Perception Attack: Brief on War Time

Brian Massumi (bio)

Syncopating Politics

We remember what we do not see.

This is how Governor George Pataki of New York, pious before unseen towers, inaugurated the 2004 Republican Party Convention that was to carry George W. Bush to a second term in office, riding the surf of 9/11 and the “war on terror” one last time before the swell subsided. Standing in the ebb years later far from Ground Zero, a reminder may be in order that the swell was more like a tidal wave. It burst levees, eroded embankments and laid down sediment, leaving the political landforms over which it swept reshaped. The Governor’s dictum might capture something more of the altered landscape than it might first appear from its proffering as a rhetorical flourish. It locates the flourishing of the political between memory and perception. This would be familiar ground, were the relation between the two presented as one of continuity: we remember now what once we saw (the towers); or, now we see what we shall henceforth remember (the towers’ reduction to ruins). Pataki, however, telescopes the moments of memory and perception into a single present tense. Memory and perception share the moment, entering into immediate proximity, while remaining strangers. Their disjointed immediacy syncopates the instant from within. We do not see now what we can never have seen, even as we watched: the enormity of the event. The present tense where memory and perception come disjunctively together is the time of the event that is like a lost between of the towers and their ruins, an interval in which life was suspended for an instaneous duration that was more like a stilled eternity than a passing present, comprehending reflection gone AWOL. In this time of the event, perception and memory fall out of step together, jointly retaining the syncopated power to affect. The off-beat time of the event disallows any one-to-one correlation between perception and memory. This makes the ground fall out from under the notion of representation, as applied to politics. It also makes time a directly political issue: the present’s relation to the past – or for that matter, to itself – is politically operationalized.

Kierkegaard distinguished two regimes of memory. “What is recollected has been, is repeated backward, whereas repetition is recollected forward.” Whereas memory as normally understood is a recollection of what has been, repetition is a recollection of what has not yet come—a memory of the future. This is not so hard to grasp if we think of repetition as self-contracting, on the model of habit. We say we have a habit, but we all know that it is really the habit that has us. It is an automatism that has taken hold and inhabits us. It is of its nature as an automatism to pass under the radar of awareness. We are only ever aware of a habitual action having occurred. What we consciously perceive are its next effects. Otherwise we would catch it in the act and decide to execute the action or not, in which case it will not have acted as a habit. A habit is self-deciding. It is a self-effecting force from the past that acts in a present which appears only in a next-effect. The present of the force’s actual operation is elided. This is a kind of syncopation of time itself, where the skipped beat is the operative present, the present of the operation. This active present is expressed only in the nextness that comes of it. It actively disappears into its forward expression. We normally think of habit as bare repetition and of repetition as barren by nature. In Kierkegaard, as in Nietzsche and Deleuze, repetition is a positive force carrying the past forward into a next expression. It is a positively organizing, even creative, force of time. This implies that it may be captured and put to use. The elision of the operative moment may be operationalized.

The US military knows this, judging by the currents in war theory on which it has nourished itself since the fall of the Soviet Union and the sustained priorities of its research wing, the Defense Advanced Research Projects Agency (DARPA). In its future repetition of war, the military has been an off-step or two ahead of Governor Pataki. Like him, it knows that we habitually remember what we do not see. It also knows that this is a political-time issue critical to the “war on terror” so loudly trumpeted by the Bush administration, and with which the policies of the Obama administration have quietly remained in continuity despite its abnegation of the phrase. But it goes further, to the philosophical realization that there is a positive power to repetition which means that it is not barren and that even so humdrum a species of it as habit partakes of the creative force of time.

We need only think of attention. Attention is the base-state habit of perception. Every awareness begins in a shift. We think of ourselves as directing the shifts in our attention. But if you pay attention to paying attention, you quickly sense that rather than you directing your attention, your attention is directing you. It pulls you into your coming perception, which dawns on you as attention's
next-effect. Attention is the perceptual automatism that consists in tagging a change in the perceptual field as new and potentially important and building awareness on that change, for the very good reason that it may signal a necessity of a response or an opportunity for action. The next perception into which you are pulled is already a convocation to action-react. According to contemporary perception studies, in a confirmation of attention’s habitual nature, this happens in the elided present of repetition. The possibility, evoked by Pataki’s statement, of operationalizing the elided present of attention at political ground zero must be understood against the backdrop of the realignment of military doctrine over the last twenty years on “full-spectrum” force. This is the extension of military affairs to “gray areas involving non-traditional Operations Other Than War (OOTW),” in the words of Ullman and Wade, the authors of *Shock and Awe*, one of the classic statements of the doctrine. This expansion of the compass of military operation beyond the classical battlefield to areas formerly considered the exclusive purview of civil institutions is a response to the blurring of boundaries characterizing contemporary war, in which the archetype of the enemy is no longer the uniformed soldier but the “terrorist.” The assumed organization of the adversary, as another contemporary classic drives home (Arquilla and Ronfeldt’s *Networks and Netwars*), is then no longer the identifiable regular army and its centralized State scaffolding but the diffuseness of the network.

The network is recessive. It melts into the population. It is pervasive, “unbounded and expanding.” It insinuates itself across the technological and communicational nerve paths of society. The attacks it enables irrupt without warning. They rise up from within an unbounded field, rather than striking out in a determinable direction from a locatable base. Netwar’s infiltrating reach is potentially coextensive with social and cultural space. This irrevocably blurs the boundaries between the civil and military spheres. Other boundaries blur as a consequence, for example that between offense and defense.

When the civil is no longer clearly demarcated from the military, nor offense from defense, it becomes impossible to say where the exercise of force begins and ends. Military affairs bleed across the spectrum. They span a continuum stretched between two poles or extremes. At one end lies the traditional application of “force on force.” This is the pole of traditional engagement on the model of the battle, siege, or occupation. At the other pole lies what some call “soft power.” As a first approximation, soft power can be understood as the military use of information and disinformation, and of “psy ops” or what used to be called psychological warfare. Arquilla and Ronfeldt characterize soft power as “epistemological” warfare because its business is what people know or think they know.

Of course, epistemological warfare is nothing new. But the paradigm has significantly shifted. Traditionally, what is now called soft power was a helper to hard power. It was secondary to force-on-force, whose effectiveness it was meant to boost. It was an additive, like leavening. Now on the other hand, according Arquilla and Ronfeldt, all conflict is by nature epistemological. Soft power, rather than an additive or booster, is a base-line state. This is a necessary consequence of the full-spectrum situation. War is no longer punctual, like a battle. It’s on low boil all the time. It is no longer localized, like an occupation. The heat is everywhere. The definition of action underpinning the force-on-force of hard power is fundamentally that of friction: matter on matter, metal on metal, projectile against shielding, metal in flesh, flesh splayed, splashed on hard surfaces. Force of attack against opposing force of resistance. The overall aim of force-against-force is attrition. It meets the enemy head-on and wears down his capabilities across an extensive series of frictional engagements. Its aims and means are painfully tangible.

In the current field of conflict, this kind of punctual engagement has lost its centrality. It has been replaced by waiting. Being in the thick of war has been watered down and drawn out into an endless waiting, both sides poised for action. The base-line state is now this always-on of low-boil poising for action. One is always in the thin of it. When a strike of force-against-force comes, it stands out against the background continuity of this thin condition, which Paul Virilio presciently called the “nonbattle” years before it became the obsessive concern of leaders both military and civilian. When it comes, the irruption of action is an ebullition, a momentary boiling-over in this lowintensity broth of the always-on conflict of the nonbattle.

Soft power is how you act militarily in waiting, when you are not yet tangibly acting. It is a way of preventing the wait itself from being an attrition, or even a way of turning it to advantage. In the condition of nonbattle, when you have nothing on which to act tangibly, there is still one thing you can do: act on that condition. Act to change the conditions in which you wait. After all, it from these same conditions that any action to come will have emerged.

By acting on the wait-time conditions in the intervals between boilings-over, you may well be able to reduce the potential of an eventual attack, moderate its powers of attrition if it comes, or even better induce it to take tangible shape when and where you are ready for it. That way you have a chance of disabling it before it reaches its full magnitude, or even in the case where it bursts forth at full strength, you can be reasonably confident that you will be able to respond to it with rapid and overwhelming counter-force.

Thus you take as your military field of operation the environmental conditions in which both combatants and the noncombatant population lives: what Ullman and Wade call the “total situation.” The only way to act on the total situation is to act on the conditions of emergence of the battle, prior to its occurrence. These conditions concern threats which in the parlance of the doctrine of preemption, which has come to define the present era of conflict as integrally as deterrence did the Cold War, are “not yet fully formed.” What is not yet fully formed is still in potential. It may already be on the horizon, brewing like a recipe for disaster, or ominously looming like an unclear, almost-present threat. It carries an irreducible degree of indeterminacy. That measure of
indeterminacy makes it as intangible as it is ominous. It's a tall order: you must act "totally" on the intangibles of the situation. The ultimate boundary blurred is that: between the tangible and the intangible, the corporeal and the incorporeal. Because to act on the former you have to act on the latter.

There are two ways to act totally and intangibly on a situation. The first is by transposing your action from the spatial axis of the battle, siege or occupation to come, onto a time axis. You operate in and on the interval in which what is not yet fully formed is already imperceptibly brewing. You can act on that almost-present in order to influence the active form of its next-awaited emergence. Preemption is proaction: action on the conditions of action, prior to its actually taking shape. The second way to act totally and intangibly on a situation is to act on perception. It is perception which prepares a body for action and reaction. By modulating perception, you can already modulate subsequent action-reaction. This in fact makes perception a royal road to the almost-present. The two ways of acting intangibly with a view to the total situation are convergent.

It was perception's powers of proaction that motivated Arquilla and Ronfeldt's characterization of contemporary war as epistemological. But it is a mistake to take too cognitive an approach. The move into perception is accompanied in the contemporary theatre of war with a correlative move toward the "capabilities-centered" approach much touted by Donald Rumsfeld and his fellow neo-cons. In this approach, you move into perception in order to operate not at the level at which actions are decided, but at the level at which the very capacity for action is forming. Operating on the level at which decisions have been made focuses on the property cognitive aspect of knowledge: its informational contents, their availability, reliability and manipulability, their actual usability. Operating on the level at which the capacity for action is in the making is a very different proposition. It focuses on a pre-decision process occurring in an interval of emergence antecedent to both informed knowing and deliberative action. This is a point before know-ability and action-ability have differentiated from one another. At that point, a modulation of perception is directly and immediately a change in the parameters of what a body can do, both in terms of how it can act and what it will know. This antecedent level of capacitation or potentialization is protoepistemological—and already ontological, in that it concerns changes in the body's degree and mode of enabling in and toward its total situation or life environment. Any application of force at this level is an ontopower: a power through which being becomes. An ontopower is not a force against life, as any force-against-force must inevitably be at its point of application. It is a positive force. It is positively productive of the particular form a life will take next. It conditions life’s nextness. It is a force of life.

The Force to Own Time

Ullman and Wade are unambiguous about the fact that operating on this level is indeed an exercise of force, even though its object is intangible. It is not a lesser force, even though it is exerted in the thinness of nonbattle. It is, they say, “more than an application of force”—a surplus of force. It exceeds the parameters of tangible applications of battle-force and of the known contents of life upon which those applications bear and to which they add a hard permutation through their action of attrition. The productive force of the nonbattle returns to the level of conditioning at which the parameters for attritional force are set. There is always a follow-up action-reaction to an exercise of force against force. There is a second-next enveloped in the next, and a third in that. What is conditioned is a forward series of potential repetitions. There is a power of potential continuation, a power of a continuum, wrapped up in each exercise of force-against-force. The power of the continuum is an excess over any next, immanent in each one. Non-battle force or the force-to-own-time takes this excess as its field. This is what makes it a surplus of force—or a surplus-value of force. The relation of non-battle force to the force-against-force is analogous to the relation discovered by Marx between money as a means of payment and money as capital.

Capital is the driving force of the series of payment exchanges: money in the making; money beyond money. At each payment, a punctual return is made to capital. Profit is fed back into investment, replenishing the forward-driving force of capital. Money loops from its punctual exercise as means of payment into a feeding of the conditions of its own continuing. This excess of forward-driving force over any given payment-engagement is surplus-value, as distinguished from profit. Surplus-value is not the amount fed back. That is profit. Surplus-value is different from profit. It is not quantitative. It is processual. It is the processual quality from which quantities of money are generated in forward-driving fashion. It is the ever-nextness of proliferating quantities of economic value. Surplus-value is realized punctually in the explicit act of exchange, in such a way as to cyclically exceed any such exchange. Value beyond value, immeasurably on the make.

Nations make war the same way they make wealth.

Like capital, nonbattle force is at the same time forward-driving and cyclic. At each frictional engagement, it feeds back into itself toward the conditioning of what will come next. It is the ever-nextness of actual military value as realized punctually in explicit acts of war. Force beyond force, intangibly on the make. The force-beyond-force is the processual quality of conflict from which tangible military outcomes are generated.

Ullmann and Wade do not hesitate to link the force-beyond-force, as processual quality of war, to time. This is not, they say, a force to overcome resistance. Rather, it is the force "to own time". Recent military thinking has revolved around the concept of rapid dominance. "Rapid" means the ability to move quickly before an adversary can react. The force-to-own-time operates in an interval smaller than the smallest perceivable. "The target is perception," always and at every band along the full spectrum.
in the thick of things, when conflict boils over and force-against-force is to be engaged, the force-to-own time must still operate. It must squeeze into an interval smaller than the smallest perceivable between actions, so as to condition the enemy’s reaction. This is the “shock” of shock and awe. The exercise of force-against-force is qualitatively different from the force-to-own-time, but if its exercise is separated from the force-to-own-time it rapidly loses its effectiveness. The force-to-own-time is infra-level force. It is infra-active because it occurs in a smaller than smallest interval between actions. It is infra-perceptual because this same interval is also smaller than the smallest perceivable. And it is infra-temporal because, being imperceptible, the interval of its exercise is an off-beat of time, a missed step in the cadence of actions and reactions, an elided present between one moment and the next.

In the thin of things, at the non-battle end of the spectrum, the force-to-own-time still operates to infra-condition action by “controlling the enemy’s perception” in the interests of total-situation control. In the absence of dramatic action spiking punctually from the base-line of the non-battle, the conditioning of the environment by the force-to-own-time appears continuous. But this is only so because we are not paying attention to paying attention. The off-beat is still there. The base-line habit of perception has not ceased contracting itself in us. It still inhabits us. The pull of attention has not ceased to take hold of us. It still directs us to a next perception, and through it to next action-reaction. The baseline of war has accordioned into the baseline of perception. At the infra-level where the two base-lines converge, war at the macro scale of the battle, siege, and occupation falls into absolute processual proximity with war at the micro scale of everyday civilian life.

The Life Bare Active

The infra-interval is where perception itself is in absolute processual proximity with the body. The automatism that attention possesses by virtue of its sharing a nature with habit means that its operation rejoins the reflex workings of body matter. It is our bodies which contract habits, which are acquired reflexes. The operation of attention occurs at a point of indistinction between emergent perceptual experience and the autonomic mechanisms of the brain and nervous system. To a certain degree you can bypass the shielding or immunizing effects of pre-operative cultural conditioning as well as of personal histories, dispositions, and allegiances, by plugging into the nervous system and approaching attention from that autonomic angle. It is possible to find tangible handles to leverage the intangible dimensions of the life of the body. It is possible, within limits, to machine experience.

The limits are due to the fact that the system of perception, like capital, essentially involves feedback and is thus, like an economy, nonlinear. By definition, in a nonlinear system you cannot guarantee a one-to-one correspondence between a given punctual input and an outcome. You do not cause an effect. You effect a modulation. You can create resonance and interference effects at the emergent level. The smaller-than-smallest interval of the force-to-own-time vibrates with infra-level agitation. The innervated body poises, in vital commotion. It reacts: habits are primed. It proacts: its reacting is already a tensing and a tending to the future. The body is attending in the instant to the immediacy of life’s unfolding. Everything hangs in the balance. Except, far from equilibrium, the balance is off. Everything hangs in the off-balance of the instant. The nature and duration of the agitation formatively filling the instant reflects what follows.

The object of full-spectrum power’s force-to-own-time is not “bare life.” It is not human life re-animalized, stripped of its human content, its vitality reduced to the physical minimum, in absolute proximity with death. It is bare activity. This is human life in the instant’s off-beat. In that instant, a life is barely there, recoiled, bodily consumed in its infra-relation to itself. It is a life without determinate content. In that imperceptible instant, what its content will be next is in the making. A life is formatively barely there, tensely poised for what comes next. In that measureless instant, a life is intensely barely there, re-gathering in an immediacy of its capabilities. This is not vitality reduced to the minimum, this is life primed. This is also war. The life primed may indeed be in proximity to death. Yet the body is already arcing toward a next vital exercise of its capacity to act. Not re-animalization: reanimation: a stoking for the next step. This is a far cry from a life reduced to brute matter. It is the embodied event of a life re-gathering in recoil. This is life self-enfolding in affective vitality.

The object of full-spectrum power is the affective body re-gathering in its capacities across a stepped interval of change. Which is to say that full-spectrum power does not actually have an object. Rather than having an object, it finds a fulcrum—if a fulcrum can be said to leverage time. It leverages the future, in the bare activity of action dawning.

Shock, in the next instant, spills over into action. Infra-agitation amplifies, issuing in a macro-move. The actual resulting action does not exhaust the commotion of bare activity preceding it. That infra-activity coincides with a recapacitation of the body poised it for any number of potential outcomes, only one of which eventuates. The unacted remainder of capacitation constitutes a background modulation of the operational parameters of the field of potential action. It is by virtue of this reconditioning of the pragmatic field that the outcome is always in some degree nonlinear. The conditioning interval of shock does not simply issue an ensuing action. It sets that next actual action against an unexhausted background of potential actions, many of which are in actuality mutually exclusive. The outcome overall is a changed relation between the action that has actually resulted and the newly modulated experiential field from which it emerged. It is “ecological.” The field of potential action vibrates with the resonances and interferences of poisings unperformed, unsatisfied in action. This ecological remainder of actionability accompanies the ensuing action, retaining it even as it happens.

This poses a problem—and an opportunity—for the military exercise of force-beyond-force. As a force-to-own-time, its avocation is to leverage futurity by altering action’s conditions of emergence. The fact that the outcome of shock it administers toward this end
is complex—a dynamic relation between a punctual action and its continuously modulated background conditioning—means that the future it inflects retains a significant degree of uncertainty. Force-beyond-force must concern itself with managing uncertainty, not only that associated with preexisting field conditions into which it intervenes, but with its own future success. Strategies must be put in place to manage the arc of the action line to prevent it from drifting too far a field or reaching a sudden turning point where it bifurcates unexpectedly. A kind of shock therapy becomes necessary. Military strategy crucially assumes the task of shock management as a central feature of its ontopowerful conduct of proto-epistemological warfare. 24

Battle for the Edge

Key military texts of the early 2000s call for a far-reaching reorganization of the military around augmented network intelligence revolving around the infra-instant. 25 The texts pay lip-service to an easily digestible image of this strategic agenda, articulated in terms of enhancing the military’s ability to fight across the spectrum and prevail by enriching its ability to gather and effectively process high-quality information. But under pressure from the infrainstant, they in fact push further. It does not take much scratching under the “info-structure” surface to see that that the operative logic represents a radical departure from the conventional model of optimizing intelligence by enhancing the quantity and quality of information. If information is understood as conveying factually precise and semantically-rich content, information is not what is fundamentally at stake.

The larger goal of improved networking is not to augment human intelligence by better informing it. It is to integrally transform the machinery of war—and the place of the human actor in relation to it. It is to create a military machinery capable of dipping into the infra-conscious action potentials of bare activity in order to extract from it a surplus-value of force expressing itself emergently as a self-deciding military will performing itself in real-time, distributed across a self-adapting network of functions fused into operational solidarity through complex relations of mutual feedback. The networking is for distributing not so much information, as this self-deciding of action potential. The complexity is not so much cognized without, in the military system’s environment, as it is enacted within, full-spectrum, immanently constitutive of the system itself. The reorganization of the military that the strategists advocate is not just aimed at transforming it, but at making it self-transforming. Self-constituting and self-transforming: integrally, infra-illy ontopowerful.

What is at stake for network centric warfare, in the words of one strategist, is the “topology of power.” 26 “Battle space,” conventionally centered and hierarchically organized, must disseminate into a radical topology of the “edge.” This transposes it onto another dimension, for the edge is not simply located in space. More shockingly, it is the edge of time (the just-in-time of infra-real-time). It is where intelligence gets integrally distributed, for cognition to go infra-illy bare-active. What is produced is not knowledge but, directly and self-augmenting, power, ontopower, the playing-out of the force-to-own time, as a militarized force-of-life. Where once was the peak of human cognition—the “extraordinary mental power,” in Clausewitz’s words, of the steely-willed general—is now the everywhere cutting edge of a self-enacting will-to-power, one with the machinery of war, on a full-spectrum continuum with the “non-battle” field of peace. 27 What is at stake is the place of human perception, cognition, and intention in the evolving and expanding onto-topology of war-power.

What forms does or will this onto-topology of power take on the “civil” end of the continuum of power, now full-spectrumed into a zone of indistinction with war? By what self-emergent network may the intangible dimensions of the life of body be machined on the “human terrain” of everyday life? What mechanisms infra-modulate the everyday at the proto-epistemological level of life primed, for its affective vitality? Can human-centered cognition and its action potential be brought back from the edge? Is it enough to reclaim a decisive power for it? Or must decision be alter-machined, in an onto-battle for the edge? Where could or should the next beat fall? These are pressing questions not only for cultural theory and philosophy but for the syncopated future of politics. 28

Brian Massumi


Notes

3. The gap between consciously registered shifts in attention is called “attentional blink” in the experimental psychology literature. It refers to a fraction-of-a-second blanking out of conscious awareness that occurs between successive changes in the perceptual field. The gap in awareness corresponds to a latency period in perceptual processing during which the coming perception is undergoing “potentiation.” The gap in awareness during the potentiation of emerging perception was first brought to general attention by Benjamin Libet, in a series of now famous experiments in the 1970s. The term attentional blink was introduced in 1992. Since that time, attentional blink and associated issues in nonconscious perception have been the object of a steadily expanding and diversifying field of specialization with experimental psychology. For the original research introducing the term attentional blink, see J.E.
within and between ecosystems, and competition that have emerged in the modern economy. The new dynamics of competition are based on inc
18.
Office of Force Transformation (which was headed by Cebrowski)
17.
16.
Mark St. John, David A. Kobus, Jeffrey G. Morrison, and Dylan Schmorrow, “Overview of the DARPA Augmented Cognition Technical
“bare activity” understood as incipient action-ability. For an overview of the “AugCog” program co-authored by a longtime director of the project
Primed winter when attention is occurring as a nonconscious dimension of emergent perception, too rapidly for thought actually to have been
implies complex thought-like processes occurring as a nonconscious dimension of emergent perception, too rapidly for thought actually to have been
The DARPA program concerned with attention and related perceptual issues is the Augmented Cognition Program. This program’s purpose is to develop
wearable technology enabling real-time brain and physiological monitoring of states of attention, lapses in attention, and the nonconscious
perceptual processes occurring in the gaps. The monitoring technology is designed to be networkable in such a way as to enable tactical coordination
aimed at diagnosing and overcoming limitations in battlefield performance related to deficits in attention, reaction time, and memory-generation capacity,
either inherent in the human perceptual apparatus or induced by fear, stress, fatigue, and the “fog of war.” The program also has a positive aim: it is
proposed that the technology be used in training to help soldiers develop perceptual techniques to increase their “cognitive load” capacities beyond
average parameters. These techniques include ways of increasing vigilance by distributing attentionfulness or diffusing it across the perceptual field (what
has elsewhere been called “continuous partial attention”), as well as of intensifying focused attention (“multitasking”). The strategy of increasing vigilance
by diffusing attention is particularly relevant here, in that it amounts to an operationalization of what is discussed below in terms of the “in-bracing” of
“bare activity” understood as incipient action-ability. For an overview of the “AugCog” program co-authored by a longtime director of the project
(Schmorrow), see Mark St. John, David A. Kobus, Jeffrey G. Morrison, and Dylan Schmorrow, “Overview of the DARPA Augmented Cognition Technical
In the context of DARPA, see Alison Motlik, “How many things can you do at once?,” New Scientist 2598 (April 7, 2007): 28–31. The military theory texts cited
below share a central interest in operationalizing the “blink” in perception and cognition through techniques of attention and priming integrated
systemically into informational networks.

4. For an analysis of the processual tendencies continuing across the Bush and Obama administrations as they relate to the concept of full-spectrum war
and strategies of preemption, see Brian Massumi, “National Enterprise Emergency: Steps Toward an Ecology of Powers,” Theory, Culture & Society
26.6 (2009): 153–185. For a long (but by no means complete) inventory of particular military and security policy decisions made by the early Obama
administration which aligned it with Bush-era policies, see footnote 19.


7. Arquilla & Ronfeldt “Networks and Netwars” 10.


10. Arquilla & Ronfeldt “Networks and Netwars” 2.

11. Ullman & Wade “Shock and Awe” xxiii, xxivii.


13. On the centrality of preemption and its difference from deterrence, see Brian Massumi, “Potential Politics and the Primacy of Preemption,” Theory &


15. Ullman & Wade “Shock and Awe” xxvii.

16. On the immeasurability of surplus-value, see Antonio Negri, “Twenty Theses on Marx,” in Marxism Beyond Marxism, ed. Saree Makdisi, Cesare

17. This is a quote from a foundational text in the development of full-spectrum military doctrine, articulated as a shift from hardware-based “platform-
centric warfare” to capabilities-based “network-centric warfare.” Cebrowski, Vice Admiral Arthur, and John Ganski, “Network-Centric Warfare – Its Origin
Office of Force Transformation (which was headed by Cebrowski) http://www.oft.osd.mil.ezproxy.library.yorku.ca/initiatives/cnc/presentations/cnc.cfm.

18. Cebrowski and Ganski also make the link: “The organizing principle of network-centric warfare has its antecedents in the dynamics of growth and
competition that have emerged in the modern economy. The new dynamics of competition are based on increasing returns on investment, competition
within and between ecosystems, and competition based on time” (op. cit., emphasis added). In many passages, the authors draw an equation between
“competitor” and “enemy.”

19. Ullman & Wade “Shock and Awe” xxvii, 53.

20. Ullman & Wade “Shock and Awe” xxv.


22. Ullman & Wade “Shock and Awe” 9, 54.


24. It is here that the homology between war and economics signaled in the brief discussion of surplus-value above becomes dramatic. See Naomi Klein, The Shock Doctrine: The Rise of Disaster Capitalism (New York: Picador, 2008).


27. For an analysis of full-spectrum power as a self-driving dynamism or “operative logic” powered by the paradoxical time-structure of preemption and having its own processual autonomy, see Massumi “Potential Politics and the Primacy of Preemption,” op. cit.