The collapse of the Soviet Union and the end of the Cold War marked a point of departure for military analysis. Until then, strategic problems, although complex and thorny, were necessarily dealt with in the context of the greater competition between the East and West. From then, each new strategic problem outwardly enjoyed a degree of singularity and, accordingly, required a greater amount of \textit{a priori} examination. The profusion and novelty of these emerging strategic problems stimulated an equally profuse and disparate amount of analysis and prescription.

The new wave of military theory began a little earlier, in the late-1980s, when Soviet theorists began to discuss the implications of emerging weapons, and sensing and communications technologies – conventional means that replicated the power of, and provided a useable alternative to, tactical nuclear weapons. They anticipated that the impact of these weapons was a Revolution in Military Affairs that would require a fundamental re-ordering of the tactical battlespace in the same way that the introduction of smokeless powder in the 1890s and tactical nuclear weapons in the 1950s did. The 1991 Gulf War offered a practical demonstration that hinted at what might be achievable through the thoughtful combination of these technologies and triggered a flood of seemingly new ideas, including proselytizing the proposition that there was an RMA underway. The idea of an RMA triggered a veritable flood of books describing the long waves of military innovation and identifying earlier periods of discontinuous or extremely rapid change. Depending on semantic arguments about what constituted a revolution, and historical arguments around the causality of victory and defeat, this resulted in lists of from none to 10 historical RMAs.

Academics, enthusiasts, think-tanks and contractors piled on. In the revolutionary fervor of the time, everything that had existed before was a suspect legacy and being up-to-date required coining new terms that seemed to capture the most recent sensation. As a result the militaries of the world found themselves rushing from enthusiasm to enthusiasm like spoiled adolescents. The RMA morphed into Network Centric Warfare, Effects Based Operations and a general desire for ‘transformation’.
At the peak of this triumphant cascade of gleaming new concepts and technology came the strategic shock of 9/11 followed by Operation Enduring Freedom and Operation Iraqi Freedom. As has been variously documented elsewhere, the early stages of these operations provided validation for the supporters of transformation but were followed quickly by costly insurgencies for which the military was unprepared. This in turn has seen a proliferation of new theories for counterinsurgency, population-centric operations and so called ‘irregular’ warfare. The net effect of these events is an increasingly diffuse array of ideas about the nature of current and future war, often described in dichotomies or mutually exclusive terms. While it is important to debate these issues, at present we are inadvertently adding to, rather than reducing, our strategic uncertainty.

What are we to make of the dozens of cable TV documentaries, thousands of printed pages and hundreds of thousands of blog entries that purport to hold the truth? If, during our revolutionary period, we abandoned our theoretical moorings and simply lunged at the new, then movement in any direction could be the path of progress. How can we restore unity to our understanding of war? How can we discern what is academic flim-flam and what is useful? In particular, during a period of doctrinal review and a Quadrennial Defense Review, how do those charged with winnowing the seeds of truth from the chaff of terminology, and giving form to an uncertain future, do so?

War and warfare are not the same. The British theorist Colin Gray\(^1\) argues that when trying to predict the future of war the ideas of continuity and discontinuity – that is, what changes and what does not- are of compelling concern. He argues forcefully that the nature of war is not variable whereas the character of warfare has evolved, and should be expected to do so continually. The future of war can be found in its past – war has a discernible and constant core. Because of this continuity in war, the great variety evident in warfare becomes itself subject to some order, instead of being an amorphous mass of technologies, ideas and buzz-words.

This order can be expressed in the syllogism:

\[
\text{All wars are fought to re-distribute political power.} \\
\text{Political power rests on the consent of the people.} \\
\text{Therefore, warfare is the manipulation of the consent of the people.}
\]

Manipulation necessarily includes protecting and building the consent of our own people while undermining that of the enemy. This simple idea connects Unrestricted Wars with Hybrid Wars, Complex Wars, 4th Generation Wars, nuclear wars, cyber wars, Wars among Peoples, insurgencies, rebellions, civil wars, Anti-Wars, conventional wars and all the rest. Once this connection is recognized, the varieties of useful warfare at any time are defined by the array of methods available to manipulate consent. Historically, this has involved two strategic approaches for either party: annihilation and exhaustion.


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Annihilation is the destruction of the enemy’s means of resistance in order to render them defenceless and to subsequently impose our peace on them. The effect on the enemy’s people is to get them to say ‘we are helpless, resistance is futile, we must submit’. The bombing of industrial targets in WWII was an aspect of a strategy of annihilation. In nuclear strategy, annihilation was the basis of counter-force targeting and the fear of ‘first strikes’. Annihilation was the watchword of industrial age warfare between states, the reason for the emergence of operational art and the foundation on which our force structures are based.

Exhaustion is the imposition of costs on the enemy that undermines their will to continue to resist. The effect on the enemy’s people is to get them to say ‘the pain is unbearable, we must submit’. Exhaustion has existed since at least Pericles and the Peloponnesian War and was typical of pre-industrial age warfare in Europe. The bombing of cities in WWII was an attempt at exhaustion reflected later in nuclear strategy as ‘counter-value’ targeting. Typically, when they win, insurgents do so by exhausting their enemies.

Of course, just because one side chooses one of these strategic approaches does not mean that the same choice is forced on the other. Faced with a stronger enemy bent on annihilation, the weaker side might choose to avoid destruction and seek to exhaust the will of their more powerful foe. At the same time, these two strategic approaches should not be seen as synonyms for the strategic offensive and defensive respectively. Although, barring some massive miscalculation by an enemy, annihilation is most likely to rely on the offense, it is quite possible to strategically exhaust an enemy by a thousand offensive pinpricks – the chevauchée being a prime example.

This highlights the fatuousness of any notion of ‘asymmetric’ warfare. From the strategic to the minor tactical, warfare is defined by searching for and exploiting vulnerabilities. When we create strength we necessarily create relative weakness. Making ourselves strong in one way directs an enemy towards ways we are not. It is not possible to be strong everywhere. To paraphrase Liddell-Hart: the line of least expectation is the line of least resistance. Warfare is a search for asymmetries – creating definitional enclosures for certain weapons or approaches is both misleading and foolish.

The obvious question then is “so, what’s changed?” The answer, in terms of underlying concepts, is “not much”. War was with us before states emerged and will likely be with us when states have disappeared in favor of some other social structure. Wars are still, and will always be, about political power, and warfare is still, and will always be, based on exploiting vulnerabilities and avoiding strengths to manipulate the consent of the people. People are still pretty much the same. All that has actually changed is the relative utility of the tools that can be applied to manipulating consent.

Before proceeding we need to make a short digression. Theorists have a tendency to describe abstract ideas by using metaphors. For impact, they use metaphors that will be accessible and engaging to their readers. Metaphors that reflect the spirit of the times are therefore especially potent. Clausewitz’ use of the centre of gravity was a prime example. When he wrote, in the early 19th century, he would have expected his audience to be abreast of the growing body of scientific knowledge accreting around Newtonian mechanics. Today, chaos and complexity
theory hold the same popular fascination and as a result complex systems are the metaphor of choice. It is today nearly impossible to read any contemporary military theory without being assailed by descriptions of the unprecedented complexity that attaches to modern operations.

This is a little misleading. Although the theory of complex systems is an apt metaphor for conflict - it always has been. Clausewitz’ description of the action of the remarkable trinity and how it makes war ‘more than a true chameleon’ recognizes the action of feedback loops, the existence of vicious circles and the fact of emergences. Clausewitz’ chameleon metaphor is not quite as well articulated as systems theory but no less correct for all that. Wars and warfare have always been complex: that is they have always been complicated (encompassing a large number of independent entities) and dynamic (those entities influencing each other in non-linear ways and causing the collective to change unpredictably). So complexity is not new.

Novelty is new. Because of our short collective memory we have become accustomed to perceiving war through a military lens. This is principally because, in comparison with the other instruments of persuasion available, the military is easy to apply. However, for a number of reasons surrounding the impact of the media, the interconnectedness of economies and the availability of instantaneous global communications, that is no longer true. In the constant search for asymmetric advantage, thoughtful enemies have always tried to create situations for which we are poorly prepared. Whereas previously these new situations were principally about the manner in which military force was applied, today they are about how all the aspects of power, military and otherwise, might be applied either singly or in combination. In their 1999 book Unrestricted Warfare, Qiao Liang and Wang Xiansui argued: “The great fusion of technologies is impelling the domains of politics, economics, the military, culture, diplomacy, and religion to overlap each other. The connection points are ready, and the trend towards the merging of the various domains is very clear. All of these things are rendering more and more obsolete the idea of confining warfare to the military domain. . .” The pressure points listed by Qiao and Wang are not new and nor do they have a more powerful hold over the consent of the people today than they had in the past. What has changed is the relative ease with which they can be applied to directly influence an enemy population. In the past, these aspects of power were applied principally through the medium of a fielded army. Today they can be applied directly – singly or in combination – or through the medium of a fielded army – or through the medium of a proxy war – or through an information campaign delivered via terrorist action – or through some other means.

How the elements of power can be applied, and who applies them is shaped by context. In our context, there are more levers to pull, and more actors to pull them. We now have all of the stages of the evolution of states present together with pre-state forms of social organization. International relations no longer involves simply dealing with the community of nation states but also struggles with a more complex reality. The motivations for action in this environment range from classical realpolitik to thymotic anger.

This diversity undermines the utility of attempting to define ‘the’ future of warfare and constructing a conceptual, doctrinal and organizational edifice around it. The number of levers

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2 Qiao Liang and Wang Xiansui Unrestricted Warfare 1999
that might be used against us, and the ways they might be applied, are so varied that any concrete preparation is likely to be mostly invalid. Every problem will be, in practice, unique. Phillip Bobbit listed five stages through which decision makers need to pass when dealing with novel threats or challenges:

1) **Notice**: they must become aware that some unusual occurrence is taking place [which in the cyber, diplomatic, economic, cultural or religious fields might not be clear]
2) **Recognition**: they must be able to define it as an emergency [that it is, in fact, a threat or challenge];
3) **Decision**: they must decide that the matter cannot be left to resolve itself – that action must be taken;
4) **Assignment**: they must allocate responsibility for action to appropriate agencies; and
5) **Implementation**.

Given the diversity of perspective and fractious politics typical of liberal democracies, the progress through these stages is likely to be bumpy. Most importantly, because of the likely more diffuse nature of the threats, how we respond to them will be critically influenced by how we frame them. For example, in the event of an economic attack based on currency manipulation, is this to be perceived as an attack or merely the market at work? If it is an attack, what are the sources of the threat? This is not just about the identification of an enemy but also the identification of underlying conditions or actions that led both to our perceived vulnerability and that prompted our enemies to act. The answers to questions such as these provide the rationale for the choice of action. In any democracy, moving to clarity and consensus will be problematic. The resulting “heightened awareness of the elusiveness of victory and of the intricacy of military and political causes and effects – as well as self-imposed restrictions on ruthlessness…..[are likely to] result in half-way measures, stop-gap strategies, and general indecisiveness”.

For us, the implications of constant novelty and ‘general indecisiveness’ are clear and underpin the recognition of the need for ‘agility’, ‘adaptability,’ and the like. The practical results of this recognition are apparent in changes that are already taking place: such as TRADOC’s streamlined approach to doctrine and JFCOM’s decision to try to control the snowstorm of concepts. Even more forward-leaning, the Australian Army has actually re-organized its high level command arrangements to align with three identified organizational learning loops. These initiatives are necessary and laudable but they represent the tip of the ice-berg. The question that remains is what do these changes tell us about the way we need to do business today? Arguably they suggest a number of fundamental precepts.

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5 This difficulty of assembling solutions to novel challenges is well demonstrated by our experience with Al Qaeda. Despite Al Qaeda involvement in Somalia (1991/2), attacks on the World Trade Center (1993), Khobar Towers (1996), US Embassy Nairobi (1998) and the USS Cole (2000) it wasn’t until 9/11 that a comprehensive response was conceptualized and assembled.
Refinement is Folly

A cup of coffee is a simple and universal pick-me-up: a soy decaf mint mocha chip frappuccino has a more limited application at a higher cost. It is a characteristic of the modern world that no good idea can be left unrefined. Network Centric Warfare is a prime example. What started out with the simple proposition that being able to share situational awareness would be militarily useful became, through a process of refinement, a demonstrably false warfighting paradigm. The myriad authors and pundits clustered around the idea of NCW consumed our time for a decade and, in the end, gave us nothing but the original proposition. Refinement, by definition, narrows utility, because the peripheral, the redundant, the seemingly extraneous are all removed. These removals also remove, or at least reduce, the ability for adaptation. Conceptually, this means we risk running down rabbit-holes with the consequent need to reverse out of them before we can resume purposeful progress.

Refinement also has a detrimental impact on equipment. The notion of a tool rests on a sense of a stable cause and effect relationship. When you hit a nail with a hammer in a certain way it penetrates deeper into the wood. On the basis of this stable cause and effect relationship there is a tendency towards specialization. This is why there are a number of different types of hammer, for example, each specialized for a relatively narrow range of tasks and each designed specifically to perform that array of tasks with the greatest possible efficiency. The further one moves away from specialization the less efficient the tool becomes. The result is that the scissors on Swiss army knives are not used by tailors and the saw is not used by carpenters. The process of refinement makes any equipment better at one job but less generally applicable to a range of situations.

Our force development processes seek to refine – to specify precisely and then purchase only what is specified. The recent demise of FCS illustrates this point. The FCS system of systems was based on the NCW premise ‘see first-shoot first-finish decisively’. Resting on this proposition a range of relatively lightly armored vehicles was being sought. Then reality bit. In FCS, if you didn’t see first and shoot first there was not much left. Refinement had narrowed the applicability of the entire system and, in the end, it could not adapt to the operating environments that emerged over the 10 or so years since its inception. This experience can be contrasted with Abrams and Bradley. Despite being purchased 30 years ago for an entirely different scenario against an entirely different enemy, both these vehicles continue to be enormously applicable to the operating environment we are facing today. This is because 60 tons of steel is 60 tons of steel whether or not you have a flat battery.

Don’t Pretend to Know the Future

We should not be shocked by strategic shocks – they are inevitable and regular. The cadence of the march of history will continue to be chaotic and the future will remain unpredictable. This much is clear but the difficulties for prognostication go much deeper.

When contemplating any situation or problem, we do so from our own unique perspective. This perspective frames the problem in terms of its seriousness, causes and potential remedies. This means that the problem frame provides the rationale for action – the actions eventually taken are
chosen on the basis of the way the problem was initially perceived. For example, in Iraq we decided Saddam was the problem. As a result the initial approach to problem solving was to remove him and his regime. It wasn’t until we began to engage with the problem in practice that we unearthed its many facets. Even having made this latter discovery, the dynamism of the conflict continued to surprise us through 2006 and 2007. This process of discovery connected Iraq with US domestic politics and international relations which, in turn, substantially shaped the responses mounted. The power of problem framing means that, even if we have accurately predicted the future, the responses eventually assembled to meet its challenges may be quite different from those we envisaged in advance.

The twin difficulties of prognostication — not being able to predict the future and not being able to predict responses even if we could — mean that concepts should not be predictive. They should not purport to describe the future. Instead, to return to an argument made earlier, concepts should seek to identify and build on the continuities that are apparent in both war and warfare. This would suggest that tactically we should be continuing to build on the power of precision munitions and connectivity; accepting that, for the foreseeable future, our enemies will be trying to draw us into close combat; and taking these strengths into that environment. At higher levels, we need to look at the command and control and planning doctrine we will need for effective participation in the national effort to manipulate the consent of our enemies.

Fix What’s Broken or Seize Opportunities

General Mattis, in his directive to JFCOM, focused the attention of concept writers to seizing opportunities and identifying and rectifying problems. This constrained perspective does not mean that the resulting concepts are necessarily lacking in gravitas. What we know as ‘Blitzkrieg’ was a response to the tactical problem of trench warfare along a stabilized front. Operational Art began as the Soviet response to the same problem. Both these concepts, although initially constrained to fixing problems, have been enormously and broadly influential.

The reality is that doctrine, people and equipment are not sufficiently fungible to allow them to transform from what they are today to something else tomorrow. Real change is achieved not by revolution – which by definition destroys that which it seeks to replace, but by incremental evolution across all of DOTMLPF. A problem solving approach recognizes this and presents change in ways that are actually digestible to the organization being changed. In complex organizations (that are both complicated and dynamic) such as ours, no other change is actually achievable.

A focus on fixing problems and seizing opportunities is likely to see concepts emerging more in the form of relatively short issues papers than as more expansive and discursive concepts. Such issues papers offer a number of advantages. Because they have a clear focus and deal with practical issues they provide a good vehicle to engage with our professional colleagues who are, taken as a whole, pragmatic people faced with real problems and only modestly tolerant of vague abstractions. Issues papers also provide ideal input to experimentation and analysis because they necessarily deal with defined problems or opportunities and offer defined responses. Finally, because of their focus, once articulated, analyzed and agreed, issues papers provide ideal input to those organizations responsible for implementation of changes across DOTMLPF.
If It’s Not Geared to Change, Don’t Write It

This final point is a corollary of the discussion above. If a concept does not lead to clear and specific proposals for change, there is little point in writing it. This does not preclude us engaging in exploratory and abstract debate but eventually, like landing an aircraft, the rubber needs to hit the tarmac. Because refinement is folly, the transition to proposals for concrete change need to emerge early in the process and, because they are necessarily incremental, need only be in the right direction, not precisely in the center of the path. Once these concrete proposals for change have emerged, the consequent processes of analysis and experimentation can balance the ideal with the achievable.

Doctrine is taught in military schools and implemented in the field. Change has occurred when Soldiers, Sailors, Marines and Airmen have been trained in a new doctrine, issued with the equipment they need to implement it, and are able to apply it in practical situations. Every day our troops, faced with novel problems, conceptualize, and then assemble, responses that balance the myriad influences facing them. We need to be similarly pragmatic while extending our vision to future, more speculative, and less well-defined challenges. Writing concepts that can’t be implemented, demanding the unobtainable or pitching concepts into the world of science fiction, although often fascinating (and occasionally diffusely instructive), doesn’t move us towards solutions. Concepts need to lead to clearly defined and practical mechanisms for change. The more concept writers can focus on these realities, the more likely they are to see their concepts emerge into the light.

Conclusion

In this light, our present approach to developing concepts suffers in two main areas: content and process. The implicit intent of most current concepts is to define terms and neatly bound problems in an attempt to bring order to chaos. This reductionism makes developing courses of action and decision making much simpler, especially in informing doctrine and capability development. However, it means that small errors have large impacts and, especially in the more far reaching concepts, can reduce them to scholastic debates about how many angels can dance on the head of pin. The more focused and bounded a concept is the more it is applicable only to the immediate future. Each step concept writers take into the future discloses new potentialities, new problems and new paths forward: the future is constantly expanding. The further into it we wish to conceptualize the broader, more general, less specific the concepts need to be. Reductionism might lead to more concrete concepts but they are more likely to be wrong. The further one looks forward the more refinement becomes folly.

Our process and framework for developing concepts is still structured for an era in which our enemies were large, singular entities operating within similar organizational constraints to us. This construct no longer serves our best interests. Most concepts take many months and often years to be developed, approved and promulgated. The organizational challenges associated with developing new concepts leads to significant effort being placed on institutional maneuvering and terminology deconfliction (as opposed to intellectual or conceptual deconfliction) and a frustrating lack of quality analysis or genuine innovation, despite the significant time and cost
involved. Furthermore, the costly and arduous nature of the process encourages acceptance of any concept that has sufficient consensus and is not egregiously flawed, simply to avoid suffering through the process again.

The present challenge for concept development organizations therefore is to address both external and internal matters at the same time. Putting new ideas about warfare through the same old system will not yield the outcomes required for success. We need to consider the second and third order effects of developments in warfare, especially as they pertain to our own organizations. Changing internal policy, process, and structure is far less glamorous than addressing martial concerns but it is no less important for properly equipping warfighters intellectually and in terms of materiel. While a ‘revolution’ in concept development is not required, we do need to take our own medicine and it will likely be an uncomfortable experience. Fortunately we already possess, at a macro level, sufficient resources and organizations to make this happen, all that is required is the proper direction and posture.

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