

Reframing Army Doctrine

Operational Art, the Science of Control, and Critical Thinking

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ARMY DOCTRINE FRAMES planning actions along a continuum ranging from “conceptual” on one end to “detailed” on the other. One end is the domain of conceptual planning where ends, objectives, concepts of operations, and commanders’ intents are developed; the other end is the domain of detailed planning where units work out the particulars of execution such as movement tables, target lists, and control measures. While plans begin in the conceptual domain, Army doctrine acknowledges a dynamic relationship: planning must respond to detailed constraints. FM 5-0 provides the only graphic representation of the Army’s conception of this relationship (Figure 1).¹

Army Doctrine Publication (ADP) 3-0, *Unified Land Operations*, the Army’s revised capstone doctrine, reaffirms FM 5-0’s conception of the relationship between conceptual and detailed planning and acknowledges that successful planning requires integration of the two components. Army Doctrine Publication 3-0 seems to regard conceptual planning as an art and detailed planning as a science. ADP 3-0 associates conceptual planning with the Army design methodology and detailed planning with the military decision making process and troop-leading procedures.²

Army doctrine associates “critical thinking” with conceptual planning, operational art, and operational adaptability. ADP 3-0 describes Army design methodology as the application of critical and creative thinking in order to understand, visualize, and describe unfamiliar problems and approaches to solving them. Army Doctrine Reference Publication 3-0, *The Army in Unified Land Operations*, cites critical thinking four times—once in defining operational art, once in characterizing design methodology, and twice in reference to operational adaptability.³ Field Manual 6-0, *Mission Command*, describes critical thinking as an essential characteristic of operational adaptability—the ability to shape conditions and respond effectively to changing threats and situations with appropriate, flexible, and timely actions.

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IMAGES: FM 5-0, ADP 3-0, FM 6-0

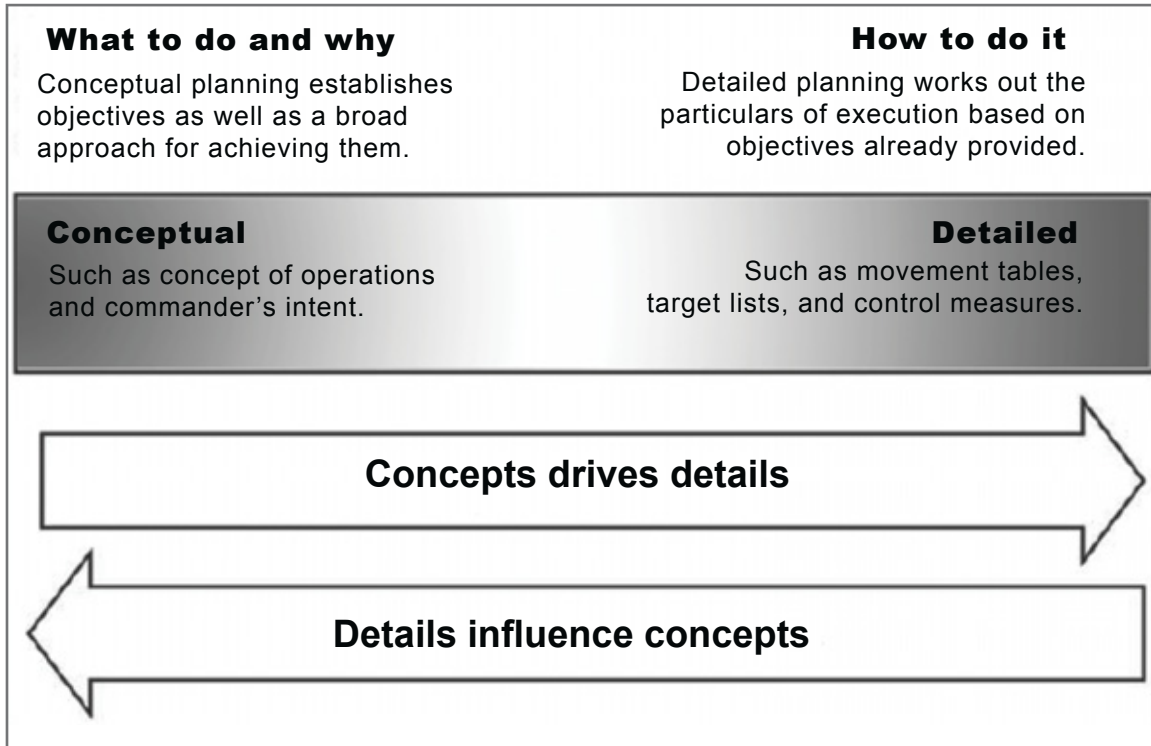


Figure 1
Field Manual 5-0, *The Operations Process*, 2-7

In Chapter 1, FM 6-0 defines critical thinking as “a deliberate process of thought whose purpose is to discern” and “involves determining whether adequate justification exists to accept conclusions as true based on a given inference or argument.”⁴ Interestingly, critical thinking is not mentioned in the same sentence with the methodologies of detailed planning—the military decision making process or troop-leading procedures.

Consistent with emerging Army design techniques—procedures derived from cognitive psychology and closely associated with critical thinking—the argument for reframing will start with a graphic model that attempts to depict the relationship among planning, execution, and critical thinking.⁵

The model (Figure 2) “bends” the existing linear concept into a circle. The circle becomes directional, following a clockwise path. A dashed line divides it, demarcating the “detailed” domain and the “conceptual” domain. Next, the concepts associated with each domain are added. The science

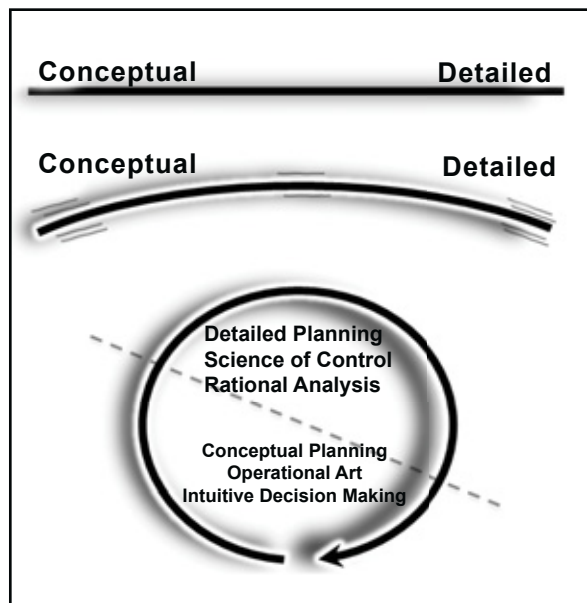


Figure 2⁶

of control and rational analysis is in the domain above the dashed line. Intuitive decision making and conceptual planning are added to the domain of “operational art” below the dashed line.

While not well articulated in Army doctrine, conceptual planning exploits the power of intuitive decision making through critical thinking by leveraging analogs as well as the experience and judgment of the commander. This frames the problem and develops a broad operational approach.

Components of design fall within the conceptual planning domain: environmental framing, problem framing, and development of an operational approach. In this domain, planners depict the environment graphically as it currently exists, visualizing the system and its subcomponents to illustrate the relationships among actors within it. Planners also develop a graphic representation of the “desired” end state. Through this process, the commander gains situational awareness and an understanding of the end state he must achieve to be successful (Figure 3).

The design methodology also calls for a narrative to describe the graphic. The narrative must take into account the perspectives of the

relevant actors in order to convey interests, threats, and vulnerabilities.

With problem framing complete, the commander develops an operational approach derived from environmental framing, the broad concepts that will accomplish the end state. While not limited to the conceptual realm, he can leverage Red Teams to contribute to the development and validation of conceptual plans. As a bridge to detailed planning, the commander articulates his approach through his intent and concept of operations. With the exception of the explicitly stated concept of “intuitive decision making,” the model depicted is consistent with current Army doctrine.

In the domain of detailed planning, the model adds components of the military decision making process and orders production and the elements of detailed planning and the science of control. Again, the model is consistent with existing Army doctrine.

The model now begins to include concepts that are not consistent with current Army doctrine: execution and its subcomponents of task organization, rehearsals, H-hour, enemy contact,

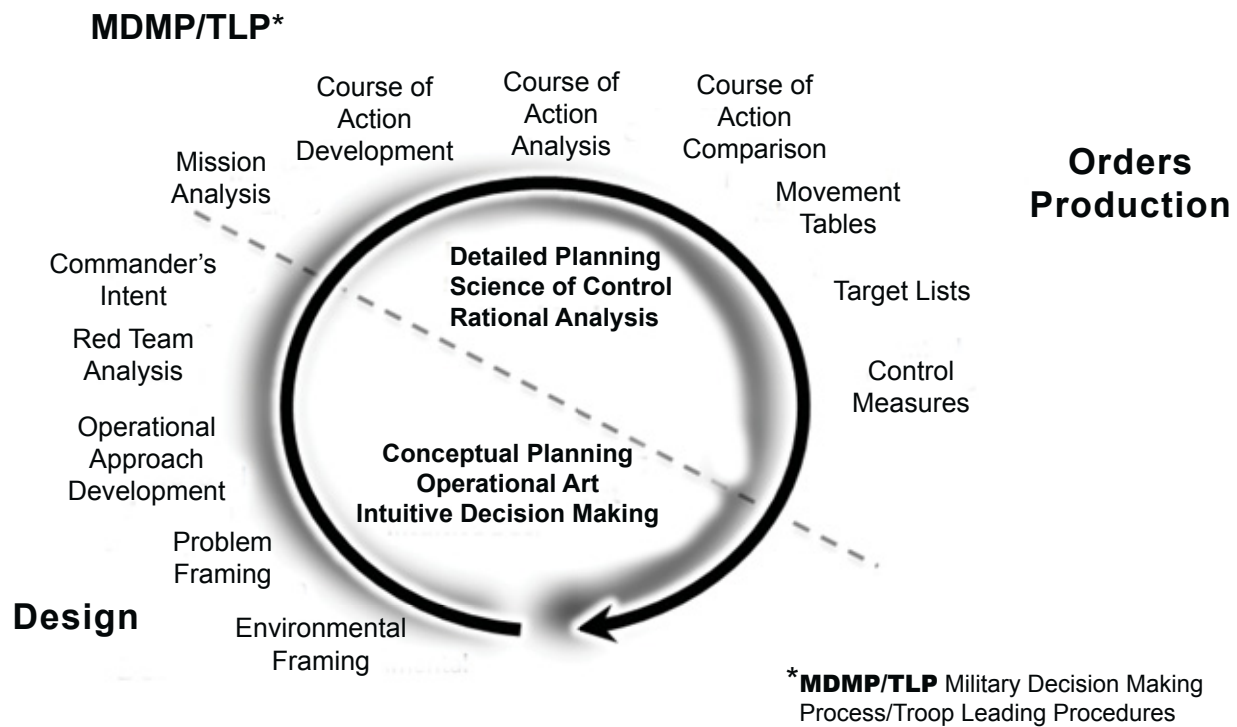


Figure 3
Initial Elements of Detailed Planning and Science of Control



*MDMP/TLP Military Decision Making Process/Troop Leading Procedures

Figure 4
Elements of Battle Drills, Branches, and Sequels

and battle drills and execution of branches and sequels. Task organization and rehearsals fall within the domain of detailed planning and the science of control. During activities conducted after H-hour—after contact with the enemy—behavior reverts to the conceptual domain, the domain of intuitive decision making as articulated in Gary Klein’s concept of “recognition-primed decision making.”

This model seeks to depict the reality that execution becomes reactive—not in the sense of lost initiative—but rather, reactive in the sense that commanders on the ground make quick decisions based on their experience, training, and expert judgment in response to what they perceive happening in their environment. Commanders in contact must make quick decisions based on mental simulations—a decision making process that is not necessarily “logical” given the time constraints and the limitations of the human mind—yet one that is nonetheless “reasonable” and capable of achieving probable success.

This decision making process is unquestionably intuitive and within the conceptual domain.

The model (Figure 4) adds “Feedback and Reframing” between “Execution,” and “Design,” to graphically convey the iterative nature of military operations. The concept of “critical thinking” is at the center of the model—to represent the notion that critical thinking encompasses all domains of planning and execution. Army doctrine notes the iterative nature of each decision making method, and here, the model attempts to show that feedback and reframing bridge execution and design (conceptual planning) and represent the link between implementation and planning. Planners and ground commanders understand the importance of establishing evaluation frameworks and formal feedback mechanisms.

Critical thinking occupies the center of the circle—the center of gravity for both operational art and the science of control—to convey its importance and its connection to each aspect of planning and execution. While the Army’s current

definition of critical thinking is not incorrect, it may be inadequate. Although critical thinking is indeed “a deliberate process of thought whose purpose is to discern” and “involves determining whether adequate justification exists to accept conclusions as true based on a given inference or argument,” the concept transcends deconstruction. Critical thinking is the deliberate, methodical process of *thinking about thinking*, or *meta-decision making*. As such, it applies to the detailed construction and execution of plans as well as the development of a theoretical operational approach in the conceptual domain. Doctrine therefore ought to explicitly state that critical thinking is important

in the domain of detailed planning, the science of control, and the execution of plans.

Like iterative motion and the energy of a wave moving an object through time and space, the motion and energy of iterative planning and execution accomplish military objectives. Each cycle of waves that passes is an iteration of the process: first, planning—conceptual and detailed—then, execution, followed by feedback and reframing. Iteration by iteration, we move closer to achieving our desired end state and fulfilling our strategic military objectives, through the accomplishment of decisive points along lines of operation and effort. **MR**

NOTES

1. Field Manual 5-0, *The Operations Process* (Washington, DC: U.S. Government Printing Office [GPO], 2010), 2-7.

2. Army Doctrine Publication 3-0, *Unified Land Operations* (Washington, DC: GPO, 2011), 10.

3. Army Doctrine Reference Publication 3-0, *The Army in Unified Land Operations* (Washington, DC: GPO, 2011), 1-8, 2-10, 2-13, 4-1.

4. FM 6-0, *Mission Command* (Washington, DC: GPO, 2011), chap. 1.

5. Richards J. Heuer, Jr., *Psychology of Intelligence Analysis* (Langley, VA: Center for the Study of Intelligence, 1999), 27. In Chapter 3, “Memory: How Do We Remember What We Know?” Heuer recommends “externalizing” the problem by “getting it out of one’s head” as a graphic that simplifies the complexity of the

relationships within a system. These simple models facilitate assimilation of new information into long-term memory and provide a structure to which one can relate information.

6. The concept of “bending” the linear spectrum was first introduced to the author by Dr. Mark Graber, then professor of government at The University of Texas at Austin, now a professor of law at the University of Maryland, Baltimore. The concept was used to illustrate the relationship between partisans and moderates, with the partisan extremes occupying each “end” of the “bent” spectrum. Conceived in this way, extreme partisans could be understood as occupying the opposite end of the spectrum relative to moderates, thereby explaining not only the possibility, but the frequency of legislative coalitions between partisan opposites.

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