Dis appointing Doctrine

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With the much-anticipated August 2011 release of Joint Publication, 5-0, Joint Planning, our hopes for greater clarity regarding “design” were immediately dashed. This latest iteration of JP 5-0 confuses rather than simplifies how design should be embraced by planners. As envisioned by political scientists such as Herbert Simon, design offers an approach for addressing ill-structured problems—those that cannot be successfully resolved using traditional linear, analytical approaches like that offered by the methodology of the U.S. military’s Joint Operation Planning Process (JOPP).

Unraveling ill-structured problems is perplexing because by their nature such problems are interactively complex and often have incomplete, contradictory, and changing requirements; attempts to solve them often reveal or create other, even more challenging complications.1 Horst Rittel and Melvin Webber, urban planners at the University of California at Berkeley in the 1970s, wrote about such problems in a 1973 article, "Dilemmas in a General Theory of Planning," observing that there was a whole realm of problems that could not be successfully treated using traditional linear approaches. Examples of such problems could include such challenges as "fix Somalia," which immediately poses innumerable questions, such as what does “fix” mean in this context, what needs fixing, from whose perspective, whose responsibility should this be, and so forth. Conversely, well-structured or tame problems are well-defined and stable, and their solutions can be objectively evaluated as being right, wrong, or solved. Problems such as force-on-force and deployment considerations are relatively well-structured challenges that lend themselves more easily to the linear methodology of JOPP.

The U.S. Army and the Marine Corps have been among the first of the military services to recognize the inadequacy of JOPP for addressing ill-structured problems. The U.S. Army’s Training and Doctrine Command (TRADOC) first issued a pamphlet, Commander’s Appreciation and Campaign Design, in January 2008 that acknowledged the complexity of twenty-first century warfare and the difficulties posed by warfare conducted among people in villages and cities with the Internet and cable network news providing an immediate global audience who was witnessing all aspects of this warfare in real time. Against agile, disaggregated enemies living among the people and able to manipulate audiences much quicker than the United States and its multinational partners, all subject to the laws of war and a responsibility to be truthful in reporting, the U.S. found its overwhelming military power at times ineffective. Moreover, its planning processes were inadequate for responding to complex adaptive systems. The TRADOC pamphlet noted the conceptual distinctions between what it called “designing” versus the traditional linear processes of JOPP, which it argued are better suited for “engineering” problems. Design focuses on the commander’s personal involvement in understanding complex interactive problems, exploiting the knowledge gained to develop an approach for successfully addressing such dilemmas. Rather than solving ill-structured problems, which by their nature are constantly evolving, design embraces ‘satisficing,’ seeking acceptable solutions for a desired different state, rather than seeking a (unobtainable?) desired end state.

In an August 2009 article in Armed Forces Journal, retired Marine Colonel T.C. Greenwood and T.X. Hammes praise the insights of the aforementioned TRADOC pamphlet but lament upon the failure of joint doctrine to acknowledge the nature of ill-structured problems before rushing into planning. Subsequently, in March 2010, the Army released its Field Manual 5-0, The Operations Process, and chapter 3, entitled “Design,” does a very credible job of defining and explaining design as “a methodology for applying critical and creative thinking to understand, visualize, and describe complex, ill-structured problems and develop approaches to solve them.” It further argues that such approaches involve framing the operational environment, framing the problem, and considering operational approaches, the latter being broad conceptualization of the general actions that will bring about the desired end state and serve as a prelude to more detailed planning. More importantly, throughout design there is constant reframing—refining or discarding earlier hypotheses that shape and define environmental and problem framing, and the operational approach.

The Marine Corps took a slightly different approach, simply revising the initial step of its Marine Corps Planning Process (MCPP) as described in the August 2010 version of Marine Corps Warfighting Publication (MCWP) 5-1, by changing “mission analysis” to “problem framing,” noting that “since no amount of subsequent planning can solve a problem insufficiently understood, framing the problem is critical.” The MCWP notes that design enables a “continuous dialogue and collaboration” that ultimately enhances decision-making at all levels. Because the environment is constantly evolving, design is a continuous activity throughout planning, execution, and assessment.

With the Army and the Marine Corps having committed to slightly differing though not incompatible approaches to design, joint planners anxiously awaited unifying guidance that would hopefully further clarify how design would be addressed by the joint planning community. The latest revision of JP 5-0, however, has only served to confuse those most in need of clarity—joint planners—by labeling design as “operational design,” explaining how it supports operational art. Unfortunately, there is already an existing history behind the term operational design, which several publications, including the December 2006 version of JP 5-0 said involved: “(1) understanding the strategic guidance..."
(determining end state and objectives); (2) identifying the adversary’s principal strengths and weaknesses, and, (3) developing an operational concept that will achieve strategic and operational objectives” —now all part of what JP 5-0 calls the “operational approach.” Confusing the military planners of a nation at war by arbitrarily changing the historic terminology of operational art is ill-advised. Design is a useful concept, but it needs to be placed in harmony with existing terminology. The distinction between design and operational design needs to be restored and clarified.

Additionally, JP 5-0 states that “the President and SecDef [Secretary of Defense] typically will establish a set of strategic objectives; however, in the absence of coherent guidance or direction the CCDR/JFC [combatant commander/joint force commander] may need to collaborate with policy-makers in the development of these objectives.” I would submit that in struggling with ill-structured problems, like failing states, specific strategic guidance is often either very vague or it simply isn’t provided at all. It is precisely for such situations that design, as a predecessor to detailed planning, offers the greatest promise, and as the Marine Corps noted, its framing activities can add clarity in defining a desired different state. This important point is overlooked in the latest iteration of joint doctrine. Ultimately, some entity other than the U.S. military may be better suited to lead because problems involving lack of governance, failing economies, human suffering, misdistribution of resources, and so forth, are unlikely to be resolved by the application of military force.

While the Department of Defense, with its strategic lift and enormous manpower, is often the agency of choice for the U.S. government in responding to such situations, and it certainly has a role in establishing a secure environment, if the only tool used is a hammer, then every problem gets treated like a nail. Harmonizing design’s proper relationship with operational art and planning can help ensure that the advice our military leaders give to our civilian masters hopefully gives them pause when considering the use of military force as the appropriate U.S. government response to problems posed by complex adaptive systems.

1The terms “ill-structured” and “wicked” problems, though not synonymous, are often used interchangeably to describe the challenges posed by complex, adaptive (or interactive) systems as opposed to “well-structured” or “tame” problems.

2Joint doctrine defines operational art as “the cognitive approach by commanders and staffs—supported by their skill, knowledge, experience, creativity, and judgment—to develop strategies, campaigns, and operations and organize and employ military forces by integrating ends, ways, and means.”

3A similar discussion of operational design can be found in Dr. Milan Vego’s Joint Operational Warfare.