



Adapting Military Leadership in a Changing Warfare Environment

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Abstract- The evaluation of warfare is mostly characterized by technological improvements that affect the ways soldiers get to the desired end state on the battlefield. Cyberspace and space are other imminent dimensions changing the conduct of war. So how must leaders adapt themselves to these changes in the battlefield? What kind of features have gained importance in order to lead and to survive in these techno-wars? The aim of this article is to answer the above mentioned questions. First, how leadership is affected by battlefield and technological improvements is analyzed. Then the features which future leaders must have and how they must behave are discussed. This paper seeks to show major effects of technology and modern warfare on leaders' physical capabilities, cognitive abilities and emotional stamina.

Keywords- Leadership, Military Leadership, Adaption, Adaptive Leadership, "Soldier-Asker"

1. Introduction

The rapidly changing battlefield has evolved its form differently from its regular cycle, which deeply affects warriors. While proceeding from asymmetric warfare to conventional wars, there are certainly some points to be underlined. The purpose of this article is to examine all of the important effects for military leadership and underlining the most crucial ones. Considering that humans will be the unchanged element of wars, some basic qualifications of leadership have to be analyzed again if we are to survive in these new battles.

Features of leadership change according to cultures and the situation. However, a group of features which is more commonly used than others should be clarified. This toolkit of leadership features will be helpful in the most needed situations.

2. Leadership and the Changing Battlefield

2.1. Leadership

Leadership is the art of the commander who is eager to affect others by using the relevant techniques such as moral, beliefs and values. There is an abundance of definitions for the term "leadership". Generally, a leader is defined as the person who has the ability of convincing people (Weatherby, 1999), what they are up to and who can lead them through to the end state or target (Rost, 1991). Clark defines leadership as an art.

2.2. Changing Battlefield

In the information age, the most valuable asset has become the information itself. In the modern age, many new techniques have suddenly found their way to the battlefield including the wide use of unmanned vehicles and systems. Cyberspace and cyber war, robotics and nanotechnology have made the battlefield much more complex (Army,

2013). Asymmetric dangers and weapons of mass destruction are the main threats for the security environment (Defense, 2012). Other possible factors affecting modern wars are the unstable security environment, growing population, densely used public affairs and media activities, criminal groups, civilian involvement in military operations and the increase in the use of technology. As anticipated, these changes create a need for stronger communication and a strong link between leaders and audiences.

When globally developing trends are taken into account, the future battlefield is foreseen as complex, uncertain and competitive with a rapidly changing structure that exceeds national borders. Sensitive subjects like competition for higher incomes, scarcity of resources, the elections of political authorities and independence can bring out some new conflict zones in an economically interlaced world (Army, 2013).

2.3. Adaptation Process

Interest in leadership studies increased after World War II with the emphasis on industrial psychological sciences. One of the main aims of the leadership process is managing change. Complying with the changing environment is a vital issue. Leadership is not merely a process of giving directions (Buchanan & Huczynski, 1997). A leader who integrates his unit with the environment not only provides true applications, weapons and systems but also molds the subordinates responsible for the change. (Burns, 2003) When we consider this entirely changing battlefield, leaders must embrace a process of adaptation favored by new skills.

3. The Effects of Changing Warfare on Military Leadership

21st century leaders face rapidly changing threat environments. As we look towards the future we see an increase in both complexity and instability.

The future security environment can be characterized by several persistent trends: the proliferation of weapons of mass destruction, the

rise of modern states, violent extremism, regional instability, transnational criminal activity, and competition for resources (Army, 2010).

Moreover, meta-trends can shape future land warfare by defining the conditions as crowded, connected, lethal, collective and constrained (Army, 2013). Armed conflicts as well as cooperation and peaceful competition will be inevitable in such an environment. The diffusion of advanced technology in the global economy means enabling any militaries and non-state actors to muster weaponry once available only to superpowers.

Future adversaries may even choose to attack only in cyberspace, which makes military networks and critical infrastructure vulnerable to remote attack. Besides, these actions will remain difficult to trace. The diffusion of technology transforming warfare is also reshaping global politics. Social media can catalyze in days social protests that once took months or years to build. The penetration of mobile technology, especially in developing nations, will dramatically increase the number of people who can access and share information rapidly. The ubiquity of personal communication devices with cameras and full motion video also allows much of the world to observe unfolding events in real time, making future operations increasingly sensitive to social perceptions. Military actions will be maintained under intense media scrutiny, which has strategic importance. Digital technology also profoundly alters command and control within military and between military and civilian leaders. Similarly, the conventions by which wars are fought are no longer the same as they once used to be. Perception management and new disciplines like strategic communication together with digital technology are changing the characteristics of war.

Taken together, these factors will likely cause the future security environment to be more multidisciplinary, more complex, and potentially more unstable than today. The speed of change will require greater swiftness in the planning and conduct of different types of military operations. It should be considered that adversary capabilities and tactics will also change more quickly on the battlefield. (Army U, 2010).

The technological boost of modern times in every sector is rapidly taking place on the battlefield. In this environment, leaders need to have new competences. Adapting leaders to the rapidly changing world gives competitive advantage to an army that cannot be replaced by technology. Leaders build quality units, design cogent campaigns, or execute effective operations in theater via orienting forces to the expanding set of global challenges (Army U, 2013). Leaders should be able to think critically and creatively. They should collaborate, build special teams, and possess and show traits such as being adaptable, competent, flexible and resilient.

Future leadership requires innovative and adaptive leaders, masters of operational art, leaders, greater language related and cultural skills and improved service and institutional adaptability to deal with current and rapid change.

When we consider all these specifications of the army leader, we can identify fundamental qualifications that leaders must have. Army leaders should possess and model important key attributes in order to reach their maximum professional potential. As we look for these new capabilities we have an example from history explaining for the "soldier" (asker). This word "soldier" (asker) includes fundamental leadership characteristics. These dimensions are shown in Table 1.

According to the Bennett J. Willam, the four stages of moral development in leaders draw a similar pattern. In his book it is mentioned that these stages are compliance, moral understanding, moral maturity, and moral ambition. It is also mentioned that "The Roman Centurion moved along a similar path from obsequium (obedience to orders, compliance with directives) to fides (faith in the organizations and institutions that generate those orders and directives) to integritas (wholeness, completeness, integrity). To accomplish this they worked hard to develop their leaders through a variety of means designed to create prudentia (knowledge gleaned from experience) and sapientia (knowledge gleaned from focused, scientific study)" (Bennet, 1993).

Table.1 The Dimensions of "soldier" (Definition of The Word "asker")

A (ع):	Ulviyet-i ruhiye, (Moral)
S (س):	Selamet-i fikriyye, (Cognitive Abilities and Emotional Stamina)
K (ك):	Kerâmet-i tabiye. (Mission Effectiveness)
R (ر):	Riyazet-i bedeniyye. (Physical Capabilities)

We can call these four competences critical leadership attributes. Today, it is important for the leader to diagnose whether these features have changed significantly. "Mastering these fundamentals provides the basis by which army leaders operate effectively in the joint, intergovernmental, and multinational environment" (Army U, 2013). In Table 2 the effects of changing warfare on military leadership is explained in brief detail.

3.1 Moral Perspective

One of the components of fighting power is the moral component, including motivation, moral cohesion, and ethical foundations (Sandhurst, 2012). These qualifications make the soldier more competent. Moral forms the basis for other characteristics.

We have seen unethical attitudes shown by asymmetric threats or even well-educated officers in modern warfare, so moral issues are discussed more nowadays. Leaders at all levels must have a moral framework for their organization in order to be more persuasive. For leaders, they must live with core values, at all times, and provide moral leadership thus being a good example for their units. This example displayed by a leader will sub-consciously affect other human behaviors (Sandhurst, 2012).

People usually determine the outcome of an individual engagement as well as a force stay by its moral legitimacy during operations. Army leaders need to be the cutting edge of the force, leading by example from the front, and showing values and behaviors to ensure that the force performs well. Effective leadership is kept by humanism projection and holding moral values high, so hearts and minds can easily be persuaded.

Tactical level leaders must understand that their actions during operations will be judged morally by the people around them and by social media. Staying within a moral framework even when you have power will make it easy for the people to believe in you in the target area. Troops from foreign countries can have a different moral outlook. While they might not be under direct command, there is a necessity to act in certain circumstances. Leaders must bear the burden to simplify the moral framework with their power to adapt all contributing units to the moral and ethical framework.

At operative levels of leadership moral perspective turns out to be training, including cultural awareness. Strategic level "just war"

Military personnel face many significant challenges in the routine course of their work. Especially in today's conflicts, work hours are long and the need for vigilance and self-protection is high in combat areas. In these new security environments, army leaders need a new definition of human design. High definition of human design is closely related with cognitive and emotional behavior to produce an individual who is operating with optimum effectiveness.

Leaders at all levels require the necessary cognitive abilities. At the strategic level, the primary task for the leader is to produce a vision for the organization against any emerging threat. Talents are derived not only from operational experience but also from different assignments,

Table.2 The Effects of Changing Warfare On Military Leadership

Leadership Features	Changing and Developing Battlefield		
	Leadership levels		
	Tactic	Operative	Strategic
Moral	*Refers to the leader, *Cultural awareness is important.	*Refers to the unit, *Cultural training is important.	*Shows politic-strategic intent, *Just war and humanism is important.
Cognitive Abilities and Emotional Stamina	*Social intelligence is important, *Problem solving abilities are important, *Dealing with stress.	*Institutional intelligence is important, * C4 and decision support systems are important.	*Joint/Combined and multinational operations. *Multinational presence in security organizations.
Mission Effectiveness	*Increased. *Needs proficiency. *Needs common understanding.	*Increased, * Strong and skilled HQ.	*Increased, *System management and holistic view.
Physical Capabilities	*Operation duration extends.	*Less activity.	*Unstable activity duration.

comes with moral and ethical issues. Strategic level leaders must do the right things just as at tactical level one must do things right.

Moral courage is the other thing that gives leaders the power to make the right choice. In order to act within the rules, these leaders must understand the local culture as well. Cultural awareness is the new understanding in the moral aspects of the army leader.

3.2. Cognitive Abilities and Moral Perspective

advanced civil participation in military missions, and demonstrated interests (Army U, 2013). All these activities require vigilant cognitive abilities.

Up to now, we have seen leadership at the systems level as a function of the capacity for creating an independent perspective of the strategic environment and thinking using abstract conceptual models (Wong et al, 2003). Now we have to consider the leader's cognitive complexity or conceptual capacity. So we need to identify and develop strategic competence earlier in an officer's

career as well as lengthening officer careers to allow longer utilization of strategic capacity. Cognitive complexity and conceptual capacity will help future leaders to adapt themselves more quickly.

In direct level leadership effectiveness, leaders need to have social skills and knowledge, because they are important contributing factors. Problem solving skills, social judgment skills, and knowledge are the cognitive abilities that leaders possess. In the emerging warfare the tools which can enhance the performance of direct level leaders are emotional intelligence, situational awareness, social intelligence, communications, creative critical thinking and team dynamics. Leaders that have situational awareness will be easily aware of the information then comprehend its meaning and visualize future status (Bartone & Snook, 2002).

Inspired by military history, cognitive abilities of problem solving training are so essential for the organizational level leaders. These abilities will give future leaders more examples that help to diagnose what they are missing for adaptation to the new battlefield.

Emotional leaders must be strong enough to bear a complex and chaotic security environment. No matter how technologically advanced we are, we still have to cope with "stress" during both peace and wartime. Stress management and emotion regulation can be gained by understanding how stress operates in the human system and realizing techniques of rapid recovery, resilience and energy management instead of burnout and fatigue. The process of seeing, feeling, and experiencing desired outcomes and taking action to attain them builds confidence and the courage to move forward. So leaders must be role models for their units to deal with emotional difficulty at all times.

3.3. Mission Effectiveness

The concept of mission effectiveness can vary depending upon training styles or an actual mission deployment. In the deployed environment, the definition of mission effectiveness is strictly linked to specific mission objectives. Direct

leaders in the army have their effectiveness evaluated via quantitative measurement.

In the future, we need to specify the link between direct leadership and definitions of unit effectiveness. Now we have the classification, it provides a good starting point by conceptualizing performance in terms of the eight dimensions of; job specific task proficiency, non-job specific task proficiency, written and oral communication proficiency, demonstration of effort, maintenance of personal discipline, facilitation of peer and team performance, supervision/leadership, and management/administration (Frese & Fay, 2001). New dimensions of battle field robotics and cyber warfare now make it important to have the necessary technological awareness.

3.4. Physical Capabilities

The leader's effectiveness is mainly dependent upon his basic constitutional strength and robustness. From tactical to strategic level leadership, one must have physical resilience to cope with any change in battlefield. Asymmetric threats attempt to increase and focus on uncertainty and ambiguity by countering technological and operational improvements. These threats challenge strategic leaders to possess a physical readiness to successfully deal with the uncertainties and ambiguities of war. Physical readiness includes physical determination, robustness, energy and stamina of the individual.

Since competencies can also reflect elements of the job performance domain, physical fitness is not a leadership style but is an important element of what a leader must have as part of his job, self-ratings of performance with respect to leader competencies also seem very useful criteria for measurement. Physical domain constitutes the very basic level that other competences build on. Physically fit leaders possess courage that makes them differ from the others.

At tactical level however, as the technology increase and robotics are very close to appearing on the battlefield, leaders are to show their great strength during peace and war time. This ability will give them power to lead their units. During operations, when time can wear out soldiers in urban terrain, the physical stamina of the leaders

becomes the first competence to have at this stage. Up to strategic level leaders must bear mental and physical challenges. Casualties and pressure from the political level can cause friction on stamina. Leaders must bear the burden and show their robustness to accomplish the mission at all cost.

4. Features of a Modern Leader

Today, decision makers and leaders on the field have more opportunities to make their own decisions. Thus, leaders must be well educated and experienced. Because of the media, interconnected world and judicial restrictions, leaders should be more careful than ever. Leaders also have to take into account the fact of civilians and the international community. "Given current realities, it seems reasonable to assume that soldiers rising to positions of leadership in the military of the future will require a distinctly different skill set than those of the past." (Loughlin & Arnold, 2007). If the decision makers and the ones who are responsible for leader education do not take this change into consideration, it will be very difficult and almost impossible to have competent leaders in the upcoming years. Today's leaders should be able to lead in the different physical, joint, sometimes non-military and social environment. In the future skills of a military leader can be classified into five features:

4.1 Adaptation Ability

To be successful in modern warfare it is not enough to conduct the written principles or orders. Leaders should also ensure participation of all other members in the continuing process. Adaptation ability in biology means the adjusting process for a living organism to its habitat. Just as in the biological definition of the term, the military leader, by applying the best tools for adaptation, should manage the change in that hierarchical ecosystem. The link with the external environment and the organizations will help to reach the targets or desired end state more quickly.

Osborne and Hunt, in their study, mentioned Complex Adaptive Systems. In their conclusion they conveyed that in multilevel organizations, higher and lower leaders and subordinates do not share the same organizational culture and values. Additionally, they suggest that it may be "virtually

impossible to develop a single integrated theory of leadership effectiveness" (Osborn & Hunt, 2007).

4.2. Fast and Accurate Decision Making

Contemporary battlefields require commanders to take a multidisciplinary approach. They need to make decisions and implement them in limited time. Time sensitive targets in a dynamic target management process are a good example of this. The Fast and Accurate Decision Making process has always been important for leaders but today time limits and restrictions are much more detailed and important.

Austin Bay, in one of his latest books "Ataturk", explains the short time decision making ability for a leader using a French metaphor "coup d'oeil". Firstly this term was used by Clausewitz making an example of smartness and vision ability. What is implied in the book is the importance of decision making in very short and stressful times.

4.3. Versatility

Specialization is a must in modern headquarters. Military leaders need to take on new approaches in the decision making process, contrary to the applications in previous centuries. To achieve this, versatility is a necessity. Military leaders also need to think outside the box. In the complex environment of the battlefield, it is not easy to tell the right thing from the wrong one. For the accomplishment of the mission, all alternatives should be evaluated.

The roles of military leaders are different today. Capabilities like strategic communications are gaining more importance. Leaders should have the ability to compute diverse factors on the battlefield, including evacuation of civilians, management of immigration, relations with NGOs, legal issues and social media.

4.4. Proficiency

A commander is not only a good manager, but also a good leader. Proficiency is key to playing both roles effectively. Intellectual knowledge increases respect and obedience.

Besides the level of knowledge and experience, it is vital to endure the toughest battle conditions.

While it is physical stamina at the tactical level, in upper levels it is mostly stress and stress management. Battle stress and its negative effects continue not only during war but nowadays in pre-war and post war periods as well. Irregular warfare has affected and extended the period of the operation and making people exposed much more to the negative and harmful events. Post-Traumatic Stress Disorder studies put a mark on the serious effects of the battlefield especially the studies which enlightened the post war era on the Vietnam War of the 1970s (Shay, 2003).

“Military leaders must develop and maintain technical and tactical expertise required by their professions as leaders of soldiers, marines, sailors, and airmen. They must possess the capability to lead across an ever broadening spectrum of missions and operational environments (i.e., contexts) in which the forces under their control are becoming more scattered across time and space. Leaders must also be skilled in the use of technology-mediated communication as they lead this highly scattered force.” (Morath, Leonard, & Zaccaro, 2011).

5. Situational and Cultural Awareness

In the military, the basic goal is mission accomplishment, which requires awareness to be built. For a unit to survive, the role of continuing learning has to be created (Jr., 2010). A qualified leader must be a very good communicator. Although technology constantly changes the human element will keep its original presence. On that point, unlike previous wars, it is vital for a leader to gain hearts and minds.

Analyzing the system contributes to combat efficiency. A healthy analysis provides the awareness of the system and manifests the current situation.

Raymond A. Morath, Arnold L. Leonard and Stephen J. Zaccaro, in their article, explained that cultures and values of the people living in an area of operations always differ. In some cases, the cultures differ significantly and may seem foreign. Another fact that should be taken into consideration is that even the cultures of alliance and coalition partners may vary. To effectively

engage with those multinational partners, one must possess cultural awareness and proficiency.

Additionally, natural uncertainty and ambiguity of the situation has to be carefully managed in order to isolate the innocents from the targeted area. This complexity may create tremendous psychological stress as troops simultaneously seek to protect themselves and destroy enemies (Morath et al, 2011).

6. Conclusion

In this article current warfare is analyzed through leadership features, which have gained importance. The main aim is to create a leadership toolkit to be used in most common situations.

Today, at a time when change is existent in all areas, military leaders at all levels should shoulder duties more rigorously than is written in their reference list of duty. In order to preserve his best efficiency, a leader should concentrate his energy and effort on the features which are more important. Efficiency will come through an adaptation to the new techno battlefield. Qualifications most needed by leaders to adapt easily are; adaptation ability, fast and accurate decision making, versatility, proficiency, and situational and cultural awareness.

Finally, as when we discussed the word “asker” (soldier), we can notice the importance of four dimensions of leadership. These dimensions are not only for the military leaders but also for the civilian decision makers and soldiers. Ultimate success can be achieved if these skills are applied properly.

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