

Evolution in 'The Western Way of War': Continuity, Punctuated Equilibrium, Neither ?

Patrick G. Skelly

THESIS STATEMENT

We examine in this paper how and where the patterns of change are found within Hanson's Western Way of War, and whether the changes are most properly characterized as 'continuity', 'punctuated equilibrium', 'fits and starts', or some other process.

INTRODUCTION

Victor Davis Hanson, who first put his concept of 'the Western Way of War' forward as a basis for study, wrote:

... throughout the long evolution of Western warfare there has existed a more or less common core of practices that reappears generation after generation, sometimes piecemeal, at other times in a nearly holistic fashion, which explains why the history of warfare is so often the brutal history of Western victory - and why today deadly Western armies have little to fear from any force other than themselves.
(Hanson, 2001, p. 24)

'Continuity' is often mentioned as characterizing elements of the 'common core of practices' over the millennia that the Western Way of War is believed to have held sway.

'Punctuated Equilibrium' - a controversial theory in evolutionary biology (Eldredge and Gould, 1972) - suggests that in species evolution there is an alternation of short periods of rapid change(s) - punctuation - followed by a return to longer periods of negligible change - equilibrium. Think of earthquakes and their aftershocks as being analogous to punctuated equilibrium.

HANSON'S 'WESTERN WAY OF WAR'

The clearest exposition of the principles in Hanson's Western Way of War is found in his book, *Who Killed Homer?*. It is presented as eight qualities which form the core of this peculiar Greek way of war, derived from the origin of the West itself, and which persist in Western culture:

1. *Advanced technology*: the unsurpassed excellence of both weapons and armor.

2. *Superior discipline*: the effective training and ready acceptance of command by soldiers themselves.
3. *Ingenuity in response*: an intellectual tradition, unfettered and uncensored by either government or religion, which sought constant improvement in the face of military challenge.
4. *Creation of a broad, shared military observance among the majority of the population*: the preference for citizen militias and civilian participation in military decision-making. [This is elsewhere referred to as 'civic militarism'.]
5. *Choice of decisive engagement*: the preference to meet the enemy head on and to resolve the fighting as quickly and decisively as possible.
6. *Dominance of infantry*: the notion that men on foot with muscular strength, not horsemen nor even missile men, alone ultimately win wars.
7. *A systematic application of capital, Cicero's "sinews of war", to warmaking*: the ability to collect taxes, impose tribute, and borrow monies to field men and materiel for extensive periods of time.
8. *A moral opposition to militarism*: the ubiquity of literary, religious, political, and artistic pressure groups who demand justification and explication of war, and so often question and occasionally even arrest the unwise application of military force. There is a notion of dissent, which begins with the Greeks, that war is not the preferred course of events but the great tragedy of the human condition. (Hanson and Heath, 2001, pp. 61-62) [also referred to here as Open Deliberation.]

A Closer Look at the Matter of Continuity

When encountering Hanson's Western Way Of War thesis for the first time, many people think that they hear, "There is a continuity of its characteristic values from the Grecians and Romans to the present armed forces." That false impression is hard to shake, but Hanson has tried to qualify it:

The key is not to look to the past and expect to see the present, but to identify in history the seeds of change and of the possible across time and space. ...

... throughout the long evolution of Western warfare there has existed a more or less common core of practices that reappears generation after generation, sometimes piecemeal, at other times in a nearly holistic fashion, which explains why the history of warfare is so often the brutal history of Western victory - and why today deadly Western armies have little to fear from any force other than themselves. (Hanson, 2001, pp. 21,24)

Culture versus Way Of War

'Culture' is an evolving word: the Latin *cultura*, from *colere* 'tend, cultivate', had the Middle Age sense of 'cultivation of the soil', from which arose the added Renaissance sense of 'cultivation of the mind, faculties, or manners'. This in turn took on a 19th Century sense of 'the arts, beliefs, values, and behavior that characterize a particular society or nation'.

Later, in the Glossary of *Carnage and Culture*, we find 'Western Culture' to be that of the:

... European civilization that grew up in and west of Greece, and shared core values that originated in classical antiquity, including but not limited to constitutional government, civil liberties, free exchange of ideas, self-critique, private property, capitalism, and separation between religious and political/scientific thought.
(Hanson, 2001, p. 468)

We find in this an overlapping of attributes between Hanson's Western Way Of War and his definition of Western Culture. Can we, must we, assume that war is an intrinsic behavior of our Western Culture? There is, alas, strong support for that view in many quarters.

A thought to ponder:

War is a fraught subject. Those who study it often fight about it. ... Does war have a future? The preponderance of evidence - biological, archeological, ethnological - suggests that it does.

- Anna Simons, Department of Anthropology, UCLA (1999, p. 73)

This might suggest the promise of full employment for military historians.

A Closer Look at Punctuated Equilibrium

Punctuated Equilibrium, which is in fact a specific variation of continuity, has also been referred to as the 'Challenge-Response' mechanism by Gregory Parker and others.

This mechanism has been compared to the biological model known as 'punctuated equilibrium', in which development proceeds by short bursts of rapid change interspersed with longer periods of slower, incremental alteration. Thus, in the fourteenth century, after a long period in which infantry had slowly but steadily increased in importance, Swiss pikemen and English archers suddenly and dramatically enhanced its role; then, after about a century of experiment, gunpowder artillery began in the 1430s to revolutionize siegecraft; and about a century after that, following constant (and extremely expensive) experiment, a new defensive technique known as the artillery fortress brought positional warfare back into balance. Each innovation broke the prevailing equilibrium and provoked a phase of rapid transformation and adjustment. (Parker, 2000, p. 6)

Two thoughts by Colin Gray, although developed in a different context, may help in understanding Punctuated Equilibrium:

- Revolutionary change in warfare always triggers a search for antidotes. Eventually the antidotes triumph. They can take any or all of tactical, operational, strategic, or political forms.
- Revolutionary change in warfare may be less important than revolutionary change in social attitudes to war and the military. (Gray, 2006, p. vii)

Identifying Evolutionary Patterns

'Scoring' of continuity, punctuated equilibrium, or other patterns of evolution is awkward, even irrelevant, for some of the specific qualities of a Western Way of War. Tallying these qualities at various times through history is a very subjective matter; some concepts, such as 'civic freedom', had a quite different sense in the context of other times.

ANALYSIS AND PRESENTATION

In what follows, we look at each aspect of the Western Way of War at two levels. The first is an assessment: whether an evolutionary pattern is even relevant, and if so, how would it present itself. The second provides thoughts and examples which might help to extend and clarify the assessment.

Advanced technology

Evolutionary Pattern. Continuity in the employment of advanced technology is a very important and generally realized goal. This is often achieved through punctuated equilibrium.

Remarks and Examples. The World War I introduction of the machine gun in European warfighting by the Germans caught the British (and French) in the wrong century; they were really hurting:

Almost unknowingly, by 1914, armies had come to depend on weaponry - artillery, rifles and machine guns - rather than upon the soldiers themselves. This became apparent in the first months of the war, as the soldiers desperately dug holes in the ground to escape from the firepower they barely realised had been created. The generals never came to terms with this power. Time and time again they threw their men forward, confident that this time a little more preparation, a few more men, and an extra dash of sheer courage would suffice to break the enemy's will to resist. They never realised that they were not fighting his 'will', but his machine guns. And

they were implacable and unshakeable. Morale was an irrelevancy to them, all they needed was enough water and bullets. The man counted for nothing. The machine had taken over. (Ellis, 1975, p. 179)

The defense (Gray's antidote) against the machine gun was to be the tank. Aside from mobile firepower, it allowed infantrymen to advance behind a moving wall of armor plate. It was a straightforward solution, but it provided for the next few wars a counter-balancing or leveling effect to the automatic curtain of fire from the machine gun.

Anna Simon, in *War: Back to the Future*, discusses 'The Role (Not Rule) of Technology':

[There is suggested] a link between nature occasionally spinning out of control and cycles of war spiraling to new levels. The development of new weapons and new weapons systems was key. ... To pry people out of fortifications required innovations in the art of siege, whereas the threat of being besieged inspired new defensive designs. This was the arms race in microcosm, eventually resulting in satellites, space-powered weapons, and Star Wars. Corollary to this relentless pursuit of power that both caused and resulted in the acceleration of technological inventiveness, a second logic emerged: If the means of destruction trump the means of production, maintaining control over the production of the means of destruction assures an almost unbeatable edge. ...

Without question, some weapons have a punctuated equilibrium effect. (Simon, 1999, pp. 79-80)

Superior discipline

Evolutionary Pattern. Here also, continuity is sought and expected. If it is not attained it is likely because of mediocrity or failure in command.

Remarks and Examples. Digging into the past, here is the US Army doctrine for discipline and leadership in 1941. Not much has changed: discipline, training, command respect are crucial.

A poorly trained unit is likely to fail in a critical moment due to demoralizing impressions caused by unexpected events in combat. This is particularly true in the first engagements of a unit. Therefore, training and discipline are of great importance. Every leader must take energetic action against indiscipline, panic, pillage, and other disruptive influences. Discipline is the main cohesive force that binds the members of a unit.

A wise and capable commander will see that the men assigned to the component groups of his unit are compatible and that the composition of the groups is changed as little as possible. He will provide each group with a leader in whom its

members have confidence. He will so regulate the interior administration of the unit that all groups perform the same amount of work and enjoy the same amount of leisure. He will see that demonstrated efficiency is promptly recognized and rewarded. He will set before all a high standard of military conduct and apply to all the same rules of discipline. (FM100-5, 1941, p. 19)

Ingenuity in response

Evolutionary Pattern. Continuity is generally constant, but may be, at times, inhibited by an autocratic government.

Remarks and Examples. Ingenuity in response appears throughout warfighting experience at every organizational level. An excellent source to capture its variety and potential is the Williamson Murray and MacGregor Knox article, *Thinking about Revolutions in Warfare*. This speaks of 'Revolution in Military Affairs', which is another way of saying 'cascaded ingenuity in a big way':

[The punctuated equilibrium] approach offers one - admittedly metaphorical - way of understanding revolutionary change in warfare.

The difficulties inherent in understanding the pattern of past revolutions arise from the enormous complexities, ambiguities, and uncertainties in the historical record. ... Its defining feature is that it fundamentally changes the framework of war.

[These revolutions] brought systemic changes in politics and society. They were uncontrollable, unpredictable, and unforeseeable. ...

Military revolutions recast society and the state as well as military organizations. They alter the capacity of states to create and project military power. They alter the capacity of states to create and project military power. Military organizations embark upon an RMA by devising new ways of destroying their opponents. To do so, they must come to grips with fundamental changes in the social, political, and military landscapes; in some cases they must anticipate those changes. Revolutions in military affairs require the [integration] of a complex mix of tactical, organizational, doctrinal, and technological innovations ...

(Murray and Knox, 2001, pp. 6,7,12).

Creation of a broad, shared military observance among the majority of the population (Citizen Militia and Participation, Civic Militarism).

Evolutionary Pattern. This is, in the Hanson context, the pivotal quality of the Western Way of War: it is generally marked by continuity, but it requires liberal interpretation or reframing of some characteristics.

Remarks and Examples. 'Civic militarism', although that term is not found in *Who Killed Homer?*, is elsewhere used to denote the concept of the citizen protecting, supporting, being the state. Its qualities include:

- a sense of military tradition and pride,
- arduous training, yet capable of adaptation,
- initiative and flexibility in command, tactical adaptation,
- organization with unit cohesion, camaraderie, spirit,
- the ability to change as well as conserve military practices,
- a sense of personal freedom balanced with self-control, morale.

In a presentation at the Royal Military College in Canberra, Australia, on 7 August 2003, Victor Davis Hanson touched on how abstract ideas need to be viewed and understood in the context of their times.:

... Western armies have often fought with, and for, a sense of legal freedom. The latter does not mean, as Aristotle said, natural freedom, but simply a construct of freedom. The idea of fighting for legal freedom reflects the reality that Western armies have often been the products of civic militarism and of constitutional governments. In its pure form, civic militarism was a reflection of the willingness of the citizen body in the Greek city-state, the polis, to defend collective rights. Each citizen had a plot in the countryside or a small farm of about 10 acres and all had a stake in a common defence. The Athenian and Theban phalanx was a manifestation of a free citizenry, which fought to uphold the rights of autonomous yeomen. (Hanson, 2003, pp. 157-158)

Constitutional government has a fairly restrictive meaning. We do better to look for consensual government, both now and in the past. It implies greater support and acceptance for citizen interests. In the same liberal vein, we need to accept the looser definition of citizen - as an inhabitant of a city, region, or state - rather than the stricter sense of holding legal citizenship.

Consensual or constitutional government and conscription, in an egalitarian society, ought to be compatible. Yet the full franchise of citizenship may not be granted until an age older than eligibility for conscription. Even so, imposing the duty of service should be matched by a grant of the lesser franchise of freedom of expression.

Choice of decisive engagement

Evolutionary Pattern. Winning is the aim of engagement, but attaining decisiveness is quite another matter. A battle may be decisive; a campaign or war can hardly be so.

It may also be the case that another outcome, such as reducing an enemy's forces by attrition, meets a higher military or political objective.

Remarks and Examples. Finding a pattern of evolution for Decisive Engagement across the time span of the Western Way of War is futile. Each war or campaign stands (or falls) of its own. There may be punctuated equilibrium within the span of that conflict, ending in decisive engagement, loss by attrition, collapse of an opponent, mediation, etc. Or there may be a quick blitz: Yom Kippur or Iraq II. (But one must ask, were they battles or campaigns?)

One of the works studied in this project was *War and Peace in International Rivalry* by Paul Diehl and Gary Goertz. Chapter 7, *A Punctuated Equilibrium Model of Enduring Rivalries*, with some twists to the idea of decisive engagements. 'Simple' rivalries which culminate in conflict may or may not exemplify decisive engagement. 'Enduring' rivalries build to a stress level and then hold there over time, akin to a mesa, until there is an 'environmental shock'. At that point the rivalry may be somehow concluded, or it may regenerate itself. India and Pakistan have been in a state of enduring rivalry ever since the Raj left. (Diehl and Goertz, 2000)

Dominance of infantry

Evolutionary Pattern. If, at the end, we can say that 'ground-pounders' took and still control the field of battle, then we have continuity, as did the Greek hoplites. In naval actions, we ask instead whether it was a decisive engagement.

Remarks and Examples. Poitiers (732 CE) was the last battle for six centuries during which there was any significant 'dominance of infantry'. Sir Charles Oman writes:

Infantry was in the twelfth and thirteenth centuries absolutely insignificant: foot soldiers accompanied the army for no better purpose than to perform the menial duties of the camp or to assist in the numerous sieges of the period. Occasionally they were employed as light troops, to open the battle by their ineffective demonstrations. [We still used 'demonstrations' in World War II to divert attention from other employments.] There was, however, no really important part for them to play. Indeed, their lords were sometimes affronted if they presumed to delay too long the opening of the cavalry charges, and ended the skirmishing by riding into and over their wretched followers. (Oman, 1885/1953, pp. 63-64)

Clifford Rogers shows us a reversal in the later 'Infantry Revolution':

... most truly revolutionary changes in European military affairs took place [during] the period, roughly, of the Hundred Years' War (1337-1453). The armies that dominated the battlefields of Europe from the mid-eleventh century through the early fourteenth were composed primarily of feudal warrior-aristocrats, who owed military service for lands held in fief. They served as heavily armored cavalry, shock combatants, relying on the muscle power of man and steed, applied directly to the point of a lance or the edge of a sword. They fought more often to capture than to kill. The armies which conquered Europe's first global empires, on the other hand,

differed from this description on every single count. They were drawn from the common population (albeit often led by aristocrats); they served for pay; they fought primarily on foot, in close-order linear formations which relied more on missile fire than shock action; and they fought to kill. (Rogers, 1993, p. 243)

A systematic application of capital, Cicero's "sinews of war", to warmaking

Evolutionary Pattern. Was there was enough capital and was it was it reasonably used? Like dominance of infantry and decisive engagement, a pattern of continuity may not really be relevant or crucial. Did you win? Did you have adequate technology and logistic support? Those are the key questions linked to application of capital.

Remarks and Examples. The systematic application of capital, Hanson's seventh quality, is most closely aligned with advanced technology, the first quality. Capitalism is fundamentally the private ownership of the tools and means of production.

Manuel Cereijo in *A Period of Punctuated Equilibrium: Capitalism and Democracy* suggests that we are today whirling in a six-fold economic dynamo:

- Terrorism;
 - The end of communism;
 - An era dominated by man-made brainpower industries;
 - A demography never before seen;
 - A global economy;
 - An era with only one dominant economic, political, and military power.
- (Cereijo, 2003, unpagged)

He sees these key points driving the present period of rapid change:

Entrepreneurs are fighting United States' war against the slow economy. It is small and high technology businesses, [that] generate jobs about thirteen times faster than mature firms. This is the crucial role of entrepreneurs in these times of punctuated equilibrium. ...

Flexibility in adapting to change, in acquiring new knowledge, in accommodating technology, and in adjusting to new management processes has become a central theme for both corporate and individual success, if not survival. ...

When and how is there to be a return to equilibrium? Dr. Cereijo sees it taking almost twenty years, a generation of students. The educators will be the catalyst:

We need a sustained infusion of resources into education of the young and reeducation of workers. Knowledge of technology will be necessary for all employed

to participate in improving and perfecting their working effectiveness and productivity. ...

For the foreseeable future, the economy will be driven at the leading edge by the strengths or weaknesses of the nation's high technology industries and by the ability of other industries to absorb new technologies.

A moral opposition to militarism (Open Deliberation)

Evolutionary Pattern. Is a 'moral consideration of militarism' underway? Are the state and the citizens listening to each other? More importantly, is it having any effect of decisions of states? There was a continuity in the beginning. There are discussions, pro and con, among citizens. but it is not clear there is a dialogue with the states.

Remarks and Examples. One aspect of Hanson's Western Way Of War, the 'notion of dissent' (2001, pp. 22-23), is today a public concern: there are criticisms by retired general officers against Secretary of Defense Donald Rumsfeld. In Hanson's notion of dissent there is found the ability of citizens and soldiers to question the aims and procedures of the government; however, upon reaching the decision that war (or whatever) is the appropriate recourse, the soldiers do their proper part.

It appears to be the case now that these retired generals are being threatened with possible courts-martial under UCMJ (Uniform Code of Military Law) Article 88, 'Contempt Toward Officials', which reads:

Any commissioned officer who uses contemptuous words against the President, the Vice President, Congress, the Secretary of Defense, the Secretary of a military department, the Secretary of Homeland Security, or the Governor or legislature of any State, Territory, Commonwealth, or possession in which he is on duty or present shall be punished as a court-martial may direct. (10 USC 888, 2005)

Some public remarks of some general officers are inarguably contemptuous. But the underlying 'notion of dissent' concern should apply in the Hanson sense. Because the officers are retired, their right to speak as citizens ought to trump the UCMJ.

It is clearly understood that serving officers have a duty to follow orders of those officers and officials above them, and they should have a right to properly raise their concerns within the service. But would a retired general have to risk the forfeit of his or her retirement benefit to gain the 'public voice' right of a civilian? Have we in fact regressed from the privileges accorded the Greek hoplites?

To close this section, Anna Simon again provokes our thoughts:

Today, somewhere, plans are being drawn up to wage war. And today, somewhere, people will be killed. From the perspective of those who might die, our unwillingness [or inability] to reason with those who control the means of destruction might seem unconscionable. (Simon, 1999, p. 75)

ASSESSMENT

We set out to examine how and where patterns of change were found within Hanson's Western Way of War, and whether the changes could best be characterized as 'continuity', 'punctuated equilibrium', 'fits and starts', or some other process.

We now come to the end, and have a better understanding of the problem. But there is not a clear answer, in part because the question needs to be reframed. 'Patterns within' is the wrong objective. An overall judgement of continuity, not a simple yea or nay, but a scalar assessment, can be made for a war or a campaign, but not for a battle. Battles beget memoirs.

When we seek to assess the 'Way of War' of a non-Western state at war it is certainly possible to put it up against all eight qualities of the Hanson thesis, and therein may lie Hanson's real value.

But for a Western nation state and a given conflict we can almost - repeat, almost - say that discipline and ingenuity are 'given', and that dominance of infantry and decisive engagement are 'situational'. It is the other four qualities: technology, military observance (civic militarism), capital, and moral opposition (open deliberation) that determine how deeply, how classically Western a state at war may be perceived.

The Paul Diehl and Gary Goertz work (2000) which approached conflicts as rivalries is suggested as a catalyst for rethinking patterns of evolution.

PERSONAL VIEW

Anna Simon is right. There is a continuity of war. The 'Western Way of Way' and 'Revolutions' in the military arts will be our paradigms for a long time to come.

Manuel Cereijo, who noted that we are in "An era with only one dominant economic, political, and military power.", must cause us to wonder how long this condition will continue, and what might follow it.

There was some sense of clarity found here for the dynamics of the Western Way of Way. But it is a hasty and cursory study. It should be seen as the groundwork for a more reflective analysis of evolution in military and national style and objectives.

The work here has some foundational value for further study, tightening of thought, application to Ways of War at the nation state levels. At least one already exists, *Toward an American Way of War* (Echevarria, 2004).

Closing Quote:

He said, "War colleges integrate fighting and thinking." When I later read my notes, I thought I had written, "War colleges integrate fighting and blinking." You know, this may not be a bad idea either.

- Pat Skelly, 2006

Patrick G. Skelly
Professor John Moore
MMH Dec '05, Seminar 2,
Week 11, Long Paper
28 May 2006

4,867 words

ENDNOTE

Upon the recommendation of the instructor, the Thesis Statement, originally the fourth paragraph, has been moved into the leading position. The paper is otherwise as formally presented.

REFERENCES CITED

All website and webpages URLs were retrieved and accessible on 28 May 2006.

- Cereijo, Manuel (2003). A Period of Punctuated Equilibrium: Capitalism and Democracy. Sociedad Económica de Amigos del País: *Guaracubaya*, II-2003 (2003, February). <http://www.amigospais-guaracubaya.org/oagmc198.php>
- Diehl, Paul F. & Goertz, Gary (2000). *War and Peace in International Rivalry*. Ann Arbor MI: University of Michigan Press. <http://www.press.umich.edu/pdf/0472111272.pdf> [ISBN 0-472-11127-2]
- Eldredge, Niles & Gould, Stephen Jay (1972). Punctuated Equilibria: An Alternative to Phyletic Gradualism. In T.J.M. Schopf, (Ed.), *Models in Paleobiology*. San Francisco: Freeman, Cooper and Company, pp. 82-115. <http://www.blackwellpublishing.com/ridley/classictexts/eldredge.pdf>
- Ellis, John (1975). *The Social History of the Machine Gun*. Baltimore MD: Johns Hopkins University Press. [ISBN 0-9018-3358-2]
- FM 100-5 Operations (1941). Washington DC: War Department
- Gray, Colin S. (2006). *Recognizing and Understanding Revolutionary Change in Warfare: The Sovereignty of Context*. Carlisle Barracks PA: Strategic Studies Institute. <http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB640.pdf> [ISBN 1-58487-232-2]
- Hanson, Victor Davis (2003). The Western Way of War. *Australian Army Journal*, 2(1) (2003, August), pp. 157-158.
- Hanson, Victor Davis (2001). *Carnage and Culture: Landmark Battles in the Rise of Western Power*. New York: Anchor Books, Random House. [ISBN 0-385-72038-6]
- Hanson, Victor Davis & Heath, John (2001). *Who Killed Homer?: The Demise of Classical Education and the Recovery of Greek Wisdom*. San Francisco CA : Encounter Books. [ISBN 1-893554-26-0]
- Murray, Williamson & Knox, MacGregor (2001). Thinking about Revolutions in Warfare. in MacGregor Knox & Williamson Murray (Eds.), *The Dynamics of Military Revolution, 1300-2050* (chap. 1, pp. 1-14). Cambridge, England: Cambridge University Press. [ISBN 0-511-80079-X]

- Oman, Sir Charles W.C. (1953). *The Art of War in the Middle Ages: A.D. 378-1515*. (Beeler, John H., Ed.). Ithaca NY: Cornell University Press. (Original work published 1885)
- Parker, Geoffrey (2000). *The Cambridge Illustrated History of Warfare. The Triumph of The West*. Cambridge UK: Cambridge University Press. [ISBN 0-521-44073-4]
- Rogers, Clifford J. (1993). *The Military Revolutions of the Hundred Years' War*. *Journal of Military History*, 57(2) (April, 1993), pp. 241-278.
- Simons, Anna (1999). War: Back to the Future. *Annual Review of Anthropology*, 28, pp. 73-108.
- 10 USC 888 (2005). *Uniform Code of Military Justice*, Article 88: Contempt toward Officials. http://www4.law.cornell.edu/uscode/html/uscode10/uscode10_usc_sec_10_00000888----000-.html

REFERENCES CONSULTED

- Echevarria, Lt.Col. Antulio J. II (2004). *Toward an American Way of War*. Carlisle Barracks PA: Strategic Studies Institute. <http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?PubID=374> [ISBN 1-58487-156-3]
- Edwards, Sean J.A. (2005). *Swarming and the Future of Warfare*. Santa Monica CA: RAND Corp. http://www.rand.org/pubs/rgs_dissertations/2005/RAND_RGSD189.pdf
- Jablonsky, David (1994). *The Owl of Minerva Flies at Twilight: Doctrinal Change and Continuity and the Revolution in Military Affairs*. Carlisle Barracks PA: Strategic Studies Institute. <http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?PubID=355>