

CHANGING ARMY CULTURE: CREATING ADAPTIVE AND CRITICAL THINKING OFFICER CORPS

BY

COLONEL FREDERICK S. CLARKE
United States Army

DISTRIBUTION STATEMENT A:

Approved for Public Release.
Distribution is Unlimited.

USAWC CLASS OF 2008

This SRP is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.



U.S. Army War College, Carlisle Barracks, PA 17013-5050

Report Documentation Page

*Form Approved
OMB No. 0704-0188*

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 15 MAR 2008	2. REPORT TYPE Strategy Research Project	3. DATES COVERED 00-00-2007 to 00-00-2008			
4. TITLE AND SUBTITLE Changing Army Culture Creating Adaptive and Critical Thinking Officer Corps		5a. CONTRACT NUMBER			
		5b. GRANT NUMBER			
		5c. PROGRAM ELEMENT NUMBER			
6. AUTHOR(S) Frederick Clarke		5d. PROJECT NUMBER			
		5e. TASK NUMBER			
		5f. WORK UNIT NUMBER			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army War College ,122 Forbes Ave.,Carlisle,PA,17013-5220		8. PERFORMING ORGANIZATION REPORT NUMBER			
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)			
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT See attached					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 32	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

The U.S. Army War College is accredited by the Commission on Higher Education of the Middle State Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

USAWC STRATEGY RESEARCH PROJECT

**CHANGING ARMY CULTURE: CREATING ADAPTIVE AND CRITICAL THINKING
OFFICER CORPS**

by

Colonel Frederick S. Clarke
United States Army

Dr. Stephen J. Gerras
Project Adviser

This SRP is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

ABSTRACT

AUTHOR: Colonel Frederick S. Clarke

TITLE: Changing Army Culture: Creating Adaptive and Critical Thinking Officer Corps

FORMAT: Strategy Research Project

DATE: 27 November 2007 **WORD COUNT:** 6,739 **PAGES:** 28

KEY TERMS: Leader Mind Set, Embedding and Reinforcing Change, Strategic Reformation

CLASSIFICATION: Unclassified

As an open system organization the Army is constantly affected by variations in the environment that should ultimately spark change in the way Army leaders view, approach, and resolve problems. But this ability to demonstrate mental agility and adapt effectively is, unfortunately, not always the case. The world is evolving, threats are changing, and the organizational force structure is in the process of a significant transformation. The boat has left the Information-age dock and - although some of the Army's leaders and institutional cadres are on board - most are still trying to figure out how to use the mechanism required for buying a ticket to the ride. The Army has been able to identify the need for changes required in our institutional culture, but the road ahead is complex. Indeed changing the Army culture is easier said than done. This SRP reviews research on the complexities and factors that need to be considered when taking on the challenge of changing military culture. It concludes with recommendations for establishment of a framework to change the culture in order to successfully develop adaptive, critical thinking skills in future Army strategic leaders.

CHANGING ARMY CULTURE: CREATING AN ADAPTIVE AND CRITICAL THINKING OFFICER CORPS

The Army has long been criticized for rewarding conventional military thinking. In an effort to show commitment towards change, the Army recently summoned Gen. David Petraeus back to Washington to preside over a board that will pick the next generation of Army leaders. As the top U.S. commander in Iraq, Gen Petraeus understands asymmetric warfare and the sort of adaptive and critical thinking traits required to successfully lead soldiers in unconventional warfare.¹ The U.S. Army needs to make immediate, significant changes in its institutional learning culture in order to create strategic leaders ready to face the challenges of the 21st century. These new strategic leaders must be able to adapt quickly to a volatile environment and apply critical thinking skills to the decision-making process. Adaptive performance and critical thinking are critical traits for leaders; these capabilities enable them to work through the complex issues they will face in the future. To create a culture that encourages critical and adaptive thinking, the Army must use a different approach and avoid making changes that are only temporary or lack leadership support. The obstacles and barriers to these types of changes are formidable.

The military culture is a meritocracy that rewards process behavior. One such example is the Military Decision Making Process (MDMP). This rationally based tool facilitates decision-making - but certainly should not be confused with an instrument that capitalizes on unconstrained adaptive characteristics or critical-thinking behavior. Such a tool can facilitate a formulaic analytical process, but it can also lead to bad decisions based on intuitive biases that limit the scope of possible options available in the paradigm.² Genuine cultural change entails more than changing processes; such

change requires adoption of new processes to facilitate change. In examining successful patterns of change, John Kotter posits, “First, useful change tends to be associated with a multi-step process that creates power and motivation sufficient to overwhelm all the sources of inertia. Second, this process is never employed effectively unless it is driven by high-quality leadership, not just excellent management.”³ To remain relevant, the Army must be willing to adapt to inevitable change. The Army is currently challenged to generate grounded future-oriented change.⁴ This SRP reviews past training and learning methodology, describes the military education system, and assess the value of applying embedding and reinforcing mechanisms for changing the Army’s learning culture.

21st Century Challenges

What are the 21st century challenges that will require adaptive and critical thinking skills from the U.S. Army Officer Corps? The 2007 U.S. Army Posture Statement clearly articulates the challenges and environment facing U.S. military forces. It states that the security environment is increasingly dangerous as uncertainty and complexity in world events have become the norm⁵. The National Defense Strategy (NDS) identifies four key categories of threats to the United States: irregular, traditional, catastrophic, and disruptive. Irregular threats emanate from the unconventional methods employed by non-state actors (terrorism, insurgencies) who seek to erode U.S. power. Traditional threats are posed by legacy forces using high technology weapons to directly challenge U.S. forces. Catastrophic threats emanate from rogue and terrorist entities capable of employing Weapons of Mass Destruction (WMD) to paralyze U.S. power. Disruptive

threats arise from competitive states' abilities to develop new technologies, thereby reducing our advantage with the intent to marginalize U.S. power.⁶

More recent adversaries of the United States have exhibited total disregard for international laws and norms. Their threats are compounded by the opportunities and problems created by globalization and complex interrelationships in the international system. Furthermore, the uncontrollable diffusion of technology which creates advanced weaponry will add challenges to securing land and space based critical communication systems.⁷ These disparate threats require non-traditional thinking as we develop national strategies to counter and contain them. "Our competitors are living, thinking and adaptive adversaries who mean to destroy us and the society we defend. Our choice is quite clear: Adapt or die."⁸ At a time when many think we are experiencing information overload, Army leaders must be able to take in all available information, quickly assess the situation, make timely decisions, and then observe outcomes in order to adjust as necessary. In order to understand how to create adaptive, critical thinking leaders, we must first clearly define these desirable characteristics.

Defining and Characterizing Adaptive Thinking

There are numerous definitions for adaptive thinking. Clearly, there is no common definition, so it is important to use a working definition in an effort to develop the desired capability. What does it mean to be adaptable? Vandergriff and Reed's definition serves well: Adaptability is simply the capacity to change to meet different conditions.⁹ This change is best observed in individuals or groups when they must respond to a new set of circumstances. Agility is closely related to adaptability, but it signifies a rapid adaptation to environmental change. Indeed current Army leadership doctrine

advocates agile leadership.¹⁰ It is also important to note that there are certain personality characteristics that lend themselves to adaptive performance. A study conducted by the US Army Research Institute for the behavioral and social sciences identified five personality traits:

- General Self-Efficacy - Confidence in one's ability to succeed.
- Resiliency - The ability to recover quickly from change, hardship, or misfortune.
- Openness – One's curiosity, broad-mindedness, and receptiveness to new environments and events.
- Achievement Motivation – One's desire to achieve results and master tasks beyond other's expectations.
- Tolerance of Ambiguity – Coping easily with environmental uncertainty.

All of these traits – supplemented by other knowledge, skills and abilities (KSAs) – enhance adaptive performance.¹¹ Future Army leaders must synergize adaptability with critical thinking in their decision-making and in their leadership styles. The following KSAs contribute to adaptability:

- General Cognitive Ability – Intelligence.
- Metacognitive Skill – Skill in monitoring and correcting one's own thoughts or "Thinking about thinking".
- Problem solving/ Decision-Making Skills – Developing appropriate solutions to difficult problems and choosing appropriate courses of action.
- Interpersonal Skills – Communication Skills, negotiation skills, conflict resolution skills, persuasion skills, and collaboration skills.

- Awareness – Understanding how the self and others relate to each other and fit into the larger settings.

These capabilities have been found to be predictive of adaptive performance.¹² Beyond the KSAs mentioned above, adaptive leaders continuously acquire domain-specific knowledge. Consider this example: To fix a machine, an individual must understand or have basic knowledge of the machine. In a medical emergency, an individual needs specialized knowledge of the indicated medical treatment in order to successfully perform the task. As these examples indicate, in order to “take charge” of a situation, leaders need the domain-specific knowledge that is most relevant to handling the situation.¹³

Experience is another key element of adaptive performance, but only when the experiences are related to adapting to a given situation. However, experiencing a variety of situations that require adaptation to the environment does appear to aid in developing adaptive thinking.¹⁴ Flexible minds think adaptively. It is important to have the ability to quickly think through the 2nd and 3rd orders of effects and apply multiple perspectives in considering new approaches to solving problems.¹⁵ Just as flexibility is important, the cognitive process of critical thought is also a crucial skill that our strategic leaders must develop.

Defining and Characterizing Critical Thinking

The origins of critical thinking can be traced back to the early Greek philosophers. The word “critical” is believed to derive from two Greek words: Kriticos, meaning discerning judgment and Kriterion, meaning standard. Socrates has been closely associated with critical thinking; it was Socrates who strived to find truth through serious

questioning. “A more concise definition of critical thinking is: The ability to logically assess the quality of one’s thinking and thinking of others to consistently arrive at greater understanding and achieve wise judgment.”¹⁶ Dr. Richard Paul has recently developed a model for developing critical thinking capabilities.

The model is a comprehensive illustration that facilitates mastering critical thinking as a strategic leadership skill. The Paul Model has two distinct parts: Elements of reasoning and intellectual standards. According to Paul, there are eight elements of reasoning: purpose, question, information, concept, inference, point of view, assumptions, and implications. In the Paul Model, the elements are non-linear and complementary in nature.¹⁷ While the elements of reasoning form a framework for critical thinking, intellectual standards help measure the quality of one’s thought process. Paul has identified nine standards used by critical thinkers: clarity, accuracy, precision, relevance, breadth, depth, logic, significance, and fairness. These standards are applied to each critical thinking element to improve the quality of thought. The process of weighing standards against elements serves not only to improve thought but also acts as a deterrent to egocentric tendencies which can lead to biases.¹⁸ Stephen Gerras asserts that typical military leaders are very confident in their abilities and the correctness of their views. This confidence trait increases with rank and has been positively reinforced throughout an officer’s career. However, the very traits that have been institutionally reinforced encourage absolutist tendencies. This egocentric behavior then tends to inhibit acceptance of other points of view and could limit receptivity to important information to be considered in the actual thinking process.¹⁹

Checking the elements of reasoning against intellectual standards enables us to identify flaws in thinking. This is by no means an easy task. The act of reasoning is directed toward achieving a certain objective or satisfying a desire. This purpose, end, or goal in view must be clearly articulated; otherwise, the reasoning used to achieve the objective will fail. Whenever we reason, we do it within some point of view based on a given frame of reference. Any defect within these frameworks can lead to faulty reasoning. All reasoning starts with some facts and assumptions that also have to be assessed for possible faults.²⁰ Common problems in reasoning include unclear, trivial, unrealistic, contradictory and unfair faults in the purpose for reasoning; these problems must be filtered out of the process. Conducting critical reflection simply requires us to ask the right questions in order to ensure we sustain clarity in purpose and apply fair-mindedness throughout the process. Skilled reasoners rely on this process; unskilled reasons are probably unreflective, thus unaware of the process.²¹ Learning the processes mentioned above requires a change in mindset, openness to a more complex thought structure and an environment that not only allows but also rewards this kind of behavior. How does this differ from the traditional learning model for the military? Let's review how Army teaching and learning has evolved to this point.

History of Training & Educating Army Leaders

Consider the recent strategy for training and educating Army Leaders: Before we can determine how we are going to change an organization, it is important to know where we have been and why change is necessary. Vandergriff asserts that we can review the development of our military education system to understand how we got to where we are. The old way of educating and teaching cadets how to become officers

was based on the Army Program of Instruction (POI). A lot of our institutions still rely on this system. This methodology, derived from the Industrial-age (2nd Generation Warfare), is based on internalization of a process that helps leaders organize thoughts methodically in preparation to execute missions. The process is currently known as the Military Decision-Making Process (MDMP). In effect, the Army has based its education system on total reliance of a basic checklist that guide our leaders' decision-making on the art of conducting war.²²

The MDMP process was created by Major Eben Swift in 1897, based on theories of Frederick Taylor. Swift developed his approach by studying the French interpretation of Prussian Officer Verdy Du Vernois' adaptation of the Taylor theory. The French added order to the process and put more emphasis on the means, rather than on the ends, for developing structured Tactical Decision Games (TDG). This rigid methodology taught students how to answer the questions in the game. Swift further developed this concept and created a framework now known as the 5-Paragraph Operations Order. Major Swift then institutionalized the methodology at the Army's Staff College at Ft. Leavenworth.²³

Vandergriff contends that the future is now. In order to develop the kind of leaders required for the 21st century and move the Army forward through transformation, we must acknowledge that the current decision-making methodology is outdated. The way ahead should not focus on evolving the same structured methodology; rather, we must initiate drastic changes to our military education system to allow for less structure and more free thinking to identify core problems and develop appropriate solutions. We need greater emphasis on the ends rather than on the means.²⁴ The current Army

Posture Statement acknowledges this shortfall and further acknowledges the need to expedite adapting through leadership development, among other areas. The investment in better officer education must begin now to break the pattern that has led to a reduction in our prepared forces that must face increasing vulnerabilities brought on by 21st century threats.²⁵

Current Strategy of Training & Educating Army Leaders

What is the current strategy to cultivate adaptive and critical thinkers within the Army? Over the last several years the Army has begun to integrate adaptive and critical thinking methodologies into traditional battle staff training. Dr. Karol Ross believes the intent is to allow students to challenge a plan by concentrating and reflecting on the thinking process while they execute the plan. “The objective of the adaptive thinking training methodology is different than the traditional battle staff training.”²⁶

The role of coaching has become a crucial part of learning, supplementing the traditional After Action Review (AAR) process. The intent is to create training events that include multiple perspectives on a single situation in order to enable leaders to meld together what they are experiencing in developing a better resolution to a problem. Ross defines this process as an expert’s mindset. She defines advanced learning as the ability to create mental space by developing a comfort zone for the problem or concept (a point of equilibrium). As new information and perspectives are introduced, a state of dis-equilibrium emerges. The struggle to regain balance characterizes the advanced learning needed to develop adaptive leaders.²⁷

An objective teaching strategy proposed by Dr. Ross requires the leaders or instructors to observe the task learners are to perform; then the instructors intervene in

the process only when the student has become stymied. Their interventions include asking questions, providing demonstrational instruction, or discussing only enough to free students to resume their task with new possibilities. This type of learning begins with introducing students to a situation or a challenge (stimulus). Students then define the problem and form a hypothesis to address the problem. Constant observation by the leaders or instructors prepares them to offer effective coaching when the students most need it. During this process, the students formulate assumptions, devise an approach for solving the problem, and implement their plan. Continual assessment of the process is both the instructors' and students' responsibility; it takes place throughout the process.²⁸

So although the Army is making progress in some areas (such as embedding role modeling and coaching), there is ample evidence that we are lagging in other areas. Vandergriff and Reed point to “tactical-art instruction in which simulated and training exercises were structured to teach doctrine by producing only one right answer. During the capstone division level simulation exercise Prairie Warrior, the opposing forces were restricted in order to produce the prescribed training objectives for the students. Adaptability can be sacrificed when realism is subordinated to prescriptive training.”²⁹ Adopting changes to allow more “free play” in exercises are taking place, but there is room for improvement. Our Officer Education System must continue to adapt beyond this one-right-answer methodology. The current system is out of synch with the new operating environment, which is characterized by regional threats, full-spectrum operations, and information-age technology. Adaptation requires a new approach that links schools horizontally and vertically throughout the military education process.³⁰ The

Army has made progress in this area by setting a common standard across its career courses. However, there is much work to be done in utilizing all the primary mechanisms and reinforcing ideas required to truly change the Army learning culture.

Factoring Generational Differences

Why is it important to understand generational differences? Analyzing generational differences enables us to understand that changing Army culture is more than just changing systems and processes. Human interaction has a direct effect on the type of environment required to cultivate adaptive and critical thinking officers. No doubt there has been growing discontent and frustration with current leadership. Recently, Gen. Richard Cody, the Army's second highest ranking general, visited the Captains Career Course at Fort Knox, Kentucky. During the question-and-answer period, several captains questioned Army policies and methodologies. This scene highlighted a brewing conflict between Junior Army Officers and the ranks of the Senior Officer Corps. The Captains' questions concerned the obligations of officers, the nature of future warfare, and the future of the Army itself.³¹ I believe junior officers perceive that the senior leadership is not listening to them, causing them to infer that the leadership is unwilling to accept a change towards critical and adaptive thinking. Lt.Col. Paul Yingling recently wrote of his concerns about senior Army leadership in, "A Failure in Generalship". The article describes the type of general officer required for the future. Indeed Yingling recommends that Congress should create a system that rewards adaptation and creative intelligence. Yingling further recommends that Congress change the officer promotion system by requiring the armed services to implement 360 degree evaluations of senior officers. He claims that this practice would produce officers more willing to

adapt to changing circumstances and less likely to conform to outmoded practices.³²

Yingling's comments reveal to show a loss of faith in Army senior leaderships' ability to adapt to current threats. The Army's leaders must respond to this discontent. By his assertion that Congress needs to make the necessary changes, Lt Col. Yingling misses the opportunity to indicate precisely where the problem lies. Instead, he joins the usual disgruntled ranks that rail against the system. I believe his recommendation follows from a false logic; the second and third orders of effect of Congressional attempts would have little impact on Army culture. Army culture belongs to the Army; only Army leaders can effectively change Army culture. Without Army leader's acceptance of change, any proposed change is doom to fail.

Nonetheless, Yingling focuses on a problem that has been documented and addressed in the past. Wong asserts that senior officers do not understand junior officers or their perspectives. It is critical for our senior leadership to have self-awareness and to understand that officers from the Baby Boom Generation think and perceive things differently than officers from Generation X.³³

The documents and articles referenced above have identified a pattern going back at least seven years of reporting disconnects between how senior leaders and junior officers think and interact. Change is necessary. It can start by ensuring that the newly emerging culture is acceptable to the future leadership. What leaders say they believe must correlate with what they practice. When our practice is not consistent with what we are telling our soldiers, what message are we sending?³⁴ Again, Dr. Wong's research on generational differences becomes relevant. Our senior leaders must be aware of factors such as high divorce rates and dual-income parents that reveal that generation

X is more self-reliant and less trusting of people in authoritative positions. Xers are believed to have developed a skeptical nature about authority because their elders and traditional organizations have consistently betrayed or disappointed them. These same Xers joined the military only to have their skeptical attitudes reinforced by events such as the Army downsizing, Somalia, “Don’t Ask, Don’t Tell” policy, and the Aberdeen scandal.³⁵ We need to build trust into the system by developing common standards and practices that actually match the cultural values. I suspect most senior officers are starting to understand that just because they were once a captain does not necessarily mean they understand how a captain thinks today. However, based on my experience of the Army’s institutional culture, I venture to say that most have identified the issue but have little insight on how to resolve it. Therefore, they revert to directive guidance on what a captain should think, instead of considering how a critical and adaptive leader ought to be developed to think. At this point, we will further consider the Army culture and identify some of the problems or obstacles which need to be considered as we change the culture.

Understanding Military Culture

Edgar H. Schein derives the definition of organizational culture as: “a pattern of basic assumptions – invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration – that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.”³⁶ Learned concepts within an organization can become core beliefs that are deeply ingrained as part of that organization’s identity. The U.S. Army is an organization with its own unique

culture. The common set of values and goals are incorporated into Army missions, and the Army has adopted sets of practices that are part of daily military life. When our practices contradict our beliefs, we create conflict and cast doubt in our cultural viability.³⁷ These beliefs call our attention to differences in what ideally should occur and the reality of what is practiced. Army leaders' ability to understand the uncertainties of the future and keep an open mind towards a culture of innovation will enable the institution to succeed in the future. Studying the impediments to this successful future and recognizing past organizational behaviors will help facilitate necessary cultural change.

Cultural Impediments

What are some of these Army cultural impediments? David Fastabend and Robert Simpson identify several areas to consider. Our sense of responsibility— and how we act on it— could be a potential impediment. Every Army leader has the responsibility to ask, “What if we fight tonight?” Leaders must be aware that this obligation to remain constantly prepared could significantly narrow the scope of new innovation. In Army culture, reversions to process provide a standard way to address complex situations. While processes are important, excessive focus on the process rather than the product may significantly impede innovation.³⁸ The Army Campaign mind-set may impede the reality that we now fight in a joint context.

The innovators' dilemma is another possible impediment. While most Army leaders acknowledge the need to transform, many focus strictly on the short-term fight instead of our future operations. Experimentation requires leaders to focus on the product rather than the process —business as usual. A process is designed to prevent

mistakes. But in the current high-demand operational environment, Army leaders want most to avoid mistakes, so they rely heavily on process.³⁹ Stove-piped, vertical structures created during the Industrial Age still dominate Army organizations as line-and-staff systems. In the Information Age, the Army must move towards a more horizontal network-centric organization. A current standard response is to put together a “tiger team” to address a new problem. Such ad-hoc responses are regarded as exceptional responses to unusual situations. Thus the leaders who appoint them simply deny the need for real change. Further, efficiency requires programs and processes that are no longer useful. This can be difficult in organizations whose identity resides primarily in their processes. This type of rationalized behavior can impede change.

Fastabend and Simpson further assert that, “Group-think is the antithesis of critical thinking.” The inability to leave rank at the door and thus stimulate critical thought is counter-productive to change.⁴⁰ Snider highlights that changes in the Army’s modernization come from its culture and its relationship with the external environment.⁴¹ Strategic leaders play a vital role in influencing the culture to change the learning institutions within the organization. The learning institutions are very important because in the military culture they impart and greatly influence interpretations of the environment in which the Army is operating.⁴² Snider believes that human factors are currently largely ignored by those conducting policy debates; instead they are focusing on technology. The human role continues to be under-appreciated by those designing transformation plans. Instead, current leaders come to view the human cognitive factor as an impediment to change.⁴³ This is quite a quandary: Leaders seeking to transform the Army are attempting to eliminate the human factor in order to facilitate change.

However, humans create culture and only right-minded humans can change the culture in beneficial ways.

Complexities of Changing Cultures within Cultures

So, will the Army's institutional culture be able to adapt? What are some of the other elements of culture that need to be considered to facilitate adaptability? Can military culture change without taking into account societal views and the overarching culture of the nation? Snider identifies discipline, professional ethos, military etiquette and esprit the corps as the four elements of military culture. What is their role in developing adaptable leaders? Snider describes a growing debate on military culture: Progressive advocates present military culture as something unacceptably different from the culture of American contemporary society. Then others counter that we have an evolving military culture characterized by equality and inclusiveness⁴⁴. No matter what school of thought you may believe is right, both parties believe that society thinks military culture is or should be a reflection of the society. So, military values and actions not in line with societal culture can cause consternation. A recent example of a failure of military culture to reflect social values is the situation highlighted at Walter Reed. This Army institution adopted a culturally accepted military standard consistent with toleration of poor conditions that was inconsistent and arguably below the standards of society. So, the issue of housing outpatients appropriately was not truly addressed until it became known to the public. If this issue had not been publicized, I believe the mold in the building would have remained, categorized by the military as "deferred maintenance." The example reveals that military culture was not strictly aligned with a societal cultural norm, so society forced the military to accept what is considered

culturally acceptable. This example shows cultural links to be considered when contemplating change and the complexities of changing cultures within cultures.

Indeed Snider posits that within military culture there are actually identifiable sets of subcultures. The military services really exhibit divergent cultures. As Stephen Peter Rosen has observed, there are identifiable sub-subcultures within each uniformed service.⁴⁵ To further complicate the matter, some sociologists assert that the officer corps within each service has its own culture, but through their formal commissioning and an unwritten contract they serve as a link to American society and fulfill a representative function of the civil society. Nonetheless, it is the responsibility of our uniformed leaders to articulate the need for cultural change. Our military goes through cycles of re-intellectualization regarding the need for changing military culture, so it is reasonable to expect that a new period after the Cold War has just begun. Snider further claims the responsibility to conduct experimental research on best ways to change is the responsibility of the officer corps itself.⁴⁶

Way Ahead

Accordingly, senior Army leaders must adopt a different mindset and change the Army's training programs and learning institutions to cultivate leaders who can think critically and adapt to the security challenges of the 21st century. Leaders who understand we are behind in our ability to deal with the threats facing the force in the Information Age are thereby obligated to lead the change to nurture better prepared leaders. The ability to correctly process information is critical to maintaining a superior edge. This is the reality of the Army as an open system organization in the current environment. Change in our institutional learning culture is necessary to adapt to the

21st century threats and to avoid entropy and irrelevance. The issue is not whether change is required, but how to best go about necessary cultural change.

How then can the institution change to create a culture that produces adaptive and critical thinking leaders? Change is in tension with human attempts to maintain a balanced system, but it is necessary to operate effectively in new environments. Edgar H. Schein believes that the ability to grow and survive while maintaining the integrity of human systems during changes in the environment is of great importance for sustaining equilibrium. Cognitive structures that make up a culture must organize and make sense of environmental stimuli in order to provide predictability and meaning to our lives. Over time, sets of shared assumptions in organizations help provide meaning and a natural evolution preserves the integrity of organization's identity.⁴⁷

As we change military culture, we must not fall into the trap of focusing on operational level changes (symptoms). Instead, we must first identify the organizational components that need strategic reformation. Then we are ready to make changes to the culture. The military culture resists change from the bottom up; indeed such changes are likely only to placate or please senior leaders. So the bottom-up approach is tedious and seldom works. Rather, critically needed changes must come from the top down. Senior leaders' attuned to generational challenges, aware of cultural impediments, and with a clear vision of the needed change must step up and implement change. John Kotter advises that senior leaders need to build teams or coalitions to embed change into the organizational culture. In large organizations, senior leaders must form a strong coalition of motivated leaders at all levels to overcome traditional resistance and inertia

characteristics of an entrenched bureaucracy that will passively resist change.⁴⁸

Certainly, the U.S. Army is such a large organization.

Embedding Assumptions & Reinforcing Change

How can Army leaders embed working assumptions and reinforce them in order to adapt and create positive change? Schein advises that the art of socializing ideas, embedding assumptions, and utilizing reinforcement mechanisms will help bring about the change desired in our institutional culture.⁴⁹ While Schein believes these instruments should be used in new cultures and admits that they take different forms in mature cultures, the methodology for instilling change is the same. Schein then designates six primary embedding mechanisms that leaders can use to insert change-inducing assumptions into the culture:

- What leaders Pay Attention to: Measure and Control
- How leaders react to critical incidents and organizational crises
- Observed criteria by which leaders allocate resources
- Deliberate modeling, teaching and coaching
- Observed criteria for rewards and status
- Observed criteria by which leaders recruit, promote, retire and fire organizational members.

Schein then uses these mechanisms to show different ways for leaders to communicate their assumptions and thereby embed assumptions into daily organizational routines.⁵⁰

Schein's six secondary articulation and reinforcement mechanisms are:

- Organizational design and structure
- Organizational systems and procedures

- Organizational rites and rituals
- Design of physical space, facades, and buildings
- Stories, legends, and myths about people and events
- Organizational philosophy, values, and creed

When these secondary mechanisms complement the primary embedded mechanisms, they create a dynamic environment which facilitates and reinforces culture change. This methodology can effectively enhance teaching new ways to perceive, think, and feel. All of these mechanisms must be used consistently and proportionately to facilitate successful organizational change.⁵¹

Consider an example based on the Schein Model: Senior leaders begin by providing stimuli to embed the assumptions supporting change into the culture. By doing so, the leaders create an environment that fosters critical and adaptive leaders. Then the leaders' measurements of success are directed towards critical and adaptive thinking. Further, leaders counsel subordinates to reinforce these attributes and consistently reward actions exhibiting critical and adaptive thought. Throughout the organization, leaders recruit, reward, and promote the expression of these attributes while denying such incentives to those who do not exhibit the desired attributes. The design and structure of the organization, as well as systems and procedures in place, facilitate critical and adaptive thinking. Signs and motivational posters promoting the desired attributes are placed everywhere, and organizational rituals exemplify the use of critical and adaptive thinking processes. The organization's mission, vision, and creed incorporate adaptive and creative thinking as critical contributions to organizational success. In such an environment, leaders are positioned to alter the culture and sustain

an atmosphere where changes become easier to accept. Ensuing changes would affirm the beliefs of the organization and be reinforced accordingly.

Recommendation on Implementing Change

Based on the six primary embedding mechanisms of the Schein Model, the following four recommendations will facilitate the acceptance of adaptive and critical thinking integration into the Army culture. First, review the institutional learning POI to ensure adaptive and critical thinking objectives are integrated into the program and then monitored and measured, the learning environment must provide the time and conditions for critical and adaptive cognitive advanced learning to take place. In order to create this common framework across Army learning institutions, senior leaders must strongly emphasize advanced cognitive learning and make it known that this capability will be closely measured, monitored, and reported. This can be achieved by developing standards of assessment and evaluation. Second, the military education system should incorporate interactive links with the operational world and address current issues to ensure continuous adaptation to the changing environment. This interactive, real-time program would create a relevant learning model, relegating pre-determined schoolhouse solutions to the dustbin of the past. The problems would be open-ended with no easy solutions, and the student teams would apply critical thinking to resolve issues free from unit biases or even academic institutional biases. Exercises would challenge thought process and promote free thinking.

Third, allocate sufficient resources to this educational endeavor. The best indicator to an organization of what is important is the allocation of resources. Funding would be allocated to the learning institutions and “fenced” for use only to enhance advanced

cognitive learning that promotes critical and adaptive thinking. Resources would include critical staffing needed to properly embed role models, teachers, and mentors into a learning environment designed to enable students to work through the critical cognitive learning process. Fourth, identify the best critical, adaptive thinkers and reward them by promoting them ahead of their peers. This could be accomplished by changing the current Officer Evaluation Report (OER) to include special blocks identifying these characteristics. Such recognition of these acknowledged skills in the report blocked by the senior rater would serve as a discriminator for advanced schooling and special assignments.

These recommended changes require the Army's senior leaders to formally highlight the program and commit fully to it. Currently, the military institutional learning staffs do not have the funding or the faculty needed to develop and execute such a program. The Army's organizational systems, processes, and structures must be changed to nurture adaptive senior leaders. Such changes must run deeper than mere structural accommodations. Leaders' behavior will demonstrate and communicate the new direction in the way the Army will develop its future leaders.

Summary & Conclusion

In professional educational institutions, students begin by learning the skills and attributes needed to serve as senior leaders of the organization. Accordingly, the Army War College has obviously gotten the message on integrating critical and adaptive thinking; it is now transmitting these new assumptions by beginning the curriculum with Strategic Thinking Courses. The challenge now is to expedite this process of change. Fastabend and Simpson contend that changing the culture now is not so much about

introducing innovation as it is about understanding how and when to make changes in order to shorten the cycles of change. We can expedite change by adding simplicity to our systems. For example, we can apply the concept of tactical legacy innovation to the institutional learning dimensions of our Army.⁵² Fastabend and Simpson claim “Critical thinking is a learned behavior that is underpinned by education. The Army education system, moreover, can be our most effective lever of cultural change. Many of our most important cultural shifts can trace their origins to the schoolhouse. A thorough review of the institutional education system is required to assess its effectiveness at engendering critical thinking.”⁵³ Needed changes begin with the mindset of our senior leaders; they can effectively promote the assumptions that will serve as catalysts for cultural change. Then as new standards are created, they must be reinforced – or they will wither on the vine. Army history is filled with failed attempts to change the system without properly setting the stage for successful change. Argyris believes this history of failure can be attributed to adopting programs seeking short-term gains, revealing a quick-fix mentality: “The focus of these [failed] programs was on changing what the root causes produced rather than the root causes themselves.”⁵⁴

Culture is created by leaders. And new culture is embedded and strengthened by leaders. When a culture is not functioning properly, leaders are obliged to help the group unlearn the past cultural assumptions and learn new productive assumptions.⁵⁵ Motivated and skilled leaders are able to influence the process and change elements of the culture. Such leaders are willing to tell their organizations that not all is well, so they are willing to unfreeze the organization, a process which causes disconfirmation and is intuitively painful.⁵⁶

In conclusion, the Army has begun a process of strategic reformation; the framework of embedding assumptions and reinforcing those assumptions offers a way to change the Army's learning culture. We cannot yet determine our current leaders' commitment to changing the culture. But we know that meaningful and needed change depends on their commitment and willingness to trigger reinforcement mechanisms to support the change. Personally, I believe the will to change is present in our leadership. We must do a better job of educating leaders so that they can differentiate between implementing change by using primary embedding mechanisms instead of mistakenly applying reinforcement mechanisms. Developing critical and adaptive thinkers is a crucial professional educational challenge for creating strategic leaders who can successfully support our 21st - century national strategy. The challenges of the 21st century are upon us. The time is now for our senior leaders to build trust by educating a new generation of adaptive and critical-thinking strategic leaders.

Endnotes

¹ Ann Scott Tyson, "Petraeus Helping Pick New Generals: Army Says Innovation Will Be Rewarded," *Washington Post*, 17 November 2007), p. 1.

² COL Stephen J. Gerras, Ph.D., "Thinking Critically about Critical Thinking: A Fundamental Guide for Strategic Leaders," (Carlisle Barracks: U.S. Army War College, June 2006), 12.

³ John P. Kotter, *Leading Change* (Boston: Harvard Business School Press, 1996), 20.

⁴ U.S. Department of the Army, *Army Leadership: Competent, Confident and Agile*, Field Manual 6-22 (Washington, D.C.: U.S. Department of the Army, 12 October 2006), 12-6.

⁵ The Honorable Francis J. Harvey and GEN Peter J. Schoomaker, *A Campaign Quality Army with Joint and Expeditionary Capabilities: A Statement on the Posture of the United States Army*, United States Senate and House of Representatives, 1st Session, 110th Congress, 14 February, 2007, 1.

⁶ Ibid.

⁷ Ibid., 1-2.

⁸ David A. Fastabend and Robert H. Simpson, "Adapt or Die," *Army* 54 (February 2004):15.

⁹ Donald E. Vandergriff and George Reed, "Old Dogs and New Tricks: Setting the Tone for Adaptability," *Army* 57 (August 2007): 2; available from ProQuest; accessed 27 August 2007.

¹⁰ Ibid.

¹¹ Susan S. White et al., *Developing Adaptive Proficiency in Special Forces Officers*, (Arlington: U.S. Army Research Institute for the Behavioral and Social Sciences, February 2005), 3-4.

¹² Ibid., 4.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Field Manual 6-22, 6-1.

¹⁶ COL W. Michael Guillot, "Critical Thinking for the Military Professional," *Air & Space Power Journal – Chronicles On line Journal* (17 June 2004): 2.

¹⁷ Ibid., 3.

¹⁸ Ibid., 6-7.

¹⁹ Gerras, 8.

²⁰ Richard Paul and Linda Elder, *Critical Thinking; Tools for Taking Charge of Your Learning and Your Life* (Upper Saddle River: Prentice Hall, 2001), 95-99.

²¹ Ibid., 105.

²² Donald E. Vandergriff, "Military Education – We Are Stuck in the Past," *Military.Com, Military Opinions*, 13 January 2005, 1-2.

²³ Ibid., 2.

²⁴ Ibid., 1-3.

²⁵ Harvey and Schoomaker, 6.

²⁶ DR. Karol G. Ross, "Training Adaptive Leaders Are We Ready?" *Field Artillery*, (September-October 2000): 16.

²⁷ Ibid.

²⁸ Ibid., 17.

²⁹ Vandergriff and Reed, 1.

³⁰ Ibid., 5-6.

³¹ Fred Kaplan, "Challenging the Generals," *The New York Times Magazine*, 26 August 2007, 36.

³² Lt Col Paul Yinglin, "A Failure in Generalship," *Armed Forces Journal* (May 2007): 23.

³³ DR. Leonard Wong, *Generations Apart: Xers and Boomers in the Officer Corps* (Carlisle Barracks: U.S. Army War College, October 2000), v.

³⁴ LTG William M. Steele and LTC Robert P. Walters Jr., "Training and Developing Leaders in a Transformational Army," *Military Review* (September-October 2001): 2.

³⁵ Wong, 7-10.

³⁶ Edgar H. Schein, *Organizational Culture and Leadership*, (San Francisco: Jossey-Bass, 1985), 9.

³⁷ Steele and Walters, 3.

³⁸ Fastabend and Simpson, 17.

³⁹ Ibid., 18.

⁴⁰ Ibid., 20-21.

⁴¹ Don M. Snider and Lloyd J. Matthews, *The Future of the Army Profession*, 2d ed. (Boston: McGraw Hill, 2005), 10.

⁴² Ibid.

⁴³ Ibid., 11.

⁴⁴ Don M. Snider, edited by John F. Lehman and Harvey Sicherman, "America The Vulnerable, Our Military Problems and How to Fix Them" (Philadelphia: Foreign Policy Research Institute, 2002), 116-124.

⁴⁵ Ibid., 125-126.

⁴⁶ Ibid., 129-133.

⁴⁷ Edgar H. Schein, *Organizational Culture and Leadership*, 2d ed. (San Francisco: Josey-Bass 1997), 298.

⁴⁸ Kotter, 6-7.

⁴⁹ Schein, 2d ed., 228-230.

⁵⁰ Ibid., 230-245.

⁵¹ Ibid., 245-253.

⁵² Fastabend and Simpson, 16.

⁵³ Ibid., 21.

⁵⁴ Chris Argyris, *Overcoming Organizational Defenses: Facilitating Organizational Learning* (Boston: Harvard University, Allyn and Bacon, 1990), 4.

⁵⁵ Schein, 386.

⁵⁶ Ibid., 387.

