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CREATIVITY AND
STRATEGIC VISION:
THE KEY TO THE ARMY'S FUTURE

BY

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Creativity is important for the Army because it is so essential to strategic leadership. The Army, like all institutions, is dependent on strategic leadership, but like most institutions distrusts creativity. A large degree of that distrust is caused by viewing creativity as artistic inspiration outside the realm of science and management, a view that is widely accepted in modern society. Scientific research into creativity, however, indicates that this romantic view of creativity is a myth. Although creativity can not be delivered on demand or even predicted with accuracy, it is subject to explanation and understanding by scientific methods. The knowledge gained by scientific research offers ways for the Army to come to terms with creativity and take steps to ensure it has creative strategic leadership in the future. Matching what is known about creativity with the characteristics of the Army's processes, procedures, and culture shows that the Army is doing very well in certain areas required to produce creative strategic leaders; however, there are also areas where the Army is either missing opportunities to stimulate the development of creative leaders or is actually inhibiting creativity. These uneven results are caused by the Army's tendency to leave the development of creativity to chance. A systematic approach is needed. The approach and recommendations suggested in this article are the first steps in applying scientific knowledge about creativity to ensure future strategic leadership.

USAWC MILITARY STUDIES PROGRAM PAPER

CREATIVITY AND STRATEGIC VISION: THE KEY TO THE ARMY'S FUTURE

AN INDIVIDUAL STUDY PROJECT

by

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ABSTRACT

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Creativity is important for the Army because it is so essential to strategic leadership. The Army, like all institutions, is dependent on strategic leadership, but like most institutions distrusts creativity. A large degree of that distrust is caused by viewing creativity as artistic inspiration outside the realm of science and management, a view that is widely accepted in modern society. Scientific research into creativity, however, indicates that this romantic view of creativity is a myth. Although creativity can not be delivered on demand or even predicted with accuracy, it is subject to explanation and understanding by scientific methods. The knowledge gained by scientific research offers ways for the Army to come to terms with creativity and take steps to ensure it has creative strategic leadership in the future. Matching what is known about creativity with the characteristics of the Army's processes, procedures, and culture shows that the Army is doing very well in certain areas required to produce creative strategic leaders; however, there are also areas where the Army is either missing opportunities to stimulate the development of creative leaders or is actually inhibiting creativity. These uneven results are caused by the Army's tendency to leave the development of creativity to chance. A systematic approach is needed. The approach and recommendations suggested in this article are the first steps in applying scientific knowledge about creativity to ensure future strategic leadership.

INTRODUCTION.

By definition we cannot teach original behavior, since it would not be original if taught, but we may teach the student to arrange environments which maximize the probability that original responses occur.

B. F. Skinner

Many writings on strategic leadership state that a strategic leader must first have a strategic vision. They describe the strategic vision's component parts and give case study examples of these visions. They argue that strategic vision is crucial to the successful endeavor of human organizations. They also provide prescriptions for strategic leadership that tend to begin with the assumption that a strategic leader has vision. The best of the papers on strategic leadership provide insights into the process of nurturing, developing, and implementing strategic vision. They offer informative and useful models of visioning processes. Charles Taylor's *Creating Strategic Visions* and COL George Forsythe's *Strategic Leader Development* are examples of this type of paper.

Although these papers provide insight into how strategic leadership works, they lead the reader to a basic question that they do not answer. That question is: How did this person originate a strategic vision in the first place? That question and answers to related questions about the relationship among strategic vision, creativity, and the U.S. Army is the basis of this paper.

Creativity is important for the Army and should be fostered because it is the engine of strategic vision, and strategic vision drives strategic leadership. The Army, like all

institutions, is dependent on strategic leadership, but I believe that it also distrusts creativity. A large degree of that distrust is caused by viewing creativity as artistic inspiration outside the realm of science and management, a view that is widely accepted in modern society.

Scientific research into creativity, however, indicates that this romantic view of creativity is a myth. Although creativity cannot be delivered on demand or even predicted with the accuracy, it is subject to explanation and understanding by scientific methods. The knowledge gained by scientific research offers ways for the Army to come to terms with creativity and take steps to ensure creative strategic leadership in the future.

STRATEGIC LEADERSHIP AND VISION.

The importance of creativity to strategic leadership is obvious in its significance to the Army. Current Army doctrine recognizes three levels of leadership -- direct, senior, and strategic. Strategic leadership is at the apex of the leadership pyramid. Strategic leadership according to this model is concerned with establishing the culture, values, and ultimate purpose of the Army while maintaining a global long-range (20-year plus) perspective. A strategic leader is defined as a leader who:

> Occupies the very highest positions of leadership in our largest and most complex organizations. The strategic-level leader's organizational influence is very indirect. He designs and restructures organizations and systems. The influence of the external environment on his decision making activities is substantial. He may seek to influence the external environment so as to make possible a better range of opportunities for his organization. Synthesis of selected information is essential to effectiveness. The strategic leader must have a decidedly future focus. He develops

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and articulates a desirable and understandable vision which gives purpose and meaning to all his people.[1]

A strategic leader of a large complex organization is guided by a clear and comprehensive vision of what must done to be successful in the future. He also successfully implements his vision.

It is clear that strategic leadership is unusually significant to the Army's mission. This importance is underscored by the fact that it is the subject of the first block of instruction at the U.S. Army War College. But even if strategic leadership is of significant interest, why is strategic vision of interest?

Strategic vision is the first and defining attribute of a strategic leader. FM 22-103 states "vision is a senior leader's source of effectiveness" and "vision provides the capability to organize because it establishes focus for action." Additionally this source of doctrine states, "key to all that must be accomplished is a vision."[2] Lieutenant Colonel John T. Nelson II of the Army's Strategic Studies Institute says that, for a strategic leader, creating a vision "is his most essential task, for from this vision the entire organization derives its sustaining sense of purpose, motivation, and direction."[3] This point is reinforced by the statement in DA Pamphlet 600-80 that "the importance of a future vision at this level is that it provides the concept umbrella for the specific and detailed programs at the organizational level, giving them purpose and meaning within broader conceptual objectives."[4] In referring to a strategic leader, the Army War College reference text on command, leadership and management quoted earlier states, "he develops and articulates a desirable and understandable vision which gives purpose and meaning to all his people."[5]

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Every other aspect of strategic leadership is dependent on the strategic vision because it defines where the leader is going. All the other aspects of strategic leadership -- communicating the vision, implementing and monitoring systems and programs, building consensus, acquiring resources, etc. -- support the vision and must, therefore, be subordinate to it. The strategic vision is the source of all the other strategic leader's actions. It is the essence of strategic leadership. It is its heart. It is the strategic leader's "most essential task" -- the "key to all that must be accomplished" -- giving meaning and purpose to organizations.

Strategic leadership is, therefore, essential to the Army and vision is the basis of all strategic leadership. But what does creativity have to do with strategic vision? Before that can be answered, it is necessary to define creativity and examine certain aspects of it.

CREATIVITY DEFINED.

Everyone knows creativity when they see it, and probably everyone has a different idea about what it is. Even experts in the field of creativity research have not agreed on a standard definition of the term. It is defined as "novel ideas that transcend generative rules"[6] but also as "the power of the human mind to create new content -- transferring relations and thereby generating new 'correlates' -- extends its sphere not only to representation in ideas, but also to fully sensuous presentations."[7] Another researcher's definition is the process of "forming associative elements into new combinations which either meet specified requirements or are in some way useful."[8] A more practical definition, given by Morris Stein is, "that process which results in a novel work that is accepted as

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tenable or useful or satisfying to a group at some point in time."[9] These differences come from the need for a scientifically rigorous definition that is complete and unambiguous. In the practical world this precision is not needed. In any case, the Army has defined the term for us. FM 22-103 defines creativity as "the ability to find workable, original, and novel solutions to problems."[10]

But does a strategic vision require creativity? I contend that the answer is yes. The strategic leader has no more information available to him than anyone else. Given the same evidence and clues to the future direction available to many others, the strategic leader comes up with an original and novel view of the future -- the definition of creativity. General George C. Marshall is an example.

In 1939, when Marshall became Acting Chief of Staff, the United States Army ranked seventeenth in the world in size, with around 200,000 regular soldiers and about the same number of reserves. Units were significantly under strength and untrained. Industrial capacity for war was minimal. The Third Reich was on the move in Europe, and Japan was attempting to establish hegemony in the Pacific. For most of America it was a time of great popular isolationist sentiment and strong anti-military feelings. For most people avoiding involvement in another foreign war was the major concern. Marshall, however, was convinced that the United States had to be ready to fight a war.

Marshall came out of World War I stunned by America's unpreparedness and with the intuitive understanding of his vision for the future of the U.S. Army. Marshall's strategic vision has been stated as:

> The cenic, piece of Marshall's strategic vision was the mental image of an American Army fully manned, trained, and equipped in sufficient size during peacetime to deter aggression against the United States and its more important interests; if deterrence failed, this Army was to conduct decisive, successful combat operations almost immediately to win the war while continuing to expand, as necessary, through an efficient program of mobilization.[11]

General Marshall's vision required him to push out the boundaries of American thought on the size and role of a peacetime Army and on how to mobilize for war. He saw that new times and threats would not allow the old ways to work. He had to think creatively beyond the historical American reliance on raising an Army of citizen-soldiers in times of crisis. His vision had two basic ideas: (1) a core of trained professional soldiers could provide leadership on which to build a larger force rapidly in time of war and (2) a basic expandable industrial base could supply and equip the Army.

His vision was tremendously successful. By December 1941, the Army strength was at 1.4 million men organized into thirty-six divisions and sixty-four air groups. Industry was revitalized, and the Army had the ability to mobilize rapidly and effectively.[12] In fact, this vision still guides the United States Army now, fifty-three years later. Marshall's vision was a creative act because it was a workable, original, and novel solution to a strategic problem.

General Marshall's performance as Chief of Staff shows how a vision is central to strategic leadership and that creativity is a prerequisite of vision. But what do we know about creativity?

THOUGHT ON CREATIVITY.

Historically, creativity has been viewed in two ways. These two views are the inspirational and the romantic approach to creativity.[13] More recently, however, the psychoanalytic, humanistic, trait-factorial, and associationistic approaches have been widely discussed.

The Inspirational Approach. This approach sees creativity as an essentially mysterious product of divine or superhuman intervention. In this view the human creator is merely an agent or channel for divine creativity. The human being does not truly create but is given the creative product whole by superhuman agents. This approach can be seen in the movie *Amadeus* between Mozart and his contemporary, Salieri:

> Mozart is shown as coarse, vulgar, lazy, and undisciplined in almost every aspect of his life, but apparently informed by a divine spark when composing. Salieri was the socially well behaved and conscientious expert, well equipped with 'reason' and 'art' (i.e. skill), who -- for all his success as the leading court-composer (until Mozart came along) -- achieved merely human competence in music.[14]

The Romantic Approach. This approach does not require divine intervention but merely says that creativity is an exceptional, almost mystical, human characteristic. It is one of the mysteries of nature that an individual either has or does not have the trait. It cannot be acquired. This view can still be seen today in the common sentiment that an artist has a gift that is beyond ordinary people.

Both these approaches to creativity view it as something that is beyond human understanding. It is either divine, mystical, or superhuman. In any case, it is unknowable

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to humans. These approaches remained essentially the only thoughts on creativity until this century when systematic examination of creativity began with the psychoanalysts.[15]

The Psychoanalytic Approach. The proponents of this approach explain creativity as the result of attempts to resolve the conflict between individual drives and the requirements of human society. This is also the psychoanalytic explanation of psychopathology. The coincidence of these definitions coupled with the fact that the psychoanalytic school tends to view creativity only in terms of artists, results in the popular view that creativity is an illness. The various psychoanalytic theories differ on a number of points, such as whether a creative individual's conflicts conscious or unconscious. However, they all believe that creativity is based in unresolved conflicts within an individual's life.[16]

The Humanistic Approach. This approach, whose leading proponents were Abraham Maslow and Carl Rogers, has its basis in the positive aspects of psychoanalytic approaches. The humanist saw self-actualization as the driving force for creativity. Self-actualization is the process of individuals realizing their potential and becoming everything they are capable of becoming. This approach takes a positive and optimistic view of man and believes that everyone possesses creative potential. Humanists differ from the psychoanalysts in believing that creativity is a normal healthy human process. However, they share the psychoanalyst's view of man in conflict with society.[17] Generally humanists support the notion that man, when not constrained by society, will express natural creativity. The humanistic approach has been very popular and is the force behind many creativity programs that stress freedom and non-judgmental environments. These programs are found especially in education but can also be found in business and government.

Both the psychoanalytical and the humanists approaches are general in nature. The evidence to support their central constructs, such as self-actualization, tends to be sketchy and inconclusive. For this reason, other systematic approaches have become more widely accepted among researchers into creativity.

The Trait-Factorial Approach. Trait theory is based upon the premise that human mental ability is the product of many discrete characteristics of individuals called traits. The statistical technique of factor analysis is often used to identify traits. Irving Taylor says:

> ... factorial approaches are used to isolate separate intellective factors. These factors are derived largely from batteries of tests constructed on theoretical considerations and are usually administered to a large number of subjects. The statistical procedures of factor analysis reveal intercorrelations among tests organizing into factors those tests which are highly related to one another. The factor underlying a group of correlated tests is then given a name. Investigators may try to design a test that measures only one factor.[18]

This approach rejects the view that intelligence is a single monolithic ability. It views mental ability as composed of several distinguishable abilities, some of which are significant to creativity. The most influential proponent of this approach is J.P. Guilford who has developed a three-dimensional model of intelligence called the Structure of Intellect (SI) model (figure 1). Types of information contents, intellectual operations, and products of information are each displayed along one of the axis of each of the model's three dimensions. The intersection of information inputs, intellectual operations, and products of information defines an intellectual ability.

This approach has identified two types of mental abilities that are strongly associated
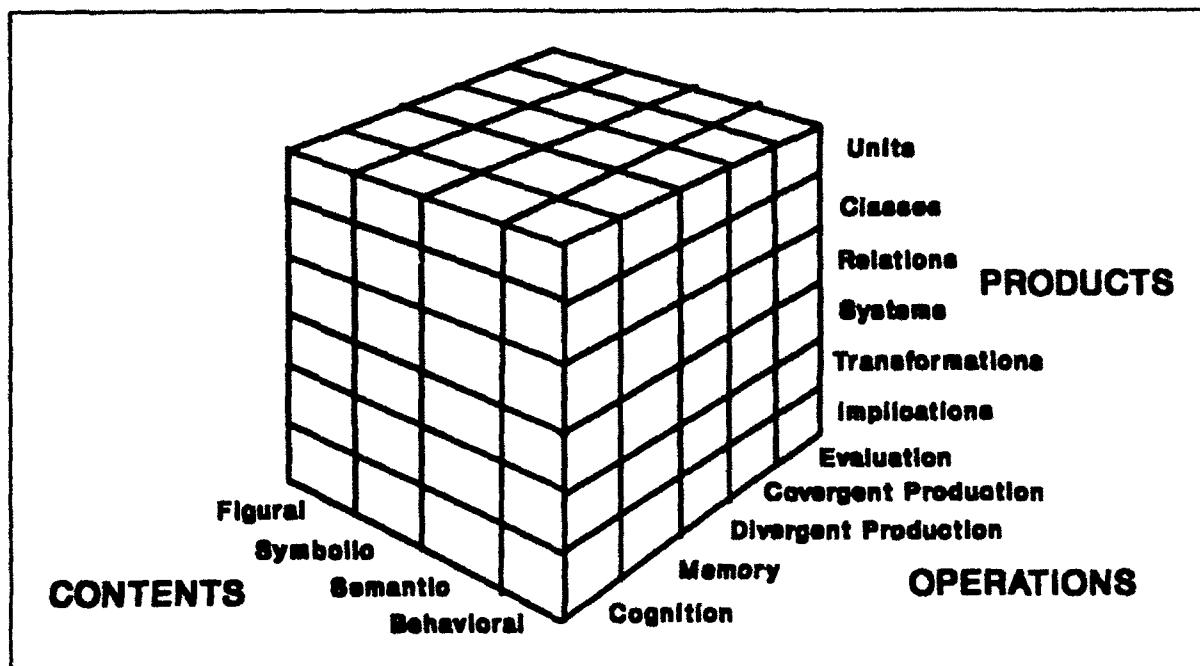
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Figure 1 - Structure of Intellect Model

with creativity. These are divergent production and transformation. Divergent production refers to the ability to generate a variety of ideas or alternatives. Transformation refers to revising what one experiences or knows into new forms or patterns.[19] These creative abilities, however, rely and draw on other abilities. For example, divergent production without memory becomes an exercise in randomness.

The Associationistic Approach. The ability to use a variety of associations in unusual recombination is the basis of creativity according to this approach. Any way that more associative elements are brought into contiguity will increase the probability of creative thought. Creative individuals are those who have a wealth of experience and knowledge, an exceptionally rich set of associations among the experiences and knowledge, and are unusually skilled in forming new and novel associations. One researcher identified with the associationistic approach, Arthur Koestler, has had particular influence on thinking

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about creativity with his concept of "bisociation." This term refers to bringing together two frames of references that are not normally associated and producing new frame of reference as a result of the synthesis. He said:

> The moment of truth, the sudden emergence of a new insight, is an act of intuition. Such intuitions give the appearance of miraculous flashes, or short circuits of reasoning. In fact they may be likened to an immersed chain, of which only the beginning and end are visible above the surface of consciousness. The diver vanishes at one end of the chain and comes up at the other end, guided by invisible links.[20]

To associationists the creative act may appear to be a moment of intuitive insight, but it is based upon the hard work of gaining experience and mastering an area of human endeavor. This approach can be seen in many current creativity inducing techniques, such as brainstorming, designed to increase the number of available solutions to a problem.

THE NATURE OF CREATIVITY.

Research into creativity has produced considerable understanding about its fundamental make-up. First, it has shown that creativity can be studied and insights gained about it. This means that creativity is amenable to human understanding and can be systematically studied and understood. This implies that it is subject to control and management. Additionally, there is underlying agreement in current thought on creativity with the humanist view that creativity is a basic part of human nature. That all people display creativity to one degree or another.

Think of a friend or relative: very likely, you can recall creativeness there, too. Perhaps no jokes up to Groucho's standards, but surely some spontaneous wit or sarcasm? Maybe they can hum their own descants to hymn-tunes, or improvise jazz on the living room piano? And what about their ingenuity in running up a fancy-dress costume or fixing a faulty car?[21]

There is also considerable agreement among researchers concerning the creative product. The first and most obvious requirement for a product to be considered creative is *novelty*. However, novelty alone does make a product creative. A simple computer program could generate pages of unique sentences from a list of subjects, a list of predicates, and a list of direct objects. Many of these would be novel combinations, but no one would say the program is creative. Something more is needed and that is *significance*. The concept of significance implies that the product is non-trivial, that it expands the bounds of our understanding in a meaningful way, is a sweeping change, and changes the future course of action and behavior. The product must be both novel and significant before it is called creative.

As a result of the work of Guilford and others it is generally accepted that creativity is not a single variable. It is now considered a multi-dimensional variable involving a range of information, products, and intellectual operations. Although certain intellectual operations, such as divergent production, are closely correlated with creativity, all variables play into creativity. Skills in various mental operations and communications are required by creativity.[22]

THE CREATIVE PROCESS.

The 19th century German physicist Helmholtz described the creative process as a three-step process consisting of saturation, incubation, and illumination. Saturation is gathering the information (data, facts, sensations, etc.) that is the raw material for developing new ideas. Incubation involves shifting the material around into new combinations. Illumination is the moment when a solution comes to mind.

In 1917, the French Mathematician Henri Poincaré, described a similar model but added another step -- verification. Verification is the process of "packaging" idea into an acceptable product.

Since then there have been many creative process models suggested. These models vary in terminology used. Guilford, as mentioned earlier, talks about contents, operations, and products. Morris Stein talks about hypothesis formation, hypothesis testing, and communications,[23] and Sidney Parnes talks about observation, manipulation, and evaluation.[24]

In spite of the surface differences, there is surprising agreement among the models. They all propose a model where inputs from the environment are transformed into useful novel products. Parnes says, "In each case, knowledge or sensory input is manipulated for meaningful or reality-oriented purpose."[25]

Also, according to Stein, the various current creativity process models have many other characteristics in common. They all agree that: (a) the stages of the creative process do not occur in a systematic and orderly manner; (b) creative people spend a great deal of effort in formal or informal preparation, training, or education in the field in which they

work; and (c) the creative process does not run smoothly from start to finish.[26]

CREATIVE PEOPLE.

There is widespread agreement that *creativity is hard work*. It takes extraordinary effort to acquire the knowledge required to be creative in a field of study and then to persist in creative endeavors. Anne Roe concludes, after her study of eminent men, that "creativity, as seen in both artists and scientists, does not come from any sudden inspiration invading an idle mind and idle hands, but from the labor of a driven person."[27] Salvatore Maddi says, "To function creatively is enormously taxing. I would contend, even for those giants who shape our lives by their efforts. . . . The business end of their creativity was the long, grueling, intense period of hard mental work preceding the flash of insight."[28] This is closely related to the second point made by Stein that creative people spend a great deal effort in acquiring knowledge and skills in their discipline.

Another area of agreement is that *creativity is enhanced by interacting with others* in the area. Although the conception of original ideas may occur in the individual mind, that mind must be informed by the knowledge generated by others. Also, it seems to need the sounding board of others knowledgeable in the subject. As Thomas Carlyle wrote, "The lighting spark of thought, generated in the solitary mind, awakens its likens in another mind."[29]

Creative people have lots of ideas -- another point of agreement. It seems that the production of ideas produces the raw material for creativity. Guilford has noted, "the

person who is capable of producing a large number of ideas per unit of time, other things being equal, has a greater chance of having significant ideas."[30]   Also Linus Pauling, the Nobel Laureate stated, "The best way to have a good idea is to have lots of ideas."[31]

AN APPROACH TO CREATIVITY MANAGEMENT.

A practical real world approach to managing creativity can be constructed around these areas of agreement in creativity research. This approach is deliberately simple to use, easy to understand, and uses well known analytical steps. Although the approach is general in nature, it will be useful in the analysis of the relationships among strategic vision, creativity, and the U.S. Army. This approach is predicated on the premises that top mangers or leaders of an organization realize the significance of the creativity resource.

Step One, The first step in this systematic approach to creative resources management is to define the organizational needs for creativity. Not all organizations have the same needs. For instance those in a mature stable environment with little or no technological or external change may have a low need for creativity while those organizations in rapidly changing high-tech areas will have much higher needs for creativity. Also, different levels in the organizational hierarchy will have different creativity needs. The creativity needs of a personnel clerk and the director of personnel will probably be different. It is important to point out that the needs for creativity within the organization must be assessed with an eye to the future. Yesterday's needs may not be the same as tomorrow's.

Step Two, The second step in this approach is to assess where the organization

stands in ensuring that it has the creative resources it needs and manages them wisely. Most organizations have not taken a systematic approach to managing their creative resources. Organizational procedures, practices, and culture mechanisms were developed to support other organizational imperatives and only incidentally influence creativity. Some are conducive to creativity; others suppress or overlook creativity.

In assessing where the organization stands today it may be helpful to divide organizational procedures, practices, and culture mechanisms into four major categories. These are procedures, practices, and culture mechanisms that: (1) influence recruiting creative people; (2) influence retaining creative people; (3) are barriers to creativity; and (4) support and encourage creativity.

Step Three. Next, identify where and how current knowledge about creativity can be applied within the organization. The four categories used in the previous step can also help focus this effort. While identifying ways to manage creativity, this process also must balance other organizational needs against the requirements for encouraging creativity, since they may not always be consistent. For instance, while encouraging lots of ideas may be good for creativity, unless idea generation is brought to closure by limiting options so a decision can be made, the organization gains nothing from the process and resources are wasted.

ASSESSMENT.

In applying this creativity management approach to strategic leadership in the Army, step one has already been accomplished. The next step is to assess where the Army stands

in exploiting current knowledge about creativity to ensure it has the strategic leaders it needs. Matching what is known about creativity with the characteristics of the Army processes, procedures, and culture shows that the Army is doing very well in certain areas required to produce creative strategic leaders.

The Army provides excellent opportunities for professional development. Through its system of formal training in military specialties, such as Officer Basic and Advanced Courses, and military education, such as Command And General Staff and Senior Service Schools, the Army has done an exceptional job in providing the means to gain mastery of the military profession. Additionally, the Army supports and encourages strategic leader development through full-time or part-time Army funded formal civilian education. This is an important aspect in supporting the development of creative strategic leaders since it has been shown that creative people know a lot about their subject.

As Roe and others have noted, creative people are highly motivated hard workers who are not deflected from their goal. Hard work and perseverance are key values in the Army culture. As such, the Army tends to attract people who share its belief in the worth of hard work and dedication. Those officers and senior civilians who exemplify these characteristics are rewarded with recognition, promotions, and good assignments. Through various other cultural means the Army transmits to its leaders the value of hard work and dedication. By this process the Army is encouraging a key characteristic of creativity.

Another key characteristic of creative people is their need to associate with others working in their field. This is clearly promoted by the Army. Besides providing an environment that supports "talking shop," the Army is structured through its branches,

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year-grouping, and emphasis on unit cohesion to force professional interaction. Additionally, the Army supports and encourages many professional organizations along with publishing military journals that foster the exchange of information. All these things allow and support the interaction that aids creativity.

Although the Army is doing many things right to develop creative leaders, there are also areas where the Army is either missing opportunities to stimulate the development of creative leaders or is actually inhibiting creativity. Chief among these is the emphasis on a rigid career path including certain assignments and schools. While providing a certain breadth of experience, career path rigidity tends to work against in-depth knowledge.

The tendency to attempt to correc .eal or imagined weaknesses in the officer corps by adding another required assignment, i.e., joint assignments, has, however, reduced the length of these assignments to the point that they offer little opportunity to develop in-depth knowledge. The officer comes to the assignment wanting to learn his craft but has too little time to master the job.

The Army's need for officers who obey orders, follow regulations, and do things the Army way also works against cultivating creative leaders for the senior and strategic levels. The need for disciplined young officers is critical but tends to make a military career unattractive to some creative people. They either avoid it or leave the military as junior officers. This requirement also has a more consequential effect of suppressing creative skills development in the young officers that will be tomorrow's strategic leaders.

The inward looking nature of military life also tends to suppress creativity. The military as a subculture of American life is well documented. The frequent moves, the long

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hours, long separations from family, and many other attributes of military life are not shared with most Americans. Shared experience is the basis of all relationship, so it is not surprising that Army officers look inwardly to the military for associations. The effect on creativity is captured very well by General John R. Galvin.

> Isolation and long hours of hard work make it difficult to innovate, to question conventional wisdom, to look at things another way. The military life still tends to suppress our creativity. It is a convenient argument that the normal routine of military life constitutes sufficient training and development, that there is little need for more than "soldiering."[32]

RECOMMENDATIONS AND CONCLUSIONS.

An assessment of creativity done in a study such as this cannot be comprehensive. It can only point to representative problems and successes. It also serves as a guide or indication how problems may be approached. Time and resources prevent a more detailed and definitive assessment. The same is true of recommendations. They too cannot be comprehensive. The following recommendations do, however, point out actions that could be taken to improve creativity management in the Army.

MAJ Robert Maginnis in his article *Harnessing Creativity* lays out recommendations to improve the management of creativity in the Army.[33] These recommendations, while not specifically aimed at strategic leadership, are still applicable. He suggests that the Army should identify and track creative individuals at the accession point, managing their careers to enhance their creative potential. More generally, he recommends that the Army develop creativity by encouraging leaders to investigate, question, and study significant problems facing future leaders and expand oral exchanges in military schools. Finally he believes the

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Army needs to engender a command climate that encourages creativity. He quotes COL Gordon Moon as saying:

> The leader must perceive that he is in a safe environment to exercise creative skills. This occurs when personnel worth is not questioned, people are encouraged to be themselves, external evaluation is absent and errors are tolerated.[34]

General Galvin has suggested a three-prong approach combining increased emphasis and support for self-development with in-unit education programs and a revitalization of military education. He stresses the need for an eclectic reading program covering not only military subjects but a wide range of subjects to prepare military leaders to understand many things that they have not directly experienced. The goal of this program is to provide "the knowledge of life, the philosophical outlook, the morality and humanity that books can help provide."[32]

He also cautions that self-development must be supplemented by doing. He says of in-unit education:

> In short, we may gain our conceptual ideas by thinking, but we learn by doing. In military institutions, as in all other worlds, the 'school of hard knocks' is an irreplaceable source of the knowledge essential to human development. The 'field' is more important than the field manual.[33]

Finally, he prescribes formal military education. He believes that, to prepare future strategic leaders, the schools must emphasize education rather than training. By this he means that the schools should teach how to learn, and reinforce the lesson by stressing extensive reading, research, written analysis and discussion in seminars.

In addition to these suggestions, I would add the following recommendations. First

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that creativity development be included in the curriculum of formal military schools. It seems odd that FM 22-103 should place such importance on creativity, but creativity is not formally taught. Charles Taylor's model presented in *Creating Strategic Visions* and the ideas on formal military education presented by COL Emil K. Kluever *et. al* in *Striking a Balance in Leader Development: The Case for Conceptual Competence* offer excellent ideas on how to do this at the Senior Service College level. These ideas can undoubtedly be adapted to fit other levels of military education.

Secondly, today's Army needs to take a lesson from the past and put more emphasis on the depth and breath of an officer's experience rather than insisting on a series of predetermined assignments. On the eve of World War II, the great strategic leaders of that war were mostly Lieutenant Colonels and Colonels with considerably more years in the Army today's officers of similar rank. They all had a wide variety of assignments that today's officer's do not have. The years and variety of their experience provided the raw material for their creative leadership. To encourage creative strategic leadership development, today's Army must find ways to translate the virtues of longer careers and more latitude in types of assignments of the pre-war army into career management practices comparable with post-cold war realities.

Finally, the Army needs to recognize that creativity management is another area of human knowledge. Like engineering, finance, or mathematics it is subject to management and control. The Army needs to actively manage creativity. The approach to creativity management presented in this paper offers a simple, real-world way of managing creativity. Others ways exist. Despite the approach, the Army must begin managing its creative assets.

Creativity is too important to the future of the Army to neglect.

In summary, creativity is important to the Army because it is the defining characteristic of strategic leadership and successfully meeting the future. The Army is doing some thing right in developing the creativity it requires in future strategic leaders, but it is also doing things that are detrimental to creativity. These uneven results are caused by the Army's tendency to leave the development of creativity to chance. A systematic approach is needed. The approach and recommendations suggested in this paper are the first steps in applying current knowledge about creativity to ensure future strategic leadership.

ENDNOTES

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