Deep Thinking: Putting Theory into Action
A Survey

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Abstract

Chairman of the Joint Chiefs of Staff General Martin Dempsey recently stated that the “Joint Force must excel at many missions while continuously adapting to changing circumstances. It means building and presenting forces that can be molded to context—not just by adding and subtracting, but by leaders combining capabilities in innovative ways.” To understand and address the tensions between “winning the present and winning the future” a joint force capable of “deep thinking” is required. A study of a wide range of literature identified six core strategic thinking competencies: systems thinking, visioning, environmental sensitivity, thinking in time, multi-perspective, and creativity. This survey analyzed how three joint force leaders applied these competencies in the “real world.” Through a comprehensive interview process, the three leaders displayed a keen understanding of the needed strategic thinking competencies and valued this type of thinking within their organizations. Specific organizational mission and an understanding of the organization’s role and position within the larger national security framework, determined the extent to which organizations or individuals could apply the full range of competencies. The Chairman’s PME programs must adjust its curricula to incorporate these strategic thinking competencies.

In “Direction to the Joint Force” (2012), Chairman of the Joint Chiefs of Staff General Martin Dempsey stated that the “Joint Force must excel at many missions while continuously adapting to changing circumstances. It means building and presenting forces that can be molded to context—not just by adding and subtracting, but by leaders combining capabilities in innovative ways” (7). To understand and address the tensions between “winning the present and winning the future” will require a joint force capable of “deep thinking” (14). The primary approach to developing a force capable of this attribute rests at all levels of Joint Professional Military Education (PME). The PME system should produce: “strategically minded officers educated in the profession of arms who possess an intuitive approach to joint warfighting built upon individual Service competencies” (CJCSI, 2009, A-A-1).

Through an examination of strategy in practice, this study determines how three current joint force leaders applied strategic thinking concepts in the “real world.” First, strategic thinking, strategic planning, and strategy are defined. Next strategic thinking competencies are identified from which central questions were derived that served to facilitate deeper discussion. Interviewee responses are compared and contrasted from which inferences and recommendations are derived. A summary of the responses that emerged from the selected competencies as they relate to strategic thinking and strategy concludes the survey.

Strategic Thinking, Strategy, and Strategic Planning
In this survey, the intent was to explore phenomena central to strategic thinking, strategy, and strategic planning. Strategic thinking is “the cognitive processes required for the collection, interpretation, generation, and evaluation of information and ideas that shape a sustainable competitive advantage” (Hughes & Beatty, 2005, 44). Strategic thinking is about synthesis—it involves creativity and intuition (Mintzberg, 2004), and is “the most important step in any planning effort” and “begins by stepping back and observing the environment as it really is…” (Sanders, 1998, 138). Knowledge, however, is always situational and dependent upon the perspective of the individuals involved (Tuathail, 1999). Thus, strategic thinking seeks to gain a broader truth through the inclusion of as many perspectives as circumstances allow (Sanders, 1998).

Organizations define goals that describe what is to be achieved. A strategy defines how the organization will achieve those goals and how it will interact with the environment in doing so (Daft, 2010). Strategy is a synthetic and creative process that centers on the individual strategist. Although the strategist makes proactive attempts to shape future events, flexibility is needed to react to emerging concerns (Mintzberg, 1994).

Strategic planning typically focuses on the plan as the ultimate objective (Liedtka, 1998). Planning is a fairly regimented process that breaks goals down into manageable steps with anticipated outcomes or results. These steps are formalized so that they can be repeated almost automatically and implemented across the organization (Mintzberg, 1994). Strategic thinking sees the process as the value-added component (Liedtka, 1998) more than the plan itself. Thus, strategic planning must encompass strategic thinking to operate effectively in today’s global environment (Hughes & Beatty, 2005).

Given the definitions above, a survey of a wide range of literature identified a number of core competencies, which formed the basis for interview questions. Listed below, the six competencies are described regarding their importance. At the end of each description is the central question used to initiate discussion of the competency.

**Systems thinking** develops a broader and more nuanced understanding of strategic issues. Systems can be understood by looking for patterns within their complexity (Jonassen, 2011). The strategic thinker understands their role within the system and its interdependent nature (Liedtka, 1998), and that control and order are emergent rather than hierarchical (Hogarth & Makridakis, 1981). The central question is, “Does your organization take a systems perspective approach to its activities?”

**Visioning** creates focus for an organization and leadership (Bennis, 1985). “Vision animates, inspires, and transforms purpose into action” (30) and provides the organization with the unified focus necessary to step into future. A vision or strategic intent enables individuals within an organization to avoid distractions and focus their energies on achieving objectives (Liedtka, 1998). The central question is, “What did you do to create or adapt a vision for your organization?”

**Environmental sensitivity** is an awareness of those elements that have the potential to affect all or part of the organization. Economic, socio-cultural, and political changes in one corner of the world can immediately affect other areas. To move beyond the present, strategic thinkers must be attuned to environmental variables, many immeasurable, and have a working knowledge of the environment to gain understanding of the larger system (Daft, 2010). The central question is, “What role do global current events play in your decision-making?”

**Thinking in time**—strategic thinkers link the past, present, and future (Liedtka, 1998). The most essential cognitive skill required to solve problems is causal reasoning. Uncovering causal
relationships in problems is essential for learning how to solve them. The two most common forms of reasoning are prediction and inference. Prediction is forward reasoning whereas inference is backward reasoning. In planning, to understand the relationship between activities and outcomes, one needs to develop a model based upon backward inference (how did we get to where we are?) and forward inference or prediction (where do we want to go?) (Einhorn & Hogarth, 1982). The central question is, “Is thinking in time encouraged?”

**Multi-perspective**—comprehensive engagement begins with understanding the actors within the environment. Given the dynamics of globalization and technology, the trend for considerable cultural interaction significantly increases in the future. Strategic thinkers possessing multidisciplinary, cross-cultural perspectives are most likely to produce significant positive results (Moghaddam, 2010). The central question is, “When confronted with challenges, do you seek as many perspectives as possible given the circumstances?”

**Creativity** is the “ability to challenge assumptions, recognize patterns, see in new ways, make connections, take risks, and seize upon chance” (Vidal, 2009, 412). To be creative, new ideas are connected to prior knowledge (Jonassen, 2003). Concept or cognitive maps help to visualize external information, which aids in developing problem-solving strategies (Zahner & Corter, 2010). The central question is, “What do you do to generate creativity, innovation, and willingness for change in your organization?”

**The Interview Discourse**

The three interviewees were mid-career military officers at the captain/colonel level and selected for the uniqueness of their organizations, the strategic importance of their missions, and the Services they represented. The central question introduced a competency, and sub-questions explored the complex set of factors surrounding the issue. Each interviewee was asked the same six central questions; however, subsequent sub-questions varied upon the initial response.

The first interviewee was an Air Force colonel who was completing a tour in the Joint Staff J-5 Strategic Plans and Policy Directorate. His directorate was responsible for developing and coordinating nuclear policy and deterrence issues across the United States Government, to include the National Security Staff, Department of Energy, national laboratories, among others.

The second interviewee was a Navy captain who has just completed a tour as the commanding officer of one of the largest naval bases in the United States. He was responsible for more than 22,000 military and civilian personnel, 25 tenant units, 15 home-based squadrons, and supported numerous other joint commands and government agencies.

The third interviewee was a US Army colonel who recently completed a regional command assignment with the US Army Corps of Engineers. He managed the Corps’ water resources development and navigable waterways operations for five river basins and was responsible for the Corps’ military design and construction projects for Army, Army Reserve, and Air Force military installations.

Each interview was conducted one-on-one for approximately one hour. The six central questions derived from the competencies provided the baseline for the interview. The pattern of discussion for each question is response-inference-recommendation.

**Does your organization take a systems perspective approach to its activities?** Each officer responded positively. The breadth and depth of a system varied among the three with the Air Force officer viewing systems from the broadest perspective, focusing “in terms of nations, NATO, China,
Russia....” The Army officer thought in the context of two systems: there “is both a military and civilian side.” Both systems were national in scope with the civilian system encompassing national organizations, primarily Congress, whereas the military system encompassed the Northeast and South Central United States. The Navy officer’s system was primarily local focusing on the installation and the integration of multiple permanent and tenant organizations.

Each officer believed that a systems perspective enhanced organizational understanding and learning; the Air Force officer, however, believed that systems understanding at levels above his own were deficient. The Army officer believed that systems understanding was understood at the national level “within the military chain,” but “Congressional priorities were based on political decisions” instead of systems understanding. The Navy officer believed that systems understanding helped to “gain effectiveness and efficiencies when looking at budgetary considerations.” Although the relationship between domestic and global factors is increasingly blurry, each of the officers indicated that both of these factors affected their organizations. Risk was a consideration for the Navy officer and he used a core team of cross functional specialists as a mitigation technique. The Army and Air Force officers believed Congress or those developing policy positions managed risk.

It appears that developing a systems perspective enhances organizational and environmental understanding. A systems perspective assists higher and lower echelons’ integration into the broader picture and aids in developing a better understanding of external influences. Individuals and organizations should institute a systems approach to facilitate understanding of the relationship between the organization, internal and external stakeholders, and the effects of the environment.

**What did you do to create or adapt a vision for your organization?** Each officer had a vision or created one for his organization. The Navy and Army officers’ had formal visions that focused directly on core mission (“Fleet, Fighter, and Family” and “Best in the world at project delivery”), whereas the Air Force officer’s departmental vision was more general and externally focused (“how do we make policy enable what we do?”). Span of control factored into how and to what extent the organization’s vision was understood throughout the chain of command. With 21,000 personnel under his command, the Navy officer used multiple means to promulgate the vision: “weekly department head meetings, monthly base tenant meetings, base newspaper, social media, speaking engagements, and base policy statements.” The officer believed that his vision was understood through the middle management levels with some understanding at lower levels. The commander’s base was recently named the “best base in the Navy.”

The Army officer, with 450 personnel under his command, paid strict attention to span of control for himself and his subordinates. A manageable span of control (“no more than seven subordinates”) enabled direct personal contact with subordinates and the opportunity to promote the vision. The commander strongly believed that all 450 personnel “would know the vision verbatim.” He also “kept the message simple” and used multiple and varied forums to promote the vision consistently. The commander’s organization was recently named the “Best place to work in Hampton Roads.”

The Air Force officer, with five subordinates, believed that the vision was understood one level up and one level down. Two levels up, however, leadership “was too busy to know specific issues and had a span of control problem.” Political considerations greatly affected the vision, which had priority over military considerations or needs. Regarding what else the department should be doing, the officer responded that his department had a two-fold mission, but that “90% of our efforts are spent on strategic policy issues” and more time should be spent on the mission of strategic deterrence.

A strong vision focused on the organization’s primary task(s), appears to resonate throughout an
organization and directly enhances the mission. A strong vision eliminates unnecessary or non-core mission tasks and projects, and balances the weight of effort across all essential mission sets. All organizations should create and promulgate an “easy to remember” vision that encapsulates the primary mission of the organization. Leaders must take every opportunity to promote the vision within the organization.

Does your organization see change as temporary or a permanent part of the environment? Each officer saw change as a constant and something that must be understood in the context of his mission. The Army officer’s focus was primarily on domestic factors although a small portion of his workforce (2 per cent) was overseas at all times. The officer’s organization was project-focused and local variables, such as weather, had a greater effect on day-to-day operations. Strategic decisions were made at national levels and thus other strategic environmental variables had less effect. The officer’s organization did have manpower and resource agreements with “other national organizations, for example FEMA, [Federal Emergency Management Agency] to augment a response in the case of a national emergency.” The ability to develop alternative plans or to engage in scenario planning activities was “not considered” as “methods were rigorously regulated by the political process.”

The Navy officer stated that strategic events or factors did affect his decision-making as assigned units and tenant units had global response requirements. His organization participated in “Haiti relief operations and routinely dealt with hurricanes” up and down the Eastern seaboard. Other operations, such as Operation ODDESSY DAWN, the U.S. mission to Libya, affected his operations as he “knew we would participate.” As a result, his aviation depots forecasted changes in aircraft maintenance to support the efforts. Local and regional events also affected his operations and his “base served as a FEMA marshalling point.” As base commander, he and his staff engaged in scenario planning to address the range of potential responses: “anti-terrorism and force protection, fires, locusts—anything and everything.”

The Air Force officer stated that global and domestic events affected decision-making a great deal. “Current events give us a great amount of turbulence; especially the budget as it is current event driven.” As global players in the nuclear world are fairly well-known and timelines for technological developments are fairly long, strategic shifts are less common. When those shifts occur, however, the effects are far-reaching and long-lasting. Multiple means are available to address changes in the environment—the staffing review process allows a problem to be readdressed many time and in multiple forums. “A lot of ‘what if they get more’? questions encouraged the use of scenario planning.

Environmental change appears to be an accepted condition of the global environment. Although change does occur at multiple levels, the ability to delineate the effects of that change as related to the organization or department’s mission determines the response. Scenario planning appears to be of benefit when considering future actions or response efforts based upon an understanding of historical or current events. Organizations should develop or maintain sensitivity to the environment so that changes are detected and the effects on the mission determined. Scenario planning is an effective tool to prepare the organization for potential problems.

Is thinking in time encouraged? Although each officer encouraged thinking in time, future thinking was far more limited in scope for the Army and Navy officers than the Air Force officer. The Air Force officer’s department was keenly aware of historical programs, focusing understanding on the longevity of weapons systems and its continued effectiveness over time. Historical thinking affected near-future thinking in the context of weapons systems—“...the last missile sub lasted so long, how...
can we make them last longer? How can we get through the next decade given reduced budgets?”
National strategic policy decisions affected thinking farther into the future. For example, the next nuclear treaty is scheduled for 2018 and “we need to think about what that will look like. After that, the next treaty will be in 2029 and we need to think what that may look like, too.”

The Navy officer stated that base leadership thinks historically and into the future, but some personnel “are very set in their ways” and, although “very capable, they are very slow to embrace” the future. Future thinking was especially prominent in “IT realms” and “in energy efficiencies and conservation.” The typical timeline was in months to years, much of it dependent upon the issue, such as budget cycles or increasingly strict environmental policies.

The Army officer stated that they used “a lot of historical data” to inform their projects and personnel management. The life span of a project or the budget cycle typically limited future thinking. The budget process was used to understand and shape future personnel training and development needs and programs. The officer stated that the region was coming off a historic workload, “as much as four times greater than historic highs,” because of base realignment and closure projects. As a result of these projects nearing completion, an “equally historic reduction in workload will occur in the near future” that will require significant personnel reduction.

All three officers engaged in thinking in time although the specific mission determined the extent of historic and future thinking. It appears that policy issues, which are more long-range, required the broadest span of thinking. Task-focused missions limited thinking to that required for specific task accomplishment. The ability to influence the outcome of the future task appears also to factor into the extent an organization engages in future thinking. All organizations should view their mission in the context of the past, present, and future. Past actions shed light on the “now” and the “next.” A prudent decision maker is informed by the past and the present and understands that the future is affected by current actions.

**When confronted with challenges, do you seek as many perspectives as possible given the circumstances?** Each officer sought additional perspectives. The Navy officer used internal and external stakeholders to identify “tripping points” that may affect outcomes. At times external perspectives were “not allowed because of privileged information restrictions, but when able, I would get the guys who had a pivotal read and realistic perspective” to provide input. Although actively sought, decision points and limited time requirements often undermined consensus. The officer could reach out into the surrounding community for input on some issues as many former commanding officers lived in the community and could provide historical perspectives. Although dissent was part of the organizational culture, the officer would often use a “red team” to provide counter views.

The Air Force officer’s smaller department facilitated a broad range of discussion and perspective. The nature of the issues required coordination with many external organizations, most of whom had differing perspectives on the problem or the approach to the problem. Strategic guidance also mandated “national intelligence organizations to see how other actors would react,” which typically led to a range of perspectives. Nuclear issues typically affected allies so formal alliances, such as NATO, warranted additional consideration. Dissenting views “have never been a problem—there is always a dissenting point of view.” The system appears to have dissent “built-in” and there “could be trouble if everything lined up.”

The Army officer had a network of “40 other district commanders” with whom he “could call at will.” As his agency’s work consisted of large public works projects, there were many opportunities for external perspectives to be heard. There were local forums, interagency forums, and
intergovernmental venues through which different and dissenting viewpoints were heard. As the agency engaged in public works, the commander and his organization strove to be as transparent as possible, “to be apolitical, to bring everybody onboard.”

Multiple perspectives provide additional insights into issues that make understanding far more comprehensive. In all three organizations, dissenting opinions were commonplace and actively sought. It appears that each of the officers valued multiple perspectives and the richness that it added to the process. Perhaps the nature of all three jobs and the organizational cultures, staffed primarily with military personnel, lent themselves to seeking and expecting multiple perspectives. All organizations should seek actively multiple perspectives when undertaking any project or task. In addition, dissenting perspectives are a vital part of developing full understanding and ensures “buy in” from stakeholders.

**What do you do to generate creativity, innovation, and willingness for change in your organization?** Although each officer actively supported creativity and innovation, the specific organizational mission facilitated or limited the effects of either one. For example, the Navy officer, who had many organizations with a broad range of missions under his command, described the most successful implementation of creativity and innovation. Some of the organizations had a great deal of flexibility to try creative ideas and “look for ways to innovate.” The base had an active recognition program that rewarded innovation and the commander provided “a steady drumbeat to show innovative successes.” As mentioned earlier, recognized as the “best base in the Navy,” a judging criterion was innovation. Facilitating understanding of current processes, visualization tools enhanced development of creative or innovative approaches.

The nature of the work in the Air Force officer’s department provided little opportunity to innovate products or processes, but because of “budget and force structure changes” they consistently “looked for ways to creatively address current and future needs.” Dictated from higher echelons, constraints and restraints limited the ability to innovate. Visual models facilitated creativity, especially when “attempting to understand human geography” or to see “mission sets geographically grouped.” In addition, compartmentalization or classification limited the ability to be creative.

The Army officer believed that he was extremely limited from a creativity perspective. Congress directed his projects and “there was not a lot of room for innovation.” He did state the individuals were constantly “pushed out of their comfort zones” and that cross-training, “for example, engineers working with the construction teams,” provided insights that may facilitate creativity. Visual models provided insights into new ideas when there were the rare opportunities to innovate, typically at the tactical or personal levels.

Creativity and innovation appear to be valuable skills, but the opportunity to exploit and use those skills is situation dependent. Creativity can occur at all level simultaneously or at separate levels independently, and each officer promoted a work environment that valued innovation. A keen sense of mission and understanding of systems enabled the officers to determine when and where innovation and creativity could accomplish the mission best. All organizations should promote creativity and innovation within their organizations—this type of mindset facilitates mission accomplishment while understanding the role of risk when undertaking such endeavors.

**Summary**

Operating in complex environments and using systems thinking, the strategic thinker attempts to gain an understanding of the dynamic nature of the strategic environment. An organization’s vision is a reflection of environmental understanding and considers the effects of the past, the present, and how the future may
be shaped. Inherently complex, any successful strategy must consider multiple perspectives and demands creativity to satisfy the diverse range of stakeholders and interests.

The Chairman of the Joint Chiefs of Staff needs strategic thinkers who can operate in complex environments. The three officers interviewed displayed a keen understanding of the needed strategic thinking competencies and valued this type of thinking within their organizations. Specific organizational mission and an understanding of the organization’s role and position within the larger national security framework, determined the extent to which organizations or individuals could apply the full range of competencies. Through a face-to-face dialogue of a small but representative sampling, this study determined that strategic thinking competencies are applied in the daily operations of major commands. Although further research is needed, it appears that strategic thinking competencies become less evident at strategic levels. “Deep thinking” is needed at all levels, however, and the Chairman’s PME programs must adjust its curricula to introduce or reinforce these strategic thinking competencies at all levels.

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