6 | Professionalism and Army Doctrine: A Losing Battle?

James A. Blackwell

Army doctrine, and the Army's doctrinal process, have served the war-fighter well. "Doctrine," according to *Webster's Third International Dictionary*, is the body of principles in any branch of knowledge. For the Army it is the way the Army fights.[1] Presently, 634 publications define Army doctrine authoritatively.[2] The Army's doctrine development process is maintained rigorously by the U.S. Army Training and Doctrine Command (TRADOC), with doctrine centers at Fort Monroe, Virginia, and at each of the relevant "school-houses."[3] There are over 100 soldiers and 47 Department of the Army Civilians[4] assigned as full-time doctrine developers and writers throughout the Army, and they are working on the largest doctrinal publication list the Army has ever developed. The workload is such that other soldiers provide doctrine writing support in a matrix management process, and contractors are frequently hired to supplement the work force.

The Army's methodology for doctrinal review and revision is more rigorous than ever before. As Army units conduct training exercises at the Combat Training Centers (CTCs), Observer-Controller teams assess not only unit training proficiency in doctrinal aspects of operations, they also conduct periodic reviews of the adequacy of doctrine as demonstrated by those units. The CTCs prepare assessments of Army doctrine every eighteen months or so and make recommendations for doctrinal changes needed.[5] This includes thorough review of doctrine for non-war-fighting operations.

Training and Doctrine Command has recently completed a thoroughgoing revision of its doctrine development process and now has a Five-Year Doctrine Literature Master Plan and a new implementing regulation. The new, strengthened process includes provisions for the integration of results from experimentation efforts, joint doctrine, and future concepts, and provides for the development of doctrine for the Interim and Objective Transformation Forces.

The Army's doctrine and doctrine process have never served the war-fighter better. It does an outstanding job of teaching soldiers *how to fight*. But professional doctrine must do more than that. It must also educate soldiers *on how to think about how to fight*. In this, Army doctrine falls short.

When soldiers think of themselves as members of a *profession*, they tend to think of themselves in terms of the classic organizational approach to professionalism. Typified in Samuel Huntington's book *The Soldier and the State* (1957), Army professionals focus on organizational patterns—the idea that there is a common process of development that cuts across such otherwise disparate callings as medicine, law, accounting, religion, and the military. A profession, in this view, is an organized body

of experts who apply esoteric knowledge to particular cases. They have elaborate systems of instruction and training, together with entry examinations and other formal prerequisites, and they normally possess and enforce a code of ethics or behavior.[6] The focus of understanding the nature of a particular profession is, in this view, the structure of the organization and how closely a specific group comes to reaching the ideal.

Sociologist Andrew Abbott, however, says that there is more to it than that. He maintains that a profession is an occupational group that controls the acquisition and application of various types of knowledge. His theory goes beyond the identification of the ideal to suggest that the defining quality of a profession is how it does in the competition for dominance over knowledge: "Jurisdictional boundaries are perpetually in dispute, both in local practice and in national claims. It is the history of jurisdictional disputes that is the real, determining history of the professions."[7]

In Abbott's scheme, regardless of how well or poorly a group fits the ideal model of a profession, an organization must have firm control over its knowledge base in order to compete successfully with all the other organizations that contend for the same jurisdiction. He calls that knowledge base the profession's *abstraction*, that is, how it thinks about what it does. He argues that professions are in a constant state of struggle for jurisdiction over that knowledge base, a state that he calls *the ecology of professions*.

It is in this sense that we should consider whether the Army's doctrine is serving the Army well as a fundamental element of its institutional professionalism. If Abbott's theory is right in the distinctions he chooses to emphasize—and there is every indication that he is—then Army doctrine must be more than "the concise expression of how Army forces contribute to unified action in campaigns, major operations, battles, and engagements."[8] In the context of the ecology of professions, doctrine is an occupational group's codification of the abstractions it employs to control the acquisition and applications of the various kinds of knowledge over which it asserts jurisdiction.[9] The Army claims primacy over the use of lethal force in land warfare.[10] It is losing that claim in the current competition for jurisdiction over land warfare largely because its doctrine and doctrine process do not provide sufficient cognitive power in ongoing jurisdictional disputes with rival professions.

In the general system of professions, abstraction is an essential function that any profession must master if it is to survive in the struggle over occupational control.[11] It provides the basis for a profession's inferences—its link between diagnosis and treatment. Only a knowledge system governed by abstraction can redefine problems and tasks to defend them from interlopers and seize new problem areas. It provides a profession with the strongest form of control over its jurisdiction by controlling its knowledge domain. A profession challenged by objective change in technology must have a system of abstraction to survive. Some professions employ abstraction as a strategy or tactic in the professional ecology, though the Army's institutional value structure tends to shun such stratagems. For example, in the early 1990s a consensus emerged among military analysts that a Revolution in Military Affairs (RMA) was emerging. The Air Force, Navy, and Marine Corps argued that their then-current plans, programs, and budgets in fact already embodied that revolution. They made their case in glossy vugraph presentations such as "Global Reach, Global Power," "From the Sea," and

"Operational Maneuver from the Sea." The Army, in contrast, treated the notion of a Revolution in Military Affairs as a hypothesis. It never argued that its existing programs were *the* RMA, as did its sister services; instead it made the case that the RMA was a concept yet to be demonstrated. The Army did not link its then-current plans, programs, and budgets to the RMA, but it embarked on a series of conceptual exploratory inquiries, including "Louisiana Maneuvers," "Advanced Warfighting Experiments," "Force XXI," and "The Army After Next." The Army did not engage the other services at that level of abstraction until nearly a decade later, after it had made major changes in several of its principal programs (for example the complete restructuring of the Future Combat System Program, and the design of the Objective Force). Only then did Army Chief of Staff Gen. Eric Shinseki pronounce at the October 2000 Association of the United States Army Convention the Army's abstraction under the "Transformation" label.

An effective system of abstraction must be strong enough to compete, although this does not require reaching some absolute standard of abstraction across all professions. At a minimum the system of abstraction should provide rational consistency to the system of inference and clarify the definitions of the boundaries of the profession as well as their rationale. The body of doctrine must legitimize the work of the profession by clarifying its foundations and tracing them to major cultural values. It should of course provide for research and instruction among the members of the profession. But it must also provide for the generation of new diagnoses, treatments, and inference methods (to use Abbott's medical analogy.)

It is against this measure of effectiveness that Army doctrine needs to be evaluated in order to judge the role of doctrine in Army professionalism. The effectiveness of Army doctrine as a pedagogical instrument is indisputedly best-in-class. The object of this chapter, however, is to reach a judgment on how well Army doctrine serves the profession in the competition for jurisdiction.

The outcomes of jurisdictional competition form six types:[12]

- Full and final jurisdiction, one profession winning at the expense of all others;
- Subordination of one profession to another, either cognitively or practically;
- Split jurisdiction into two interdependent parts;
- Shared jurisdiction without a division of labor;
- A losing profession is allowed an advisory role vis-à-vis the winning one; or
- Division of jurisdiction by client type.

To the extent that the Army is able to assert full and final jurisdiction as technology and organizations change, it maintains and even enhances its position in the ecology of professions. But if the Army increasingly subordinates, splits, shares, advises, or divides jurisdiction, its claims to legitimacy and monopoly over the use of lethal force in land combat erodes. Doctrine, as the systematization of the Army's abstraction about its occupational authority and control, is the essential measure of effectiveness on how the Army is competing in this milieu.

The Army finds itself today in three elemental professional competitions (see Table 6-1). Each competition forces the Army to adapt professionally as the nature

of its core competence changes, and as other professions challenge the Army's traditional occupational exclusivity. The first of these is technological in nature, brought on by the emergence of the Revolution in Military Affairs.[13] The RMA represents a dramatic change in the nature of the conduct of warfare, resulting from a complex interaction among new operational concepts, innovative organizational designs, and emerging technological capabilities. The currently emerging RMA consists of new warfare areas in Long Range Precision Strike, Information Warfare, Dominating Maneuver, and Space Operations. The Army terms its engagement in the RMA as *Army Transformation.*

The second set of competitions that Army doctrine must engage in is the evolving joint character of military operations. The Goldwater-Nichols Act of 1986 created a fundamental shift in the nature of the professional competition for jurisdiction, among other changes, by legally and institutionally legitimizing the contribution of joint functions, organizations, and people to U.S. war-fighting. That the Army has found it necessary to engage in this competition was dramatically revealed in a survey of Army general officers conducted by TRADOC in 1998.[14] Respondents uniformly concluded that TRADOC, rather than publish a revision of Field Manual 100-5, *Operations,* should instead defer that revision and immediately begin to align Army doctrinal publications, including their numbers, titles, and content, with the growing body of joint doctrinal publications.

The third area of engagement is in non-war-fighting competencies. While the Army has always had a role in such operations, the decade of the 1990s, for a variety of reasons, heightened the role of the Army in them. Most Army operations after Operation Desert Storm have been of this variety.

Competitions	Competitors
Revolution in Military Affairs	Other Services
	Office of the Secretary of Defense
	Joint Forces Command
Jointness	Joint Staff
	Commanders-in-Chief
Nonwar	Federal Agencies
	Multinationals
	Non-Governmental Organizations

Table 6-1. *The Army's Competitions for Occupational Jurisdiction.*[15]

Army doctrine provides an objective indicator of how effectively the Army is able to assert its claims of jurisdiction in these competitions among rival professions. Trends in Army doctrinal change can be observed at the institutional level in official documents, both in terms of the titles and in the content of key writings. The impact of doctrinal change can also be observed at the individual level, although in a more subjective manner, by means of a survey of published professional writings and in the results of recent surveys of soldiers. In both approaches, the doctrinal writings themselves can be evaluated as to the emergent settlements of the three current jurisdictional competitions.

Levels of Analysis

In this chapter, I examine Army doctrine at the institutional level through two methodologies. First, the Army reveals its professional cognitive map over time by way of its Index of Doctrinal Publications. The titles of the manuals themselves and the subject areas into which they are classified change as the Army's definition of its occupational jurisdiction changes. It is a straightforward process to identify the deletions and additions as a quantitative measure of change in Army doctrinal coverage, then to subjectively classify the implications of those changes along the dimensions of the three jurisdictional competitions. In this analysis I have examined this index in decennial increments from 1940 to 2000.

The second measure of Army abstractional adaptation is in the content of the doctrinal statement contained in Field Manual 100-5, *Operations*.[16] This is the "heartland of work over which it has complete, legally established control, legitimated by the authority of its knowledge."[17] The published versions of FM 100-5 over time form a data set from which a classic content analysis can reveal trends in terms of the three jurisdictional competitions. In this chapter I have limited the content analysis to the 1982, 1986, and 1993 versions of FM 100-5 and the October 2000 edition of United States Army Command and General Staff College Special Text 3-0 (ST 3-0). Because FM 100-5 was in formal revision by the Army, ST 3-0 was the only authoritative source of current Army doctrine on *Operations* available publicly during the conduct of this research. ST 3-0 therefore served as the most recent document for the purposes of developing this trend analysis.

At the individual level of analysis, two data sources provide some insight into the effectiveness of Army doctrine in the ecology of professions. First, the Center for Strategic and International Studies commissioned the Center for Creative Leadership in Greensboro, North Carolina, to conduct a survey of attitudes among military professionals on a number of cultural issues, some of which relate to the jurisdictional competitions considered in this analysis. Secondly, there is a robust professional Army literature available, primarily in the publications *Military Review* and *Parameters*, which, though journals of ideas as opposed to outlets for prescribed policy, nonetheless reveal which way the doctrinal winds are blowing.

Institutional Level: The Army's Cognitive Map

In 1940, before the outbreak of World War II, the Army had perhaps forty-five identifiable field manuals.[18] Numbering was not consistent, with separate publications variously identified by title, volume, and chapter as well as by number. This system was the culminating point of the Army's doctrinal transformation after World War I. That process resolved ongoing jurisdictional disputes within the Army among its infantry, cavalry, and field artillery branches (infantry emerged dominant at that time), producing the first comprehensive codification of the Army's jurisdictional abstraction in the Field Service Regulations of 1923, the

Old Series Number	Subject Area	1945	1970	2000	New Series Number	New Subject Area
1	Aviation	15	8	15	3-04/3-xx	Aviation
2	Cavalry	6	0	0		
3	Chemical Warfare	8	2	14	3-11/3-xx	Chemical (NBC)
4	Coastal Artillery	59	0	0		
5	Engineer	16	18	40	3-34/3-xx/4-04	Engineer
6	Field Artillery	24	129	19	3-09/3-xx	Field Artillery
7	Infantry	9	3	13	3-21/3-xx	Infantry
8	Medical	7	6	26	4-02/4-xx	Medical
9	Ordnance	6	4	6	4-xx	Ordnance
10	Quartermaster	3	5	86	4-xx	Quartermaster
11	Signal	6	16	9	6-x/6-xx	Signal
12	Adjutant General	1	2	2	1-x/1-xx	Adjutant General
14	Finance	0	0	1	1-06	Finance
16	Chaplain	0	3	1	1-05	Chaplain
17	Armor	26	7	9	3-20/3-xx	Armor
18	Tank Destroyer	9	0	0	3-xx	Management Information Systems
19	Military Police	2	11	9	3-19/3-xx	Military Police
20	Miscellaneous	1	10	3	3-xx/7-xx	General
21	Individual Soldier	19	20	14	3-xx	Individual Soldier
22	Infantry Drill	1	3	4	3-xx/7-xx	Leadership, Courtesy, and Drill
23	Basic Weapons	21	31	15	3-xx/7-xx	Weapons
24	Communications Procedures	14	7	12	6-xx	Communication Techniques
25	Transportation	4	0	5	7-x/7-xx	General Management
26	Interior Guard Duty	1	0	0	7-xx	Organizational Effectiveness
27	Military Law	3	2	4	1-04/1.xx	Judge Advocate/Military Law
28	Welfare, Recreation and Morale	2	0	0		
29	Combat Service Support	0	15	0	7-xx	Composite Units and Activities
30	Military Intelligence	13	17	0	2-x/2-xx/3-xx	Military Intelligence
31	Special Operations	7	29	9	3-05/3-xx	Special Forces
32	NOT USED				7-xx	Security
33	Psychological Operations	7	29	9	3-53	Psychological Operations
34	Intelligence	0	0	20	2-xx/3-xx	Combat Electronic Warfare and Intelligence
35	Women's Army Corps	1	1	0		
36	NOT USED				3-xx/4-xx	Environmental Operations
38	Logistics	0	19	2	4-xx	Logistics Management
39	NOT USED				3-xx/7-xx	Special Weapons Operations
40	NOT USED				3-14	Space
41	Civil Affairs	0	2	1	3-57	Civil Affairs
42	Quartermaster	0	0	2	4-xx	Supply
43	NOT USED				4-xx	Maintenance
44	Anti-Aircraft/Air Defense	10	30	10	3-01/3-xx	Air Defense Artillery
45	Censorship	0	2	0		
46	Public Affairs Operations	0	0	1	3-61	Public Information
50	NOT USED				7-xx	Common Items of Nonexpendable Material
51	NOT USED				3-xx.x	Army
52	NOT USED				3-xx.x	Corps
54	Higher Echelons	0	8	2	4-xx	Logistics Organizations and Operations
55	Transportation	6	17	17	4-01/4-xx	Transportation
57	Airmobile/Pathfinder	0	3	2	3-xx	Airborne
60	Amphibious	1	1	0	3-xx	Explosive Ordnance Disposal Procedures
61	Divisions	0	2	0	3-xx.x	Division
63	Combat Service Support	0	0	9	4-x/4-xx	Combat Service Support
67	NOT USED				3-xx	Airmobile
70	Mountain and Winter	2	0	0	7-xx	Research, Development, and Acquisition
71	Division Operations	0	0	7	3-xx.x	Combined Arms
72	Jungle	0	1	0		
74	NOT USED				7-xx	Military Missions
75	NOT USED				7-xx	Military Advisory Groups
77	NOT USED				3-xx	Separate Light Infantry
90	Operations	0	0	17	3-xx/3-xx.x	Combat Operations
97	NOT USED				7-xx	Division (Training)
100	Operations	4	5	37	3-x/3-xx.x	General Operational Doctrine
101	Staff	4	9	3	5-x/5-xx	Planning/Staff Officers
105	Umpire	2	3	0	3-xx	Maneuver Control
145	NOT USED				7-xx	Reserve Officers' Training Corps
300	NOT USED				7-xx	TOE Consolidate Change Tables
J-Series	Joint	0	0	25		

Table 6-2. *The Army Cognitive Map.*[23]

progenitor of FM 100-5.[19] During and after World War II the Army's doctrinal system became more routinized.

Eric Heginbotham has attributed the effectiveness of the U.S. Army in executing combined arms warfare, compared to the British experience, in large part to doctrinal processes just before and during World War II. He argues that doctrine became a common language for all American Army officers to employ in discussions about employment of combined arms, thus becoming the base upon which improvements were made and guidelines for operations were created. Doctrine was the mechanism for producing rapid adaptation within a dense network of channels among Army professionals for communication within the force.[20]

This networking among Army professionals produced, by 1945, the first consistently codified cognitive map of the Army's abstraction of its occupational domain. For example, *Basic Field Manual List of Training Publications*, the 1945 version of FM 21-6, was the first to apply integrated regular groupings of subject matter and to assign consistent numerical designations for Army field manuals. The robustness and rigor of the U.S. Army's doctrinal process continued to grow throughout the post-World War II period.[21] The broad changes that have occurred are observable in the indexes that report the titles and subject matter covered by the Army's field manuals.[22]

The 1950s emphasized traditional combined arms as tactical nuclear weapons doctrine emerged. Manuals of the 1960s reflect the epitome of tactical nuclear weapons doctrine, especially with the emergence of Army missile systems. The 1970s manuals were characterized by a resurgence of combined arms warfare, as applied to conventional war-fighting in Europe and by a growth in coverage of subjects required for fighting in Vietnam. The dominant changes in the 1980s manuals reflect the training revolution that occurred within the Army beginning in the late 1970s. Books on individual occupational specialties, covered earlier (and since) in technical or training manuals, were elevated to field manual status in the 1980s. By the 1990s this began to change, with the training revolution being gradually displaced by the operational revolution characterized by AirLand Battle doctrine and the Persian Gulf War. The latest index of Army doctrinal publications reveals a growth in coverage of logistics matters and jointness of Army operations.

There are some interesting continuities demonstrated in the Army's cognitive map (Table 6-2). Some weapons are apparently timeless, with the M2 caliber 50 machine gun serving as a familiar example in FM 23-65. Some subjects change name and number but haven't really gone away since ancient history; the 1940 index lists FM 25-5, *Animal Transport*, while the 2000 index shows FM 31-27, *Pack Animals in Support of Army Special Forces Operations*. This database also reveals some insight into the effectiveness of the Army's system of abstraction in its current jurisdictional competitions.

While there are no immediately observable references in the latest index to the Revolution in Military Affairs, there is an implicit gradual movement in subject matter coverage in the direction of the dramatically new ways of waging warfare contained in RMA concepts. There is now a separate manual devoted exclusively to information warfare, FM 100-6. Likewise, the Army recognizes the importance of one of the other emerging new RMA warfare areas in the publication of FM 100-18, *Space Support to Army Operations*, although the promise of the RMA is that space operations will

themselves become a new warfare area. The precision strike warfare area of the RMA is covered, implicitly, in Army doctrinal coverage of new fire support and communications techniques, revealed in such new manuals as FM 6-20-10, *Tactics, Techniques and Procedures for the Targeting Process*; FM 6-24.8, *TADIL-J, Introduction to Tactical Digital Information Link J and Quick Reference Guide*; FM 11-55, *Mobile Subscriber Equipment (MSE) Operations*; FM 24-7, *Tactical Local Area Network Management*; FM 34-25-1, *Joint Surveillance Target Attack Radar System (JSTARS)*.

Notably absent from this review is any new title covering abstractions relating to dominating maneuver in the RMA. Content analysis of the specific coverage in FM 100-5 sheds some light on this, but for the moment the assessment of the Army's cognitive map indicates grudging acknowledgement that some fundamental changes attributable to an emergent RMA may be in motion in the Army's occupational jurisdiction. That acknowledgement is more a recognition of the impact of new technologies and systems than an exploration of new operational concepts.

The Army is conducting such an exploration of the potential for an RMA in its Army Transformation process. As a result of a decade of work, beginning with the Louisiana Maneuvers Task Force, progressing through a series of Army War-fighting Experiments, and continuing through the promulgation of Army Digitization Doctrine,[24] the Army has addressed some of the issues associated with the RMA, especially those concerning battle command. The Army is also working on its Interim Brigade Combat Teams doctrine that will eventually cover the Objective Force,[25] a design that will focus on architectures centering on the Future Combat System. The conceptual framework of this future doctrine is published in TRADOC Pamphlet 525-5, which has not been revised since its publication in 1994.

The most dramatically observable change in the Army's cognitive map is the emergence of joint doctrine. An entirely new meta-subject-area has been created in the renumbering of certain Army publications from field manuals to joint publications. This move is as radical a departure as the creation in 1923 of the Field Service Regulations that unified the Army's infantry, cavalry, and field artillery schools of warfare into a single consistent body of abstractions.

It is apparent from the 1998 General Officer Survey that the Army has begun to subordinate its doctrine, at least some significant components of it, to joint doctrine. The titles of several of the Army's 90- and 100-series manuals now include the term *Joint*. Most had no purely Army equivalent in previous editions. The most significant indicator of this trend is the redesignation of FM 100-5 as FM 3-0 to conform to the notation of JCS Pub 3-0, *Operations*. The listing of 25 joint doctrinal publications as equal in authority to Army field manuals is a radical departure from previous listings in which joint publications provided authority over a few very narrow technical subjects or a few areas so broad as to have no real impact on the conduct of Army operations.

The Army's cognitive map also reveals insight into how the Army has responded to jurisdictional challenge in non-war-fighting areas. The data indicate that the Army's adaptation to the 1990s requirements to conduct stability and support operations has been to re-invent what had been its traditional approach to such operations before the birth of AirLand Battle doctrine.

While they were not on the street in time for operations in the early 1990s in Haiti, Somalia, and the Balkans, the Army has quickly produced new doctrinal publications such as FM 100-23, *Peace Operations*, and FM 100-23-HA, *Multiservice Procedures for Humanitarian Assistance Operations*, both of which were promulgated in late 1994. It also published FM 7-98, *Operations in Low-Intensity Conflict*, in 1992; FM 90-29, *Noncombatant Evacuation Operations*, in 1994; and FM 100-19, *Domestic Support Operations*, in 1993. More significantly, the Army relied on a number of its older doctrinal publications, trying to make some of them more relevant to these challenges of the 1990s. Falling into this category are FM 100-20, *Military Operations in Low Intensity Conflict*, from 1990; FM 19-15, *Civil Disturbances*, born of the Army's role in domestic operations of the 1960s; and FM 90-8, *Counterguerrilla Operations*, FM 31-23, *Stability Operations*, and FM 31-20, *Doctrine for Special Forces*, each from the Vietnam-era doctrinal files.

The Army's cognitive map of its abstraction of occupational jurisdiction is revealing. It implies an evolutionary approach to incorporating the advances of the RMA into the heartland of its core competence for full and final jurisdiction over land warfare. It reveals an attempt to share in jurisdiction over joint operations. And it seems to be establishing a preference to serve in an advisory role in the non-war jurisdiction in its approach to stability and support operations.

The Heartland of Army Core Competence: FM 3-0

The Army's foundational mechanism for claiming jurisdiction is Field Manual 3-0, *Operations* (2001). Where the Index of Publications identifies the cognitive *structure* of the Army's occupational domain, it is in this manual that the Army defines for society its cognitive *content* in such a way as to legitimize its claim to exclusivity over land warfare. The document has served that function at least since the 1982 version of FM 100-5 that was published in response to widespread external criticism of the 1976 version of the manual. Editions since 1982 have served as the Army's codification of its adaptation to jurisdictional competition as new tasks emerge. It has provided for the elaboration of Army knowledge at several layers of abstraction by means of amalgamation (absorbing new jurisdictions and groups) and division (creating new jurisdictions and groups to occupy them). Other manuals provide details of diagnosis and treatment of Army problems—this is what the Army means by its frequent colloquial reference to "how to fight." FM 100-5 provides the ordering of abstractions for inference.[26] It claims to supply enduring principles that can be applied to almost any problem that confronts military professionals.

The absence of significant change articulated across the 1982, 1986, 1993, and 2001 versions of *Operations*[27] in the Army's basic approach to offensive and defensive operations is stunning. Every one of these manuals states at the beginning of the section dealing with the offense, "The offense is the decisive form of war," although important modifiers and explanatory statements vary somewhat across the versions. The characteristics of the offense itself are almost unvarying (see Tables 6-3 and 6-4).

1982	1986	1993	2001 (FM 3-0)
Concentration	Surprise	Concentration	Surprise
Surprise	Concentration	Surprise	Concentration
Speed	Speed	Tempo	Tempo
Flexibility	Flexibility		
Audacity	Audacity	Audacity	Audacity

Table 6-3. *Comparative Characteristics of the Offense among the FM 100-5 Series.*

The forms and types of maneuver for the offense are identical in each edition.

Forms of Maneuver	Types of Offenses
Envelopment	Movement to Contact
Turning Movement	Attack (Hasty or Deliberate)
Infiltration	Exploitation
Penetration	Pursuit
Frontal Attack	

Table 6-4. *Forms and Types of Offensive Maneuver.*

There is no mention of jointness in these discussions of offense, nor is there any discussion of non-war-fighting operations. The 2001 version of Student Text 3-0 (the authoritative text used at the U.S. Army Command and general Staff College while FM 100-5 was under revision) does include a brief discussion of RMA-related issues in an appended one-page section on technology suggesting that intelligence, surveillance, and reconnaissance technological advances may allow commanders to lead from the front, avoid the movement-to-contact, increase the tempo of the offense, and create more options during the conduct of offensive operations.

FM 3-0 does reveal some fundamental change in the abstraction of the defense. Each version of the manual begins with the statement that the purpose of the defense is to defeat an enemy attack until the force can go over to the offense. There has been more change in description of the basic characteristics of the defense, in contrast to the consistency in the discussion of the offense. In particular, in the 1983 and 1986 versions, the emphasis in the defense is on detailed planning to allow the concentration of forces in adaptation to enemy actions as the defensive battle progresses. The 1993 version replaces the focus on detailed planning with greater adaptation in battle command. It refers to massing effects rather than forces, and agility in execution rather than detailed branches and sequels.

The forms of the defense also change by the time Student Text 3-0 is published in 2001. The 1982 version of FM 100-5 articulates the basic forms of the defense, while the 1986 edition creates a conceptual framework within which those forms take place (Deep Battle Area, Security Area, Main Battle Area, Rear, Reserve). The 2001 version of ST 3-0 proposes a radical departure in that framework to a higher level of abstraction (Decisive Operations, Shaping Operations—including Information Operations—

and Sustaining Operations in Depth). It asserts that defensive operations will be non-linear and noncontiguous.

In the domain of defense operations there is greater evidence than in the offense that the Army is attempting to incorporate RMA concepts into its basic doctrine, but as with its coverage of the offense, this treatment of the RMA is implicit, not confronted head-on. Similarly, there is no content on jointness in the discussion of the defense, nor is there any treatment of non-war-fighting operations.

Clearly, if the Army believes that it faces jurisdictional competition in the emergent concepts of the RMA, jointness and non-war-fighting operations, it does not consider the challenges to its traditional knowledge domain to be serious enough to cause it to adapt or revise its core offense and defense concepts. To the extent that the FM 100-5 series recognizes an emerging RMA, the Army appears to be asserting that these phenomena will not result in any fundamental change in the Army's full and final jurisdictions.

The doctrinal evidence on Army professional abstraction changes dramatically once the analytic focus shifts away from the core competencies to the chapters of the FM 100-5 series that appear before and after this heartland material.

One set of changes reflects a similar departure that is observed in the cognitive map, that is, the growing role of logistics concepts in Army operations. This change has more to do with the changing nature of the Army's internal approach to conducting operations than with forming a response to jurisdictional competitions. Nevertheless, the impact of changing logistics requirements on Army doctrine is significant. The 2001 manual devotes 21 pages to logistics concepts, the previous manuals half or less than that. These changes are related to changing policy and strategy trends as the Army shifts from a forward-based posture to a force-projection approach.

More relevant to this analysis, the manuals reveal a growing concern with non-war-fighting operations. The 1982 FM 100-5 barely mentions that Army forces may again be called upon to conduct unconventional warfare operations in a veiled reference to the Vietnam War era. The 1986 version introduces the concepts of low-intensity conflict in addressing such operations as foreign internal defense, counterinsurgency, peacetime contingency operations, peacekeeping operations, and anti-terrorism. The 1993 manual devotes an entire chapter, for the first time in the FM 100-5 series, to such activities as "Operations Other Than War." That chapter provides greater specificity in the definitions of the types of non-war-fighting operations the Army must be prepared to conduct, but it makes a revealing argument when it maintains that such operations are subsumed within standard Army operational doctrine. (See Chapter 8 by Thomas McNaugher in the present anthology for a fuller treatment of this argument.)

Student Text 3-0 (2001) re-names these operations as "Stability and Support Operations," or SASO (actually a throwback to 1960s terminology), and devotes two chapters to the abstractions Army professionals need to apply. The types of operations included in SASO are expanded to include security assistance, support to insurgencies, support to counterdrug operations, arms control, show of force, and civil and domestic support operations. ST 3-0 maintains the argument, although in more sophisticated form,[28] that such operations are not the Army's

primary business of war-fighting, but that Army forces are very good at them as lesser included capabilities.

The various editions of FM 100-5 are quite explicit in their treatment of the issues related to the increasing jointness of the Army's professional jurisdiction. The 1982, 1986, and 1993 versions of FM 100-5 maintain that there are two chains of command in joint operations, one for operations and a separate one for administration. The operational chain of command is usually joint, the administrative chain is nearly always service-specific. This bifurcation disappears in ST 3-0, which states that there is a single chain of command from the National Command Authority through the Joint Force Commander to forces provided by the services. This represents a fundamental shift in the Army approach to conceptualizing jointness.

It is significant that ST 3-0 makes this statement not in the context of core Army defensive and offensive operations, nor in its discussion of battle command. Rather, ST 3-0 makes this point about such a fundamental change in Army concepts in the context of a discussion on a higher level of abstraction about the levels of war—tactical, operational, and strategic. This point is further evidenced in a recent briefing posted to TRADOC's Doctrine Developer's Course web site. On slide number three of the briefing titled "Army Doctrine Hierarchy and Numbering Update," there is an interesting audio voice file that plays as the slide builds. In the panel of the slide that discusses how the existing doctrine numbering system needs to be revised to be compatible with the joint system, the narrator asserts that joint doctrine will become an extension of Army doctrine.

One way to interpret these statements about the relationship between Army and joint doctrine is as an attempt by the Army to share jurisdiction with emerging and competing joint organizations over land combat. By casting the jurisdictional conflict in terms of abstractions that the Army traditionally has mastered—the levels of war—the Army seems to be attempting to exert greater control or influence over the terms of the jurisdictional division that is emerging. By asserting that joint doctrine is really nothing more than a logical outgrowth of Army doctrine, the Army may be trying to establish the basis for later arguments. In doing so, it may be that the Army recognizes that it will inevitably lose some control over land combat and hopes to retain greater residual jurisdictional control by participating in the defining of terms relevant to sharing jurisdiction. In other words, rather than risk permanent loss through mutually exclusive claims of subordination or splitting jurisdiction, claims that the Army perhaps fears it would lose, it may be attempting to lay out a broader claim for shared jurisdiction with joint institutions. If it can win this claim for shared jurisdiction, the Army will at least have the opportunity to make a future argument for jurisdiction.

In sum, the institutional evidence seems to indicate that the Army is attempting to adopt an amalgamation strategy in its current jurisdictional competitions over the Revolution in Military Affairs, increasing jointness, and the re-emergence of non-war-fighting operations. The doctrinal evidence, especially as to the Army's core competence embodied in FM 3-0, suggests that the Army believes it can exert full and final jurisdiction over new warfare areas in the emerging RMA insofar as

they continue to involve land combat. The Army's cognitive map, as well as FM 100-5, clearly reveals the Army's search for accommodation in the jurisdictional competition with joint organizations. And the available institutional evidence implies that the Army does not believe that emerging requirements for non-war-fighting operations represent a competition that it wants necessarily to win. Rather, the Army seems to be pursuing a strategy of making itself available in an advisory capacity for such operations.

The Individual Level Of Analysis

At the individual level of analysis, the role of Army doctrine in the ecology of professions is more subjective than it is at the institutional level. While there are some interesting data available at the individual level, it is problematic to extrapolate from the responses of a population sample to behaviors and concepts of the Army as a whole. Nevertheless, it is useful to examine the role of Army doctrine at this level for additional insight into the trends observed at the institutional level.

Two data sets provide these insights for this analysis. The first set of data comes from the investigation by the Center for Strategic and International Studies (CSIS) titled *American Military Culture in the Twenty-First Century.*[29] Second, a review of articles in the Army's professional journals, focused on the three jurisdictional competitions, provides some insight into the nature of the debate over professional jurisdiction.

Of the ninety-nine questions in the Ulmer-Campbell Military Climate/Culture Survey (MCCS) conducted for the CSIS project, and the eighty-eight questions in the companion Staff Survey, some related to the three competitions of interest in this analysis. Two MCCS questions related to the RMA:

> **No. 45.** Our organization can adjust to new technologies and changing doctrine (No. 30 in the MCCS Staff Survey).
>
> **No. 56.** Our leaders consider the future, exploring new doctrine, tactics, equipment, and procedures.

Both sets of respondents provided a highly positive response that their organization adjusts to new technologies and changing doctrine. Staff respondents were more positive (mean score of 4.92 on the survey 6-point scale, compared to 4.21 on the broader survey), but in both sets the response was in the top twenty most favorable responses on the survey. This indicates a willingness among soldiers to adapt to the RMA. But there is a significant difference in perception between staffs and the broader population about the willingness of Army leaders to adapt to such change. While the leaders themselves rated their organizations' receptivity to RMA-like change higher than the broader population did, the broader population itself, when asked to narrow their response to the willingness of the leaders to adjust to the RMA, rated their leaders at 3.84, a substantially lower score than the leaders gave themselves. In other words, Army leaders think they are adapting to the RMA, but soldiers do not think their leaders are changing fast enough. This finding lends support to the institutional data suggesting that the Army is not adapting its doctrine with regard to the RMA fast enough to compete in this area of professional jurisdiction.

Several MCCS questions also dealt with the issue of jointness:

No. 23. I have confidence in the other American military services that we might work with in joint operations (No.29 on the Staff Survey).

No. 53. This unit would work smoothly with units from other military services (No. 36 on the Staff Survey).

No. 92. Emphasis on joint education, doctrine, and training has contributed to the effectiveness of my Service (No. 66 on the Staff Survey).

No. 81. (Staff Survey Only) My future value to my service would be enhanced by my completing a tour on a joint or combined staff.

On both surveys, the confidence in other military services ranked very positively. For the total active Army this question received the 11th highest positive ranking, with a mean score of 4.35 out of 6, and on the Staff Survey it was the third highest positive score (5.45). Both surveys rated the question of working smoothly with units from other services positively (3.95 on the total active Army survey, 4.83 on the Staff Survey) as well as the question of the value of joint education, training, and doctrine (3.81 on the total survey, 4.22 on the staff survey). While these data do not shed any new light on the institutional question of the Army's attempt to negotiate a shared jurisdiction over land combat, it does indicate that service members would be supportive of such an outcome.

Three questions covered issues related to the Army's jurisdictional adaptation to non-war-fighting operations:

No. 28. (Staff Survey No. 18) Members of this unit believe it is appropriate for us to be involved in a variety of operations—from "humanitarian" to combat.

No. 43. (Staff Survey No. 28) The essential mission of America's armed forces is to be prepared to win in combat.

No. 90. (Staff Survey No. 78) My service has the flexibility and resources to handle "peacekeeping" and other noncombat missions without significantly degrading its wartime readiness.

These three questions must be taken together. The responses to question No. 43 (Army mean = 5.08, Staff mean = 4.50) were more generally positive than those for questions No. 28 (Army mean = 3.63, Staff mean = 4.50) and No. 90 (Army mean = 3.77, Staff mean = 3.50). But there is a substantial difference in the salience of these perceptions between the total active Army respondents and the Staff respondents. Staff respondents seem to hold the view that the Army can simultaneously be prepared to win in combat and still be involved in a variety of operations from "humanitarian" to combat. The overall lower positive scores in this area tend to support the Army's institutional approach to this jurisdictional competition in seeking an advisory role.

The Army's professional literature contains additional insight into the individual level of analysis of Army approaches to its jurisdictional competitions. On the subject of the RMA, the Army's professional dialogue was lively for five years from about 1993 until about 1998.[30] The subject has now virtually disappeared from the

pages of *Parameters* and *Military Review*. Interestingly, just before his retirement in 2001, Army War College Commandant Robert Scales published a provocative, though largely unnoticed article on the RMA in which he argued that the U.S. Army, far from dominating its opponents through mastery of the RMA, is in fact increasingly more vulnerable to counter-RMA approaches presently under study in the military forces of several foreign countries.[31] If the Army's institutional strategy in this jurisdictional competition is one of presumed dominance, then the absence of a continuing dialogue in the professional literature is indicative that Army professionals have bought in to the presumption.

Very few articles relate to issues of the jointness in the ecology of professions. Gen. Robert Riscassi argued persuasively in a 1993 article that the underlying abstractions of then-current Army doctrine formed the conceptual basis for emerging joint doctrine and should form the basis for the development of doctrine for combined operations as well.[32] David Keithly and Stephen Ferris make a similarly veiled case for employing Army abstractions about command and control as the underlying principles for sharing jurisdiction with joint organizations in joint operations, especially in a multinational context.[33] And the general officer doctrine survey undertaken by TRADOC in 1998 seemed to settle the issue for the Army's senior officers. Those senior Army leaders perhaps believed that in seeking to work out a system of shared jurisdiction, the Army would gain a competitive advantage in the struggle for jurisdiction at the abstract level.[34]

In the third area of jurisdictional competition there is no lack of professional dialogue. It seems that one of the hottest topics among Army writers has been the concepts and issues associated with the non-war-fighting operations characteristic of the 1990s.[35] All seem to support the idea that such operations are a legitimate mission area for the U.S. Army. None disagree with the notion observed in the institutional assessment and the other individual data sets that the successful conduct of non-war-fighting operations, while requiring increasingly complex skills, can be accomplished exemplarily by Army units and soldiers well-schooled in combat operations.

Settlements in the Professional Competitions

The evidence supports the conclusions that in the three basic competitions the Army is presently engaged in, it is seeking a settlement of full and final jurisdiction over the RMA, it seeks to share jurisdiction over joint operations, and it is content to serve in an advisory role in non-war-fighting operations (see Table 6-5). Given these apparent settlement strategies, then, how will the Army fare in the ensuing competition for jurisdiction? I believe the prospects are troubling for the Army as a profession because pursuit of these strategies may lead to an erosion of the Army's ability to maintain legitimacy successfully with regard to its asserted and traditionally secured jurisdiction over land combat.

In the RMA domain, the Army is largely losing the intellectual battle over the definition of this emerging future of combat. It is losing this battle at the abstract level. While Army war-fighting concepts are steeped in the tradition of AirLand

	Possible Outcomes of Jurisdictional Competition					
Competitions	Full & Final	Subordination	Split	Shared	Advisory	Divided
RMA	X					
JOINTNESS				X		
NONWAR					X	

Note: The Xs indicate which outcomes the Army is seeking in the three competitions for jurisdiction over land warfare.

Table 6-5. *Outcomes Sought by the Army in the Competition for Jurisdiction.*

Battle, Air Force concepts are exploring innovative new areas such as Global Precision Strike and Effects-Based Operations.[36] Although Army concepts for the Interim Brigade Concept Team and the Future Combat System-oriented Objective Force may well rival such Air Force concepts at an abstract level, the Army has chosen to develop its RMA concepts entirely in-house, largely inaccessible to non-Army analysts. The Army will never achieve full and final jurisdiction over land combat during the RMA so long as it continues to choose not to engage in the intellectual competition over the meaning of the RMA. Based on my own observations of the joint concept development process, the Army no longer exerts its former leadership over the Dominant Maneuver component of Joint Vision 2020 and instead has acquiesced in an understanding of the RMA that is dominated by the proponents of Precision Strike and Information Warfare. This is not an approach that the Army institutionally is equipped to win in the abstract since the basis of the Army is the control of territory, people, or things.

The Army is engaged in a risky approach to the competition over jointness. The Riscassi argument has worked but it is almost too clever. The particular sharing arrangement that the Army prefers may not turn out to be the one the Army achieves. Rather than defining the abstraction upon which the arrangement will be based, the Army may find itself reacting to alternative concepts proposed by other competitors for professional jurisdiction.

Competing operational concepts are already emerging from joint sources, such as the Rapid Decisive Operations (RDO) concept developed by the Joint Forces Command Joint Futures Lab. The Army has taken a somewhat disdainful attitude towards this concept, which does not provide for an Army role that comes anywhere close to the war-fighting concept articulated in ST 3-0. But the Army cannot win that intellectual fight by avoiding getting into the ring with the Joint Staff as it has done in the RDO exercises to date. The Joint Staff has conducted three studies this year in support of the joint war-fighting capabilities analysis (JWCA), including studies on precision engagement, dominant maneuver, and command and control. In response the Army maintains an outdated briefing package on its approach to the Quadrennial Defense Review that does not come close to addressing the issues raised in the joint staff studies. This competition may also include not only the other services and joint organizations, but, perhaps even more likely, conceptualizations conceived and imposed by influential members of the Office of the Secretary of

Defense. It would not be the first time a Secretary of Defense has mastered the services as a result of superior intellectual powers of abstraction.

Even in the seemingly less risky domain of Stability and Support Operations (SASO), the Army's approach to jurisdictional competition carries not-so-hidden dangers for its claims to exclusive jurisdiction over the use of lethal force in land combat. Andrew Abbott argues that advisory jurisdiction is "the bellwether of inter-professional conflict. Where there is advice today, there was conflict yesterday or will be conflict tomorrow."[37] In my view, the Army's strategy of settling for an advisory role in non-war-fighting-operations is indicative of conflict both before and yet to come. In the professional conflict leading up to the mid-1990s, the Army attempted to avoid taking on SASO as much as it could. It largely viewed such operations as incompatible with the hugely successful combat organization it had revolutionized after Vietnam and that had secured the dramatic victory in the Persian Gulf War. As it became clear that the nation intended to call on its Army increasingly for such operations in the early 1990s, the Army accepted this enlargement of its preferred jurisdiction by adopting its Cold War approach to them—they would be a lesser included set of capabilities that would be offered in support of other organizations who would have the lead. In the case of domestic operations the Army would support some other designated lead federal agency. In the case of overseas operations, the Army held that other nations with more direct interests would take the lead.

While the Army has largely succeeded in this approach, and may yet be spared by the Bush administration from engaging in the number and tempo of such operations seen in the 1990s, at the abstract level the Army has made itself vulnerable to a multitude of rival claims for such advisory support in the future. Typical of such arguments is Mary Caldor's call for the U.S. Army to lead the way in a new global era of employing armed forces strictly for humanitarian interventions.[38] The Army cannot afford to brush off such arguments as so much drivel from the liberal left. These are intellectually powerful arguments, reinforced by the Army's own jurisdictional strategy. The Army needs recognizable intellectual giants of its own to respond, someone cut from the same mold as Canadian Brigadier Lewis MacKenzie, who has argued cogently in this area.[39] And those intellectual giants need abstractions that will empower them to articulate the Army's claims to legitimate monopoly over the use of lethal force in global conflict.

Toward a General Theory of War

So how might the Army go about establishing a firmer intellectual foundation for its abstraction about its professional jurisdiction? As argued earlier, the Army does not need more doctrine. It has more doctrinal publications now than it ever has had before and even more are on the way. Nor does the Army need a new approach to the development of doctrine. The interaction of TRADOC with the schoolhouses, the Combat Training Centers, and units in the field is working better than it ever has. These components of the Army doctrinal machine are not broken, so they need not be fixed.

What the Army needs is a higher level of abstraction to provide it with a stronger form of influence over its jurisdiction by means of greater control over its knowledge domain. The Army must seize the intellectual high ground in the current doctrinal competition. It needs to develop a general theory of war.

Although the Army as an institution generally disdains theory-building and theorists,[40] it is time for the institution to re-establish its intellectual curriculum vitae. This is an ideal time for such a development since there has not been much new thought at this higher level of abstraction for the post-Cold War era. Even Cold War military theory was dominated by early nuclear era theorists such as Bernard Brodie, Albert Wohlstetter, and Andrew Marshall.[41] Yet the Army theory of war is still steeped in the nineteenth-century concepts of Jomini and Clausewitz. It is time to shed the principles of war and develop new knowledge for the new era of warfare. This is not to say that the classic principles of war are irrelevant, any more than it is to say that in the era of quantum mechanics the laws of physics articulated by Isaac Newton no longer apply. It's not that the old laws have zero explanatory power, it is that those Newtonian laws are largely trivial or irrelevant to the problems of modern physics. Likewise, simply stating, for example, that the Somalia operation failed because it violated the principles of mission and unity of command is not helpful in approaching future such operations.

If the Army is to win the intellectual battle of abstraction upon which its future occupational jurisdiction depends, it must now begin to elevate the level of its debate. Presently such discussions have official recognition only in a very limited circle that includes the Army War College's Strategic Studies Institute, Leavenworth's School of Advanced Military Studies, and TRADOC's office of the Deputy Chief of Staff for Doctrine (DCSDOC). The Army needs to broaden its approach by pursuing a General Theory of War for the twenty-first century.

Such a pursuit would need at least three basic components. First, the Army should create a core institution for theory-building. The Army War College and the Command and General Staff College already make important contributions to the development of the "How to Fight" process at the strategic and operational levels. The TRADOC DCSDOC integrates these processes across the Army. Many of the people who accomplish these tasks for the Army are eminently capable of developing theory and implicitly do so in the course of their work. But these organizations have no mandate to focus on theory and certainly do not have the time to do so. The Army needs a new, separate organization dedicated to this function.

Two existing institutions could house such an organization. The United States Military Academy could be effective in this role. USMA now has the kind of interdisciplinary faculty possessed by institutions of higher learning, research, and theory-building in other successfully competing professions (e.g., medicine, engineering, law). Alternatively, the Army has a considerable investment in the RAND Corporation Arroyo Center, a federally-funded research and development center, that would provide similarly broad access to scholars with a well-established—and well resourced—bureaucratic organizational infrastructure already in place.

Wherever the theory-building function is housed, the organization would need to be empowered to reach within the existing Army research enterprises as well as out to other institutions. The theory center could be a funding source for Army graduate students pursuing advanced degrees and dissertations, command and staff college theses, and advanced military studies focusing on the theory of war. It could also commission outside scholarship and perhaps hold a biannual conference to debate and discuss research. The organization should also be about the business of collecting intellectual intelligence about the jurisdictional competitions confronting the contemporary Army. It should address such research questions as these: What are the dimensions and boundaries of the current competitions at the abstract level? Who is competing for what jurisdiction? For what purpose? The center should examine theoretical developments of foreign countries. Most importantly the center would serve to stimulate innovative thinking across the Army by identifying good theorists and encouraging them to think out loud through both personal communications and professional forums.

The second necessary component is the promotion of theory-building across the profession. This will require a cultural shift among Army professionals to recognize the intrinsic value to the profession of those who chose to pursue intellectual abstraction as a career goal over "muddy boots." Many medical and legal professionals who teach or conduct pure research do not concentrate on being practitioners because that is not where their interests primarily lie. They are creating the necessary inferential framework for future adaptations in diagnosis and treatment that will be required in the competition among professions. There is no reason why some of the Army's senior theory-building professionals could not likewise be set apart from its practitioners.

The third ingredient is that the Army must open its dialogue in the abstract to outside contribution and review. It should welcome rival claims by proponents of ideas from other services, the joint community, and even the Office of the Secretary of Defense. It cannot view every new idea as a potential threat to Army plans, programs, and budgets, but should welcome the opportunity to demonstrate the superior persuasiveness of Army doctrinal concepts at the intellectual level. As the Army allows outsiders to contribute, it must carefully control the rules of the game and focus initially on those issues that reinforce the Army's claims to legitimacy. This suggests that the debate should focus not on the peripheral issues of future battle in the RMA, jointness, or stability and support operations. Rather the Army should control the agenda of abstractions by challenging traditional notions of offense and defense in war with innovative contributions of its own in these Army heartland core competencies.

There have been some attempts at theory-building that could serve as a launching point for a new Army approach. These approaches have largely been derived from general systems theory[42] and have proven to fall short of providing the kind of generalized theory needed for jurisdictional competition. More recent attempts at thinking about a new theory of war have pursued certain biological metaphors such as complex adaptive behavior and complexity sciences.[43]

Success in creating a process for building a new theory of war would go a long way toward enabling the Army to escape the negative outcome I believe it faces in the present professional competition for jurisdiction.

Notes

1. Field Manual 100-5 is one source of the Army's definition of *doctrine*. The 1982 and 1986 versions of this manual discuss, almost exclusively, the war-fighting aspects of doctrine in its definition of the term. The 1993 edition expands its scope to include operations other than war and its domain to include how to think about war-fighting as well as how to fight. In the October 2000 version of Command and General Staff College Student Text 3-0, a surrogate for the new (June 2001) edition of Field Manual 3-0, *Operations*, which replaced the 1993 version of FM 100-5, the notion of doctrine is adjusted to connote greater joint-ness. Training and Doctrine Command Regulation 25-36 *Coordinating Draft*, *http://www-tradoc.monroe.army.mil/dcsdoc/*; Internet, accessed on 24 May 2001, also offers a view of the nature of doctrine, "which consists of principles and [Tactics, Techniques, and Procedures], and defines, in terms of existing capabilities, how the Army intends to conduct operations across the full range of military operations. It is the fundamental principles by which military forces...guide their actions in support of national objectives. These principles reflect the Army's collective wisdom regarding past, present, and future operations. It is the body of thought on how the military fights in the present to near-term with current force structure and material. They focus on *how to think* about operations, not *what to think*."

2. Current manuals in force and under development are listed in a database at *http://doctrine.army.mil*. Authoritative complete text of Army doctrinal publications is available at the Reimer Digital Library, "Field Manuals," and "Joint Chiefs of Staff Publications," *http://155.217.58.58/cgi-bin/atdl.dll?type=ANY&school=ANY*; Internet; accessed 20 October 2000.

3. Headquarters, U.S. Army Training and Doctrine Command, "Joint/Army Doctrine Directorate," *http://www-tradoc.monroe.army.mil/dcsdoc/jadd_roster.html/*; Internet; accessed on 30 January 2001.

4. Brig. Gen. Stanley E. Green, Deputy Chief of Staff, Doctrine, Headquarters, U.S. Army Training and Doctrine Command, "Doctrine Study 00/01 Study Advisory Group," 27 September 1999, 11.

5. See, for example, U.S. Army Combined Arms Center, Center for Army Lessons Learned, "National Training Center Trends Analysis 4QFY94-2QFY96 NO.97," at *http://call.army.mil/call/ctc_bull/97-3anly/ta1.htm*; and *http://call.army.mil/call/ctc_bull/llcmtc96/c2.htm*; Internet; accessed 2 February 2001.

6. Samuel P. Huntington, *The Soldier and the State* (New York: Vintage Books, 1957); Andrew Abbott, *The System of Professions: An Essay on the Division of Expert Labor* (Chicago, İL: Chicago University Press, 1988) 4.

7. Abbot, 2.

8. U.S. Army Command and General Staff College Student Text 3-0, *Operations* (Fort Leavenworth, KS: U.S. Army Command General Staff College: 1 October 2000), 1-14.

9. My own exegesis of Abbott, 2,4.

10. The Army makes this case in its capstone manual, FM 1-0. It is excerpted in ST 3-0, "Army Forces are the decisive component of land warfare."

11. Abbot, 98-108.

12. Ibid., 69-79.

13. Jeffrey McKitrick et al., "The Revolution in Military Affairs," in *Battlefield of the Future*, eds. Barry R. Schneider and Lawrence E. Grinter, Air War College Studies in National Security No. 3 (Maxwell Air Force Base, AL: Air University Press, 1995).

14. Lt. Col. Mike Goodwin, "Update: Army Doctrine XXI," slide 7 of 12 , *http://www-tradoc.army.mil/jadd/adxxi/*; Internet; accessed 20 October 2000. Nota bene: this site is no longer accessible to the public. I will provide hard copy to any researcher who desires to examine this

document. Aggregate results of the survey are contained in the briefing "Doctrine Study 00/01 Study Advisory Group" cited in n.4.

15. The Army's view of the division of doctrinal turf is summarized in a table accompanying a briefing on the relationship between Army and joint doctrine. The table lists the numbers of joint doctrinal publications by proponent: Army 26, Navy 5, Air Force 14, USMC 5, USCG 3, CinCTRANS 8, CinCSPACE 1, CinCSOC 7, CinCSTRAT 1, CinCJFC 7, J1 2, J2 7, J3 7, J4 7, J5 1, J6 2, J7 10, PA 1, SP 1.

16. During this study, FM 100-5 was in the process of revision and was released after the completion of the research. Its number was changed to FM 3-0 as part of the complete revision to the Army Manual numbering system. As a surrogate for FM 3-0, I used USACGSC Student Text 3-0.

17. Abbott, 71.

18. U.S. War Department, FM 21-6, *Basic Field Manual List of Training Publications*, 16 March 1940.

19. William O. Odom, *After the Trenches: The Transformation of U.S. Army Doctrine, 1918-1939* (College Station, TX: Texas A&M University Press, 1999).

20. Eric Heginbotham, *The British and American Armies in World War II: Explaining Variations in Organizational Learning Patterns,* Defense and Arms Control Studies Working Paper, Defense and Arms Control Studies Program (Cambridge, MA: MIT Center for International Studies, February 1996). Timothy Lupfer has argued that a similar robustness gave the German Army a relative tactical advantage over the Allies during World War I: Timothy T. Lupfer, *The Dynamics of Doctrine: The Changes in German Tactical Doctrine During the First World War*, Leavenworth Papers No. 4 (Fort Leavenworth, KS: U.S. Army Command and General Staff College, July 1981).

21. Robert A. Doughty, *The Evolution of U.S. Army Tactical Doctrine, 1946-76*, Leavenworth Papers No.1 (Fort Leavenworth, KS: U.S. Army Command and General Staff College, Combat Studies Institute, August 1979); *Sixty Years of Reorganizing for Combat: A Historical Trend Analysis,* Combat Studies Institute Report No. 14 (Fort Leavenworth KS: U.S. Army Command and General Staff College, January 2000). John L. Romjue, *Prepare the Army for War: A Historical Overview of the Army Training and Doctrine Command 1973-1993* (Fort Monroe, VA: U. S. Army Training and Doctrine Command, 1993); John L. Romjue, *American Army Doctrine for the Post-Cold War* (Fort Monroe, VA: U.S. Army Training and Doctrine Command, 1996).

22. I have compiled a cross-referenced longitudinal database index of all Army FMs sampled from the following publications: War Department Field Manual 21-6, *List of Field Publications for Training*, March 1945; Department of the Army Field Manual 21-6, *List and Index of Department of the Army Publications*, 10 April 1948; Department of the Army Pamphlet 310-3, *Military Publications Index of Training Publications,* 14 March 1960; DA PAM 310-3, *Military Publications Index of Training Publications,* 1 October 1954; DA PAM 310-3, *Military Publications Index of Doctrinal,Training and Organizational Publications,* 31 August 1970; DA PAM 310-3, *Military Publications Index of Doctrinal, Training and Organizational Publications,* 1 January 1982; DA PAM 25-30, *Military Publications Index of Doctrinal Training and Organizational Publications,* 30 September 1990.

23. The Coordinating Draft of TRADOC Regulation 25-6 provides a table cross-referencing Functional Categories, Numbers Series, and Title for Doctrinal Publications between the old and new numbering systems. Among the new categories appearing for the first time in this table are: Management Information Systems, Organizational Effectiveness, Environmental Operations, and Research Development and Acquisition.

24. As of this writing, the Army has not granted public access to its ongoing development of doctrine for the digitized force. Before it became password-protected the following was available: Lt. Col. Ron Gregory, "Army XXI Issues Associated with Development of Doctrine and TTP

for the Digitized Force"; Internet; *http://www-tradoc.army.mil/jadd/adxxi2/*; accessed 20 October 2000.

25. Col. Michael Mehaffey, "Vanguard of the Objective Force," *Military Review* 80 (September-October 2000); Col. Kent E. Ervin and Lt. Col. David A. Decker, "Adaptive Leaders and the Interim Brigade Combat Team," *Military Review* 80 (September-October 2000). Although the Army does not allow public access to its doctrine development web sites for the Interim and Objective Forces, it is possible to obtain recent versions of briefings on those subjects provided to Doctrine Developers Course at the TRADOC and Combined Arms Center doctrine web sites: "The Foundations of Army Transformation," "The Interim Force: Organizations and Capabilities," 30 January 2001, and "L07 Doctrine Development," Doctrine Developers Course 13 February 2001.

26. Abbott, 48-52.

27. Again I am using ST 3-0 as a surrogate for the 2001 edition of *Operations* which has been re-numbered as FM 3-0.

28. ST 3-0, 9-1.

29. Joseph J. Collins, Project Director, *American Military Culture in the Twenty-First Century: A Report of the CSIS International Security Program* (Washington, DC: Center for Strategic and International Studies, February 2000).

30. Maj. Steven J. Mains, "Adapting Doctrine to Knowledge-Based Warfare," *Military Review* 77 (March-April 1997); David Jablonsky, "U.S. Military Doctrine and the Revolution in Military Affairs," *Parameters* 24 (Autumn 1994); Maj. Jon J. Peterson, "Changing How We Change," *Military Review* 78 (May-June 1998); Ryan Henry and C. Edward Peartree, "Military Theory and Information Warfare," *Parameters* 28 (Autumn 1998); Antulio J. Echevarria II, "Tomorrow's Army: The Challenge of Nonlinear Change," *Parameters* 28 (Autumn 1998); Steven Metz, "The Next Twist of the RMA," *Parameters* 30 (Autumn 2000).

31. Maj. Gen. Robert H. Scales, Jr., "Adaptive Enemies: Achieving Victory by Avoiding Defeat," *Joint Forces Quarterly* (Fall 1999).

32. Gen. Robert W. Riscassi, "Doctrine for Joint Operations in a Combined Environment: A Necessity," *Military Review* 73 (June 1993). This article also appeared in the first edition of *Joint Force Quarterly* (Summer 1993). General Riscassi retired in July 1993.

33. David M. Keithly and Stephen P. Ferris, "*Auftragstaktik*, or Directive Control, in Joint and Combined Operations," *Parameters* 29 (Autumn 1999).

34. See note 4.

35. Maj. John Robert Evans, "*Task Force 1-22 Infantry From Homestead to Port-Au-Prince*," (Master's thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS, 2000); Mark Edmond Clark, "US Army Doctrinal Influence on the War in Bosnia," *Military Review* 79 (November-December 1999); Maj. Mark A. Tolmachoff, "Is Army Aviation Doctrine Adequate for Military Operations Other Than War?" (Master's thesis, U.S. Army Command and General Staff College, Fort Leavenworth, KS, 2000); Lt. Col. Daniel Ward, "Assessing Force Protection Risk," *Military Review* 77 (November-December 1997); Lt. Col. Walter E. Kretchik, "Force Protection Disparities," *Military Review* 77 (July-August 1997); Thomas Knight Adams, "Military Doctrine and the Organization Culture of the United States Army," (Ph.D. Diss., Syracuse University, 1990); Robert Bunker, "Failed-State Operational Environment Concepts," *Military Review* 77 (September-October 1997); Brig. Gen. Stanley F. Cherrie, "Task Force Eagle," *Military Review* 77 (July-August 1997); Col. Benjamin C. Freakley et al., "Training for Peace Support Operations," *Military Review* 78 (July-August 1998); Lt. Col. Wray R. Johnson, "Warriors Without a War," *Military Review* 79 (December-February 1999); David Fastabend, "The Categorization of Conflict," *Parameters* 27 (Summer 1997); Col. Andrei Demurenko and Alexander Nikitin, "Concepts in International Peacekeeping," *Military Review* 77 (May-June 1997); Lawrence A. Yates, "Military Stability and Support Operations: Analogies, Patterns and Recurring Themes," *Military Review* 77

(July-August 1997); Col. Charles H. Swannack, Jr., and Lt. Col. David R. Gray, "Peace Enforcement Operations," *Military Review* 78 (November-December 1997); Capt. Gregory R. Sarafin, "UN Observer Mission in Georgia," *Military Review* 77 (November-December 1997); Lt. Col. John Otte, "UN Concept for Peacekeeping Training," *Military Review* 78 (July-August 1998); Maj. Charles J. McLaughlin, "US-Russian Cooperation in IFOR: Partners for Peace," *Military Review* 78 (July-August 1997); Lt. Col. Douglas Scalard, "People of Whom We Know Nothing: When Doctrine Isn't Enough," *Military Review* 77 (July-August 1997); Maj. Gen. Robert H. Scales, Jr., "From Korea to Kosovo: How America's Army Has Learned to Fight Limited Wars in the Precision Age," *Armed Forces Journal International* (December 1999).

36. On Effects-Based Operations (EBO), see the briefing by Dr. Maris McCrabb, "Effects-Based Operations: Examples & Operational Requirements," 14 June 2000, available on-line from the Air Force Research Laboratory, Wright-Patterson Air Force Base. The USAF is now conducting a three-year-long Advanced Concept Technology Demonstration to experiment with technology concepts associated with EBO.

37. Abbott, 76.

38. Dr. Mary Caldor, "New Wars in the Global Era," (keynote address at Tel Aviv University/IDF/AUSA Symposium on Martial Ecologies, March 2000); Internet; www.martialecologies.com; accessed 30 May 2001.

39. Lewis MacKenzie, "A Crucial Job, But Not One for a Superpower," *Washington Post*, 14 January 2001, B3.

40. In contrast to today, there were at least two periods in the post-World War II Army in which theory-building was valued and had a direct impact on Army professionalism. One was the development of AirLand Battle under Gen. Donn Starry, the other was the development of the 1993 FM 100-5 under Gen. Frederick M. Franks, Jr.

41. Edward Mead Earle, ed., *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler* (Princeton, NJ: Princeton University Press: 1943, 1971).

42. Majors E.A. Bryla, M.S. Lancaster, and W.C. Rennagel, *Contending Concepts, Tactics & Operational Art*, Volumes I and II (Newport, RI: U.S. Naval War College, Center for Advanced Research, June 1979); Robert H. Scales, Jr., *Firepower in Limited War* (Washington, DC: National Defense University Press, 1990); Shimon Naveh, *In Pursuit of Military Excellence: The Evolution of Operational Theory* (London: Frank Cass, 1997); Zvi Lanir, *SRT and Military Innovation* (Tel Aviv, Israel: Praxis Ltd , March 1999); Maj. John W. Taylor, "A Method for Developing Doctrine," *Military Review* 59 (March 1979); not to mention the voluminous Soviet literature on the systems approach to a general theory of war, although it is steeped in ideological considerations that even at the time most Soviet theorists did not really believe.

43. *SWARM Marine Infantry Combat Model (C-SWARM)—Beta Version User's Manual*, Office of the Secretary of Defense (Net Assessment) in support of the Marine Corps Combat Development Command, 20 October 1998; Dr. Michael L. Brown, *Thinking Biologically: The Impact of Complexity Sciences on the Future of Warfare*, Report of a Workshop Conducted for the Office of Net Assessment, 18 February 1997; Michael Brown and Andrew May, *Defeat Mechanisms: Military Organizations as Complex Adaptive Nonlinear Systems*, Report Prepared for the Office of Net Assessment, 10 March 2000.