) the Professional of Arms, 2) the extreme context, and 3) the system approach to leadership required in complex and volatile military contexts:

Leadership in the Profession of Arms is the process of developing individual and collective human and organizational capacity and providing the purpose, direction, and motivation required to employ that capacity to create effective and ethical combat power under intense, dynamic and dangerous conditions on behalf of the nation state being served.

Based on the discussion thus far, we also provide a normative and aspirational definition of a military leader, which can apply to either formal or informal leaders:

A military leader is an expert, a volunteer certified in the Profession of Arms, bonded with comrades in a shared identity and culture of sacrifice and service to the nation and its values, who positively influences other professionals to employ effective and ethical combat power under intense, dynamic and dangerous conditions on behalf of the nation state being served.

The weight of command. One factor that cannot be neglected before proceeding is the sheer level of responsibility and authority that military leaders hold. In battle, their decisions can, of course, have monumental consequences. In war, casualties are expected, and thus casualties are factors used in the mission planning calculus leaders use when selecting courses of action and balancing mission accomplishment with troop safety. Yet, even in garrison leaders have extensive authority, such as to restrict military members to

barracks (which would be considered imprisonment in most any other context), and many leaders have administrative punishment authority, such as the ability to take pay or benefits or to reduce a member in rank. Because of this authority, leaders are also held to high standards, and when they fail as leaders, they can be subject to administrative or legal sanction, such as dereliction of duty charges. Further, military structure demands great levels of responsibility at junior levels. A brand new Army lieutenant, for example, is typically charged with leading 30 soldiers on their first day on the job—unheard of in most any other context. This level of responsibility requires that military services seek to accelerate the development of their leaders (Hannah & Avolio, 2010) to maintain effectiveness; they have no option to do otherwise.

We have attempted to establish a basis for interpreting the vague and ill-defined concept of ‘military leadership’ through proving a framework for understanding what constitutes a Profession of Arms, an extreme military context, and relevant definitions of a leader and leadership for this context. Based on these foundations, we describe in the following sections ways in which these internal and external contextual factors present in dangerous military contexts influence leadership.

Rousseau (1985), Klein, Dansereau and Hall (1994) and many others have called for leadership researchers to take a multilevel approach to investigating leadership. Using this approach, the rest of this paper is organized by assessing the unique causation and contingencies that bear on leadership processes at each of the individual, dyadic, and collective levels of analysis. While not intending to be exhaustive, we seek to provide examples to illustrate phenomena operating in the military leadership context.

Influences of Military Context at the Individual Level

The Military Composition

To understand leadership in the military, we must first understand who is serving in the military. We begin with Schneider's (1987; Schneider, Goldstein & Smith, 1995) attraction, selection, and attrition (ASA) model. Like any organization, militaries attract and select certain "types" of people and attrite those who do not meet their expectations. Schneider suggests this cycle creates a certain level of homogeneity in an organization over time. The ASA process is likely more influential in military organizations for at least two reasons. First, it is likely that only a limited portion of a population is willing to endure the risk and hardships of military service. Second, militaries are generally legally sanctioned to discriminate in selection processes.

Such discrimination is manifested in most nations in terms of eligibility criteria related to things such as age limits, citizenship, education standards, prohibitions against prior criminal activity or drug use, sexual preference, height and weight standards, and medical fitness. A recent study, for example, found that only 25% of 17-24 year olds in the U.S. were eligible for military service (McMichael, 2009). Many militaries impose further standards on who can serve in specific types of units, such as combat units (e.g., infantry or armor) at the 'tip of the spear.' In the U.S. Army, for example, only males can join the combat arms. Together, these standards create significant homogeneity within any military force as well as specific types of units, quite often typified by fairly young, healthy and physically fit males lacking any significant prior criminal activity.

These homogeneity effects will thus influence leadership to the extent that diversity influences leadership processes (Milliken & Martins, 1996). For example, group homogeneity has been linked to higher levels of member commitment, cohesion, and other desirable social phenomenon; and to reduced levels of intra-group conflict and turnover (see van Knippenberg,

De Drue, & Homan, 2004), which would be desirable for military units. Yet, homogeneity can also restrict new ideas and thus organizational change (Webber & Donohue, 2004). Further, there may be unique leadership effects operating amongst a mostly male organization which is typified by a masculine culture versus more mixed-gender organizations. It is also quite possible that the mostly young population may create unique generational effects on leadership and culture not found in a more age-stratified organization (Jans & Schmidtchen, 2002; Schneider, 1987).

Further, for those who are eligible, only a few will seek military duty. Therefore, based on the ASA model, whatever factors draw individuals to apply for military service will create additional homogeneity. Some may be attracted by pay or benefits, job security, the excitement of military operations, personal challenge, or many other reasons. However, given the sacrifices and risks inherent in military service, attraction processes are often related to idealism and values and personality factors that promote service and duty (Jans & Schmidtchen, 2002; Jennings & Hannah, 2011), what we define in the next section as constituting *ethos*. This may be more evident in professional militaries as we have defined them, where service of the professional is a vocation, a calling. Although serving individuals take the obligation freely, they must give up portions of their civil rights, such as the right to freely speak out on political matters, as well as rights to certain liberties, as they subordinate themselves to military regulations and military orders not applicable to the general citizenry. Militaries thus require selfless service, which the U.S. Army, for example, defines as follows:

In serving your country, you are doing your duty loyally without thought of recognition, reward or personal comfort. Selfless service is the commitment of each team member to go a little further, endure a little longer, and peer a little

closer to see how he or she can add to the team effort without thought of personal gain. (Department of the Army, 2005, p. 1-61).

This focus on idealism suggests that forces of intrinsic versus extrinsic motivation may be the driving factor in military contexts and may call for leadership styles that are inspirational and charismatic and that engender identification with group and superordinate goals versus transactional forms of leadership (Avolio, 2002; Bass, 1998). A soldier, for example, would be unlikely to charge a bunker for a bonus. The requirement for selfless service suggests that leadership that evokes self-identities in military members, where they associate their identity with the collective versus as an individual, may further promote selfless service (Lord & Brown, 2004).

Beyond attraction and selection processes, militaries also create “strong” situational influence and socialization processes (Mischel, 1973). Strong as compared to weak situations provide members with clearer signals for what is expected and how to behave appropriately to improve performance, thus reducing variability in behaviors. Conversely, weak situations create ambiguity and often result in different interpretations because behavioral guidelines are less clear (Mischel, 1973). Such normative and informational effects make organizations and groups powerful instruments of social influence and create substantial effects on the behavior of their members (Salancik & Pfeffer, 1978). With the often well-organized socialization processes used in militaries, these socialization processes can be extremely powerful and serve to promote the inculcation of organizational values (Jans & Schmidtchen, 2002; Jennings & Hannah, 2011).

Further, militaries develop forms of leadership through social learning as they operate in varying types of extreme contexts and learn what they deem to be successful leadership for those contexts. Over time, these ‘models’ of leadership can become socially-embedded *implicit*

leadership theories (Lord, Foti, & DeVader, 1984). These implicit theories can become institutionalized over time as they are developed into formal military doctrine and curriculum and taught to new members. Further, these implicit models can then influence future ASA cycles as they become the standard against which leadership is judged, thereby perpetuating those leadership models. While these effects occur in any organization, given that militaries are closed systems and have strong contexts, this effect is likely pronounced.

In sum, ASA effects create unique homogeneity effects in militaries related to both demographic and values diversity. As leadership is socially constructed (Osborn et al., 2002), factors such as the examples we have provided need to be taken into account when assessing leadership operating in military contexts.

Military Ethos

One factor requiring special note in military leadership research is the concept of *ethos*. Consistent with ASA cycles, Wright and Quick (2011) propose that different occupations attract and socialize people with different “profiles in character”, defined as an occupation-specific set of character strengths. For example they found entrepreneurs were typified by hope, curiosity, zest, creativity, perseverance, and self-control. Wright and Quick specifically suggested that a unique character profile may apply to organizations operating in extreme contexts, including character strengths such as bravery and others.

Hannah and Avolio (2011) extended this thinking and suggested that certain occupations such as fire, police and military require not just forms of character but extremely high *levels* of character, or what they called *ethos*. They noted that mere ethical behavior (e.g., doing what is expected and not committing unethical acts) is insufficient for extreme contexts and suggested that “Much as the leadership field began to differentiate transactional from transformational

leadership over two decades ago seeking to determine what predicts “performance beyond expectations” (Bass, 1998), we propose that a similar focus is needed to predicting ‘ethics beyond expectations.’” Hannah and Avolio (2011) suggested that ethos is the primary source of such virtue, and defined ethos as “Extreme levels of strength of character required to generate and sustain extra-ethical virtuous behavior under conditions of high moral intensity where personal risk or sacrifice is required in the service of others.”

In the *Nicomachean Ethics* (see Rackham, 1926), Aristotle stated that ethos is generated from an individual’s possession of high levels of three components: *phronesis* (practical skills and wisdom), *arête* (virtue and goodness), and *eunoia* (goodwill toward others), that together drive virtue. Indeed we suggest that what compels a soldier to brave enemy fire to save a comrade pinned down under fire or to jump on a grenade to save his unit members is qualitatively different than normal conceptualizations of character and ethics studied in the literature. In a similar vein, Hannah et al. (2010) stated that ethos provides the inner strength compelling an individual to “willingly endure the cognitive, emotional, and physical hardships normally associated with dangerous contexts—and if ultimately needed—to risk physical injury or death; all with little extrinsic reward.” (p. 180).

Future research should thus assess how ethos is generated and operates through leadership processes. As well as how leaders can leverage ethos to maximize unit performance and virtuous behavior in the extreme context of combat.

Effects of the Operating Environment on Individuals

Regardless of what population is serving in militaries and their physical and psychological makeup, we must consider the effects of the unique military operating context on those individuals. Here we discuss representative effects of the military context related to

emotions and physiological reaction, sensemaking, cognition and judgment, identity and self-complexity, states and traits, and motivation.

Emotions and physiological response. Sorokin (1943) demonstrated that individuals can become so overly aroused and emotional when facing extreme events that they distort their information processing and decision-making. Exposure to dangerous events may also threaten individuals' sense of personal safety (Taylor, 1983), or create shell-shock or battle fatigue or traumatic stress (Belenky, Noy, & Soloman, 1985). Traumatic events can also overwhelm and 'lock up' or otherwise immobilize group members when experiencing fear, terror or other emotional responses (Arndt et al., 1997; Bowlby, 1969; Foa & Kozak, 1986; Lazarus & Alfert, 1964; Lazarus et al., 1962; Parks, 1971). If individuals are exposed to such contexts repeatedly, they can over time withdraw or reach a state of learned helplessness (McKean, 1994; Seligman, 1975). Emotions are thus a key factor in effectiveness in military contexts, as activated positive emotions tend to facilitate performance while negative emotions tend to generally degrade performance (e.g., Ashkanasy, Hartel, & Zerbe, 2000; Brief & Weiss, 2002; Erez & Isen, 2002).

While these responses to threat at the individual level are well documented, very little research has assessed how leadership may reduce or channel these negative responses or how these individual reactions influence social interactions. Research in non-extreme contexts has suggested that leaders can influence follower emotions in ways that affect their subsequent behaviors and performance (e.g., Cherulnik, Donley, Weiwel, & Miller, 2001; McColl-Kennedy & Anderson, 2002). For military units, it will be important for research to identify ways that leaders can attenuate negative and enhance positive emotions in followers.

Various physiological responses to danger and stress are outlined in detail by Gunnar and Quevedo (2007). In general, a reasonable level of stress response can improve attention and

memory, but excessive or prolonged exposure can have negative effects on cognitive functioning and immune systems (Kalat, 2009), both reducing battlefield effectiveness (Belenky, et al., 1985). Yet, little is known about the effects of leaders on stress reduction (Humprey, 2002), leaving a critical gap in the literature. Research in social psychology has shown that caregivers, for example, can mediate stress responses in children (Gunnar & Quevedo, 2007). Leaders, like caregivers, can shape the reality in which followers work through assigning and clarifying roles and expectations, giving task-direction, and providing social and emotional support (Piccolo & Colquitt, 2006; Yukl, 2006). Leaders may thus be powerful forces in shaping follower physiological responses to threat.

Sensemaking. Research also suggests that leaders play a key role in individuals' ability to make sense out of dynamic and extreme contexts. When individuals face traumatic events, they will often seek to find some form of justification and to rationalize the experience and what they have been through (Bowlby, 1969; Parks, 1971; Staw, 1980). Weick (1996; 1988) stated that, during this time individuals will be in an active *sense-making* mode. Foldy, Goldman, and Ospina (2008) theorized that leaders can enact *sense-giving* in such situations by helping followers to dissect and learn from the event and to understand how what they learned can help them perform more effectively in the future. This helps followers reestablish a sense of personal safety and agency (Janoff-Bulman & Freize, 1983). Such collective meaning-making sessions, if conducted in a supportive environment, can also help individuals to better deal with negative psychological effects after trauma (Moxley & Pulley, 2004; Tedeschi & Calhoun, 2004).

Sense-making, however is perhaps most critical *during* extreme events such as combat, when individuals face novel, dynamic, and ill-defined events. Weick (1988) held that, in unfamiliar situations, people think by acting, where they act and then observe the results of their

actions. They are therefore not just guided by current knowledge, but apply new knowledge on the spot, as learned from the unfolding situation (Weick, 1988; 1996). Leader sense-giving during combat action is thus critical as organization members require a sense of meaning to “get their bearings and then create fuller, more accurate views of what is happening and what their options are” (Weick, 1988, p. 310). Managing this process is also critical, as “understanding is facilitated by action, but action affects events and can make things worse” (Weick, 1996, p. 306).

Cognition and judgment. Effective combat leaders must also recognize that human judgment generally deteriorates under pressure (Staw, Sandelands, & Dutton, 1981). The intense pressures, dynamic unfolding events and information overload often present in dangerous contexts limits the ability to plan, coordinate and employ resources, and can quickly overload the cognitive ability of leaders and their followers (e.g., Shrivastava, Mitroff, Miller, & Miglani, 1988; Weick, 1993). It is thus important to enhance leaders’ and followers’ ability to make sense of complex, novel information, as suggested by Mumford and colleagues (Mumford, Friedrich, Caughron, & Byrne, 2007; Mumford, Zaccaro, Harding, Jacobs, & Fleishman, 2000).

The study of cognitive complexity in military leadership research is thus an important approach. Cognitive complexity is formed as individuals’ sense-make and develop a set of if-then knowledge structures, or a ‘causal map’ with which they later plan future actions (Weick & Bougon, 1986). Greater experience across a wide span of military contexts, if coupled with effective sense-making, therefore, can enhance cognitive complexity and the development of a wide repertoire of scripts to guide future action (Hooijberg, Hunt, & Dodge, 1997; Mumford, et al., 2000; 2007). Greater complexity can thus promote naturalistic decision making under stress when those scripts are later activated to guide action (Drillings & Serfaty, 1997). Such complexity and ability to apply knowledge to a dynamic is critical. As noted in risk reduction theory,

achieving more rapid understanding of the situation and the identification of potential effective responses enhances individuals' propensity and ability to engage and counter the threat (Martin, Bender & Raish, 2007).

Achieving adaptive capacity, however, requires more than just skills and competencies, but also the development of deeper structures and metacognitive skills that enable leaders and followers to construct rich understandings of complex situations, and to facilitate awareness and understanding of the relationship between task requirements and individual capabilities (Lord & Hall, 2005). Metacognitive ability enables 'executive control' to oversee the planning, monitoring and regulating of mental strategies that allow one to access and apply relevant knowledge structures in specific situations (Metcalf & Shimamura, 1994). Military leadership research is required to assess how cognitive complexity, deeper knowledge structures, and metacognitive skills work together to enhance leader adaptive capacity under conditions of combat.

Identity and self-complexity. Cognitive complexity in the military domain can provide rich knowledge related to the operating context. Yet, combat leaders must also have a rich understanding of their self that enables them to employ a tailored working self and broader set of behavioral responses to leadership challenges (Hannah, Woolfolk, & Lord, 2009). Leaders who have a more multifaceted self can bring a more tailored identity to each different role demand as needed to achieve effectiveness (Hart & Quinn, 1993; Hooijberg et al., 1997).

In a recent set of qualitative studies of experienced combat leaders, Hannah, Jennings, and Ben-Yoav Nobel (2010) developed a referent structure of effective tactical level (i.e., platoon and company-level) leader identity. Based on complexity theory and theories of adaptive expertise, their set of studies suggested that tactical leaders required complex identities that allow

them to adaptively fill multiple roles: intelligence manager, tactical warfighter and commander, diplomat and negotiator, nation builder, and troop and unit leader. Their results suggested that, to be successful, tactical leaders must be able to fluidly enact different identities in a serial fashion that allows them to perform multiple role requirements, such as choosing and employing tactics, maintaining shared situational awareness among their unit members, and assessing insurgence threats, while concurrently working with local security and civilian organizations.

Lord, Hannah, & Jennings (2011) suggest that leaders require not just general cognitive complexity and self-complexity as we have noted, but also emotional or affective complexity. Affective complexity facilitates leaders' ability to understand and manage their own and others' emotional responses. Lord et al. (2011) propose that leadership and other contextual influences can either serve to activate or suppress the generation of complexity in others through priming and other influences. Establishing a climate where the transparent display of emotions is allowed, for example, would serve to increase affective complexity. Leaders' ability to generate general, self, and affective complexity is therefore a critical area for future military leadership research.

Beyond the complexity of identity, the content of identity is also a critical factor. Seeing oneself as a leader in a given context, for example, is critical not just for the employment of leader skills, but also in driving the leader to pursue developmental experiences in a specific domain of leadership, such as the military. Further, we noted the importance of collective identity and ethos for military effectiveness. We further propose that a well developed *moral identity* is a critical factor for military leadership. Seeing oneself as a moral actor and defining oneself on aspects of moral action have been shown to be powerful factors in promoting ethical behavior (Aquino & Reed, 2002; Reynolds & Ceranic, 2007). We have defined military contexts

as inherently morally laden and morally complex, requiring a well developed moral identity to sustain ethical behavior.

Individual differences. Certain stable traits and more malleable states may likely also influence leadership in dangerous contexts. While many are applicable, for the purposes of this chapter we focus on those individual differences we suggest best reduce debilitating emotional or cognitive reactions to stress and that will provide the agency to act in the face of threat.

Research has demonstrated that psychological resources such as efficacy and resiliency can “loosen the hold that a negative emotion has gained on that person’s mind and body by dismantling or undoing preparation for specific action” (Fredrickson, 2001, p. 222). This is because positive emotions broaden the scope of cognition and attention which in turn expands an individual’s perception of potential courses of action to address a threat. Negative emotions such as fear tend to narrow individuals’ scope of cognition and attention, reducing perceived thought and action possibilities under threat, such as occurs in a fight or flight response. Positive emotions work to counter the debilitating effect of these negative emotions (Fredrickson, Tugade, Waugh & Larkin, 2003). Frederickson and colleagues have demonstrated that psychological capacities such as resiliency bolster such positive emotions. Weick (1988) made a similar argument, noting that when individuals believe that “I have capacity...and capacity makes a difference” they will experience expanded sense-making and perceive more options for effective action in extreme contexts (p. 311).

Negative emotions such as fear are experienced when one judges that a given threat exceeds his or her perceived ability to face that threat (Beck, Emery, & Greenberg, 1985). This suggests the manner in which such psychological resources operate is to increase perceived ability and therefore personal agency. This further suggests that constructs such as self-efficacy

(Bandura, 1997), and, specific to leadership, leader efficacy (Hannah, Avolio, Luthans, & Harms, 2008), hardiness (Bartone, 1999), resiliency (Masten & Reed, 2002), courage (Goud, 2005; Hannah, Sweeney & Lester, 2009), and similar constructs such as optimism (Seligman, 1975; Ying, Fishbach & Dhar, 2006) will be important focal future military research areas. Bartone (1999), for example, found that individual hardiness can mitigate stress in combat, while Ying, et al. (2006) found that optimism contributes to goal commitment and persistence, which are critical in challenging situations (Trevelyan, 2007). Additionally, Hannah, Avolio, and Walumbwa (2011) found that moral courage predicted ethical and pro-social behaviors in military squad members. Literature on what has been called ‘positive organizational behavior’ (Luthans, Avolio, & Youseff, 2007) is advancing many of these psychological resource constructs and thus should be incorporated into military leadership research.

Motivation. The final topic we will discuss at the individual level of analysis is how leaders influence motivation in dangerous contexts. In such contexts, mortality salience and other factors are also operating to motivate individuals and must be jointly understood (Arndt et al., 1997). Motivation involves those forces that energize, direct and sustain individuals’ efforts (Kanfer, Chen & Pritchard, 2008; Pinder, 2008). Traditional leadership research has focused on how leaders can motivate followers to achieve goals. In extreme military contexts, however, individuals may be intrinsically motivated based on individual survival instincts and self-preservation, and group factors like cohesion, as discussed in the next section. Therefore, instead of raising motivation, leaders may need to attenuate or manage motivation so that military members do not become so overly aroused that they become ineffective or take inappropriate courses of action due to panic or fear (e.g., Belenky et al., 1965; Foa & Kozak, 1986; Sorokin,

1943). This suggests that in combat there may be an optimum level of motivation, the management of which is a key leader task.

Effects of the Operating Environment on Dyad and Collective Levels

In this section the influence of internal and external military contexts is raised from the individual to the dyadic and collective levels.

Leader styles and prototypes. Dangerous military contexts create high levels of interdependencies between unit members—they rely on each other for their lives and safety. As noted previously, a sense of ‘brotherhood’ is thus required amongst military professionals, particularly those in one’s own unit. Research on leader-member exchange (LMX) has shown that factors such as trust, liking, loyalty, professional support, contributory behaviors, interpersonal attraction, and bidirectional influence between leaders and followers promote such high quality relationships (Dienesch & Liden, 1986; Graen & Uhl-Bien, 1995). Research has shown that trust, for example, is a critical factor in promoting effective leader-follower relationships in combat (Belenky et al., 1985; Sweeney, Thompson, & Blanton, 2009). Indeed, factors like trust may not be negotiable in extreme contexts. Due to the personal risk every unit member assumes, they demand high quality leadership—leaders of character and competence. If adequate trust does not exist, military members may commit mutiny against a poor leader under conditions of high risk (Hamby, 2002).

Leaders and followers operating together in combat conditions at the tactical level are also often in physical close proximity, which affects the positive nature with which leaders are perceived by followers (Antonakis & Atwater, 2002), and in military settings, when leaders are out sharing risk and hardship with their followers, they tend to be seen as more effective and trustworthy, and build higher quality relations (Little, 1964). When operating in combat over

time, leaders also tend to reduce power-distance levels (Little, 1964; Stouffer et al., 1965), building closer and less hierarchical relationships with followers.

Different phenomenon may occur, however, when there is physical or social distance between those on the ‘front lines’ and higher headquarters in rear areas. Indeed, research shows that in general, greater distance between leaders and their followers have negative effects on relationship quality (Howell, Neufeld, & Avolio, 2005) and makes communication and coordination difficult. This can potentially cause problems if military operations are decentralized, forcing leadership to occur through electronic means.

This discussion related to the reduction of power-distance and the formation of high quality relationships counters common folklore that military leadership is a hierarchical phenomenon executed through the use of position power. Indeed, as noted previously, military leaders have extensive authority that they *can* use if the situation calls for it. We make the argument that leadership in general must be earned from one’s followers, and that is likely even more so in most professional militaries, that operate largely as meritocracies (Jans & Schmidtchen, 2002).

Yet, research also suggests that in extreme situations followers look to leaders for direction and some sense of control (Gladstein & Reilly, 1985; Isenberg, 1981). As compared to non-extreme events, leadership during actual extreme events may also tend to be more directive (Dynes, 1983; Perrow, 1984), with more directive and decisive leaders seen as more effective (Flanagan & Levy, 1952; Mulder, Ritsema van Eck, & de Jong, 1971; Mulder & Stemerding, 1963).

Together, it appears that in extreme events, followers desire direction and control from their leader but also a high quality relationship—a sense of balance. This is consistent with a

study by Kugihara, Misumi, Sato and Shigeoka (1982) who demonstrated, using simulated panic situations, that leaders who balanced performance planning with follower considerations were most successful. Indeed, the ability for leaders to be directive when under threat and still be respected and followed may be based on the quality of their relationship with followers going into the situation. Consistent with the concept of *idiosyncrasy credits* (Hollander, 1964), Hannah et al. (2009a) suggested that leaders build ‘credits’ from their followers in non-extreme contexts through demonstrating competence and character, and can then ‘spend’ those credits during extreme events where they may become more authoritative.

For example, if leaders are participatory under most conditions and normally transparent about their decisions, allowing followers to understand their motives and values, and then become directive later in combat when there is little time or ability to include others in decision-making or to explain their actions, their followers would be more likely to understand and maintain trust in them. If leaders, however, have always lacked transparency and thus not established adequate ‘credits’, followers may be more likely to question them, not knowing if they can trust them when lives are on the line (Hurst, 1995; Sweeney et al., 2009). In sum, we suggest that the basis for effective combat leadership must be built prior to actual combat engagements. We also suggest, as noted in the discussion of leader self-complexity, that to be effective leaders must be able to flexibly employ a spectrum of leadership styles as needed (Avolio, 2002).

This discussion also suggests that there may not be some general model (i.e., an implicit leadership theory (ILT; Lord et al., 1984) of what constitutes effective leadership across any military or unit. In general, there are organizational and cultural differences in prototypes of effective leaders, and followers tend to judge leaders based on how well they match those

prototypes and follower expectations (Hogg, 2001; House, Hanges, Javidan, Dorfman, & Gupta, 2004). Yet, as military units rotate in and out of extreme contexts, those follower expectations likely change, imposing varying ILTs. For example, followers' ILT prototype for a leader leading soldiers in a raid may differ markedly from their ILT of a leader managing a unit's physical and psychological recovery after the battle ends.

Group types. We noted that military organizations are diverse social entities, structured based on task specialization. Therefore, it is important to recognize that various types of military groups experience differing leadership phenomenon. Based on their specialization, groups will also have differing forms and levels of training, equipment, command and control structures and other resources that will influence their performance in dangerous contexts (Turner, 1976).

Hannah et al. (2009a) developed a taxonomy of unit types operating in extreme contexts. They suggested organizations can range from those that are *naïve* (which would not include the military) and are unexpectedly thrust into danger (e.g., a terrorist attack on an office building), to those that regularly train and prepare for extreme events. Hannah et al. (2009a) classified the latter into three types, all of which exist in the military. The first are *trauma organizations* (e.g., a military field hospital), which are highly procedural and develop well rehearsed protocols as they face extreme situations with great frequency (e.g., multiple trauma patients per day) and have learned successful protocols. Such organizations are normally in a rear base camp location where danger to their own personnel is not extensive, yet danger to patients may be extremely high and occur repetitively. Such a context would certainly produce high levels of stress, yet likely impose differing effects on leadership processes than those that occur when a unit's own personnel are in imminent danger. The second organizational form noted by Hannah et al. are *high-reliability organizations (HRO)* as classified by Weick (1993; Weick & Sutcliffe, 2001;

Weick, Sutcliffe, & Obstfeld, 1999). HROs are normally highly systematized and perform repetitive tasks with little margin for error—and thus are highly focused on risk prevention. Weick, for example, studied nuclear power facilities and aircraft carrier flight decks. Due to these well-developed systems and safeguards, risks in such settings are highly reduced, although failure can be catastrophic.

Finally, Hannah et al. (2009a), proposed the term *critical action organizations* (CAO) to typify those units that directly confront risk and where, although reasonable safeguards are taken, they understand that significant danger to their own members remains, and thus accept reasonable casualties. CAOs include units such as police SWAT, fire fighting, search and rescue, military combat and other select military units, and certain clandestine intelligence services and disaster response teams. While a trauma team may be exposed to extreme events daily or hourly, the CAO may only experience an extreme event twice in a six month combat tour. Yet those events may be of exponentially higher magnitude of consequences than normal (e.g., reacting to an ambush by enemy forces). While such events are of low frequency, CAOs must constantly train for those moments of ‘game time’. Further, due to expected casualties, CAOs require redundant systems and processes, and cross-functional expertise—including redundancies in leadership which requires junior leaders to be prepared at any moment to assume the role of their own leader (Stouffer et al., 1965).

Finally, there is one primary factor that distinguishes CAOs from the other types of units discussed in this section. Trauma and HRO units are focused only on preventing or responding to dangerous events. CAOs are called upon to *create* extreme events (e.g., military strike). CAOs thus most typify what we described as the profession of *arms*. Military CAOs, therefore, require members who are willing to employ lethal combat force, when called upon, at the direction of

their nation. Such units, therefore, may differ from trauma and HRO units in attraction-selection-attrition processes as well as culture. It will be important for future leadership research to develop these unit-type differences and to study their effects on leadership processes. For example, it is likely that the implicit leadership theory (Hogg, 2001; Lord et al., 1984) that followers have for a military trauma surgeon differ from that for an infantry commander.

Group processes and goals. Effective military units require high levels of task and social cohesion as well as a potent belief that, together, they can face danger and prevail (Jans & Schmidtchen, 2002; Little, 1964; Stouffer et al., 1965). Marks, Mathieu, & Zaccaro (2001) noted that teams operate across repetitive performance cycles, and that the processes that teams employ during those performances will influence emergent states. The processes employed in a raid (a performance cycle) and the team's level of performance, for example, can either serve to increase or decrease the team's collective efficacy to conduct raids in the future (next performance cycle). Accompanying emergent states, such as cohesion or collective efficacy are critical in military units due to the high levels of interdependency between members and the need for members to rely on each other not just for tasks, but socio-emotional support (Little, 1964; Stouffer et al., 1965).

During performance cycles, things such as how decision-making occurs in a unit will influence emergent states, such as levels of trust, as mentioned previously. Poor unit processes, instead of raising the potency of the unit, can create anger and frustration, and reduce group efficacy. Kozlowski and Klein (2000, p. 55) note that "a phenomenon is emergent when it originates in the cognition, affect, behaviors, or other characteristics of individuals, is amplified by their interactions, and manifests as a higher-level, collective phenomenon." The importance of positive emergent states in military CAO units cannot be understated. These cognitive,

motivational, and affective states recursively provide inputs to subsequent team processes (Marks et al., 2001), thereby influencing performance in future extreme events. Units over time can thus achieve “self-fueling spirals” that promote performance, or negative downward spirals that lead to failure (Hackman, 1990).

In military units, these positive states take on greater importance. Positive states such as cohesion, organizational identification, and group commitment are thought to lower stress and anxiety and enhance performance in combat (Department of the Army, 1950, 2006), and group identification can also buffer individuals’ fear of death (Strachan et al., 2007). Cohesive units that share similar values and identity provide a sense of safety in their members (Little, 1964; Stouffer et al., 1965). Hinsz (2008) noted that “Group involvement leads to perceptions of strength and safety in numbers [and] because of this, in threat situations; groups will have less avoidance motivation” (p. 559).

Effective military units can also create a buffering effect for their members by providing psychological resources such as those discussed previously at the individual level. Resilience, for example, is a critical capacity required to deal with challenges and setbacks and can operate at both the individual (Reich, 2006) and collective (Manyena, 2006) levels. Indeed, collective psychological resources such as unit morale and cohesion have been associated with lower psychiatric casualties in combat (Belenky et al., 1985; Little, 1964), and group teamwork has been associated with military squad performance (Hannah, Walumbwa & Fry, 2011). Groups with such strong bonds may be able to better help their members with sensemaking after traumatic experiences (Belenky et al., 1985; Tedeschi & Calhoun, 2004). Finally, collective goals are important to guide behavior in military units. Groups that form common goals and achieve

shared understandings of threats are better able to work through crises (Mintz, 1951; Wright, 1946).

Group complexity and shared leadership. Zaccaro, Ely, and Nelson (2008) suggest that leadership effects in units are multilevel, where “motivation states, goal generation, and goal striving processes operate conjointly at the team and individual levels, with processes at one level reciprocally influencing corresponding processes at the other level” (p. 322). This de-emphasizes the role of hierarchical leadership in asserting control and suggests that effective military leadership may emphasize empowering leadership (e.g., Manz & Sims, 1989; 2001; Vecchio, Justin, & Pearce, 2010), where leaders encourage shared leadership processes (Pearce & Sims, 2002).

Military units are becoming increasingly more specialized and more prone to be operating in decentralized conditions (e.g., Department of the Army, 2008), making shared leadership more applicable. Given specialization, shared leadership better leverages the skills and cognitive complexity of the overall group (Pearce & Sims, 2002), and more complex groups generally perform better (Hambrick, Cho, & Chen, 1996). This suggests that training and development linked to operating in dangerous military contexts that enhances group complexity along the lines outlined previously (affective, cognitive, identity) may facilitate performance in those contexts. This is most critical in dynamic military contexts where no one person will have a full understanding of ongoing events, thus requiring collective sensemaking and the effective processing of team knowledge (Hutchins, 1995; Kozlowski & Ilgen, 2006).

The need for sharing leadership provides further reason why purely autocratic forms of leadership may be ineffective in military contexts. Autocratic or overly directive leadership limits unit members’ motivation to intellectually engage and contribute to unit decision-making,

reducing overall collective complexity (Hannah, Lord & Pearce, 2011; Pearce & Sims, 2002). Effective groups are those that can aggregate information from across diverse group members to create shared meaning when needed, what has been termed *transactive memory* (Kozlowski & Ilgen, 2006; Wegner, 1991). Due to the infrequency that most military units engage in actual combat operations, it is critical that they train in simulated environments, using effective group learning processes where they learn to collectively form, through group interaction, complex shared mental models that facilitate group performance in actual dangerous contexts (Holyoak, 1991; Marks, Zaccaro & Mathieu, 2000).

Groups and ethical behavior. Due to the morally laden nature of the military context, groups can be important factors in bolstering morality, or under certain conditions, immorality. Groups develop collective norms that influence the moral thinking and actions of group members (Power, Higgins & Kohlberg, 1989). Group morality is thus influenced through mechanisms such as organizational climate and culture (Selznick, 1992). Weick (1979) argued that individual behaviors within collectives do not occur in isolation, but rather occur through connecting events he called “double interacts”. For example, person A initiates a behavior that then influences person B's behaviors, which then in turn reciprocally influences person A's behavior. Morgeson and Hofmann (1999, p. 252) described the double interaction as being, “the basic building block upon which all larger collective structures are composed.”

This suggests that groups can “bolster” the character of their members through various social interactions and learning and social identity processes. For example, as a military group develops shared beliefs about treatment of prisoners of war, these shared beliefs may be reinforced over time as members observe other group members' actions with prisoners, and thus over time become part of the group's scripts for expected actions (Hofmann & Jones, 2005).

These collective scripts then serve to guide individual actions and are taught to new members as the ‘correct’ way to act (Hinds & Mortensen, 2005), which can then also influence individuals’ identities and values (Hannah & Avolio, 2011; Jennings & Hannah, 2011). Leaders and groups thus develop collective norms for expected behavior, which then guide the behavior of others (Power et al., 1989). These effects can also be influenced through ethical culture. Research has shown that leaders can set conditions such that ethical behavior is rewarded and unethical behavior is punished, as well as create normative pressures to align intragroup ethical behaviors (Brown, Treviño, & Harrison, 2005; Treviño, Weaver, & Reynolds, 2006). Research on U.S. Army combat units in Iraq has recently shown that ethical leadership and ethical culture have effects both within and across organizational levels on follower ethical thoughts, intentions, and behaviors (Schaubroeck et al., 2012). Therefore, context and group social phenomenon should be considered in models of military leadership.

Future Directions

To focus this chapter we chose to limit discussion to individual, dyadic, and collective levels of analysis. At each of those levels we offered select representative examples to illustrate the unique causations and contingencies occurring in Professions of Arms or imposed by the extreme military contexts. Many additional factors were left uncovered.

One large area of omission was the organizational level of analysis. While we described what constitutes a Profession of Arms, we provided only a limited discussion of military culture. Yet militaries normally have powerful traditions, rituals, heroes and myths, underlying assumptions and other factors constituting culture (Jans & Schmidtchen, 2002). Further, militaries are rich in artifacts, such as uniforms and insignia and other symbols, and behaviors such as saluting and military bearing, that all serve to reinforce culture. Certainly, more detailed

coverage of the effects of military culture on leadership development, selection of leaders, and the operation of formal and informal leadership is warranted.

We also did not discuss organizational processes and systems. One important area of research will be how hierarchical bureaucratic/administrative systems in militaries can effectively operate in conjunction with their more adaptive organizational systems to achieve the flexibility required for effective leadership systems to operate. While adequate control is required in military operations, Perrow (1984) noted that too much administrative control can create an overly tight “coupling,” where once a derivation or problem in a system arises, chain reactions can spiral a problem out of control over time. Consistent with this need for balance, incorporating the literature on learning organizations, and more specifically research on ambidextrous learning organizations, may also be worthwhile. Such organizations can both explore new knowledge and exploit current knowledge simultaneously (e.g. Berson, Nemanich, Waldman, Galvin & Keller, 2006; Hannah & Lester, 2008).

One additional area of needed research is on the routinization of extreme contexts. Most of the leadership literature on extreme contexts has been done related to *crisis*. Unfortunately, that term is ill-defined and too generalized. In their model of crisis management, for example, Pearson and Clair (1998) included as crises events spanning from copyright infringement and malicious rumors to natural disasters. Other researchers (e.g., Jick & Murray, 1982; Osborn et al., 2002) have used Hermann’s (1969) definition of crisis: “a situation that threatens high priority goals...which suddenly occurs with little or no response time available.” Pearson and Clair (1998, p. 60) further added that the event must be “of low probability” and “characterized by ambiguity of cause, effect, and means of resolution.”

These definitions are insufficient for military use, and we have thus chosen to use the term *extreme* event or context. Contrary to definitions of crisis, extreme events may be known and planned for well in advance. They may also range from low to high probability as well as low to high levels of ambiguity. Well trained units that have prepared for high probability extreme events may therefore be well prepared to engage in such events. This suggests that leadership research should assess the routinization of extreme events and how leadership operates in unexpected conditions where the unit is unprepared (i.e., crisis), as compared to when it is an equally extreme, yet more routinized extreme event.

In closing, there are likely few places where leadership matters more than in the cauldron of war. The importance of the study of what constitutes effective leadership for such contexts can thus not be overstated. We have offered some initial thoughts to frame an approach to exploring this area of leadership and have identified many unique forces of causation and contingency operating in this context to guide future research. Our hopes are that additional research will be focused on leadership in the Profession of Arms.

References

- Abbott, A. (2002). The Army and the theory of professions. In D. M. Snider and L. J. Matthews (Eds.), *The Future of the Army Profession*, 1st Ed. (pp. 523-536). New York: McGraw Hill.
- Antonakis, J., & Atwater, L. (2002). Leader distance: A review and proposed theory. *The Leadership Quarterly*, 13, 673–704.
- Aquino, K., & Reed, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, 83, 1423-1440.
- Arndt, J., Greenberg, J., Pyszczynski, T., Solomon, S., & Simon, L. (1997). Suppression, accessibility of death-related thoughts, and cultural defense: Exploring the psychodynamics of terror management. *Journal of Personality & Social Psychology*, 73, 5-18.
- Ashkanasy, N. M., Hartel, C E. J., & Zerbe, W. (Eds.). (2000). *Managing emotions in the workplace*. Armonk, NY: Sharpe.
- Avolio, B.J. (2002). Examining the full range model of leadership: Looking back to transform forward. In Day, D., & Zaccarro, S. (Eds.), *Leadership development for transforming organizations*. Mahwah, NJ: Erlbaum.
- Avolio, B. J. (2007). Promoting more integrative strategies for leadership theory building. *American Psychologist*, 62, 25–33.
- Bandura, A. (1997). *Self-Efficacy: The exercise of control*. New York: Freeman.
- Bartone, P.T. (1999). Hardiness protects against war-related stress in Army reserve forces. *Consulting Psychology Journal: Practice & Research*, 51, 72-82.
- Bass, B. M. (1998). *Transformational leadership: Industrial, military, and educational impact*. Mahwah, NJ: Lawrence Erlbaum Associates.

- Beck, A. T., Emery, G., & Greenberg, R. L. (1985). *Anxiety disorders and phobias: A cognitive perspective*. New York: Basic Books.
- Belenky, G. L., Noy, S., & Solomon, Z. (1985). Battle stress: The Israeli experience. *Military Review, July*, 11-20.
- Berson, Y., Nemanich, L. A., Waldman, D. A., Galvin, B. M. & Keller, R. T. (2006). Leadership and organizational learning: A multiple levels perspective. *Leadership Quarterly, 17*, 577-594.
- Bowlby, J. (1969). Attachment and loss. *Volume 1: Attachment*. London: Hogarth.
- Brief, A. P., & Weiss, H. M. (2002). Organizational behavior: Affect in the workplace. *Annual Review of Psychology, 53*, 279-307.
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes, 97*, 117-134.
- Bruning, J. L. (1964). Leadership in disaster. *Psychology: A Journal of Human Behavior, 1*, 19-23.
- Campbell, D. J., Hannah, S. T., & Matthews, M. D. (2010). Leadership in military and other dangerous contexts: Introduction to the special issue topic. *Military Psychology, 22*, S1-S14.
- Chadwick, R. (1998). Professional Ethics. In E. Craig (Ed.), *Routledge Encyclopedia of Philosophy* (pp. 432-466). London: Routledge.
- Cherulnik, P. D., Donley, K. A., Weiwel, T. S. R., & Miller, S.R. (2001). Charisma is contagious: The effects of leaders' charisma on follower affect. *Journal of Applied Social Psychology, 31*, 2149-2159.

Day, D. V. (2000). Leadership Development: A review in context. *Leadership Quarterly*, *11*, 581-614.

Department of the Army (2005). *Field Manual 1: The Army*. Washington DC.

Department of the Army (1950). *Pamphlet 600-2: The Armed Forces Officer*. Washington DC.

Department of the Army (2008). *Field Manual 3-0, Operations*. Washington, DC.

Department of the Army (2006). *Field Manual 6-22, Army leadership: Competent, confident, and agile*. Washington DC.

Dienesch, R. M. & Liden, R. C. (1986). Leader-member exchange model of leadership: A critique and further development. *Academy of Management Review*, *11*, 618-634.

Drillings, M. & Serfaty, D. (1997). Naturalistic decision making in command and control. In C. E. Zsombok (Ed.). *Naturalistic Decision Making* (pp. 71-80). Mahwah, NJ: Erlbaum.

Dynes, R. (1983). Problems in emergency planning. *Energy*, *8*, 653-60.

Erez, A., & Isen, A. M. (2002). The influence of positive affect on the components of expectancy motivation. *Journal of Applied Psychology*, *87*, 1055-1067.

Flanagan, J. C., & Levy, S. (1952). *Development of an objective form of the leaders reaction test*. Pittsburgh, PA: American Institute for Research.

Foa, E. B., & Kozak, M. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin*, *99*, 20-35.

Foldy, E. G., Goldman, L., & Ospina, S. (2008). Sensegiving and the role of cognitive shifts in the work of leadership. *Leadership Quarterly*, *19*, 514-529.

Fredrickson, B.L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*, 218-226.

- Fredrickson, B.L., Tugade, M.M., Waugh, C.E., & Larkin, G.R. (2003). What good are positive emotions in crisis: A prospective study on resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology, 84*, 365-376.
- Gladstein, D. L., & Reilly, N. R. (1985). Group decision-making under threat: The tycoon game. *Academy of Management Journal, 28*, 613-627.
- Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American Psychologist, 48*, 26-34.
- Goud, N. H. (2005). Courage: Its nature and development. *Journal of Humanistic Counseling, Education, and Development, 44*, 102-116.
- 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. *Leadership Quarterly, 6*, 219-247.
- Gunnar, M., & Quevedo, K. (2007). Biological and genetic processes in development. In S. T. Fiske, A. E. Kasdin, and D. L. Schacter (Eds). *Annual Review of Psychology*. Palo Alto, CA: Annual Reviews.
- Hackman, J. R. (1990). *Groups that work (and those that don't): creating conditions for effective teamwork* (1st ed.). San Francisco: Jossey-Bass.
- Hambrick, D. C., Cho, T. S., & Chen, M. J. (1996). The influence of top management team heterogeneity on firms' competitive moves. *Administrative Science Quarterly, 41*, 659-684.
- Hamby, J. E. (2002). The mutiny wagon wheel: A leadership model for mutiny in combat. *Armed Forces & Society, 28*, 575-600.
- Hannah, S. T., & Avolio, B. J. (2011). Leader character, ethos, and virtue: Individual and

collective considerations. *Leadership Quarterly*, 22, 989-994.

Hannah, S. T., & Avolio, B. J. (2010). Ready or not: How do we accelerate the developmental readiness of leaders? *Journal of Organizational Behavior*, 31, 1181-1187.

Hannah, S. T., Avolio, B. J., & Walumbwa, F. O. (2011). The relationships between authentic leadership, moral courage, and ethical and pro-social behaviors. *Business Ethics Quarterly*, 21(4), 555-578.

Hannah, S. T., Avolio, B. J., Luthans, F. & Harms, P. D. (2008a). Leadership efficacy: Review and future directions. *Leadership Quarterly*, 19, 669-692.

Hannah, S. T., Campbell, D. J., & Matthews, M. D. (2010). Advancing a research agenda for leadership in dangerous contexts. *Military Psychology*, 22, S157-S189.

Hannah, S. T., Jennings, P. L., & Ben-Yoav Nobel, O. (2010). Tactical military leader requisite complexity: Toward a referent structure. *Military Psychology*, 22, 1-38. .

Hannah, S. T. & Lester, P. B. (2008). A multilevel approach to building and leading learning organizations. *Leadership Quarterly*, 20, 34-48.

Hannah, S. T., Lord, R. L., & Pearce, C. L. (2011). Leadership and collective requisite complexity. *Organizational Psychology Review*, 1(3), 104-127.

Hannah, S. T., Sweeney, P. J., & Lester, P. B. (2009). The courageous mindset: A dynamic personality system approach to courage. In C. Pury & S. Lopez (Eds.), *The Psychology of Courage*. American Psychological Association.

Hannah, S. T., Uhl-Bien, M., Avolio, B. J. & Cavarretta, F. (2009a). A Framework for Examining Leadership in Extreme Contexts. *Leadership Quarterly*, 20, 897-919.

- Hannah, S. T., Walumbwa, F. O., & Fry, J. (2011). Leadership in action teams: Team leader and members' authenticity, authenticity strength, and performance outcomes. *Personnel Psychology, 64*, 771-801.
- Hannah, S. T., Woolfolk, L., & Lord, R. G. (2009). Leader self-structure: A framework for positive leadership. *Journal of Organizational Behavior, 30*, 269-290.
- Hart, S. L., & Quinn, R. E. (1993). Roles executives play: CEOs, behavioral complexity, and firm performance. *Human Relations, 49*, 917-947.
- Hermann, C. F. (1969). *Crisis in foreign policy: a simulation analysis*. Indianapolis: Bobbs-Merrill.
- Hinds, P. J., & Mortensen, M. (2005). Understanding conflict in geographically distributed teams: The moderating effects of shared identity, shared context, and spontaneous communication. *Organization Science, 16*, 290-307.
- Hinsz, V.B. (2008). The social context of work motivation: A social-psychological perspective. In R. Kanfer, G. Chen, & R.D. Pritchard, *Work Motivation: Past, Present, and Future* (pp. 553-568). New York: Routledge.
- Hofmann, D. A., & Jones, L. M. (2005). Leadership, collective personality, and performance. *Journal of Applied Psychology, 90*, 509-522.
- Hogg, M. A. (2001). A social identity theory of leadership. *Personality and Social Psychology Review, 5*, 184-200.
- Hollander, E. P. (1964). *Leaders, groups, and influence*. New York: Oxford University Press.
- Holyoak, K. J. (1991). Symbolic connectionism: Toward third-generation theories of expertise. In K. A. Ericsson & J. Smith (Eds.), *Toward a general theory of expertise* (pp. 301-335). Cambridge, England: Cambridge University Press.

- Hooijberg, R., Hunt, J. G., & Dodge, G. E. (1997). Leadership Complexity and Development of the Leaderplex Model. *Journal of Management*, 23, 375-408.
- House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage.
- Howell, J. M., Neufeld, D. J., & Avolio, B. J. (2005). Leadership at a distance: The effects of physical distance, charismatic leadership, and communication style on predicting business unit performance. *Leadership Quarterly*, 16, 273-286.
- Humphrey, R. H. (2002). The many Faces of emotional leadership. *Leadership Quarterly*, 13, 493-504.
- Huntington, S. (1957). *The Soldier and the State*. Cambridge, MA: Harvard Belknap Press.
- Hurst, D. K. (1995). *Crisis and renewal*. Boston: Harvard Business School Press.
- Hutchins, E. (1995). *Cognition in the wild*. Cambridge, MA: MIT Press.
- Isenberg, D. G. (1981). Some effects of time pressure on vertical structure and decision-making accuracy in small groups. *Organizational Behavior and Human Performance*, 27, 119-134.
- Janoff-Bulman, R & Frieze, I. H. (1983). A theoretical perspective for understanding reactions to victimization. *Journal of Social Issues*, 39, 1-17.
- Jans, N., & Schmidtchen, D. (2002). The Real C-Cubed : Culture, careers and climate and how they affect military capability, Canberra Papers on Strategy and Defence, No. 143. Strategic & Defence Studies Centre, Australian National University: Canberra.
- Jennings, P. L., & Hannah, S. T. (2011). The moralities of obligation and aspiration: Towards a concept of exemplary military ethics and leadership. *Military Psychology*, 23, 1-22.

- Jick, T. D., & Murray, V. V. (1982). The management of hard times: budget cutbacks in public sector organizations. *Organization Studies*, 3, 141-169.
- Jones, T. M. (1991). Ethical decision-making by individuals in organizations: An issue-contingent model. *Academy of Management Review*, 16, 366-395.
- Kalat, J. W. (2009). *Biological psychology* (10th edition). Belmont, CA: Wadsworth.
- Kanfer, R., Chen, G., & Pritchard, R.D. eds. (2008). *Work Motivation: Past, Present, and Future*. New York: Routledge.
- Klein, K.J., Dansereau, F., & Hall, R.J. (1994). Levels issues in theory development, data collection and analysis. *Academy of Management Review*, 19, 195-229.
- Kozlowski, S. W. J., & Ilgen, D. R. (2006). Enhancing the effectiveness of work groups and teams. *Psychological Science in the Public Interest*, 7, 77-124.
- Kozlowski, S. W. J., & Klein, K. J. (2000). A multilevel approach to theory and research in organizations: Contextual, temporal and emergent processes. In K. J Klein, & S. W. J. Kozlowski (Eds.), *Multilevel theory, research and methods in organizations: Foundations, extensions and new directions* (pp. 3-90). San Francisco: Jossey-Bass.
- Kugihara, N. Misumi, J., Sato, S., & Shigeoka, K. (1982). Experimental study of escape behavior in a simulated panic situation: Leadership in an emergency situation. *Japanese Journal of Experimental Social Psychology*, 21, 150-166.
- LaPorte, T. R. (2007). Critical infrastructure in the face of a predatory future: Preparing for untoward surprise. *Journal of Contingencies and Crisis Management*, 15, 60-64.
- Lazarus, R. S. & Alfert E. (1964). The short-circuiting of threat. *Journal of Abnormal and Social Psychology*, 69, 195-205.

- Lazarus, R. S. & Speisman, J. C., Mordkoff, A. M. & Davison, L. A. (1962). A laboratory study of psychological stress produced by a motion picture. *Psychological Monographs*, 76, 553.
- Leonard, H. B. & Howitt, A. M. (2007). Against desperate peril: High performance in emergency preparation and response. In D. E. Gibbons (Ed.), *Communicable crises: Prevention, response and recovery in the global arena* (pp. 1-25). Charlotte, NC: Info Age.
- Little, R. W. (1964). Buddy relations and combat performance. In M. Janowitz (Ed.), *The new military: Changing patterns of organization*. NY: Sage.
- Lord, R. G., Brown, D. J. (2004). Leadership processes and follower self-identity. Mahwah, NJ: Lawrence Erlbaum Associates.
- Lord, R. G., Foti, R. J., & DeVader, C. L. (1984). A test of leadership categorization theory: Internal structure, information processing, and leadership perceptions. *Organizational Behavior and Human Performance*, 34, 343-378.
- Lord, R. G., & Hall, R. J. (2005). Identity, deep structure and the development of leadership skills. *Leadership Quarterly*, 16, 591-615.
- Lord, R. G., Hannah, S. T., & Jennings, P. L. (2011). A framework for understanding leadership and individual requisite complexity. *Organizational Psychology Review*, 1(2), 104-127.
- Luthans, F. L., Avolio, B. J., & Youseff, C. (2007). *Psychological Capital: Developing the human capital edge*. Oxford, England: Oxford Press.
- Mack, W. P., & Konetzni, A. H., Jr. (1982). *Command at sea* (4th ed). Annapolis, MD: Naval Institute Press.
- Manyena S. B. (2006). The concept of resilience revisited. *Disasters*, 30, 434-450.
- Manz, C. C. & Sims, H. P., Jr. (1989). Superleadership. New York: Prentice Hall.
- Manz, C. C. & Sims, H. P., Jr. (2001). The new Superleadership. San Francisco: Berrett Kohler.

- Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of Management Review*, 26, 356-376.
- Marks, M. A., Zaccaro, S. J., & Mathieu, J. E. (2000). Performance implications of leader briefing and team-interaction training for team adaption to novel environments. *Journal of Applied Psychology*, 6, 971-986.
- Marion, R., & Uhl-Bien, M. (2001). Leadership in complex organizations. *Leadership Quarterly*, 12, 389-418.
- Martin, I.M., Bender, H., & Raish, C. (2007). What motivates individuals to protect themselves from risks: The case of wildland fires. *Risk analysis* 27, 887-900.
- Masten, A. S., & Reed, M. J. (2002). Resilience in development. In C.R. Snyder & S. Lopez (Eds.), *Handbook of Positive Psychology* (pp. 74-88). Oxford, UK: Oxford Press.
- McColl-Kennedy, J. R., & Anderson, R. D. (2002). Impact of leadership style and emotions on subordinate performance. *Leadership Quarterly*, 13, 545-559.
- McKean, K. J. (1994). Using multiple risk factors to assess the behavioral, cognitive, and affective effects of learned helplessness. *Journal of Psychology*, 128, 177-183.
- McMichael, W. H. (2009). Most U. S. youths unfit to serve data shows. 5 November 2009. Army Times. Retrieved 13 November 2010 from:
http://www.armytimes.com/news/2009/11/military_unfityouths_recruiting_110309w/
- Metcalf, J., & Shimamura, A. P. (1994). *Metacognition: Knowing about knowing*. Cambridge, MA: MIT Press.
- Milliken, F. J., & Martins, L. L. (1996). Searching for common threads: Understanding the multiple effects of diversity in organizational groups. *Academy of Management Review*, 21, 402-433.

- Mintz, A. (1951). Non-adaptive behavior. *Journal of Abnormal and Social Psychology*, 46, 150-159.
- Mischel, W. (1973). Toward a cognitive social learning reconceptualization of personality. *Psychological Review*, 80, 252–283.
- Morgeson, F. P., & Hofmann, D. A. (1999). The structure and function of collective constructs: Implications for multilevel research and theory development. *Academy of Management Review*, 24, 249-265.
- Moxley, R. & Pulley, M. L. (2004). Hardships. In McCauley, C. & Van Velsor, E. (Eds.) *The Center for Creative Leadership handbook of leadership development* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Mulder, M., Ritsema van Eck, J. R., & de Jong, R. D. (1971). An organization in crisis and non-crisis situations. *Human Relations*, 24, 19-41.
- Mulder, M., & Stemerding, A. (1963). Threat, attraction to group, and need for strong leadership: A laboratory experiment in a natural setting. *Human Relations*, 16, 317-334.
- Mumford, M. D., Friedrich, T. L., Caughron, J. J., & Byrne, C. L. (2007). Leader cognition in real-world settings: How do leaders think about crises? *Leadership Quarterly*, 18, 515-543.
- Mumford, M. D., Zaccaro, S. J., Harding, F. D., Jacobs, O. T. & Fleishman, E. A. (2000). Leadership skills for a changing world: Solving complex social problems. *Leadership Quarterly*, 11, 11-35.
- Osborn, R. N. & Hunt, J. G. & Jauch, L. R. (2002). Toward a contextual theory of leadership. *Leadership Quarterly* 13, 797-837.
- Parks, C. M. (1971). Psycho-social transitions: A field study. *Social Science and Medicine*, 5, 101-115.

- Pauchant, T. & Mitroff, I. (1992). *Transforming the crisis-prone organization*. San Francisco: Jossey-Bass.
- Pearce, C. L., & Sims, H. P. (2002). Vertical versus shared leadership as predictors of the effectiveness of change management teams: An examination of aversive, directive, transactional, transformational, and empowering leader behaviors. *Group Dynamics, Theory, Research, and Practice* 6, 172-197.
- Pearson, C., & Clair, J. A. (1998). Reframing crisis management. *Academy of Management Review*, 23, 59-76.
- Pearson, C., & Mitroff, I. (1993). From crisis-prone to crisis-prepared. *Academy of Management Executive*, 7, 48-59.
- Perrow, C. (1984). *Normal accidents*. New York: Basic Books.
- Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management Journal*, 49, 327-340.
- Pinder, C. C. (2008). *Work Motivation in Organizational Behavior*. New York: Psychology Press.
- Porter, L. W., & McLaughlin, G. B. (2006). Leadership and the organizational context: Like the weather. *Leadership Quarterly*, 17, 559-576.
- Power, C., Higgins, A., & Kohlberg, L. (1989). The habit of the common life: Building character through democratic community schools. In L. Nucci (Ed), *Moral Development and Character Education: A Dialogue* (pp. 125-43). Berkeley, CA: McCutchan.
- Powers, R. (2010). The cost of war. 19 June 2010. About.Com: U.S. Military. Retrieved 13 November 2010 from: <http://usmilitary.about.com/od/terrorism/a/iraqdeath1000.htm>

- Rackham, H. (1926). *Aristotle The Nicomachean Ethics with an English Translation by H. Rackham*. Boston: Harvard University Press.
- Reynolds, S. J., & Ceranic, T. L. (2007). The effects of moral judgment and moral identity on moral behavior: An empirical examination of the moral individual. *Journal of Applied Psychology, 92*, 1610-1624.
- Reich, J. W. (2006). Three psychological principles of resilience in natural disasters. *Disaster Prevention Management, 15*, 793-798.
- Rousseau, D.M. (1985). Issues of level in organizational research: Multi-level and cross-level perspectives. *Research in Organizational Behavior, 7*, 1-38.
- Salancik, G. R., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly, 23*, 224-253.
- Schaubroeck, J., Hannah, S. T., Avolio, B. J., Kozlowski, S. W. J., Lord, R. L., Treviño, L. K., Peng, A. C., & Dimotakas, N. (2012). Embedding ethical leadership within and across organization levels. *Academy of Management Journal*.
- Schneider, B. (1987). The people make the place. *Personnel Psychology, 40*, 437-453.
- Schneider, B., Goldstein, H. W. & Smith, D. B. (1995). The ASA framework: An update. *Personnel Psychology, 48*, 747-779.
- Seligman, M. E. P. (1975). *Helplessness: On depression, development and death*. San Francisco: Freeman.
- Selznick, P. (1992). *The moral commonwealth*. Berkeley, CA: University of California Press.
- Shrivastava, P.; Mitroff, I., Miller, D., & Miglani, A. (1988). Understanding industrial crisis. *Journal of Management Studies, 25*, 285-303.

- Snider, D. M., & Matthews, L. J. (2002). *The Future of the Army Profession*. New York: McGraw Hill.
- Sorokin, P.A. (1943). *Man and society in calamity*. NY: Dutton.
- Staw, B. (1980). Rationality and justification in organization life. *Research in Organizational Behavior, Vol. 2*. Greenwich, Connecticut: JAI Press.
- Staw, B. M., & Sandelands, L. E. & Dutton, J. E. (1981). Threat-rigidity effects in organizational behavior: multi-level analysis. *Administrative Science Quarterly, 26*, 501-24.
- Stouffer, S. A., Lumsdaine, A. A., Lumsdaine, M. H., Williams, R. M., Smith, M. B., Janis, I. L., Star, M. A., & Cottrell, L.S. (1965). *The American Soldier: Combat and its aftermath (Vol. 2)*. Princeton, NJ: Princeton University Press.
- Strachan, E., Schimel, J., Arndt, J., Williams, T., Solomon, S., Pyszczynski, T., & Greenberg, J. (2007). Terror mismanagement evidence that mortality salience exacerbates phobic and compulsive behaviors. *Personality and Social Psychology Bulletin 33*, 1137-1151.
- Sweeney, P. J., Thompson, V., & Blanton, H. (2009). Trust and influence in combat: An interdependence model. *Journal of Applied Social Psychology, 39*, 235-264.
- Taylor, S. E. (1983). Adjustment to threatening life events: A theory of cognitive adaptation. *American Psychologist, 1161-1173*.
- Tedeschi, R.G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry, 15*, 1-18.
- Tosi, H. L. (1991). The organization as a context for leadership theory: A multilevel approach. *Leadership Quarterly, 2*, 205–228.
- Trevelyan, R. (2007). Optimal optimism. *Business Strategy Review, 18*, 18-22.

- Treviño, L. K., Weaver, G. R., & Reynolds, S. J. (2006). Behavioral ethics in organizations: A review. *Journal of Management*, 32, 951-990.
- Turner, B. A. (1976). The organizational and interorganizational development of disasters. *Administrative Science Quarterly*, 21, 378-397.
- van Knippenberg, D., De Drue, C. K. W., & Homan, A. C. (2004). Work Group Diversity and group performance: An integrative model and research agenda. *Journal of Applied Psychology*, 89, 1008-1022.
- Vecchio, R., Justin, J. & Pearce, C. L. (2010). Empowering leadership: An examination of mediating mechanisms within a hierarchical structure. *Leadership Quarterly*, 21, 530-542.
- Weber, S. S., & Donahue, L. M. (2001). Impact of highly and less job-related diversity on work group cohesion and performance: A meta-analysis. *Journal of Management*, 27, 141-162.
- Wegner, D. (1991). Transactive memory in close relationships. *Journal of Personality and Social Psychology*, 61, 923-929.
- Weick, K. E. (1988). Enacted sensemaking in crisis situations. *Journal of Management Studies*, 25, 305-317.
- Weick, K. E. (1993). The collapse of sensemaking in organizations: The Mann Gulch disaster. *Administrative Science Quarterly*, 38, 628-652.
- Weick, K. E. (1996). Drop your tools: An allegory for organizational studies. *Administrative Science Quarterly*, 41, 301-313.
- Weick, K. E. & Bougon, M. G. (1986). Organizations as cause maps. In Sims, H. P. Jr. and Gioia, D. A. (Eds.), *Social Cognition in Organizations* (pp. 102-35). San Francisco: Jossey-Bass.

- Weick, K. E., & Sutcliffe, K. M. (2001). *Managing the unexpected: Assuring high performance in an age of complexity*. San Francisco: Jossey-Bass.
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (1999). Organizing for high reliability: Processes of collective mindfulness. In R. I. Sutton, & B. M. Staw (Eds.), *Research in organizational behavior* (Vol 21) (pp. 81-123). Elsevier Science/JAI Press.
- Wright, D.G. (1946). Anxiety in aerial combat. *Research publication of the Association of Nervous and Mental Disorders*, 25, 116-124.
- Wright, T. A., & Quick, J. C. (2011). The role of character in ethical leadership research. *Leadership Quarterly*, 22, 975-978.
- Yagil, D. (1998). Charismatic leadership and organizational hierarchy: Attribution of charisma to close and distant leaders. *Leadership Quarterly*, 9, 161–176.
- Ying, Z., Fishbach, A., & Dhar, R. (2006). When thinking beats doing: The role of optimistic expectations on goal-based choice. *Advances in Consumer Research* 33, 57-58.
- Yukl, G. (2006). *Leadership in organizations* (6th ed.). Upper Saddle Creek, NJ: Prentice-Hall.
- Zaccaro, S.J., Ely, K., & Nelson, J. (2008). Leadership processes and work motivation. In R. Kanfer, G. Chen, & R.D. Pritchard (eds.), *Work Motivation: Past, Present, and Future* (pp. 319-360). New York: Routledge.