The Clash of the Trinities: A New Theoretical Analysis of the General Nature of War

Daniel Maurer

UNITED STATES
ARMY WAR COLLEGE
PRESS

Carlisle Barracks, PA   STRENGTH *and* WISDOM

The United States Army War College

The United States Army War College educates and develops leaders for service at the strategic level while advancing knowledge in the global application of Landpower.

The purpose of the United States Army War College is to produce graduates who are skilled critical thinkers and complex problem solvers. Concurrently, it is our duty to the U.S. Army to also act as a "think factory" for commanders and civilian leaders at the strategic level worldwide and routinely engage in discourse and debate concerning the role of ground forces in achieving national security objectives.

The Strategic Studies Institute publishes national security and strategic research and analysis to influence policy debate and bridge the gap between military and academia.

The Center for Strategic Leadership contributes to the education of world class senior leaders, develops expert knowledge, and provides solutions to strategic Army issues affecting the national security community.

The Peacekeeping and Stability Operations Institute provides subject matter expertise, technical review, and writing expertise to agencies that develop stability operations concepts and doctrines.

The School of Strategic Landpower develops strategic leaders by providing a strong foundation of wisdom grounded in mastery of the profession of arms, and by serving as a crucible for educating future leaders in the analysis, evaluation, and refinement of professional expertise in war, strategy, operations, national security, resource management, and responsible command.

The U.S. Army Heritage and Education Center acquires, conserves, and exhibits historical materials for use to support the U.S. Army, educate an international audience, and honor Soldiers—past and present.

STRATEGIC STUDIES INSTITUTE
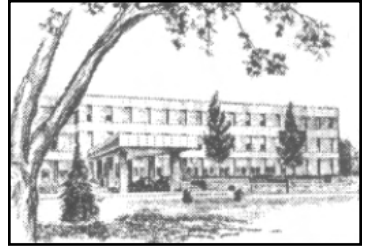
The Strategic Studies Institute (SSI) is part of the U.S. Army War College and is the strategic-level study agent for issues related to national security and military strategy with emphasis on geostrategic analysis.

The mission of SSI is to use independent analysis to conduct strategic studies that develop policy recommendations on:

- Strategy, planning, and policy for joint and combined employment of military forces;

- Regional strategic appraisals;

- The nature of land warfare;

- Matters affecting the Army's future;

- The concepts, philosophy, and theory of strategy; and,

- Other issues of importance to the leadership of the Army.

Studies produced by civilian and military analysts concern topics having strategic implications for the Army, the Department of Defense, and the larger national security community.

In addition to its studies, SSI publishes special reports on topics of special or immediate interest. These include edited proceedings of conferences and topically oriented roundtables, expanded trip reports, and quick-reaction responses to senior Army leaders.

The Institute provides a valuable analytical capability within the Army to address strategic and other issues in support of Army participation in national security policy formulation.

Strategic Studies Institute
and
U.S. Army War College Press

THE CLASH OF THE TRINITIES:
A NEW THEORETICAL ANALYSIS OF THE
GENERAL NATURE OF WAR

Daniel Maurer

September 2017

*****

Comments pertaining to this report are invited and should be forwarded to: Director, Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, 47 Ashburn Drive, Carlisle, PA 17013-5010.

*****

*****

The Strategic Studies Institute and U.S. Army War College Press publishes a quarterly email newsletter to update the national security community on the research of our analysts, recent and forthcoming publications, and upcoming conferences sponsored by the Institute. Each newsletter also provides a strategic commentary by one of our research analysts. If you are interested in receiving this newsletter, please subscribe on the SSI website at the following address: *ssi.armywarcollege.edu /newsletter/*.
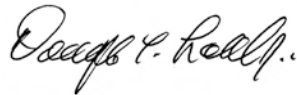
FOREWORD

Though taken for granted, there is a meaningful difference between conflict-specific, or era-particular, modes of **warfare** and the general nature of **war**. In this monograph, Major Daniel Maurer, author of *Crisis, Agency, and Law in U.S. Civil-Military Relations*, philosophically reflects on the fundamental nature of war and sets out to reinvigorate its study by emphasizing that no examination of warfare's trend lines and character can be complete without first establishing a common universal reference for what war itself is—a question that seems unassuming, but is actually without a consensus among those that study or engage in combat. Only with an updated and thoughtful understanding of war's nature, he argues, will warfare in its many guises and forms be properly placed in a theoretical framework that illuminates deviances from norms or expectations, and which accounts for the phenomenon of war across time, place, and culture.

Major Maurer takes a number of unconventional steps in his study that ought to provoke serious discussion and considered reflection among those who would decide that war, rather than other diplomatic or economic crisis-resolution approaches, should be embarked upon as a political act for policy reasons. With references and analysis of political, historical, military theoretical, sociological, and artistic descriptions of war, Maurer finds that no unified field theory adequately and comprehensively reconciles contrasting views of what war is. Concluding that war is best understood as a series of integrated or embedded frames of reference repeating a single common theme (choice) like a musical fugue, made up of polarized antagonistic parties engaged in a clash of their

respective Clausewitizian "trinities," Maurer crystal-lizes two new descriptions of war's elemental nature: first, an "investment in organized violence by parties interested in the extension, maintenance, or appear-ance of their power over an unspecified time, with an unknowable risk, for an uncertain reward;" second, "an intentional attempt to negate the equality of oppor-tunity to express a violent choice across multiple scales of action."

Major Maurer's analysis is complex and novel, and forces us to reimagine how and why wars exist as enduring human activities. By questioning conven-tional views and pursuing entirely new ways of under-standing war's nature, his is a voice very much needed from a generation of scholar-soldiers that matured during the first decade-and-a-half of the global war on terror. His insights will undoubtedly push forward a conversation about war's fundamental nature that for too long has been left unqualified.

DOUGLAS C. LOVELACE, JR.
Director
Strategic Studies Institute and
    U.S. Army War College Press

ABOUT THE AUTHOR

DANIEL MAURER, Major, U.S. Army, is an active duty officer with combat experience in Iraq. He has served as a Strategy Fellow on the Chief of Staff of the Army's Strategic Studies Group, a platoon leader in an Infantry task force, as a military prosecutor, appellate counsel, and other leadership assignments as a combat engineer and judge advocate. Major Maurer is a contributing author for the Modern War Institute at West Point and has published essays and scholarship in *Military Review*, *Harvard National Security Journal*, *Small Wars Journal*, *Army Lawyer*, *Engineer*, and several academic law reviews. He is the author of *Crisis, Agency, and Law in U.S. Civil-Military Relations* (New York: Palgrave Macmillan, 2017). A Distinguished Military Graduate from James Madison University's Reserve Officers' Training Corps (ROTC) program, he earned his law degree from The Ohio State University and an LL.M. from the Judge Advocate General's Legal Center and School. Major Maurer is licensed to practice law in Ohio and admitted to the bars of Ohio, the Army Court of Criminal Appeals, the Court of Appeals for the Armed Forces, and the United States Supreme Court.

SUMMARY

Major Daniel Maurer begins assembling his framework by respectfully questioning the received wisdom that Clausewitz was the last and most comprehensive word on the subject of war's underlying nature. First, despite some common ground regarding the relevance of war's political basis, he finds no consensus (no "unified field theory") among practitioners, presidents, political scientists, sociologists, or historians—from Clausewitz to Wylie to Keegan—that satisfactorily accounts for all of war's varying shades, and which legitimately recognizes its basic elemental components, its evolving character, and the "Why?" that animates or inspires parties to engage in conflict. Noting that not even the U.S. Department of Defense has a doctrinal definition of war, Major Maurer cross-examines some well-known and entrenched interpretations, including those of H. R. McMaster, Rupert Smith, and Emile Simpson, in the hope of reconciling their differences and linking their similarities with a view toward a new explanation that is consonant with descriptions and forecasts of wars—past, present, and future.

Second, Maurer moves through and past Clausewitz, piercing the Clausewitzian trinity of passion, reason, and chance to unearth even more elemental components that comprise war regardless of scale. To accomplish this, Maurer embarks on a wholly original avenue of approach: thinking about war from the "perspectives of compounding relevant points of view existing simultaneously and in concert," what he analogizes to a musical fugue. This fugue of war, like its musical counterpart, is governed by a repeating theme—here, Maurer proposes choice as that single, dominating trait that defines war at any scale, imagined or studied.

Maurer, ultimately, uses this theme to reconcile two of the more antagonistic or polarized stances on the nature of war.

Finally, building on Clausewitz's more abstract conceptions, Major Maurer describes war as a "clash of the trinities" in which basic elements—the biological actors, the material, and psychological fuel that empower and embolden them and their interactions—form a context-specific "ecology of war." He depicts this clash with a novel visual analysis, illustrated by historical vignettes: a series of embedded frames that encompass the polarized parties, their interactions, and the legitimizing authorities that move them.

THE CLASH OF THE TRINITIES: A NEW THEORETICAL ANALYSIS OF THE GENERAL NATURE OF WAR

INTRODUCTION

> If we are to identify whether war is changing . . . we need to know first what war is . . . [but] one of the central challenges confronting international relations today is that we don't not really know what is a war and what is not. The consequences of our confusion would seem absurd, where they not so profoundly dangerous.[1]

> **Quaint and curious war is** [emphasis added].[2]

War is a state of mind, a way of managing or rearranging social relationships on large scales, a macrocosm of activity, and a term pregnant with presumptions, dark and bloody connotations, and confusion. War, like a family or art, is a human convention or tradition based on primordial drives and social needs; no matter how modern we believe we become, the convention remains part of our legacy and culture even if its manifestations evolve into various nontraditional forms or in unexpected ways.

In two very good recent articles, military officers have grappled with another elusive abstraction. In "The Mud of Verdun," Major Robert Chamberlain proposed that a theory of warfare describes, "how a military intends to produce strategic outcomes" by establishing a war's "ordering principles."[3] If a government or head of state, for example, believed in—and directed the military to engage in—warfighting based on principles of speed (through terrain) and

overwhelming force of arms, it would possess a theory of warfare. Likewise, a theory might be illustrated by tactics and strategies of Mao, or the Boers, or al-Qaeda, or the use of proxy states or covert operations; or, like Sun Tzu, all thought and resources were devoted to winning without fighting at all. In particular, Chamberlain found four "essential components" to theories of warfare: "strategic givens, a generated military, military effects, and a political outcome." In other words, a theory of war**fare** is a recipe involving basic ingredients and a fundamental process for combining them into a product for consumption. Like any recipe, though, the chef's idiosyncratic style, tastes, and kitchen conditions will tend to modify the amounts of each ingredient and how they enhance or dull the ultimate dish being served—the German or American way of war. Chamberlain, seemingly in agreement with Wayne Lee's assessment of capacity, writes that the "resource context" and the "desired political outcome" will largely dictate.[4]

In *Capturing the Character of Future War*, Colonel Norwood and Majors Jensen and Barnes asked, "How should military officers describe the future operational environment?"[5] They correctly suggest that answering it is a crucial duty of the profession as it advises our civilian principals on everything from where to invest in technology and the human dimension or domain, to modifying our doctrine and negotiating with allies. Where Chamberlain describes a theory of warfare in a way reminiscent of a recipe, these authors propose a predictive analytical framework. They marry up an ever-shifting Clausewitizian character of war (the "co-mingling of the motives and circumstances governing uses of force to compel an adversary to do one's will") to trends analysis in three areas (rate of

technological change, strength of state governance, and the state of the international system).[6]

These are big questions, and the authors should be commended for asking them. But they are not the proper starting point. Before we can hope to understand the character of a war, or to formulate theories of warfare, we must first appreciate, and collaborate with our civilian principals, on the more fundamental question of what war, itself, **is**. As we will see below, it is a superficially easy question, but with layers beneath it that reveal critical distinctions; these distinctions provide a new opportunity — and a **new duty** — to work with our civilian principals as their expert agents to accurately understand the forces that shape and define war.[7]

But why go to all this trouble? Skipping the first principles and going straight for the practical consequences is nothing new, and the resulting muddled analysis is nothing to be surprised over. The word "war" itself is derived from the Old High Germanic word, *werran*, meaning to confuse. In his seminal *A Study of War*, Quincy Wright saw multiple and contradictory meanings of war propagating in the public's mind: a terrible plague, an avoidable mistake, a useless anachronism, an interesting adventure, a useful instrument, or a legitimate legal procedure.[8] These meanings run along a spectrum from the absolutely unredeemable and horrible on one end to the acceptable and sometimes positive choice, like an elective surgery. All this suggests that if we — but in particular the civilian and military strategic elites that run our wars — who are trying to avoid war, but have failed, might need a recalibrated understanding of the phenomenon.[9] By talking of war, we talk of hearing a **very distant**

thunder but do not know how to explain it, predict it, or silence the noise with much success.[10]

THERE IS NO UNIFIED FIELD THEORY

Explaining that distant thunder often falls prey to the desire to systematically or scientifically define it. As a repeated human activity, with certain obvious common denominators, players, features, and prefatory events, it is no great wonder that wars have been studied in their contexts of time, place, and motive, hunting for some universal definition. For example, one can propose that war is **an acute state of armed aggression, using means of violence possessed by organized networks of people, arrayed against an enemy belligerent, in order to achieve some collectively-agreed upon purpose**. This captures all the points assumed to be essential: a limited and definable window of time that covers a lifecycle of a war, that it involves violence, that myriad groups of people in various states of organization are the participants, and that some animating ambition drives their behavior. But for all that, this is still a sterile and sanitized definition of war. It is not a soldier's definition; it is more like a political scientist's definition. But most soldiers do not force themselves to stringently objectify the concrete and very personal struggle they endured, and most political scientists do not actively participate in the war fighting they casually study.

Quincy Wright, a legendary social scientist who advised Justice Robert Jackson during the Nuremberg Trials, described war in the latter style: war is the "legal condition which equally permits two or more hostile groups to carry on a conflict of armed force."[11] Generalizing from conditions found in all conflicts

historically referred to as "war," he concluded that they are characterized by four common essentials: military activity (ranging from normal preparatory training to battles), high tension levels in public opinion, what he termed "abnormal law" (suspension of treaties, halting of trade, rules of force legitimizing the use of force), and "intense political integration" of each belligerent.[12] Among his many contributions to the study of international relations and war, Wright is said to have developed a theory of war that suggests warlike violence breaks out and spreads when these forces are held unchecked by human adjustments and controls, becoming unbalanced or no longer in "equilibrium."[13] This theory is more about the variables that create a welcoming environment, or rushing current, for war and less about the phenomenon itself, for his research goal was to uncover those material factors that—if properly tuned by an adequately knowledgeable and wise culture—could short-circuit or dam up what otherwise would seem to be an inevitable rush to violence.

Jack Levy, as another political science example, defines the subject of war as the "sustained, coordinated violence between political organizations."[14] In other words,

> War should be understood as an *actual*, *intentional* and *widespread* armed conflict between political communities . . . War is a phenomenon which occurs *only* between political communities, defined as those entities which either are states or intend to become states (in order to allow for civil war) [emphasis in original].[15]

Levy notes with caution, however, that academic social science studies of war leave something to be desired. They have:

limited predictive capacities, and enormous divisions within the field. There is no consensus as to what the causes of war are, what methodologies are most useful for discovering and validating those causes, what general theories of world politics and human behavior a theory of war might be subsumed within, what criteria are appropriate for evaluating competing theories, or even whether it is possible to generalize about anything as complex and contextually dependent as war.[16]

Even the taxonomy of war is complicated.[17] Since 1963, the Correlates of War Project, a university-led data collection effort, has attempted to systematically categorize, classify, and historically track statistics for a range of international combative activities. There are, for example, the class of wars between two or more members of the interstate system, and a class of wars between or among nonstate autonomous entities, nonterritorial entities, and nonstate armed groups. The Project also adds restrictive—and arbitrary—numerical quotas to define the kinds of combat that it classifies as "war." To distinguish war from a massacre, riot, crime, or ethnic cleansing by a government on its own people, the Project requires a commitment of 1,000 troops by a belligerent party, or suffering 100 battle-related deaths, in order to be labeled a **participant** state in a war. If a nonstate actor engages, those numbers shrink to 100-armed personnel or 25 battle-related deaths. But, generally, the Project winnows war down to mean the "sustained combat with 1,000 battle-related deaths between or among the combatants per year."[18] Max Boot contends that databases like this, starting at these magic numbers, exclude what he calls invisible armies fighting small guerilla wars and insurgencies. Boot argues that those conflicts—the

small-scale, low-tech, but impactful—are historically ubiquitous and likely to continue far into the future.[19]

Of course, there are colorful metaphors offered by Clausewitz, describing war as a duel, wrestling match, or game of cards to emphasize its inherent physicality, polarity, and unpredictability; that it is an act of force to compel the enemy to do one's will, and nothing but a continuation of politics or policy by other means.[20] For reasons I will describe below, these remain helpful reminders, but an entirely transparent lens through which to observe the inner structure of war.

If academics have no unified field theory to understand, describe, or define war, does the layman or professional service member stand a chance? **Other** languages, outside of rigorous methodological construction of dependent and independent variables, might work just as well. Can artistic depictions help us visualize what war **means**, if only idiosyncratic to the artist and an audience of admirers? Is the nature of war's core best expressed in Picasso's disassembled, grieving victims in his painting *Guernica*—the narrative story of the civilian victims of conflict? Or is it in the pile of bleaching skulls picked over by crows in Vereshchagin's *Apotheosis of War*—the unalterable truth that war is, at its most graphic and banal, the proximate cause of systemic death, without glory, trappings of chivalry, brotherly compassion, or any other way to cover up the effect of war? Or is it found in Leutze's stout *Washington Crossing the Delaware*—a capture of defiant heroism against oppressing odds? Maybe poetry, instead, captures and distills war in a helpful way: Hardy's *The Man He Killed*, Tennyson's *The Charge of the Light Brigade*, or Brian Turner's collection in *Here, Bullet*. Hardy wrote his poem around the time of the British engagement with the Boers, and

confronts us with the truth that two soldiers aiming for each other across a battlefield are, in **any other** context, just two ordinary and similar men with similar tastes, desires, fears, and lives. One hundred years later, Iraq War veteran Brian Turner wrote of the doubt, hesitation, and insecurity a soldier faces when distinguishing friend from foe in heat of a fight:

If you hear gunfire on a Thursday afternoon,
it could be for a wedding, or it could be for you. . . .

You will hear the RPG [rocket-propelled grenade]
coming for you.
Not so the roadside bomb.

There are bombs under the overpasses,
in trashpiles, in bricks, in cars.

There are shopping carts with clothes soaked
in foogas, a sticky gel of homemade napalm.

Parachute bombs and artillery shells
sewn into the carcasses of dead farm animals.

Graffiti sprayed onto the overpasses:
I will kell [sic] *you, American* [emphasis in original].

Men wearing vests rigged with explosives
walk up, raise their arms and say *Inshallah* [emphasis in original].

There are men who earn eighty dollars
to attack you, five thousand to kill.

Small children who will play with you,
old men with their talk, women who offer chai—

and any one of them
may dance over your body tomorrow.[21]

It is perhaps this uncertainty with how to grasp the meaning of modern war in a modern world that inspired the Washington, DC, think tank, The Atlantic Council, to start its "Art of the Future Project," whose mission statement reads:

> The project's core mission is to cultivate a community of interest in works and ideas arising from the intersection of creativity and expectations about how emerging heroes and antagonists, disruptive technologies, and novel cultural and economic concepts may animate tomorrow's world.[22]

The Project has inspired artists, fiction writers, and active duty officers to contribute their impressions of what the future of war might hold, given their sense of where it is now, with a shared objective to reveal:

> unconventional, imaginative thinking and expression [that] contribute[s] meaningfully to the study and professional conduct of diplomacy, the creation of technology and domestic policy and national engagement abroad.[23]

Lieutenant General H.R. McMaster, a decorated combat veteran of two wars, a historian and author, asserts that military officers have a "duty as leaders to develop our own understandings of our profession and the character of armed conflict."[24] Admiral J.C. Wylie, for instance, wrote that the sailor, airman, and soldier are possessed of intellectually-distinct modes

of thinking about war: their respective maritime, air, and continental theories of war are based on the environment in which those professionals work.[25] They risk being too narrow, under-representative, and context-dependent as a result. They are not general theories, but rather points of departure for planning.[26]

In the 1950s, Samuel Huntington raised the same concern about the American military, but warned that the separate armed services—though differing in what fueled their budgets, goals, weapons of choice, and geographic dimensions—had evolved and professionalized into a "corporate military viewpoint [and] had hardened into a stable pattern of belief and a fixed way of looking at the world" different from that of political leaders.[27] This proves a critical concern because, as McMaster cautions, the **character** of war changes over time and place. Moreover, when it does, those changes are often confused, inflated by hubris or ahistorical ignorance into a resounding claim that the nature of war has changed too.[28] The confusion and hubris is compounded when civilian and military elites, each in their own way, attempt to move through this haze with their own institutional perspectives that may be at odds, or one when of these "unequal partners" deliberately or negligently ignores the others' advice or position.[29] In the last 3 decades, we have seen the end of the Cold War, the Persian Gulf War, the Kosovo War, the recognition of and accounting for hybrid warfare,[30] gray zone wars,[31] various manifestations of fourth-generation war,[32] and the War on Terror.[33] Moreover, those are just the highly-visible examples from a distinctly Western viewpoint. In all of those manifestations, for all of their different characteristics, what—if anything—has really changed? If nothing has, then what forms the lowest common denominator?

Eminent military historian John Keegan began and ended his most famous work, *A History of Warfare*, with that same question—What is war?—and argued that it if you tried to uncover a pure and single nature of war, you would fail.[34] Cultures, nations, tribes, weapons, and the policies or decisions that fling all of these together violently, he wrote, are too dependent on the time, circumstances, and location of the fight to leave anything like a universal account possible. It was Keegan who took issue with Prussian Carl von Clausewitz and his famous—and nearly universally accepted—maxim that war is a branch of political discourse, or the adoption of warfare ways and means to communicate civil policy or signal political demands.

Those in uniform, like Clausewitz, McMaster, and Wylie, are, perhaps inevitably, prejudiced by their participation. "Two years of shells and bombs—a man won't peel that off as easy as a sock," wrote Erich Maria Remarque.[35] One's exposure to war's effects—either by planning them, following and giving orders to manage them, or being devastated by them—affects the manner in which they are intellectually and emotionally comprehended. Keegan, though never serving in uniform or holding an elective office, did accurately proffer a common denominator to all battles. He wrote that of the "human element" that creates paradox after paradox: war showcases the "sense of honor and the achievement of some aim over which other men are ready to kill" that fights off the "instinct for self-preservation;" the potent juxtaposition of fear and courage, leadership and obedience, compulsion and insubordination, anxiety and elation, and violence and compassion.[36] In this regard, he was very keen, and many veterans who reflect on this esoteric subject would tend to agree with him.

Wylie, for instance, wrote that war is "Death and destruction and heartbreak, political upset and economic chaos and social disorder."[37] To visualize this secondhand, one can visit soundless battlefields marked with granite monuments and leaning gravestones, and read ghostly and graphic depictions from the diaries of the soldiers who lived through the campaigns. One can read the letters scribbled from soldiers' cots between missions and sent far too infrequently to parents, spouses, and others. One can walk solemnly through museums with vintage muskets, fraying and fading uniforms, rusting entrenching tools and compasses, torn map shreds, and static displays of tanks and jet aircraft that long ago went technologically extinct. One can read the memoirs of the strategic policymakers—the kings, ministers of war, presidents, chiefs of staff, and field marshals—who ordered troops to the field and maneuvered them through deserts, or directed showers of aerial bombardment, or negotiated for peace. Perhaps one can meet the civilian survivors or refugees of a war that shook their world without their say-so. Maybe someday one will fight in his own war and experience the adrenalin rush, the anxious boredom, the fear that is ever-present but usually stoically contained, the instant fraternal bonds, the physical strain and emotional toll, the waxing and waning of disillusionment and patriotism, and the longing for home. As Clausewitz penned,

> the novice [approaching the "rumble of guns grow[ing] louder"] cannot pass through these layers of increasing intensity of danger without sensing that here [on the battlefield where "the sight of men being killed and mutilated moves our pounding hearts to awe and pity"] ideas are governed by other factors, that the light of

reason is refracted in a manner quite different from that which is normal in academic speculation.[38]

Perhaps after all that, one can decide if Keegan was right and whether the words of Colin Gray ring true: "there is an essential unity to all strategic experience in all periods of history because nothing vital to the nature of function of war and strategy changes"[39]—that what we see and feel now about war is nothing but an "expression of the ageless phenomena" of war.[40] To Brodie, it was nothing much more than "men killing on a grand scale for reasons that are usually foolish and often wicked."[41]

Historians and philosophers have long agreed on what those foolish and wicked motives are, that people—individuals and collectively—go to war for three primary reasons: fear, honor, and interest, according to Thucydides; and competition (for gain), diffidence (for safety), and glory (for reputation), says Hobbes.[42] Not only might these be the animators of a soldier's personal pride when choosing to flee or to fight, but they may also be the motives of villages and tribes when they arrange an ambush on a heavily-armed convoy of American infantry from a pine-covered hillside in rural Afghanistan,[43] or entire nations as they cajole and plead and negotiate themselves into alliances and coalitions.[44] However, fear, honor, and interest (or gain, safety, and reputation) speak more plainly to particular, specific conflicts.[45] They do not define the gravamen of conflict per se—the forces that triggered those emotions to stir and rumble in the first instance. Maybe it is madness, first felt and manifested by one megalomaniac, then spread and adopted by culpable, converted groups, until its violent message and goals are shared by masses. Maybe it is society's

way of testing by trial the truth of traditions and collective beliefs, as J. F. C. Fuller considered the American Civil War to be a test of the "hollowness of [the] myth" of slavery and Southern economic independence in face of the Industrial Revolution.[46] Kenneth Waltz, writing in the first decade of the Cold War, suggested that understanding the use of military force must be based on understanding the relationship among three other factors or images—bellicose human nature fired by long-held customs and traditions (which really just encapsulates the motives mentioned by Thucydides and Hobbes), the structure of the belligerent states (how domestic policies constrain or fuel foreign affairs), and the international system of those states competing with or against each other.[47]

But what if, contrary to Wylie, war is not a harbinger of chaos but instead a social and expected **norm**—where its **absence**, a state of peace, would unravel traditional, legitimate ways that people resolve their disputes? Jared Diamond portrayed such a war in the highlands of modern-day Papua New Guinea, practiced in an area with little centralized state control and long hard memories between tribal clans. Vengeance there serves as the honorable, expected, and legitimate fuel for community on community aggression and violence where the cause of warfare is usually attributed to a woman or a pig, both sources of individual and family wealth and prestige.[48] To Machiavelli, war—or more precisely being prepared for war—was an innate and intimate part of civil society, defending the society's laws, values, and resources. Military might was the roof protecting a palace of fine jewels from the natural degradation caused by weather over time.[49] In other words, war (its utility) was both common and common sense.

The definitions of war on which most modern American military officers have been trained to appreciate, but not educated to really reflect upon, seem inadequate to the task. (Perhaps this inadequacy is made worse by the fact that not even the U.S. Department of Defense maintains a working definition of the term war even though the terms wellness, wounded warrior programs, and working group are blessed with Joint-approved definitions.[50]) Not only do they not match visceral impressions of conflict (as Sir Michael Howard put it: they do not "bridge the gap between war as it has been painted and war as it really is"), they also never answer the question integral to any definition or generic description of war: "**But why?**"[51] Those definitions do not explain, so much as they distinguish.[52]

The nature of war is not a study of how terrain, tactics, tenacity, or luck shaped the course of a particular battle. Nor does it mean the political causes and effects of a specific engagement. Nor does it mean the strategic setting of a long campaign. Instead, it encapsulates something both bigger and blurrier, like aiming NASA's Hubble Telescope at a patch of sky to look deep in time and distance. For example, stretching out the meaning of war to cover activity on both peace and combat, James Dubik writes that:

> war is a form of community expression—politics in the classic sense—of a willingness to use organized, armed violence to attain community aims. Waging war, therefore, entails both the defeat of enemy forces and their will to fight and the defeat of the community's corporate ability and will to use violence. Such defeat requires combat and diplomacy.[53]

The idea of questioning and describing the nature of war, from a theoretical and abstract point of view is, of course, risky for several reasons.

First, a critic might suggest that no one has thought more deeply or written more persuasively on this subject—the theory of war's nature—than Clausewitz in the early 19th century. He is immortalized and preserved in war college texts as "The Dead Prussian," spoken of in deferential tones, and inspires books, websites, and podcasts.[54] Anything written post-Clausewitz, then, can only be an explanation of Clausewitz, an over-simplified derivative of his arguments, a rebuttal of his claims, or—worst of all—a generally interesting but intellectually tame tale of fiction that ignores the timeless truths he first and foremost explained.[55] In any of those cases, any knowledgeable observer would, of course, unfavorably compare and contrast to the original master. "Nothing so comforts the military mind," Barbara Tuchman once wrote, "as the maxim of a great but dead general."[56]

Second, a critic might note that nobody, actually, **cares**. Even if Clausewitz was wrong, incomplete, or needs updating, the topic is one that has little relevance because it sparks such little public interest. That critics would say that such an effort generates no useful meaning for the actual actors that: talk about the use of military force, approve the use of military force, direct and engage in the use of military force, witness or feel the effect of that use of military force, or try to describe and record the history of that use of force.

Clausewitz, we can rest reasonably assured, cannot speak to us from the 19th century with universal authority. His writings on the nature of war—while helpful starting points—do not define the subject in a way useful for understanding the strategic dynamic

between the civil and military leadership in a representative democracy with a constitutional division of labor and responsibility, nor in a world of hyper-technical cyberconflicts or hybrid wars in gray zones, and hegemonies fighting limited counterinsurgencies. For example, he considers war "nothing but mutual destruction." While we can dilly over what he may have intended by "mutual" and "destruction," and perhaps argue that both terms possess shades of meaning to capture a wide range of potential parties to the conflict (some central, some not very) and a wide range of effects (economic, military, social, political), Clausewitz was less obtuse here than in other areas. He defined war as a clash of arms: "fighting is the central military act [and] the object of fighting is the destruction or defeat of the enemy."[57] Perhaps so, but is it always?

Sometimes, the mere **presence** of an armed force—occupying space and possessing the **potential** to do great harm—is the signal of support to an ally, the signal of intention to a fence-sitter, or the signal of threat to an enemy and may be the sole political point for which a military has been deployed. As we will see below, from the perspective of the host community in which that armed force is postured, the foreign army's inactivity does not erase its perceived or apparent belligerency. This tense ambiguity makes docking military necessity and actions on the ground with political motivations as difficult as aligning a space shuttle with an orbiting satellite. Moreover, Clausewitz's vision of war included a court or cabinet in which the commander directing the campaigns of the war is an integral member, "so that the cabinet can share in the major aspects of his activities."[58] He assumed, probably unrealistically, a world in which, at the bottom,

we can make the use of force "consonant with political objectives."[59] As we shall see below, Clausewitz's arguments are necessary, but not sufficient, predicates.

Along with every other student and practitioner of war in his day, he suffered from the understandable inability—no matter how intuitively perceptive or historically accurate he was—to forecast the technological means and methods of warfare that have colored the evolution of political blood-letting over the last century and a half. Nor did he try. Clausewitz's appreciation of war as a political instrument, defined by the relative influence (or fusion) of reason, emotion, and chance, was informed by a way of war that pitted nation against nation (really national heads of states powered by popular conscriptions and drafts) for territorial gain, primed by age-old grievances, prejudices, and honor.[60] His image of war was action-driven, results-based, and circumscribed: warfare by orienting and directing one's forces for a decisive battle in which the only prime objective was to destroy the enemy's army as **the** means for breaking the enemy's will to fight.[61]

To a generation of American military officers raised since the terrorist attacks in 2001, this image of war seems somewhat dated and subtracts from the great Clausewitz's contemporary relevance. He does not seem capable of explaining war in a way that helps us grapple with diverging views of what forms war could take in the future, or with the many forms it does take in a single setting now. One contemporary Army Chief of Staff predicted that future wars "could have conventional forces, Special Forces, guerillas, criminals all mixed together in a highly complex terrain environment, with potential high densities of civilians." The Chief of Naval Operations remarks, somewhat

differently, on the "return of great power competition . . . [including] naval combat at sea."[62] However, this Clausewitzian model, for all of its faults, is not a mirage. It just happens to appear only when certain political conditions and military necessity are carefully running in parallel toward that end like speed skaters on an ice track, and public acquiescence to the bloody consequences of pitched battles is acceptably high. It is, to illustrate, Robert E. Lee concentrating his Confederate army at a tidy little urban juncture of a dozen roads called Gettysburg, invading Pennsylvania to lure the Army of the Potomac north to engage in a decisive engagement that would so rattle the nerves of the northern population they would sue for peace.[63] It is President Lincoln's frustrated exhortation to General Joe Hooker to fight Lee wherever he and his army move, ignoring the temptation to move on Richmond when the rebel Army headed north to Maryland and Pennsylvania.[64] It is President George H. W. Bush's rapid eviction of the Iraqi Army from Kuwait in 1991, destroying large chunks of it with concentrated airpower and flanking tank forces, but allowing it to retreat and ultimately protect the Saddam regime, still intact in its palaces of Baghdad and Tikrit.

We do not really know how well (by that I mean how helpful, persuasive, or authoritative) Clausewitz's thinking stacks up against evidence of nontraditional or unconventional war. Do his arguments help to understand Australian aboriginal hunter-gatherers from 10 millennia ago, fighting each other in large, familial groups over territorial boundaries in order to monopolize their access to scarce and coveted game or water resources?[65] Surely, such primitive warfare over basic needs is as much a potential setting of war as cyberwar between China and the United States. From

their perspective, if one can imagine their reflecting on the matter, their violent aggressive competition was no less intentional and widespread between political communities than it is now between Israel and Hezbollah or Ukraine and Russia, or the Islamic State of Iraq and Syria (ISIS) and the West. If the latter examples are properly understood as war, why not the former?[66] And if it is, then Clausewitz's appreciation of war as the deliberate political application of professional military campaigns aimed at closing with and destroyingasimilarlookingenemyarmyinagreatbattle — Austerlitz, Waterloo, Cannae, or Gettysburg — was too particular.[67]

Nor can we easily apply **all** of his theory to more modern samples of war: pseudo-secret cyberwar, an international coalition of democracies fighting the long war against terrorism, infusion of foreign troops under a humanitarian responsibility to protect, or the so-called gray zone and hybrid conflicts that seem to preoccupy the attention of today's civil and military strategic leaders. Because deploying military force is a choice, and comes at a cost in blood, treasure, time, and reputation, perhaps a more generic characterization should be something like, **war is an investment in organized violence by parties interested in the extension, maintenance, or appearance of their power over an unspecified time, with an unknowable risk, for an uncertain reward**. Now, this too is sterile, but it will form the bedrock of a more colorful description below.

REPORTS AND FORECASTS

> You are in a pretty bad fix, Mr. President.
> You are in it with me.[68]

That question of war's nature—and what it means for the dynamics of American civil-military relations among its strategic leaders—must be answerable in a way that acknowledges that war, whether it is a timeless phenomenon of psychological, biological, and sociological origins, or evermore technologically complex tool employed by rational actors with state or international legitimacy, is seen and felt and heard through many instruments with differing roles, timing, sounds, and cadences. So perhaps it is appropriate to now cross-examine some old definitions.

> War is fighting . . . fighting, in turn, is a trial of moral and physical forces . . . still no matter how it is constituted, the concept of fighting remains unchanged.[69]

> Fighting is not the essence of war, nor even a desirable part of it. The real essence is doing what is necessary to make the enemy accept our objective as his objective.[70]

Can we reconcile these two definitions? Though wide enough to drive a tank through, these definitions do not suffer from the sterility and arbitrary taxonomy of political science definitions mentioned earlier. The first came from Clausewitz's pen, after a lifetime of observing, and participating in, warfare that expanded its lethality, range, territorial ambition, and strategic genius under Napoleon. The second comes from largely unheard of American Air Force Colonel who played a significant role in crafting the strategy for the

decapitating air campaign against Saddam's regime in Iraq in 1991, employing sophisticated smart bombs and stealth aircraft before the 100-hour ground war ejected the world's fourth largest field army from Kuwait.

So is it war fighting or not fighting? Or something else altogether that may or may not include fighting, depending on the context and circumstances?

> Although all wars have the essentials in common . . . the details are always changing.[71]

> War is political, human, and uncertain.[72]

Do these descriptions express the truth, the whole truth, and nothing but the truth? Were they even meant to? To paraphrase Dylan Thomas, they "had forked no lightening," despite the distant thunder,[73] to spark deep understanding. They are, instead, **counterpoints** to an argument that the practice of war is always evolving. That argument is: as technology enhances a state's ability to identify, locate, target, and annihilate an enemy military force, the number of actual combatants taking the field shrinks, and the duration of fighting shortens as the combatants' efficiency rises. Our ability to see, hear, and even feel the effects of combat proliferate globally in ways that mold public opinion faster and thereby shape policy choices that start, continue, or end those conflicts.[74]

Of late, in response to (and largely a fearful response to) the advent of the military use of unmanned aerial vehicles (also known as remotely-piloted vehicles, unmanned combat vehicles, or armed drones), many such arguments have found their way into the public debate. Even psychologists, law professors, and philosophers have weighed in.[75] Drones, according to

Gregoire Chamayou (one such concerned philosopher), are replacing traditional, rules-based, hostility with a "militarized manhunt" game of "hide and seek" and "vast campaigns of extrajudicial executions."[76] Chamayou argues that drones are sucking the morally excusable and explainable combat out of warfare altogether. His definition of war portrays the drone as the latest evolutionary stage of warfare further separating the use of military power from those that must **own** and **accept** the responsibility for its use, and bringing its violence to the doorsteps of the most unsuspecting enemy—the belligerent who did not know he was considered a belligerent at all. It turns out that he echoes a theme older than even the earliest unmanned combat drone. On the eve of the World War II, British Major General J. F. C. Fuller wrote: "[t]he more mechanical become the weapons with which we fight, the less mechanical must be the spirit which controls them."[77]

In February 2016, the University of Notre Dame's Kroc Institute for International Peace Studies held a symposium called "The Ethical and Policy Implications of U.S. Drone Warfare," debating the merits of U.S. combat drones in the wake of an errant drone strike on an Afghanistan hospital run by Doctors Without Borders in which 42 people were killed. Panelists and moderators included theologians, public policy professors, law professors, and reporters; no current or former national security professionals, let alone soldiers, sailors, marines, or airmen, were members of the august group, nor the nonvictim civilians of attacks that could have been waged by conventional means that likely would have resulted in significantly more collateral damage than the average drone strike.

Philosophers and law professors are not alone in believing this advance toward mechanical autonomy

may be an unwelcome one. Former Secretary of Defense Robert Gates cautioned that our ability to push a button "in Nevada, and seconds later a pickup truck on Mosul [Iraq] explodes" has turned war into an arcade game in which political leaders of technologically advanced nations can too easily and quickly turn to military means to defeat an enemy without sufficient deliberation.[78] Dave Grossman's widely-read *On Killing* describes how the physical proximity to the destructive act of violence that one wages correlates to his or her "psychological cost" and mental health. Writing of the urban fire-bombings and atomic bombs of World War II,

> The pilots, navigators, bombardiers, and gunners in these aircraft [that delivered this ordnance] were able to bring themselves to kill these civilians primarily through application of the mental leverage provided to them by the distance factor. Intellectually, they understood the horror of what they were doing. Emotionally, the distance involved allowed them to deny it . . . From a distance, I can deny your humanity; and from a distance I cannot hear your screams.[79]

Others have suggested that drones reduce the inhibition to resort to force as a means to solve a political problem.[80] Others have cautioned about the ugly strategic signal they send about a nation that uses such weapons—a signal of the user's cowardice, fear of self-sacrifice, avoidance of physical dangers, and martial weakness.[81] Others play on the public's emotive fear that the decisions to use these weapons of war are too secretive. They argue that these debates are hidden inside a "drone bureaucracy" and suggest that the "kill chain" of decision-making is opaque and extra-legal, executed by politicians and senior field commanders without proper explanation to the American public

and risking far too many civilian deaths outside of the traditionally understood battlefield.[82] The argument suggests, "the act of willfully pinpointing a human being and summarily executing him from afar distills war to a single ghastly act." It reinforces the military and political inequalities of the belligerents and perhaps fuels an inspired mission of the disadvantaged underdog against the Goliath.[83]

Of course, these arguments are not immune from attack. On the ground, sensing the approach of a proverbial quarterback blitz, is not the morally sensible and tactically smart decision to get out of the pocket, avoid contact, all the while maintaining the offensive on your own terms?[84] What commander in his or her right mind would deliberately expose ground troops to direct fire in the midst of a population in which civilian noncombatants are indistinguishable from the armed hostile enemy? If that commander has access to a system that does not talk back or question the morality or legality of an order, aims precisely, and avoids human error and emotion, does she not have a moral obligation to use it?[85] Though arguably susceptible to abuse (as all forms of weapons are) and open to the claim of not fighting fair, any commander who would recklessly expose troops and civilian noncombatants by not relying on that system is arguably ethically contemptible.[86] Sebastian Junger writes that war should not be romanticized into a chivalric duel between morally equal belligerents:

> soldiers gravitate toward whatever works best with the least risk. At that point combat stops being a grand chess game between generals and becomes a no-holds-barred experiment in pure killing. As a result, much of modern military tactics is geared toward maneuvering the enemy into a position where they can be essentially be massacred

from safety. It sounds dishonorable only if you image that modern war is about honor; it's not. It's about winning, which means killing the enemy on the most unequal terms possible. Anything less simply results in the loss of more of your own men.[87]

Leon Panetta, Gates' successor as Secretary of Defense, wrote that the "minimization of risk to American lives and those of noncombatants" were the basic values that drive the development and use of those advanced unmanned vehicles hunting terrorists from the sky.[88]

For two reasons, the philosophical-moral alarm is, at least now, worth a hit of the snooze button. First, the jus in bello ethics debate is ongoing and not likely to be resolved to any partisan's complete satisfaction. The drone's ability to downscale war into a single, well-defined target for which the pilot (and chain of command) determines precisely the time, location, and degree of force has neither been overcome by attrition nor has it been outflanked by the popular counter-argument echoed by Panetta. While quick and efficient at killing, drones do not seem to raise the kind of humanitarian concerns and abject horror that machine guns—also quick, efficient, and arguably intended to shorten the duration of fighting—incited when they were introduced en masse to the European battlefields of World War I, where defensive and offensive tactics were slow to adapt to their intense rate of fire and helped prolong the duration and casualty count of that war.

Second, the U.S. military clearly has not (yet) adopted the drone as the sine qua non of warfare. Instead, it has opined that war—as ageless as a Tolkien Ent and never truly endangered—is not simply remote-control repression of enemy actors far from our shores.[89] Instead, war (as a justified true belief)

has a consistent, unflappable nature: it is a contest of wills, even if war's modern character is continually adrift, evolving, and adapting.[90] The Australian Army, too, adheres to a Clausewitizian view: that its nature is stable and timeless, but its character is always evolving and sometimes the victim of revolutions—say, fast information flow, media-driven cultural-moral audits, or real-time critiques of how wars are managed and fought.[91] As does the British military.[92] As does the Indian Army.[93] As does the French Army.[94]

The consequence of these character shifts, military pundits and leaders lament, is war's ever-increasing complexity.[95] This is an unconvincing argument—its conclusion is not required by its premise. Relatively speaking, the **effect** of that complexity **at that time** and **on the relevant actors** is no graver than it was when Hugo Grotius, Frederick of Prussia, or George Patton considered their own contemporary character of war and worrisome prospects for the future. When looking back at Napoleon's successes, Clausewitz wrote:

> Very few of the new manifestations in war can be ascribed to new manifestations or new departures in ideas. They result mainly from the transformation of society and new social conditions. But these, too, while they are in fermentation, should not be accepted as permanent.[96]

Patton, at one point halfway into his career and reflecting on his recent experience in World War I and the special, technical, and narrow utility of tanks, believed that they would fight **alongside** traditional horse cavalry and infantry, limited by their size, weight, unsuitability for rough terrain. He could not imagine, he readily admitted, "tanks, present or future, real or imaginary, as ever operating . . . in the

face of competent artillery, [or] on the sandy and gully-infested plains" of a desert landscape.[97]

Forgetting that the railroad and airplane once revolutionized the mobilization, transportation, and communication of force, **modern** commentators observe that the velocity of information and ability to communicate among, and quickly assemble, huge throngs of people seems to mock careful, mechanical planning for conflict amongst the people. This caveat is concerning because, some learned and experienced practitioners believe, war fought alongside, deeply embedded in, or immediately accessible to public interference, scrutiny, or participation reflects a "new paradigm" of war.[98] Retired British general Rupert Smith has argued that the absence of traditional state-on-state military action involving professional warrior classes, armored columns, artillery exchanges, air support and direct fire engagements of infantry is proof positive that industrial-scale "war no longer exists." Instead, he suggests based on observing trends from the last 40 years that, war as we now know it, and practice it, does not require armies at all. Rather, it is a "confrontation, conflict, and combat" at various scales but always in the sense that the "people in the streets and houses and fields—all the people, anywhere—are the battlefield."[99]

To David Kilcullen, all scales of force from interpersonal violence to armed combat between professionals, with everything imaginable in-between, will be "crowded, urban, networked and coastal."[100] War will manifest as a series of fleeting engagements with armed actors in the roles of professional militaries, paramilitaries, gendarmes, police, and private security experts—sometimes working collaboratively, sometimes competitively, sometimes belligerently.[101] According to Peter W. Singer, one almost gets the

sense that—under this view—war will look and feel very much like a massive multiplayer online game, like *The World of Warcraft*, or on a lesser scale, a first-person shooter video game like *Halo*.[102] To Emile Simpson, a young scholar with credible combat experience as an officer in the British Army, contemporary war is more like armed politics: "constant evolutions of how power is configured, in relation to various audiences, and how that configuration is adjusted through the application of a variety of means, both violent and non-violent."[103]

If Rupert Smith is correct, he has largely dampened (or rendered obsolete) the value of the international legal definition of armed conflict, which holds: "any difference arising between two States and leading to the intervention of armed forces is an armed conflict . . . [i]t makes no difference how long the conflict lasts, or how much slaughter takes place."[104] If Smith is correct, war ought be defined as **any** difference arising between **any** groups—regardless of how loosely organized they are structured or how disjointed their aims—in which violence is used to affect those aims.

Smith would not be alone in scoping war so broadly. His non-legalistic definition seems to match that of Christopher Bassford, a longtime scholar of Clausewitz, who wrote that war is:

> organized violence, waged by two or more distinguishable groups against each other in pursuit of some political end (i.e., power within some social construct), sufficiently large in scale and social impact to attract the attention of political leaders over a period long enough for the interplay between the opponents to have some impact on events.[105]

Maybe that does accurately describe warfare now or in the near future. Perhaps war **will** look like the bleak

picture presented by Kilcullen—that of urban guerilla war in coastal megacities where the people, the prize, the money, and the key terrain will be hunted and contested over like a buried treasure trove.[106]

Or, perhaps not. These definitions are really just descriptive forecasts—maybe even accurate, and important, ones at that. Clausewitz acknowledged, "all planning, particularly strategic planning, must pay attention to the character of contemporary warfare."[107] Nevertheless, these descriptions and forecasts do not readily distinguish between "what is important and what unimportant, what belongs together and what does not" in an account of what war **is** for the crucial step of designing the relationship between civil and military elites and accurately (or at least reasonably) evaluating that relationship and its consequential decisions.[108] Perhaps they simply describe the most visible copse of trees on a particular ridgeline within an imperfect field of vision, like trend lines only suggesting fashionable and potential ways of doing the same, age-old activity, just in new locations, with new kinds of weapons. These definitions might miss the forest for the trees, or the dune for collections of sand grains.[109]

If so, we are at risk (to paraphrase anthropologist Harry Turney-High) of confusing war with the weapons of war, of cataloguing without comprehending.[110] Or, as McMaster put it: "had conflated war**fare** and war**fighting** [emphasis added]"—on one hand it, "exaggerated the effect of technology on the nature of armed conflict," while on the other hand it, "dehumanized our understanding of war."[111]

As theoretical psychologist Dietrich Dorner wrote in *The Logic of Failure*, these "formless collections of data about random aspects of a situation merely add to the situation's impenetrability and are no aid to

decision-making."[112] Rather, a more general framework about war could help, as Walzer said of political theories,[113] bring the right issues and questions "into relief" in order to devalue, revise, or support arguments about war. A framework, in other words, agreed upon—and held up together—by both civil and military hands clutching the sword.

War is simple to the 23-year-old platoon leader returning from a late-night raid in his Armored Personnel Carrier, trailed by three other lumbering, noisy, grease and muck-streaked APCs, carrying two-dozen sweaty, tired, and frustrated soldiers, looking at the most perfect full moon rise above endless jade palm groves, right before a buried artillery shell, explodes in an orange-red shower of sparks, metal, and asphalt over his convoy. War, at that singular but repeatable moment in time, is an unpredictable sucker-punch of immediate anxiety, adrenalin, pain, anger, and fear. As Turner put it:

> Here is bone and gristle and flesh
> Here is the clavicle-snapped wish
> The aorta's opened valves, the leap
> Thought makes at the synaptic gap
> Here is the adrenalin rush you crave.[114]

Later, to that lieutenant trying to describe the first firefight he has been in (while riding in aluminum patrol boats along a wavy ancient river at dusk) in the most sanitized, sterile of language to his parents, war is much more of the classical bout—Clausewitz's polarity between "us and them." To the lieutenant, surrounded by his troops, listening and partaking in the crudest of jokes to pass the time and deflate the serial anxiety, war is—what must appear to an outsider—as base and

cruel and fallow: a war "displays the human condition in extremes."[115]

> The soldier is on friendlier terms than other men with his stomach and intestines. Three-quarters of his vocabulary is derived from these regions, and they give an intimate flavour to expressions of his greatest joy and well as of his deepest indignation. It is impossible to express oneself in any other way so clearly and pithily.[116]

Though that young lieutenant is now older, and no longer leading soldiers against an enemy (however defined), he still needs a way to reconcile what war **is** to **himself**. What about civilian leaders reposed with the duty of putting that lieutenant's "boots on the ground?" Is war simply the political calculus in three sequential steps? First, label the political leadership of another bellicose regime as the enemy. Next, let slip the dogs of war, allowing everything that follows to simply be a series of military operations with which to avoid the appearance of political micromanagement. Finally, pull in the military forces—put them back behind the glass—and declare a political victory that follows the military one. For instance, before the United States transitioned from a defensive build-up in Operation DESERT SHIELD to the offensive Operation DESERT STORM, former President George H. W. Bush was presented with divergent opinions on the scale of the military force needed if an ultimatum to Saddam Hussein was to be issued. He refused to shortchange the military's naturally conservative and pessimistic request for forces:

> [National Security Advisor Brent] Scowcroft did observe that the forces requested seemed excessive for the mission. But I was determined not to haggle. The important thing was to be able to get the job done without leaks about

divided views on force requirements which tend to reinforce concerns on the part of the doubters.[117]

This approach, which seems to manifest a philosophical definition of war that segregates the civil from the military, elevating the former but reducing its responsibilities, was echoed a little more than a decade later. When asked about withdrawing forces from Afghanistan, President George W. Bush told reporters:

> I imagine us being there a long time. But my timetable is going to be set by [General] Tommy Franks . . . [I've given him] a well-defined mission . . . and when Tommy says, 'Mission Complete, Mr. President,' that's when we start moving troops out.[118]

But another, opposing, philosophical stand is possible among the civilian strategic elite. To then-President Barrack Obama, reflecting on his decisions during the two wars he inherited from former President Bush, war is characterized by "underdetermined costs and underdetermined consequences . . . once the dogs of war are unleashed, you don't know where it's going to lead. [Waging war] is trying to impose clarity on chaos."[119] In his acceptance speech for the 2009 Nobel Peace Prize, President Obama said:

> [N]o matter how justified, war promises human tragedy. The soldier's courage and sacrifice is full of glory, expressing devotion to country, to cause, to comrades in arms. But war itself is never glorious, and we must never trumpet it as such. So part of our challenge is reconciling these two seemingly irreconcilable truths—that war is sometimes necessary, and war at some level is an expression of human folly.[120]

In 1999, announcing the U.S.-led North Atlantic Treaty Organization (NATO) military air campaign in

Kosovo, then-President Bill Clinton described the war he intended to halt and reverse:

> [The Serbian Army has] started moving from village to village, shelling civilians and torching their houses. We've seen innocent people taken from their homes, forced to kneel in the dirt, and sprayed with bullets; Kosovar men dragged from their families, fathers and sons together, lined up and shot in cold blood. **This is not war in the traditional sense**. It is an attack by tanks and artillery on a largely defenseless people [emphasis added].[121]

What is "war in the traditional sense?"

Like Dorner, Walzer, and McMaster, Clausewitz advocated for just such a reflection, calling it a "frame of reference" that, unlike a prescriptive manual, is used:

> to analyze the constituent elements of war, to distinguish precisely what at first sight seems fused, to explain in full the properties of the means employed and to show their probable effects, to define clearly the nature of the ends in view . . . and [t]heory exists so that one need not start afresh each time sorting out the material and plowing through it . . . [rather] it is meant to educate the mind of the future commander, or, more accurately, to guide him in his self-education, not to accompany him to the battlefield.[122]

While his views on war and warfare may call for more reflection and possible updating, Clausewitz's opinion that theories can have tremendous teaching value remains unobjectionable and uncontroversial. Without a useful framework to distill the experiences, analysis, and historical lessons, a student of war (whether civilian or military) cannot develop a refined perspective from which to judge even contemporary developments.[123]

However, this characterization deserves a strong caveat. That refined perspective should not be premised

on fads and fashionable concepts.[124] The drone does not define **war** any more than a stony castle once did, or an archer, or the pike, or the tank, or a Trident missile. Not every future war, nor even a current one, can be reduced to the vague simplicity of "coercive diplomacy"—what retired General Wesley Clark defined as "the use of armed forces to impose a political will." Clark expected modern war after Bosnia and Kosovo interventions in the late 1990s to be marred by a collective post-war self-doubt, a sense that maybe armed intervention should not have occurred; that even if it should have occurred, maybe it could not be objectively won; that even if it had been won, victory would have been clouded by the question of what, exactly, had been accomplished.[125] As a result, he concluded, war will have to be "limited, carefully constrained in geography, scope, weaponry, and effects."[126] The American experience in Iraq between 2003 and 2011 certainly seems tainted by the same reflective self-doubt Clark predicted in the late 1990s.

In a sense, Clark was applying the Clausewitz's famous idea of friction to the decrescendo phase of conflict and smearing it across a much wider audience than just the combatants. However, Clausewitz recognized that a theory about war itself cannot be based on transitory phenomena, even if they seem to substantially characterize the modern, contemporary way, or characteristics of war.[127] Like a macabre theater, ISIS now blatantly ignores the rules of civilized warfare and uses the ancient, fear tactic of the savage public beheading, filmed and released to the world free of charge via the Internet, to watch from the intimacy of a home computer to strategically influence a worldwide audience of both combatant and noncombatant observers.[128] To fight this unconstrained enemy, the

West has turned to special operators and drones, inter-mixed with conventional formations of foreign armies it built, equipped, and trained for an entirely different war. When war occurs on the periphery of a nation—outside its borders, by only a small fraction of the population, and when the war's economic and blood tolls have not penetrated the public's purse or heart and not generated doses of righteous indignation—it is all the easier to observe the coded cyberattack, or a Predator drone strike, or the Sea Air and Land (SEAL) Team raid, the improvised explosive device, and terrorist-piracy as the harbingers of modern warfare.

But all such characteristics are transitory—nothing more than temporary settlement of scattered LEGO® bricks on a child's bedroom floor, awaiting to be reassembled into something seemingly new but reminiscent of the familiar. Historian Michael Howard wrote that war is a "distinct and repetitive form of human behavior [that is] intermittent, clearly defined, with distinct criteria for success or failure."[129] These weapons, now, are used because they work, now. These descriptions are relevant, now, because political calculations and nonmilitary considerations have conditioned decision-makers to rely on them.[130] In effect, their vogue status renders them as the "symbol of the American approach to warfare."[131] But in the summer of 1991, in the immediate aftermath of the Persian Gulf War and the collapse of the Soviet Union, one could—**with equal certainty**—define the "American approach to warfare" as the fast, accurate, and massive application of American armored forces guided by satellite technology and in combination with smart bombs and stealth aircraft, at the head of a large coalition of willing nations, aimed and thrusted into the throats of a vilified enemy state for limited, achievable, and

publicly-endorsed political goals. This was, after all, the manifestation of the Powell-Weinberger Doctrine meant to preclude another dissatisfying, prolonged, and protested Vietnam experience. That earlier experience, too, had its own symbols of what we should expect modern war to be: drafts, body counts, protests, and flowers stuffed into muzzles.

Eventually, the gain or value we attach to these **means** of warfare, and what they appear to represent, will not exceed their cost in a given circumstance—new tools will be have to be turned to for, in essence, the very same tasks, or missions. New descriptions of war**fare** will be minted. In the mid-1990s, Bosnia saw no such application of U.S. force mirroring the Gulf War, and the American entry into Afghanistan in October 2001 was defined initially by special operators on horseback. Patton, it seems, was not all **that** wrong. Conditions on the ground—the location of the enemy, the proximity to civilian noncombatants, the terrain—did not demand political or policy choices that would operationalize more modern means of maneuver warfare. The political climate (fueled, at least in part, by the personalities of key planners and policymakers) at the time did not sustain arguments for large ground combat forces. Fast-forwarding the clock to March 2003, and it is a different narrative yet again, but one more resembling the first Gulf War: American troops, led by an air campaign and armored forces, leading a coalition to destroy the military capability and governing capacity of a vilified political foe. As Clausewitz said, "there can therefore be little doubt that many previous ways of fighting will reappear."[132]

These are not—and their proponents do not offer them as—the **absolute** constants of conflict. Rather than try to create a scientific model of war that can be

undermined (or falsified) by a single contrary historical episode, a conceptual framework simply tries, as Andrew Mack once wrote, to focus empirical studies on those absolute constants:

> to direct . . . attention toward particular aspects of the real world—to distinctions and relationships which 'common sense' often does not take into account. The framework defines the necessary questions which must be asked; it does not seek to provide automatic answers.[133]

In "defining the necessary questions that must be asked," Mack viewed frameworks as more than a tool to critically assess a concept or proposal for how a war should be fought or an army organized to fight it.[134] Instead, frameworks should be stimuli for discussion and fodder for debate about whether certain questions **can** be asked, and—if so—if they can ever really be answered. In some ways, they function like a paradigm as understood by Thomas Kuhn. The framework poses questions and problems in ways previous models left unexplained, and funnels practitioners toward certain kinds of investigations and interpretations of data, converging debate and limiting divergence **over fundamentals**. This drives research confidently toward more nuanced, precise, and systematic inquiry in narrow, specialized areas. The new framework achieves a critical mass, becomes accepted by the community of practice as the "criterion for choosing problems to solve," and in the process rejects the older, traditional view.[135]

Uncovering a useful framework is not merely an impractical academic exercise. Consider the Marine Corps' view on theory:

> To understand the Marine Corps' philosophy of warfighting, we first need an appreciation for the nature of war itself—its moral, mental, and physical characteristics

and demands. A common view of war among Marines is a necessary base for the development of a cohesive doctrine because our approach to the conduct of war derives from our understanding of the nature of war.[136]

MOVING THROUGH AND PAST CLAUSEWITZ

The primary purpose of any theory is to clarify concepts and ideas that have become confused and entangled.[137]

Clausewitz, whose writings clearly informed the Marine Corps philosophy, famously observed that there are certain self-evident features of all wars: the public passion, violence, enmity, and hate that fuel aggression; the reasons or policy choices that justify how the state would choose to combat its adversary, as an expression of that public passion; and the inherent uncertainty and probabilities (or chance) associated with employing military force.[138] These three broad elements were usually demonstrated by the people, the "government," and the "military" respectively.[139]

Precisely who or what manifested each element, or to what degree over time, was largely immaterial. Clausewitz never specified whether a particular actor was linked exclusively with a particular element.[140] To clarify this extraordinary but abstract description of war, many scholars have offered visual illustrations—their own metaphors, in a sense—to depict the trinity in action. Bassford offered dueling triangles, with P (passion), R (reason), and C (chance) labeling each corner—what he warned might just be "Static, simplistic, and generally useless visual metaphors."[141] He argues that trinities must be overlapping and constantly animating in order to fully capture what Clausewitz meant his trinity to convey.[142]

Michael Handel, instead, chose a Cartesian graph, where the vertical Y axis represents the **passion** element, the horizontal X axis represents the **reason** element—the "political aims, rational calculations" usually expressed by the government—and a diagonal arrow jutting out from the point of origin to the northeast. This represented the creative spirit or **chance** element that makes nothing in war predictable, instead influenced by the fog, friction, and uncertainty that accompanies combat at all scales. Handel represented the nature of a **particular** war as a shifting diagonal line that wavered between and among these hard and fast absolute elements.[143]

The three elements of the trinity could just as easily be captured in a Venn diagram, with each element represented a single circle that overlaps, to various degrees and perhaps over time, with the other two element circles. The point of intersection, at which all three elements overlap each other like a lowest common denominator, would metaphorically represent the conflict-specific circumstances and context of a particular time and place.

This confluence of concepts—the three-circled Venn diagram of passion, reason, and chance—seems consistent with Handel's preference for describing the nature of war (any war, or any particular time within a particular war) as the interplay or "interaction of the trinities of all participants."[144] The will to engage in war, the materiel, and personnel capacity to wage that war, and the tactical and operational choices made during that war are derivatives of these forces. War could not exist, he would say, without the interaction of all three elements in this trinity.[145] This seems complex, or—at least—complicated. Clausewitz did write

that in war everything is simple, but even the simple things are hard.[146]

However, if we sanctify the Clauswitizian description on the one hand, but question whether the character of conflict has really changed in any meaningful way, or to explain what war **is** on the other hand, should we not also ask whether this trinity is all there really is to it? Was it so beautifully simple and all-consuming that no other deeper insight might be found? Like probing the inside of the atom—what was once thought to be the impenetrable absolute foundational piece of matter—we might ask a more complete question: what operates **inside** the trinity that **causes** the magnetic-like flux among its three constituent elements?[147]

Taking some literary license with Clausewitz's metaphorical descriptions of war—it is "an act of human intercourse," a "collision of two living forces," and a "clash of major interests, which is resolved by bloodshed"[148]—we can pose various analogies that might help us better appreciate the richness of the nature and the patterns in the character of war. Imagine a particle collider, for instance, like the series of large-scale physics experiments at the European Organization for Nuclear Research (CERN) in Switzerland. Accelerate beams of subatomic particles like protons extremely close to the speed of light, race them around miles of underground tunnels, ram them together, and document the resulting explosive collision in precise infinitesimal detail and observe new kinds of fundamental elements of nature erupt into being—an immediate accounting of the building blocks of reality.[149] Likewise, we can ask about the **fundamental** building blocks of conflict—truisms of combat at any scale, thinking of it in terms of this bloody and dramatic collision of

materiel and forces. What would these LEGO®-like building bricks feel like, look like, and how do they snap together?

Hunting for war's truths by studying its history in depth, width, and context is a necessary step.[150] But alone, they are insufficient. If asked to explain the fundamental or elemental nature of an American-style criminal trial—to, say, a resident of Saudi Arabia where Islamic Sharia law, with few formalities, no use for reasoning by precedent, and managed by the *ulama* that merges strict religious conservatism with principles of justice as the basis of a legal system,—it would **not** be these three dimensions alone. Doing so would look something like the following flawed survey. It would begin by describing how the American rules of evidence and procedure, the practice of common law and *stare decisis*, evolved from English and Roman jurist traditions dating back almost a millennium. It would then discuss how most state criminal prohibitions are now encoded in a civil law-based statutory manner like that of continental Europe. It would have to defend our federal system in which each State maintains its own criminal code and courts. I would then offer a full factual recitation of the investigation, charging, and trial of—for example—O.J. Simpson in 1995. For context, I would then place **that** trial of the early days of the World Wide Web's popularity, a 24-hour news-cycle, recurrent racial animosities and prejudices, and the cultural attention to popular celebrities and sports heroes seemingly brought back down to more human and mortal terms.

Ultimately, a person nevertheless unfamiliar with the concept of a formal criminal trial in the American sense would still be missing a way to understand the

"But why?" that serves as the governing principle or purpose that makes the trial what it is.

So what else is there besides a study in depth, width, and context? In order to identify the truisms—maxims, proverbs, principles, adages, LEGO® bricks, what have you—of war we can search, also, for those conditions of war**fare** that seem material for any persuasive and accurate appreciation of **war**. In other words, we juxtapose the physical manifestation of the action against the social and abstract phenomenon. Keegan recognized as much when he stressed that military history as a field of scholarship and inquiry into the **human condition** is useless if it fails to observe that **human conditions**: battles (including skirmishes, hand-to-hand assaults, and large-scale war) are not set-piece arrangements of value-free decisions by commanders on horseback or hill top:

> ordinary soldiers do not think of themselves, in life-and-death situations, as subordinate members of whatever formal military organization it is to which authority has assigned them, but as equals within a very small group . . . it will not be because [of leadership within or of that group] that the group members will be begin to fight and continue to fight. It will be, on the one hand, for personal survival, which individuals will recognize to be bound up with group survival, and, on the other, for fear of incurring by cowardly conduct the group's contempt.[151]

That search should be a multi-front expedition: **the perspectives of compounding relevant points of view existing simultaneously and in concert**. It is impossible to fully explain or describe the fundamental nature of a criminal trial without relating to the function, role, and means employed by the prosecutor in combination with (or contrasted against) the opposing function, role, and means employed by the defense

counsel. The defining nature of the trial would still not be complete, though, without also relating it to the role of the fact-finding jury drawn from the community in which the crime occurred or the judge in his or her role as evidentiary and procedural gatekeeper. Indeed, the pursuit for the fundamental nature of a trial would be blind, deaf, and mute if it did fully account for the role that evidentiary rules play, the personalities of the adversarial litigators, the judicial temperament of the judge, the motives of the defendant, the demographics and experiential background of the jury pool, the heinousness of the crime, the ability and actions of the police when they investigated the crime, and the perceptions, beliefs, persuasiveness, and credibility of any witnesses. In other words, a framework for understanding the nature of **trial** should be a collection and arrangement of **frames**, each with its own angle or lens and with a distinct material involvement or investment in the action of **litigation**. Likewise, a framework for understanding the nature of **war** should be a collection and arrangement of frames, each with its own angle or lens and with a distinct material involvement or investment in the action **warfare**.[152]

LISTENING FOR WAR'S THEME

One way to launch this multi-front expedition is to find a starting description of the conduct that is universal and unassailable. Surgery, for instance, is a complicated set of mechanical and technical acts involving highly trained participants, possessing expert knowledge, to amend, fix, remove, or alter some part of a living body. As Keegan said, war comes with "distinct criteria of success or failure."[153] After surgery, the body recovers, or it gets worse, and maybe the patient dies. Pain continues or it goes away. The reasons for

which a patient may need surgery, the types or categories of specialized surgeons, the capabilities of an operating room, and the amount of recovery time are all component elements of what makes a surgery a surgery. However, if nothing else, surgery is an activity animated by and pursued for the desire to heal—to remedy an ailment, injury, or disease.

Trial, too, is a set of complicated activities involving highly trained participants, possessing expert knowledge, to prosecute or defend a person accused of criminal misconduct in a fair, impartial, and predictable manner. The reasons for why the defendant was investigated, accused, and brought to trial, the specific criminal statutes implicated, the amount of harm caused, the impact on a victim and the victim's desire for recompense or retribution, and the facts presented are all component elements of what makes a trial a trial. If nothing else, a trial is an attempt to remedy an injustice. War, as another human, collective, intermittent activity, must also have some universally acceptable common theme.

Let us propose that war's universally-apparent common theme is choice.[154] At its most microscopic, most personal strata, war is a choice to squeeze a trigger with just enough force to expel a bullet from an assault rifle at another human being, or to swing an axe blade down upon a helmeted skull, or to release ordnance from the air, aimed at a precise point on the earth with one purpose in mind and one outcome certain. It is a choice to have considered and labeled that human or patch of ground as the enemy; it is a choice to have considered that a human life or inanimate assembly of steel or concrete or brick as a threat to you or to others whom you consider worthy of protecting; it is a choice, indeed, to have placed oneself in a position to

make those choices—to step inside the turret hatch of the armored vehicle, to strap yourself into the cockpit, to walk toward the crowded market with a detonator in a sweaty grip; to have placed yourself in an institution that allows you to make those choices, to allow yourself to be trained sufficiently to react and choose almost without thinking, to allow yourself the freedom to act with a specifically cruel intent without apology or remorse.

Adjusting the microscope to amplify war to the next, larger scale, war is the equality of opportunity—the parity—of such choices. Just as you choose to aim, breathe, squeeze the trigger and feel the recoil of the gun against your cheek and smell the metallic sulfur wafting around you, the right to execute the same series of considered or reflexive movements toward and against you is felt, or could be felt, by your target. The justness or injustice of that feeling is largely immaterial to the present nature of the engagement. Those terms will be defined by those not present in that moment, and will be used to argue about the spectrum of moral rightness of not only your choices in that moment, but of the choices of others that trained and conditioned your body and mind to act in that moment, and the choices of others that ordered your presence at that place and time. But, **in that moment**, there is nothing but the shared ability—and equal excuse—to hurt, damage, terminate, immobilize, or arrest the capacity and capability of the other to define the very **next** moment with the threat, or application, of violence.

Adjusting the lens further to observe larger and coarser scales, war is the social embracing—the knowing, reckless, or negligent spreading—of this equality of opportunity of violent choices among networks of human beings. That network may be a squad of

six soldiers at a checkpoint suddenly alerted to the oncoming rush of a pickup truck breaking through the serpentine blockades meant to slow incoming traffic. It may be the team of commando operators onboard a stealthy aircraft, whirring through mountain passes at midnight toward a guarded compound, adjusting their night vision goggles and loading their rifles. It may be the rectilinear masses of grey and blue staring across wispy green fields and wooden fences, anticipating the long charge and fearing the concussive blasts of artillery sure to come. It may be the pilot and crew managing the semi-autonomous functions of a drone buzzing high over a neighborhood half a world away from their monitors and joysticks. It may be a tribe defending its sacred honor against the intrusions or insults of another tribe, or the proof of manhood or display of chivalric nobility.

It is an aggregate collection of these choices across all the participating networks, regardless of their size and regardless of the duration of their choices. War can be **both** Clausewitz's "continuation of policy by other means" accepted by an organized, bureaucratic nation-state, **and** Keegan's "expression of culture, often a determinant of culture forms, in some societies the culture itself."[155] It can be the long-debated, rationalized, policy for one belligerent manifesting as a call to duty, **and** as an instinctive, spontaneous, ritualized, or precedent-based culture for the other, simultaneously and with no contradiction. Either case offers nothing but case studies in choice.

At the widest aperture, without any fine-tuning of the microscope lens, war is the art of creating, then manipulating or energizing, then restraining that spread of the equality of opportunity to embark on violent choices. The artists are the organizations,

institutions, and—underlying all—individuals possessing an authority to do so. That authority may be loud and unambiguous, spoken through laws, contracts of service, a call to arms, a declaration before Parliament or Congress, barked orders communicated, and spreading virulently through the ranks. Alternatively, that authority may be tacit, driven by some sense shared among those who participate in (or wish to participate in) those networks, large or small. In either case, the artist's authority to animate them is assumed to be, and believed to be, legitimate.

CHOICE—IN ART AND WAR

Art is a noble, humanizing construction—a creative act. War is ignoble, dehumanizing destruction—the paragon of the **un**creative act.[156] To place the two in rhetorical comparison may feel uncomfortable, or even insulting. Yet these opposite fields of ancient human endeavor are not as completely distinct from one another as they first seem. **Producing** art, painting in particular, can serve as a metaphor of war and illuminates the key concept of choice. Winston Churchill certainly thought so. Reflecting on his love for the act of oil painting that was unknown to him until middle age, he wrote:

> The colors are lovely to look at and delicious to squeeze out. Matching them, however crudely, with what you see is fascinating and absolutely absorbing . . . As one slowly begins to escape from the difficulties of choosing the right colors and laying them in the right place and in the right way, wider considerations come into view. One begins to see, for instance, that painting a picture is like fighting a battle . . . the principle is the same. It is the same kind of problem as unfolding a long, sustained, interlocked argument . . . It is a proposition which, whether of few

or numberless parts, is commanded by a single unity of conception.[157]

War, as described earlier, can be thought of as a time-lapsed evolution of the creation, manipulation, energizing, and restraining of the equality of opportunity to choose to act with violence, spreading among networks, equally conscious of their ability to choose to offend or defend, to advance or retreat, to pull the trigger or to revolt against the order to fight or put oneself in harm's way and the trajectory of another's RPG. Art, is also a mix of creativity, manipulation, energizing, and restraint. Consider the blank canvas, stretched taut across light wooden support frames. It is empty, waiting for the painter's initial act, waiting for choices to be made and color to be splashed, speckled, or dotted on it in some organized, coherent manner, or at least according to the design imagined in the head of the artist staring at it. That blank canvas, like the ground truth in war, however, is never quite without its subtle imperfections—dimples and dirt and the stray strand of hair that give the canvas a texture that the artist does not sense or see immediately. Not until the artist lays the brush on the canvas with the first planned streaks of paint that are driven, pushed, and pulled along some calculated route across the blank space with an intent to build the beginning of an image, do the unseen imperfections of the canvas affect the artist's half-formed notion of the final, desired end product.

Perhaps the artist, like civil and military war strategists, first sketched an outline, a preliminary drawing on the canvas to help guide his hand, a way to keep the artist's mental model of the final picture intact as the brush and paint slide over the canvas. Or, as Emile Simpson wrote of strategy, it functions like a template,

or a "stable interpretive structure" that enables us to assign reasonable meaning to what would otherwise be chaos, and we orchestrate our behavior in response.[158] But, like the war planner, no artist's intent survives that first contact between brush and canvas. The paint color—the choice of various means used to portray the image—blends with other paints, still wet and sticky and not yet fixed as fact onto the canvas. The paint brush, the way the artist transfers the image from his imagination to the reality of the stretched canvas, may become too saturated to create the finer details necessary for the articulated features the artist first planned to capture. The hog hair bristles of the brush may loosen, fall off, and become part of the canvas's terrain, to be painted over and left without rescue, altering the image in ways never anticipated by the artist's mental blueprint or timid, careful sketch. The lighting may not be quite right, casting subtle shadows and clouding what needed to be pure, objective, and absolutely committed to receiving whatever the artist plants on the canvas. Perhaps he was interrupted, breaking his concentration, or moments of doubt began to flutter his nerves and force him to question his choices.

This begins the argument—the ongoing conversation between the artist's intent and imagination, his hand holding the brush, and the paint that has already landed in the canvas's fibers. The artist, like the strategist, struggles to manipulate the brush and the daubs in a manner consistent with (or at least not inconsistent with) his impressions of what the image or planned outcome **should have been** from the start, and contrasted against what has begun to appear before him. The artist chooses the paint color, its tint or shade, its thickness or amount, the brush type—bushy and wide, or sharp and surgical—and the angle of attack.

The artist's skill, patience, and resolve begin to affect the nuance of the various lines and the features of the image. Exhaustion, arrogance, or lack of deliberate concentration may smudge and blur the colors together leaving the artist's intended product fuzzy, indistinct, and unrecognizable to himself.

Unsatisfied, the artist recovers and reassesses the progress. He makes decisions to account for areas of the canvas he wishes to alter, to smooth over, or to leave alone. Or, just as importantly, decides to let emotion and instinct govern and direct. New shades are blended on the palette; the artist dips his arsenal of brushes, new images transfer from his imagination to his physically tangible and tactile product in front of him. Eventually, the artist must decide—must choose—when to stop, when to restrain his mind from imagining yet more to add to that canvas, more detail to display, more blemishes to cover up, and when to restrain his hand from exercising that recurring and unceasing thought: there is always something more that can be done. There is always something more that can be done to render the image more aligned with the artist's intent, his expectations, and his self-imposed standards.

What began as a two-dimensional, blank space in the mind of the artist has evolved into something with smell and texture, a third dimension, of various shades and hues. It forms a static image that is the sum total of the artist's ability or willingness to hone his emotion, instinct, and plan for the paint; a static image that will always be there, fading over long epochs of time or to be covered by another image, but always laying beneath the surface and staining the canvas fibers. The artist's work becomes part of the history of the artist,

part of the history of the canvas, and part of the history of whatever future portrait lays above it.[159]

Had the artist chosen not to purchase his stockpile of materials, not laid them out carefully, or not chosen the day and hour to first begin the work, there would be no initial intent and no design from which to deviate. There would have been no tools nor setting in which to express an emotion or ambition. There would have been no constant debate between the intent of the hand guiding the brush, and what the paint wished to do on the canvas—there would have been no evolving image taking shape. No art would have been created.

War, too, is the effect of an impulse to change the status quo, to force a conversion or transformation according to a will for some purpose with an acceptance that harm will trail it as a natural byproduct (like a comet's tail as it is orbits too close the sun), consequence, or modus operandi. Warfare is a means by which ritual norms between or among various networks or societies may be followed, or a means by which to overawe an opponent, to acquire geography for one's own benefit, or to force an enemy to come to terms with a future of your design. War begins upon some space, assumed to be blank and devoid of relevant history, but of course never is. Almost immediately, the intent and manipulations of the belligerents—whether entire governments with massive and technologically-sophisticated armies and navies or ad hoc, quasi-skilled rebels with borrowed arms—is frustrated or, at least, affected by the texture of the background on which they fight. Weapons, tactics, personnel, leadership, operations, strategies, and even ultimate grand designs will morph and evolve over some period of time, whether because of external critics or a faithful muse, or because those

same characteristics lose their currency, break, or fail to achieve the ambition for which they are employed.

War is not merely an expression of primitive culture, or just a modern continuation of policy. Adhering to either definition fails to answer the question: What for? Why are cannon fired, buildings leveled, heads scalped, fortifications razed, noncombatants displaced or starved or killed? Why are medals given, pensions funded, shattered limbs replaced with plastic and metal, territorial borders redrawn, treaties made and broken, laws enacted, the coup d'état planned, and kings imprisoned? Why are these characteristics expected and unchallenged consequences of war?

War is, must be, and cannot be anything other than the chosen expression of a power motive; it is the compliment to the notion that a painting must be, and cannot be anything other than some expression of a creative motive. An actor—be it a soldier, an admiral, a statesman, or an entire nation—can express power in any number of ways, just as an artist can depict an image on a canvas with photorealistic detail or by mere colorful abstract allusion. Power is expressed by influencing (that is, changing or directing) the manifested behaviors, mental expectations, physical resources, or the ability and opportunity to volitionally act among other relevant parties and institutions. However, war is a certain **class** of power expression: the metaphorical flexing of a muscle or use of that muscle to inflict an outcome that pains or threatens another. As suggested earlier, but now enhanced with a definition of how power is expressed, war can be described as an **investment in organized violence by parties interested in the extension or maintenance or appearance of their power over an unspecified time, with an unknowable risk, for an uncertain reward**. In that sense,

Clausewitz was right to call war a duel and wrestling match. There is a physicality in which belligerents are contesting each other for supremacy by inflicting the right amount of harm to the other.

This physical expression of power looks and feels like what we typically describe as war—a strategic interaction of risk, reward, and death spread unevenly across a network of participants, all sharing that parity of opportunity and choice—when it materially advances that actor's freedom of choice and freedom of action. To any observer witnessing the duel, and to the wrestlers themselves, the physicality must achieve either or both primary goals: first, the **effect** of the effort is compatible or consistent with—it does not contradict—that actor's policy objective or cultural precedent that originally animated the expression of power; second, or in addition, the **effect** of that effort redirects or extinguishes an adversary's or a competitor's actual or perceived objectives, rights, or capacity to express power in the same way—their ability to define the next moment.

In this sense, war at the largest scale of abstraction is **the intentional attempt to negate the equality (or simply, the unbalancing) of opportunity to express a violent choice across multiple scales of action**. It is an effort to unbalance the parity of choice; if one side is successful, then war was the restraint of (the other's) choices, by means of force. Choice, then, dominates the discussion of war from its most prosaic and interpersonal, where politics, policy, and national survival mean far less than immediate security, safety, and the absence of pain, all the way to its most strategic and abstract, where the individual needs and sacrifices of the people affected by war in the most abrupt and private sense are subsumed by the larger and less distinct

public aims. Retired Lieutenant General James Dubik writes of the parallel and paralyzing effect of ambiguity and uncertainty existing at these various echelons:

> Under fire, soldiers sometimes stare at their sergeants and lieutenants for what seems eternal seconds awaiting orders. The battlefield rarely provides the time to get more information, to reflect a bit longer, or to understand more completely. For a different set of reasons, time is often not on the side of senior political leaders and generals either. Nor do these senior leaders always have the information they would like to have before making important and consequential decisions. Mistakes, misjudgments, and misunderstandings are rife at both the tactical and strategic levels. In every war, learning takes place at both the tactical and strategic levels.[160]

Like a classical fugue, choice is the musical theme of war, replayed by many instrumental voices at varying pitches and keys over time, overlapping and interacting to create the whole structure that is observed, heard, and witnessed by spectators—**the audience and the artists**.

CLASH OF THE TRINITIES

> Mathematicians think in symbols, physicists in objects, philosophers in concepts, geometers in images, jurists in constructs, logicians in operators, writers in impressions, and idiots in words.[161]

Marvin Minsky believes that isolating a single meaning of any concept or thing is without much profit to those who foolishly try—just as Keegan disparaged the effort to isolate a single meaning of war. Instead, we define a thing's meaning by how it relates to everything else we know; in that sense, everything worth

considering is a hodge-podge, cornucopia of related viewpoints.

> The secret of what anything means to us depends on how we've connected it to all the other things we know. That's why it's almost always wrong to seek the real meaning of anything. A thing with just one meaning has scarcely any meaning at all.[162]

Minksy, one of the original pioneers of artificial intelligence research and computing, suggests that understanding something requires more than rote recitation of a definition in a vacuum. It is a function of appreciating its meaning-network. Well-connected paths between related and unrelated notions will "let you turn ideas around in your mind, to consider alternatives and envision things from many perspectives."[163] Take a kaleidoscope: the colored beads inside would naturally fall around the interior of the tube in arbitrary ways. However, the mirrors arranged inside the tube, reflecting the light, reorient that image created by the colored beads into a symmetrical pattern of duplicate images that will continue to change as the tube turns. The arbitrary and unconnected positions of the colorful beads become connected, crystalized, and meaningful when we connect the multiple views offered by the angled interior mirrors to the kinetic act of turning the cylinder.

For Minsky, intelligence is a function of many unintelligent parts of the mind, each with its necessary but alone insufficient role to play, networked together. He calls these individual component parts agents.[164] When these agents combine in certain ways, each doing what they do naturally, the net result is something that appears to be the product of a thinking, creative, rationale, deliberate intelligence—a complex

system. Whether that complex system of actions is a pair of human beings playing chess at a park table, a wide receiver modifying a well-rehearsed slant route on the football field, an airport's never-ending and always-adapting menu of arriving and departing flights, or the phenomenon of an international armed conflict triggered by one nation's invasion of another sovereign nation, there is value in breaking down precisely the necessary—but if left alone insufficient—component parts. None of these activities or systems are explainable or understandable in only the broadest of descriptive terms. To some extent, reductionism is necessary. Rembrandt could not create his masterpieces without the paint, palette, and brushes; one cannot describe a Renoir or Monet as simply a picture of a haystack at sunset; one cannot define Impressionism as simply the cardinal opposite of photo-realistic historical portraiture. However, the aesthetics of artwork and symphonies are not judged by deconstructing them into discrete parts, but rather assaying them in context, say, of their themes.

In war, choice is the theme of a fugue played across various strata of personalities, networks, organizations, institutions, political states, and societies. It is manifested repeatedly (just like a fugue's musical theme) as an investment in organized violence by parties at every scale (from the individual to the international alliance and coalition) interested in the extension, maintenance, or appearance of their power over an unspecified time, with an unknowable risk, for an uncertain reward.[165] Such a complex set of interrelated conditions can be thought of as an ecological niche all its own. This diverse ecological system of organisms competing with each other over access to resources and relative safety can be broken down into its own habitat

of sixteen constituent parts or agents—each of which is necessary, but alone insufficient, to describe war in its most general sense or describe a particular episode of warfare. These agents can be grouped into three general categories or bins in this ecology of war.[166]

War, in this ecological metaphor, is a disturbance (like a wildfire) that varies, alters, and degrades this ecosystem's equilibrium using its own resources. It is one thing to identify relevant constituent parts that play a role in shaping every type of war, but it is another thing to understand how those parts—like Minsky's agents—come together in a holistic system and give a shape to a particular conflict. For the civil and military strategic leaders engaged in preventing, preparing for, waging, and recovering from a war, seeing this web is of fundamental importance. The nature of the relationship between the civil and military elites will define and mold the ways in which the parties use or rely on the fuel to interact within the environment or ecology of war. At the same time, this ecology reciprocally defines and molds their relationship.

Biology	Fuel	Interactions
Adversarial parties (the belligerents; need not be limited to conflict between predator and prey).	Material resources and capital.	Violent competition.
Audiences (states and populations in surrounding community that observe the fighting).	Weapons.	Diplomatic negotiation.
Host actors (civil polity in which war is waged without its direct involvement or lead).	Animating ambitions.	Death.
Parasite actors (individuals, networks, organizations, or states that attach themselves to the conflict to acquire a benefit independent of the reason the belligerents are engaged).	Publicly pronounced motives and justifications.	Destruction of resources.
	Information developed by or about the parties.	Threat of death or destruction of resources.
		Changes in a belligerent's ability to express power.
		Changes in public perception among various audiences.

Table 1. The Ecology of War.

Clausewitz described the polarity of the actors, dividing them based on some motive of hostility with mutually exclusive objectives. His entire approach is based on this dialectic. His colorful descriptions of conflict always portray war as a meeting of two or more belligerents: war is a game of cards, a pulsation of violence, an act of human intercourse, and a conflict of human interests. These all imply some form of mutual strife among opposing interests beneath a veil of uncertainty. One side attacks the other side (for some reason, with some force, at some place); the other side defends against the attack or attacks simultaneously, or attempts to shift its own effort to the attack. Eventually, after several rounds in which the identity of the attacker and defender may change, or vary at discrete locations, there is some resolution—a victory for one or the other (or at least perceived to be such by relevant stakeholders and observers) or stalemate. It takes the form of thesis-antithesis-synthesis.

Perhaps the better metaphor then is a **clash of the trinities**, accounting for the conflict of interest between two or more active participants, each acting—**based on choice**—according to the internal flux of their constituent elements of passion, reason, and chance. Figure 1 below captures the essentials of this basic contact, of course limiting it to just two belligerents for the sake of descriptive simplicity. Adding more parties in contact (to any extent) would not substantially change the argument this figure begins to illustrate.

Local Horizon
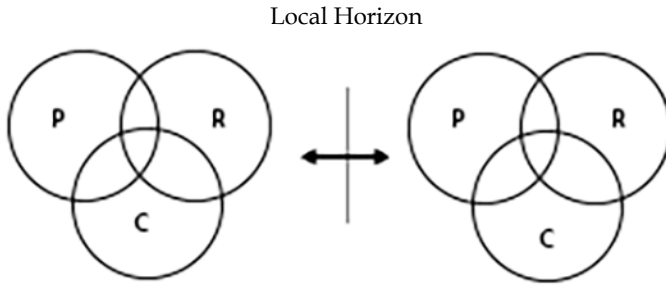
Figure 1. Clash of the Trinities.

The vertical line separating the two sets of trinities has metaphorical meaning as well. Each party or belligerent actor—again, regardless of scale or point of view (from soldier in hand-to-hand combat to clashing armor formations to nation states' armies and navies)—is *ad idem* adversarial. Therefore, they should be depicted as facing off across a threshold—some line of scrimmage or a Local Horizon. This is the point in space and time from which each side attempts to observe, understand, influence, and interact with the other. Beginning in 2014, when militants organized under the flag of ISIS and led by Abu Bakr al-Baghdadi began their campaign to capture territory from poorly governed areas of northwestern Iraq and eastern Syria, the West—in both ideological and military opposition—struggled to understand the nature of this belligerent. In violently capturing and governing towns that had been previously liberated from Saddam Hussein, then later patrolled by an Iraqi Army paid for and rebuilt by Americans after Saddam's fall, the West initially viewed ISIS as little more than an ambitious offshoot of al-Qaeda. However, when this militia began resembling a modern army, survived targeted

air strikes from bombers and drones, began collecting taxes, recruited citizens a world away inspired by ISIS's goal of returning the world to the 7th century, enforcing laws in its conquered territory, and formally established a caliphate, the horizon line between what the West wanted to believe about its new enemy and what that enemy itself did was indeed quite long, wide, and shrouded by fog.

In this sense of representing a fog or haze of war, the Local Horizon may also represent the source (or at least **a** source) of Clausewitz's friction: the danger, exertion, and uncertainty (moral or physically manifested) that generate a case-by-case "climate of war."

Consequently, this metaphor can help describe the quality of the relationship that evolves over time between or among parties, ranging from **filtered** (in the sense of being pure and benign, as between allies or confederates), to **fragile,** to **fractured**. At the very least, it represents the natural, unavoidable opacity of humans interacting at virtually any scale, from interpersonal conversation to the maneuvering of armed forces on a battlefield.

The nexus of each Venn diagram can represent the actual effect, subjectively felt by and objectively observed, of each party-in-contact's idiosyncratic and context-specific mixing or balancing of the three tendencies Clausewitz first identified as "suspended between three magnets."

For simplicity's sake in digging into this trinity, we can visually represent that nexus with its own stand-alone circle. Each circle would, in essence, capture all sixteen fundamental elements described earlier as the making up the ecology of war, as each of those necessary but alone insufficient elements are intrinsic to the characteristic attributes of each of the three essential

tendencies of passion, reason, and chance (as usually manifested by the people, the government, and the military). This focus on each belligerent's trinity nexus is shown in Figure 2 below.
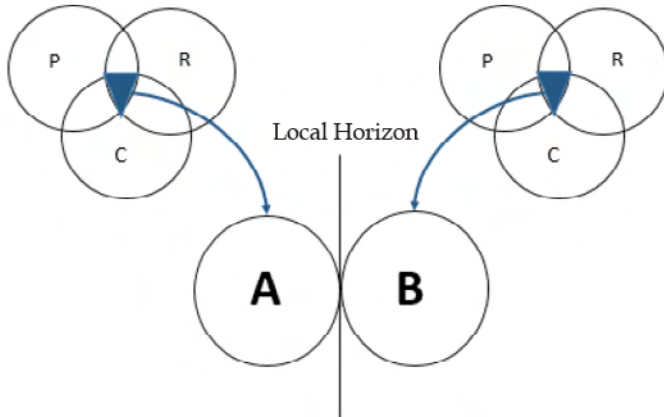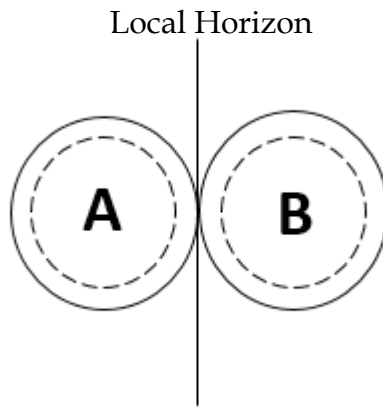

Figure 2. Trinity Nexus.

But, as Clausewitz suggests, common sense demands, and history demonstrates, the forces or tendencies that constitute the trinity are variable in their relationship to one another.

In other words, they are not static over time, over geography, or across the range of human emotions and decisions that drive the ongoing action in a war at each and every strata of human or institutional perspective, "every war is rich in unique episodes. Each is an unchartered sea, full of reefs."[167]

Clausewitz advocated for looking at war, then, as caveated by probabilities rather than determinism or absolutes. Amending our diagram further to reflect this importance of probabilities, we should represent each belligerent's trinity nexus with a dashed line reflecting its variability that so much depends on context (see Figure 3).

Figure 3. Variable Trinity Nexus.

LEGITIMIZING CONFLICT: LET ROBBERS BECOME KNIGHTS

Continuing with exploring how deeply we can penetrate or explain Clausewitz's concept of the trinity, we should pay homage to his classic and mostly-understood argument about war's relationship to politics or policy. War is a "true political instrument," "politics is the womb in which war develops," war is "only a branch of political activity . . . it is in no sense autonomous," it is a "continuation of political intercourse, carried on with other means" or "with the addition of other means," the "policy objective determine both the military objective and the amount of force to be used," policy is the "guiding intelligence" operating the "aim of war," the "political purpose" is what one intends to achieve by the war and "prescribes the scale and means of effort" devoted to it, wars vary "with the nature of their [political] objectives and the situations which give rise to them."[168] As David Kaiser summarized it:

"politics establishes the value of the object of the conflict and thus profoundly influences the level of effort that will be devoted to achieving it."[169]

However, maybe the Prussian general was too limited in his analysis. Mentioned earlier, his view was unfortunately influenced too heavily by the nation-on-nation warfare of mostly-professionalized militaries, controlled by political authorities of various stripes and ideologies, and energized by largely perceived historical travesties or affronts to national honor and by geographic and territorial ambitions unique to early 19th-century Europe. Keegan is perhaps more perceptive on the matter: that culture ultimately drives individuals, tribes, societies, and nations to confront one another violently and that nonmaterialist and irrational motives may form the base drives and specific casus belli.[170] Drew Gilpin Faust, for example, wrote of the American Civil War:

> Slavery gave the war's killing and dying a special meaning for black Americans; the conflict was a moment for both divine and human retribution, as well as an opportunity to become the agent rather than the victim of violence . . . it was an act of personal empowerment and the vehicle of racial emancipation. To kill and to be, as soldiers, permitted to kill was ironically to claim a human right.[171]

Killing and dying for human rights has, of course, a long history. In a green valley of south-central France, with dormant volcanoes along its western edge, Pope Urban II presided over a council of bishops and aristocrats outside the town of Clermont in November 1095 that led to a bellicose eruption of war fervor and fever that would dramatically recast the balance of power in Europe and the Middle East. Marshaling all of his available oratorical ability and the image of himself as

God's mouthpiece on Earth, Urban urged his listeners to reaffirm their pledge to the "Truce of God," to abate the lawlessness and barbarity of that period through order, security, and Christ-abiding peace:

> If anyone seizes or robs monks, or clergymen, or nuns, or their servants, or pilgrims, or merchants, let them be anathema. Let robbers and incendiaries and all their accomplices be expelled from the church and anathematized . . . you have seen for a long time the great disorder in the world caused by these crimes. It is so bad in some of your provinces, I am told, and you are so weak in the administration of justice, that one can hardly go along the road by day or night without being attacked by robbers; and whether at home or abroad one is in danger of being despoiled either by force or fraud.[172]

The Pope then persuasively—if hypocritically to our modern sensibilities—urged Christian Europe to take up arms and rush to their brothers in the Near East "in urgent need" of their help. Byzantine Emperor Alexius I had requested military support from the Pope not long before, to stem the spread of the Seljuq Turks in Asia Minor encroaching upon what remained of the Eastern Holy Roman Empire. Claiming that the Muslim Turks had "devastated the Kingdom of God," Urban invented and embellished tales of how the Arabs and Turks stole the land of Christian families, destroyed churches, and worshipped demons:

> I, or rather the Lord, beseech you as Christ's heralds to publish this everywhere and persuade all people of whatever rank, foot-soldiers and knights, poor and rich, to carry aid promptly to those Christians and to destroy that vile race from the lands of our friends . . . Christ commands it, [173]

he implored. In closing, the Pope sweetened his call to arms with a promise: "All who die by the way, whether by land or by sea, or in battle against the pagans, shall have immediate remission of sins."[174] He continued, in a savvy and strategic appeal to redirect internal European violence outward toward Islam:

> let those who have been accustomed unjustly to wage private warfare against the faithful now go against the infidels . . . let those who for a long time, have been robbers, now become knights. Let those who have been fighting against their brothers and relatives now fight in a proper way against the barbarians . . . as soon as winter is over and spring comes, let them eagerly set out on the way with God as their guide.[175]

Thus he launched the First Crusade. The Pope, hoping to reenergize the authority, influence, or prestige of the Catholic Church, had legitimized the popular use of mass violence, moving it away from unjust private warfare of greed between Christians that had ravaged Western Europe for years, toward a "just" and holy war to reclaim the wealthy lands of the East, freeing the (allegedly) enslaved and tortured, while punishing an alien and demonized people, and earning a place in Heaven as one's reward. Though, as historian of the Crusades Thomas Asbridge notes, the Pope's rhetoric "bore little or no relation to the reality of Muslim rule in the Near East," he had legitimized an armed pilgrimage that would lead to centuries of grief and bloodshed: a war of swords and words between cultures and creeds.[176]

It seems reasonable to suggest that either type of motive—rational, rule of law-based, intermittent or ritualized, emotive, and culturally accepted—erects a sense of hardened legitimacy to the conflict, combat, or war. Whether the "guiding intelligence" is the

bureaucratic product of civil administrators acting with a warrant to wage war from the solemn declaration of public officials, or is a long-held traditional and ceremonial rite of raiding the weaker neighboring tribes to acquire slave-prisoners from which to appease a deity by human sacrifice,[177] the legitimizing womb (in Clausewitz's words) serves a unique function. It socializes the participants into adopting a norm of conduct and attitude that is collectively obeyed as rightful, valid, acceptable, and not simply the crime of organized, serial murder.

In the Figure 4 below, the dashed box represents this Legitimizing Frame.
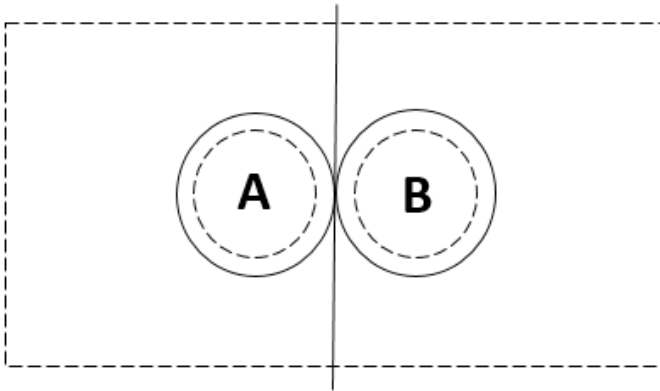
Figure 4. Legitimizing Frame.

It is best drawn as a dashed line rather than a solid one, because the arguments that justify the conflict between and among the belligerents are variable and flexible. They may change over the course of a conflict, like the U.S.-led coalition's reason for occupying Iraq evolved between 2003 and 2011. The reasons that legitimized the conflict in the hearts and eyes of the participants on day 1 may have shifted by day 100, and

most certainly by day 1,000. Moreover, these reasons may be less than transparent or hazily defined to some of the participants, even if they represent the same belligerent party. As Colin Gray put it, "the 'political object' may well not be stable and certain, but rather fuzzy and shifting outcomes of a continuous (political) process."[178]

Finally, these legitimizing rationales, in many cases, will differ from one belligerent to the next. Party A may have established a clear policy rationale of fighting a limited and tightly-controlled counterinsurgency campaign within a host nation and with that nation's tacit or conditional approval; yet, the insurgents of Party B are fighting a war of survival—using any and all means to disrupt, disorganize, and disenchant Party A and, as a result, simply outlasting them. Merely continuing to exist, at some point, means victory for the insurgent and justifies the weapons and tactics they employ and the sacrifices they are willing to make.[179] This same variability in what legitimizes the use of armed force can affect the relationship between allies too—in some cases, having distinct visions of what purpose to pursue and want means to use. Alexius I, for example, when he petitioned the Pope in 1095, merely hoped for a few thousand Frankish mercenaries that he could employ against the Turks at will. For the Franks, on the other hand, their departure for the East was a "devotional expedition sanctioned by Rome, focused first and foremost upon the defense of re-conquest of sacred territory."[180]

A BOUNDED HORIZON: MEANS, MOTIVE, AND OPPORTUNITY

This sense of legitimization of the conflict (however a belligerent interprets it) does not spontaneously spring forth into being from a vacuum. Instead, the actors involved find themselves performing against a larger backdrop or stage. This stage is constructed of factual circumstances that may be uncontrolled and even unknown to the actors, much as the blueprints for the design of a theater set are immaterial to the actor's technique for memorizing his lines and reciting them in front of the audience. Yet, they establish the boundaries for where he stands, where he walks, and they erect the inanimate objects he encounters along the way. This stage, then, represents the maximum possible or absolute extent of the parties' combined intent, resources, and availability. We can label this the "Bounded Horizon Frame," and it is somewhat akin to Michael Porter's notion of a business's "productivity frontier." That concept represents the hypothetical

> sum of all existing best practices at any given time . . . [or] the maximum value that a company delivering a particular product or service can create at a given cost, using the best available technologies, skills, management techniques, and purchased inputs.[181]

To form a particular conflict's Bounded Horizon Frame, three ingredients standout as the most potent: intent, resources, and availability. Intent is the actor's point at which their energy is aimed—the actor's driving interest or purpose. Intent is composed of two kinds of signatures: first, as the actor's goal, as in **my intent is to strike you across the face with my white glove for the insult to my family's honor**; second, as a

state of mind, as in **I strike you intentionally, on purpose, not carelessly or by accident**. Of course, goals and mind states are related. If my goal is to hurt you, and my subsequent action accomplishes it, there is perfect accord between *mens rea* and *actus reus*. One can deduce (or infer) a party's goal by observing their actions and concluding what intentions they express. Both forms of intent are based on a system of values that prioritizes one's sequence of actions and choices. Those values—whether humanitarian, secular, religious, economic, or ideological—prioritizes the actor's collection of related and unrelated interests in a way that leaves fighting, over **something**, by force as the chosen course of action.

Second, resources—in contrast to intent—are the **tangible** elements that include the money, material, personnel, and means of transport and communication that can be devoted at any particular time or location to animate that actor's intent. Third, availability simply means an occasion or prospect: the time and permissive conditions in which to flex or operationalize one's intent, using one's resources. This is a way of saying that each belligerent operates no better than the maximum possible ideal given their tryptic of means, motive, and opportunity—the bounded absolute frontier in Porter's terms.

The rectangular box in Figure 5, representing the Bounded Horizon Frame, is solid because—in contrast to the politically and socially-driven Legitimizing Frame—it is in a large sense quantifiable (in the sense of resources) and objectively definable from at least one belligerent's point of view (in the sense of the stated intent and opportunity to act). It is the sum of these means, motives, and opportunities that brackets or frames this outer limit. It encapsulates the belligerents,

how they perceive each other across the Local Horizon, and in which the belligerents' policy choices generate an always-flexible and evolving Legitimizing Frame of reference.
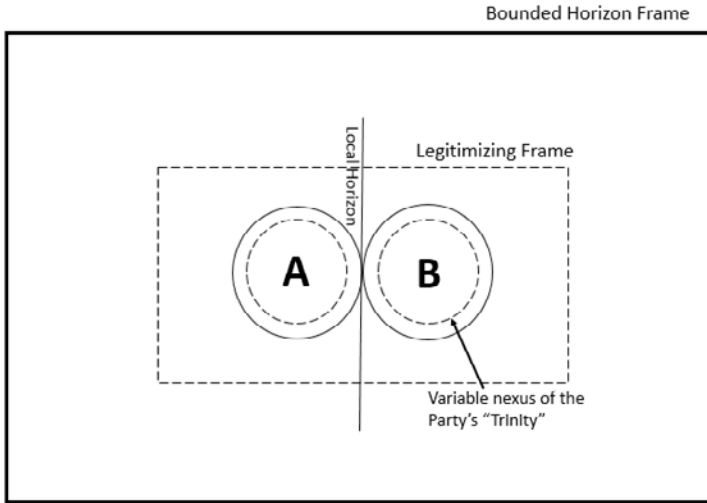
Figure 5. Bounded Horizon Frame.

AUTHENTICITY

However, even this outer limit, or stage on which the actors play their parts, is not quite the **authentic** reality in which the belligerents battle out their aggressions and adjust their goals. Clausewitz wrote that action in war is like "movement in a resistant element" or walking through a pool of water.[182] No action emerges pristine from the paper on which it was planned, because the ability to accurately gauge the impact of (even if we rightly account for it at all) the weather, the strain on equipment and soldiers, physical effects of being wounded, sheer dumb luck, and the

fallibility of weighing risks, especially when **humans** weigh those risks after experiencing all of these **other** dangers, is imperfect and partial.[183] In other words, we never see with perfect vision (nor implement with perfect dexterity) what resides at or on the Bounded Horizon. The painting we produce is never quite the art we first planned.

On the smallest of scales, consider how a company of combat engineers was caught unprepared to survive a mortar barrage. Despite long experience with incoming indirect fire, the Sappers had grown complacent and unquestioning of the policies and standard operating procedures that allowed them to sleep and recover from missions in steel, recycled shipping containers, arranged neatly in rows and columns, with no overhead cover, no barricades of tall concrete Jersey-style barriers or stacks of sandbags to cushion against concussions or shell fragments. When mortars finally hit their forward operating base with accuracy on a late afternoon on a cool Iraqi January, the dazed, confused, and bloodied Sappers had to run half-dressed outside to underground bunkers, or to their steel Armored Personnel Carriers—also parked neatly in rows as if still in their motor pool at Fort Carson, Colorado. After 8 months of surviving near-misses, and gratefully avoiding roadside bomb fatalities, the expected came unexpectedly like a thunderous bass drum that deafened ears, mucking the sky with black smoke, and shaking soldiers with mad surges of adrenalin.[184] The pin-prick attack—in the context of the much wider war—by an unobserved "mad mortar-man" hidden away in densely-packed palm groves and orchards, just outside the city of Balad, was a near-perfect metaphor of (and foreshadowing for) the awkward, straining, uncertain development and application of American

counterinsurgency tactics (and strategy) over the next half-decade.[185]

On a larger scale, the battleships of Pearl Harbor on an otherwise quiet morning in 1941, that were also aligned in parked formation at their docks and succumbed to an aerial attack, prove that the Sappers of Company B, 4th Engineer Battalion in early 2003 shared a long lineage of hubris, undiagnosed vulnerability, and a faulty weighing of risk with the sailors, commanders, admirals, and political leaders at the beginning of an engagement with a very different kind of war**fare**. Neither numbers, nor skilled training, nor technology, nor the best laid plans ever overcome the natural, unavoidable resistance factor of war. This is what Clausewitz meant by the "friction that distinguishes real war from war on paper."[186] The actors' **real**-world extent of their resources at a given moment, the real-world scope of their opportunities, and the ever-varying intent (as in their **goals** and **mental state)** is something distinct and smaller than what the Bounded Horizon draws out as the blueprint for the conflict's theater stage. As David Kaiser observed, "domestic and international conditions determine not only a state's objectives, but the extent of the resources the state would be able to commit to them."[187] In both the case of Company B's Sappers and the Pacific Fleet, our initial sensitivity to external conditions conditioned our conduct. Later, reality—through terms initially defined by the enemy—recast our sensitivity to those external, **authentic** conditions, and our conduct and planning adjusted.

To represent this more realistic view, we need a new frame. This frame does not replace the Bounded Horizon Frame altogether, for that still works to inflate or capture all of the actors' expectations or desires, like

a library, archive, vault, arsenal, or source from which they believe they can generate their plans and design their conduct. This new frame should consist of the belligerent actors' **actual** observations and sensitivities to **true** (not just idealized, planned, or maximum possible) conditions unfolding around them over time—in part external to them and perhaps even shaped by their ongoing conduct.

In Figure 6, the "Authentic Conditions Frame" is depicted as the darker dashed box laying somewhere between the Legitimizing Frame and the Bounded Horizon Frame.
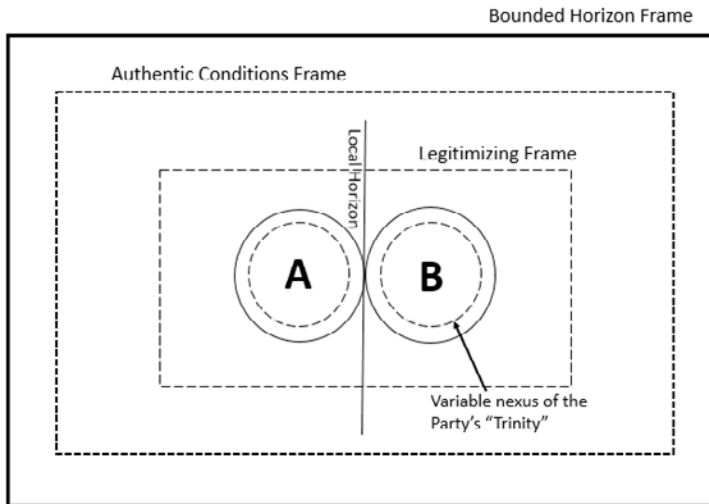
Figure 6. Authentic Conditions Frame.

MODERATION AND RESTRAINTS:
A RUCKSACK FULL OF WEIGHTS

Following Clausewitz's thinking, there are forces that moderate or dampen the inclination of the parties to naturally escalate to the "extremes"—Clausewitz's theoretical total war—that limit their energies, preventing conflict from approaching too closely to its self-destructive potential. He named many factors contributing to this moderation: that each party could only be an imperfect realization of its own ideal, that war is a sequential series of cause and effect oscillating among the parties, human nature's tendency to avoid maximum effort, that war has a discontinuous tempo—action is followed by long periods of inactivity based, at least in part, on an imperfect knowledge of the enemy's own actions.[188]

War, regardless of its scale or society, also gets curbed by human-imposed rules, laws, or conventions. While civil means of dispute resolution between belligerents are not featured prominently in their armed conflict, it is not true that *silent enim leges inter arma* (in times of war, the law falls silent). The Aztec empire's flower wars—whether meant to serve as training grounds for nobles, a market for acquiring prisoners to sacrifice to the gods, or as a less costly way to slowly attrit the enemy—were conducted according to ritualized codes that regulated the weapons, number of soldiers on the field, and the location and time of battle.[189] Hammurabi conditioned his Babylonian Army to restrain itself from harming cities he attacked if the city opened its gates without confrontation, thereby sparing the population.[190] The Late Bronze Age wars in Mesopotamia featured formal declarations of war to precede actual hostilities, lest the pugnacious kings offend the gods.

Cicero, the great Roman orator in the age of Julius Caesar and the death of the Republic, wrote that "there is a limit to retribution and to punishment," and our first duties are to abide by "fundamental principles of justice:" that "no harm be done to anyone; second, that the common interests be preserved." Therefore, he wrote, "no war is just, unless it is entered upon after an official demand for satisfaction has been submitted or warning has been given and a formal declaration made."[191]

Rules that curtail violence **during** war can also be found in monotheistic preaching. In the Book of Deuteronomy, it is said that Moses warned the Israelites to offer peace before sacking a city, and to restrain themselves from attacking sources of food and shelter, as well as women and children (ostensibly because they revert to property of the conquering people and should not be wasted so flippantly).[192] Likewise, the 7th-century caliph, Abu Bakr, announced "ten rules for your guidance on the battlefield," prohibiting mutilation, treachery, killing of women, children, and the elderly, and avoiding wanton destruction of the environment or the enemy's food supply.[193]

At the request of President Lincoln, the Lieber Code of 1863—drafted by a jurist whose three sons fought on different sides in the American Civil War—was intended to formalize rules for the behavior of soldiers on the battlefield. Adhering to the Just War tradition of Cicero and Aquinas, Dr. Francis Lieber wrote: "The ultimate object of all modern war is a renewed state of peace."[194] Therefore, he concluded, "the law of war imposes many limitations and restrictions on principles of justice, faith, and honor."[195] This basic precept drove the many prohibitions and caveats that his Code, soon adopted into *General Orders No. 100, Instructions*

for the Government of Armies of the United States, in the Field. Among its many proscriptions, it speaks to scrupulousness in war:

> The law of war does not only disclaim all cruelty and bad faith concerning engagements concluded with the enemy during the war, but also the breaking of stipulations solemnly contracted by the belligerents in time of peace, and avowedly intended to remain in force in case of war between the contracting powers. It disclaims all extortions and other transactions for individual gain; all acts of private revenge, or connivance at such acts.[196]

In addition, "Men who take up arms against one another in public war do not cease on this account to be moral beings, responsible to one another and to God."[197] Furthermore, the Code reminds soldiers that the "unarmed citizen is to be spared in person, property, and honor as much as the exigencies of war will admit."[198] The Code also speaks to safeguarding what can be secured of the symbols of civilization from the consequences of war:

> Classical works of art, libraries, scientific collections, or precious instruments, such as astronomical telescopes, as well as hospitals, must be secured against all avoidable injury, even when they are contained in fortified places whilst besieged or bombarded.[199]

Armies, according to the Code, could only seize private property if demanded by military necessity.[200] To cement a civilizing sensibility over the more aggressive instincts and fear understandably present among those fighting wars, the Code established that:

> All wanton violence committed against persons in the invaded country, all destruction of property not commanded by the authorized officer, all robbery, all pillage or sacking, even after taking a place by main

force, all rape, wounding, maiming, or killing of such inhabitants, are prohibited under the penalty of death, or such other severe punishment as may seem adequate for the gravity of the offense.[201]

Today, those moderating regulations are found in the so-called Law of War, found in statutes, treaties, military regulations, and customary international law, divided between jus ad bellum and jus in bello rules and expectations. For example, Article 22 of the Hague Conventions of 1907, states, "the right of belligerents to adopt means of injuring the enemy is not unlimited."[202]

On a larger scale, the Kellogg-Briand Pact of 1928 aggressively banned, for the first time in history, aggressive war fought for reasons other than self-defense and served as a legal basis for prosecuting war criminals after World War II. Thomas Aquinas first argued that only three conditions, if met, could excuse the resort to war in the first place (jus ad bellum): it must be for a just purpose (i.e., not for pure selfish gain), waged by a proper authority, and restoration of the peace must be the motive for using force.[203] The United Nations Charter, Article 2(4), continued that tradition of moderating the resort to force, containing it within certain boundaries—the right of self-defense being the most operative. When nations do go to war, or engage in armed conflict, the legal precept of proportionality that customary international law experts believe is encoded by the United Nations Charter, demands that nations limit the magnitude, duration, and scope of their force, capping it to a level which is reasonably necessary to counter an attack or threat to their political sovereignty, territorial integrity, or their citizens, but no more.

As for the means and methods of warfare, laws continue to erect rigid and formal limitations on what

can be used by belligerents against one another. The Certain Conventional Weapons Convention of 1980 prohibits the use of weapons that when detonating or impacting a person, leave undetectable fragments because they cause unnecessary suffering, as well as certain booby traps and mines because they cannot effectively discriminate or distinguish between the combatant and noncombatant civilian.[204] Poisons, specifically chemical weapons, are forbidden via the 1925 Geneva Gas Protocol and the 1993 Chemical Weapons Convention treaty. The Geneva Conventions hold that all parties to a conflict must:

> at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives.[205]

Modern militaries vigorously train their soldiers on who can be shot at, with what kinds of weapons, when, and where.[206] These rules of engagement are intended to restrain the use of military means and methods of targeting, limiting attacks to those based on military necessity, imploring troops to distinguish accurately between combatants and civilian noncombatants, to use force proportional to the need, and to avoid causing "unnecessary suffering."[207]

These moderating influences and curbs on conduct—both before a war breaks out between nations or armed groups, and during hostilies between the actors on the field, in the air, at sea, or on the city street—act as bounds on behavior. They, to continue with the image of frames within frames, act as other artificial constraints that limit the maximum exertion possible by the parties engaged in the conflict. For humanitarian and practical reasons, they, in consequence, **compress**

inward upon the authentic conditions frame: the **effect felt** by the parties is that their tactical (and perhaps strategic) options are narrowed and choices are guarded by laws, regulations, customs, and courtesies that extend between the belligerents. As those options narrow and choices shrink, the authority that legitimizes the resort to violence feels the squeeze too—if a nation cannot legally go to war aggressively to assert dominion over the sovereign territory of another nation, but chooses to anyway, the justifications it can and will employ to marshal the will, passion, and resources of the nation to that end, and to explain itself to the audience of other nations, will be carefully chosen, as will the choice of which (if any) potential allies to court.

The result, using this imagery of the clashing trinities, is depicted in Figure 7—a series of encapsulating, Matryoshka-like, frames that dilate or distend, and when compressed, shrivel and tighten. One way to visualize this dilation and pulsing, compression and contraction, is by thinking of the armed conflict—described by this set frames housing clashing trinities—is a system undergoing changes in its **entropy**. Generally, entropy is a way to describe the amount of disorder in a system, or the potential ways in which the system's components might arrange themselves. Systems with high entropy are very disordered—more information is required to fully account for everything going on, overcoming the system's decaying tendency toward complete randomness; systems with low entropy are calmer. Adding heat to a system, say a tray of ice cubes, generally adds to the molecular disturbances inside and rearranges them with more and more randomness, melting it, until an otherwise static and rigid state is phase changed into a liquid and then a highly-shapeless gas.
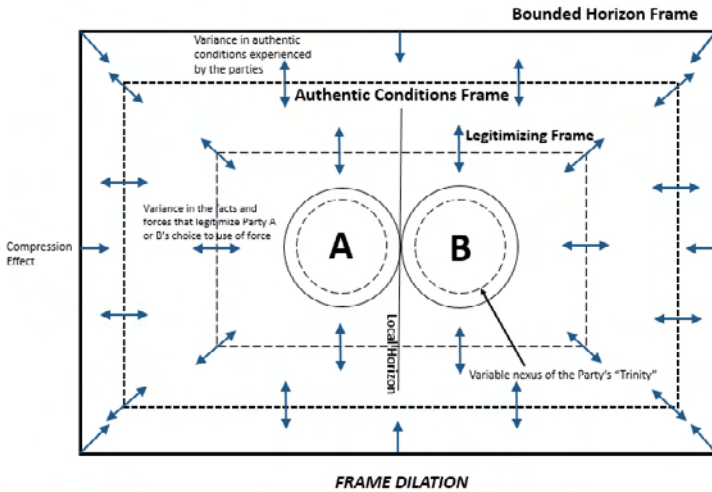
Figure 7. The Clashing Trinities.

It might be the case that moderating laws, rules, and regulations governing how military forces interact with civilians they encounter would add more order, or stability, to the overall conflict. From the point of view of the noncombatant civilians, the military's menu of choices are constrained, limiting the amount of violence and uncertainty to which the civilians are subjected, cooling the conflict into a more structured and predictable shape. However, from the point of view of the belligerent parties and their armies, those same laws, rules, and regulations might be viewed, instead, as risking (or causing) more disorder and less stability. Party A may not have any assurance that Party B will abide by those restrictions and fight civilized. Or, as was the case when General Stanley McChrystal imposed stronger cautionary steps in the rules of engagement, when he took command in Afghanistan, to reduce the risk to civilian casualties,

those limitations might be seen as narrowing the range of resources each bellicose party might wield with its military to affect a given political goal.[208] With a limited range of resources, that party's willingness or ability to maintain its initial objectives may degrade, imposing insecurity and uncertainty about what ways are available to meet their strategic ends. From that perspective, the aspect of the Bounded Horizon Frame that **compresses** or **constricts** their activities actually increases pressure, adding heat and, therefore, disorder or entropy.[209]

And, as the authentic conditions on the ground constantly shift under the feet of the belligerent parties—sometimes to their advantage and sometimes not so much—this frame too can be thought of in terms of its entropy, or tendency toward disorder. The same is generally true of the legitimizing motivations and reasons that animate the parties—the policy objective or guiding intelligence, or cultural norm or fanatical religious fervor, that inspires populations to take up arms for a cause, or warrants a government to declare its hostility toward another, or to solve a political conundrum through the application or threat of violence. It is probably sufficient to conclude, without worry of too much contradictory evidence, that the publicly announced justification for the public "investment of violence" that initially launches battleships, sends flight crews scrambling, and produces deployment orders and movement timelines is rarely motionless. As described earlier, it pulsates as conditions on the ground—politically, socially, or militarily—actually change or appear to change. As those conditions naturally and unavoidably evolve, the fuel that fired the commitment to this risky venture in armed violence might dry up before the political or social objective is

satisfied if it is not stirred or mixed with more combustible fuel. Therefore, what usually begins as a well-defined or well-confined legitimizing rationale usually unfolds into a more chaotic and varied jumble of overlapping or even contradictory agendas and goals.

The longer the conflict occurs, the greater the chance to observe the disordering, entropic effect of its two corollaries. The further back in time the original spark recedes from the memory of those leading the war effort or fighting in it, the greater the likelihood that more voices will question the original justifications and offer new, competing ways to legitimize the investment in violence that justifies the risk. Second, the greater the chance that both military and political-civil leadership that began the conflict will have rotated out through elections, retirements, resignations, and firings. In other words, the Legitimizing Frame suffers from the decay of old age, and continually fends off the disease of discontinuity. The U.S.-led war in Iraq and Afghanistan is the longest, most recent, and most publicly debated proof of this concept in practice.

SOLVING FOR ENTROPY

If entropy is the tendency toward disorder, confusion, chaos, and discontinuity brought on by the natural elements in this ecology of war, it would be natural to assume that all conflict will, given enough time, rend, rip, disassemble, and scatter all sense of organization, limitations, and bounds. Of course, this is not true. Wars eventually end. Sometimes they burn out from exhaustion of resources or will, or suffer abrupt changes in political goals or from the intervention of an external friend or foe with the ability and intention of enforcing a peace. No war, as Clausewitz knew, ever

becomes its absolute form and one can only envision this now as a global thermonuclear exchange between two superpower belligerents, each with its own retinue of allies and associates, **deliberately** and **knowingly** investing in this form of mutual suicide. That version of frame dilation seems as terribly unlikely as to be impossible in practice, unless a less-absolute version occurs through mistake, accident, or reckless abandon. Moreover, the means, methods, and objectives relied on by the parties engaged in this mutual investment in violence with an uncertain risk for an unknown reward consistently reflect the practice of imposing (or at least attempting it) order and stability.

This sense of order and stability does not necessarily mean calm tranquility and a return to livable peace—though this may be the ultimate end state and goal each side may seek. Instead, the parties—the political and military elements that make up the trinity of clashing interests—naturally resort to methods that seek to calcify or arrest the disorder that each of them paradoxically already initiated or encouraged. There is a simple reason why this occurs at every scale (recall the earlier need to view conflict from the perspectives of compounding relevant points of view existing simultaneously and in concert—a **fugue**) from the individual soldier and squad, to the destroyer captain, to the flight leader, to the allied land component commander to the legislative body that authorizes the use of force, to the cleric that incites a crusade or jihad, to the president and senior advisors watching a high-definition live feed of a special operations raid. Doing so increases their belief that they might satisfactorily **understand** the threat, **know** their enemy, and **apply** an economical (where the benefit outweighs the

cost) and judicious (in their minds: fair, humane, legal) amount of violent force.

As discussed earlier, choice is the common theme that permeates each strata of war and makes warfare appear, by analogy, as a fugue. The multi-layered ensemble of civil and military orchestra members choose, to various degrees knowingly and deliberately, to engage in this effort to retard, arrest, or calcify the natural onslaught of war's entropy. It is this effort, in part, that makes the authentic conditions frame fluctuate. For example, an attack helicopter pilot with a band of suspected insurgents in his gun sights, presumably emplacing an improvised explosive device on the side of a road, chooses whether to follow an order to engage with lethal rounds, chooses to fire a warning shot, chooses to buzz low overhead to either deter or improve his visibility of the suspects, or chooses to call in infantry to close with the enemy. But each of those optional choices are weighed by the pilot (or provided to him) by factors that tell him how, when, where, and why to use violent force. Those factors are found in his technical manuals, flight doctrines, training experiences, and admonitions from previous instructors, orders from his commander, guidance from published rules of engagement, and his own judgment about the necessity, proportionality, and morality of pulling the trigger. Each of these intends to impose order, structure, and predictability to his decision-making in the face of a disordered, chaotic, risky, and uncertain combat environment.

Likewise, consider the battalion commander in her tactical command post listening to the pilot's radio communications, watching the event occur in real time from video footage relayed by onboard cameras, and monitoring the activities of several infantry companies

in the vicinity of the suspected insurgents. That commander's choices—order the pilot to engage or disengage, maneuver infantry closer in, strike the site with artillery, call for host-nation military support—are weighed by the commander (or provided to her) by doctrine she learned in school and experiences at training centers or past mistakes (or successes) in the current deployment, as well as guidance from her higher headquarters, advice from her staff, her informed judgment of the threat, the rules of engagement, and how this engagement fits within the larger plan of operation or mission that her battalion is executing. As with the pilot, each of these intends to add clarity, structure, order, and predictability to a chaotic and uncertain situation.

Each of these two perspectives, related in objective and in their choices but different in scale, are essentially reactive. The pilot and commander are responding to a threat that may have been foreseeable but not necessarily predicted. But the same function of choice and same role for calcifying, or arresting, entropy apply to prospective, preemptive, or planned uses of armed violence—indeed, probably more categorically and clearly. Consider two illustrations of this in military terms: doctrine and planning.

Doctrine is like a military's paradigm.[210] It is the authoritative mass of "fundamental principles by which the military forces or elements thereof guide their actions."[211] For the U.S. Army,

> doctrine is a body of thought on how Army forces operate as an integral part of a joint force . . . Doctrine acts as a guide to action rather than a set of fixed rules . . . [and] doctrine establishes the Army's view of the nature of operations, the fundamentals by which Army forces conduct operations, and the methods by which

commanders exercise mission command . . . doctrine also serves as the basis for decisions about organization, training, leader development, materiel, soldiers, and facilities . . . [and] establishes a common frame of reference and a common cultural perspective to solving military problems.[212]

The Army disseminates this body of thought by publishing a menu of doctrine publications, doctrine reference publications, field manuals, technical publications, as well as through curricula at various branch schools, like the Basic Officer Leader Course and Captains Career Course at the Maneuver Center of Excellence (formerly known as the Infantry School and Armor School). Later in an officer's career, ascending in rank and responsibility, attendance at the service War College will further educate or train that officer to apply principles and known standards in light of larger strategic goals and historical or political context. Ultimately, this body of professionalized knowledge, standard operating procedures, and time-tested tactics exist to help them to assemble, collect, and organize facts into a coherent perspective or understanding of the hostile environment around them. This serves to justify the choices those commanders will make during conflict as they manage the means of violence in which others — **interested in the extension, maintenance, or appearance of their power over an unspecified time, with an unknowable risk, for an uncertain reward** — will invest.

Planning, too, serves this calcifying role. The U.S. Army, particularly proud of its institutional grasp of the importance of planning, remarks (coincidently, in its doctrine) that:

Planning is the art and science of understanding a situation, envisioning a desired future, and laying out effective ways of bringing that future about. Army leaders plan to create a common vision among subordinate commanders, staffs, and unified action partners for the successful execution of operations.[213]

Rather than continually adapt on the fly and allow circumstances to dictate one's behavior and use of resources, "planning helps commanders understand and develop solutions to problems, anticipate events, adapt to changing circumstances, task-organize the force, and prioritize efforts."[214] In other words, plans levy clarity, purpose, and structure so that military forces can safely enter into situations that are uncertain, risky, and dangerous, while still applying an amount of violent force, preferably in a degree of its own choosing, in order to impose its will and affect the choices available to its opposing foe.

Therefore, we see that planning and doctrine—a mental and social activity on the one hand, and a body of thought that organizes and provides a method for engaging in that mental, social, activity—serve to arrest or calcify the natural entropy of war. That entropy, again, is a way of describing the consequences of how actors at each level or strata of conflict—from the individual to units to armies to collective nations and societies—manipulate (by constricting and dilating) the legitimizing justifications or rationales, and the authentic conditions affecting micro and macro decision-making: the **means**, **motives**, and **opportunities** that determine how, when, and why parties chose to invest in armed violence against one another. It is this critical relationship between the nature of war (as an ecological system of sorts, in which its biological components seek to redistribute or control the application

of power—to control the other's choices in a way believed to be self-beneficial) in its broadest and most generic sense, and the consequential role of planning that leads us to some conclusions about the relative roles that various actors play on the stage of war.

FINAL THOUGHTS

War, in all of its varied forms and guises, seems to be describable as an investment in organized violence by parties interested in the extension, maintenance, or appearance of their power over an unspecified time, with an unknowable risk, for an uncertain reward. The use of the word "investment" is deliberate. It connotes a thoughtful choice to begin a venture, not a mere reactive spasm of violence that is undirected or uncontrolled. It also connotes a venture with a naturally indeterminate conclusion, from which, of course, all wars suffer. The fluctuating, dilating Legitimizing Frame, the ever-changing authentic conditions frame, the absolute extent of the parties' means, motive, and opportunity encoded in the Bounded Horizon and the often opaque Local Horizon that separates the belligerent parties all fuel the entropy that universally characterizes armed conflict and which prevents predictability or even long-term precise and educated guessing.

Nevertheless, it is this appreciation of the fugue-like nature of war, manifesting in various guises but always built upon these frames of reference that are all characterized by choice—the animating and underlying theme of war—and which form the building blocks of Clausewitz's trinity, that should be used as the starting point. All thought and practice devoted to the ends, ways, and means of warfare—theories and practical realities alike—are derived from this fundamental

nature. With new terms like Local and Bounded Horizons, the author humbly hopes that appreciating these underlying truths becomes somewhat less opaque, thorny, or undesirable, and to reinvigorate the profession of arms' confidence in debating these issues with the political principals who must ultimately assume accountability for the consequences.

ENDNOTES

1. Hew Strachan, "The Changing Character of War," Europaeum Lecture, held at The Graduate Institute of International Relations, Geneva, November 9, 2006, Oxford, UK: Europaeum, 2007, p. 2.

2. Thomas Hardy, "The Man He Killed," 1902, available from *https://www.poetryfoundation.org/poems-and-poets/poems/detail/44329*.

3. Major Robert Chamberlain, "The Mud of Verdun: Falkenhayn and the Future of American Landpower," *Military Review*, July-August 2016, pp. 78-87.

4. *Ibid.*, p. 79. See also Wayne E. Lee, *Waging War: Conflict, Culture and Innovation in World History*, Oxford: Oxford University Press, 2016, describing capacity as one of three central themes (along with culture and calculation) defining warfare across history, and defining it as "the ability of any given social organization to raise or commit resources, including people, to a conflict or to a military establishment."

5. Paul R. Norword, Benjamin M. Jensen, and Justin Barnes, "Capturing the Character of Future War," *Parameters*, Vol. 46, No. 2, Summer 2016, pp. 81-91.

6. *Ibid*, p. 82.

7. See, e.g., Daniel Maurer, *Crisis, Agency, and Law in U.S. Civil-Military Relations*, New York: Palgrave Macmillan, 2017.

8. Quincy Wright, *A Study of War*, 1942, Chicago: University of Chicago Press, Abridged ed. 1983, p. 3; see also Christopher

Coker, *Can War be Eliminated?* Cambridge: Polity Press, 2015, p. xii, describing Serbian criminal gangs offering "military tourism" to the wealthy, bored, and homicidal, and pp. xiv, 5 (concluding that war is not per se pathological for which we can or ought to a develop a means to cure—rather, it has been and will continue to be essential to our biological and social constitutions: "to have rejected war would have been as fatal as rejecting agriculture").

9. Karl W. Deutsch, "Quincy Wright's contribution to the study of war: a preface to the second edition," *Journal of Conflict Resolution*, Vol. XIV, Iss. 4, December 1970, pp. 473-478, "war, to be abolished, must be understood. To be understood, it must be studied" p. 473.

10. Erich Maria Remarque, *All Quiet On The Western Front*, trans. by A. W. Wheen, Boston, MA: Little, Brown and Company, 1929, p. 11.

11. Wright, pp. 7, 17.

12. *Ibid.*, pp. 8-17.

13. Deutsch, pp. 474-475.

14. Jack S. Levy and William R. Thompson, *Causes of War*, West Sussex, UK: Wiley-Blackwell, 2010, p. 5.

15. Brian Orend, "War," in Edward N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy*, Fall 2008 Edition, Stanford, CA: Center for the Study of Language and Information, Stanford University, (orig. 2000) rev. 2005, available from *plato.stanford.edu/archives/ fall2008/entries/war/*.

16. Jack S. Levy, "The Causes of War and the Conditions of Peace," *Annual Review of Political Science*, Vol. 1, June 1998 p. 140.

17. See Nikolas Gvosdev and Andrew Stigler, "Defining War in an Ill-Defined World," *The New York Times*, June 28, 2011, available from *www.nytimes.com/2011/06/29/opinion/29iht-edgvosdev29. html?_r=0*.

18. See the definitions and variables by Meredith Reid Sarkees and Frank Wayman, "Inter-state War Data v4.0," in Meredith Reid Sarkees and Frank Wayman, *Resort to War: 1816-2007*,

Washington DC: CQ Press, available from *www.correlatesofwar.org/data-sets/COW-war*.

19. Max Boot, *Invisible Armies*, New York: W.W. Norton and Company, 2013, pp. xx-xxvi, 569-570.

20. Carl von Clausewitz, *On War*, 1832, Michael Howard and Peter Paret, eds., and trans., Princeton, NJ: Princeton University Press, 1989, p. 87.

21. Brian Turner, "What Every Soldier Should Know," in Brian Turner, *Here, Bullet*, Farmington, ME: Alice James Books, 2005.

22. The Atlantic Council, "The Art Of The Future Project," available from *artoffuturewarfare.org/*.

23. The Atlantic Council, "ABOUT: The Art Of The Future Project," available from *artoffuturewarfare.org/about/*.

24. H. R. McMaster, "Moral, Ethical and Psychological Preparation of Soldiers and Units for Combat," *Naval War College Review*, Vol. 64, No. 1, Winter 2011, p. 10.

25. J. C. Wylie, *Military Strategy: A General Theory of Power Control*, 1989, Reprint, Annapolis, MD: Naval Institution Press, 1967, pp. 32-48.

26. *Ibid.*, pp. 56-57.

27. Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations*, 1957, Reprint, Cambridge, MA: Belknap Press of Harvard University Press, 1981, p. 254.

28. Thomas E. Ricks, "The Future of War (II): As the nature of war changes, the familiar dividing lines of our World are blurring across the board," *Foreign Policy*, January 15, 2014, available from *foreignpolicy.com/2014/01/15/the-future-of-war-ii-as-the-nature-of-war-changes-the-familiar-dividing-lines-of-our-world-are-blurring-across-the-board/*.

29. See, generally, Eliot A. Cohen, *Supreme Command: Soldiers, Statesmen, and Leadership in Wartime*, New York: The Free Press, 2002.

30. See, e.g., Frank G. Hoffman, *Conflict in the 21st Century: The Rise of Hybrid Wars*, Arlington, VA: The Potomac Institute for Policy Studies, 2007, pp. 8, 14, hybrid wars:

> incorporate a full range of different modes of warfare including conventional capabilities, irregular tactics and formations, terrorist acts including indiscriminate violence and coercion, and criminal disorder.

See also Frank G. Hoffman, "Hybrid Warfare and Challenges," *Joint Forces Quarterly*, Vol. 52, No. 1, 2009, pp. 34-39; U.S. Army Chief of Staff General George C. Casey, "America's Army in an Era of Persistent Conflict," *Army Magazine*, October 2008, p. 24, hybrid wars are "diverse, dynamic combinations of conventional, irregular, terrorist and criminal capabilities"; Nadia Schadlow, "The Problem with Hybrid Warfare," War on the Rocks.com, April 2, 2015, available from *warontherocks.com/2015/04/the-problem-with-hybrid-warfare/*, where:

> Hybrid warfare is a term that sought to capture the blurring and blending of previously separate categories of conflict. It uses a blend of military, economic, diplomatic, criminal, and informational means to achieve desired political goals.

See also "From Cold War to Hot War," *The Economist*, February 14, 2015, available from *www.economist.com/news/briefing/21643220-russias-aggression-ukraine-part-broader-and-more-dangerous-confrontation*, hybrid wars are a:

> blend of hard and soft power . . . a combination of instruments, some military and some non-military, choreographed to surprise, confuse and wear down an opponent, hybrid warfare is ambiguous in both source and intent.

31. See Antulio J. Echevarria, "How Should We Think about 'Gray-Zone' Wars?" *Infinity Journal*, Vol. 5, Iss. 1, Fall 2015, pp. 16-20; Frank G. Hoffman, "The Contemporary Spectrum of Conflict: Protracted, Gray Zone, Ambiguous, and Hybrid Modes of War," in Dakota L. Wood, ed., *2016 Index of U.S. Military Strength*, Washington, DC: The Heritage Foundation, pp. 25-36, available from *index.heritage.org/military/2016/essays/contemporary-spectrum-of-conflict/*; Hal Brands, "Paradoxes of the Gray Zone," Foreign

Policy Research Institute, E-Notes, February 2016, available from *www.fpri.org/articles/2016/02/paradoxes-gray-zone*,

> Gray zone conflict is best understood as activity that is coercive and aggressive in nature, but that is deliberately designed to remain below the threshold of conventional military conflict and open interstate war.

See also Charles Cleveland, Shaw Pick, and Stuart Farris, "Shedding Light on the Gray Zone: A New Approach to Human-Centric Warfare," *Army Magazine*, August 17, 2015.

32. William S. Lind, Keith Nightengale, John F. Schmitt, Joseph W. Sutton, and Gary I. Wilson, "The Changing Face of War: Into the Fourth Generation," *Marine Corps Gazette*, October 1989; pp. 22-26; see Antulio J. Echevarria, *Fourth-Generation War and Other Myths*, Carlisle, PA:, U.S. Strategic Studies Institute, Army War College, 2005, available from *ssi.armywarcollege.edu/pubs/display.cfm?pubID=632*.

33. Eric Schmitt and Thom Shanker, "U.S. Officials Retool Slogan for Terror War," *The New York Times*, July 26, 2005, available from *www.nytimes.com/2005/07/26/politics/us-officials-retool-slogan-for-terror-war.html*; see also Guy Raz, "Defining the War on Terror," National Public Radio (NPR), November 1, 2006, available from *www.npr.org/templates/story/story.php?storyId=6416780*.

34. John Keegan, *A History of Warfare*, New York: Vintage Books, 1993, pp. 3, 386.

35. Remarque, p. 91.

36. John Keegan, *The Face of Battle*, New York: Penguin Books, 1978, p. 83.

37. Wylie, p. 10.

38. Clausewitz, p. 113, he also wrote (p. 119):

If one has never experienced war, one cannot understand in what the difficulties constantly mentioned really consist, nor why a commander should need any brilliance or exceptional ability. Everything looks simple . . . once war has actually been seen the difficulties become clear.

39. Colin S. Gray, *Modern Strategy*, Oxford: Oxford University Press, 1999, p. 1.

40. *Ibid.*, pp. 3, 12.

41. Bernard Brodie, *War and Politics*, New York: Macmillan, 1973, p. vii.

42. Thomas Hobbes, Leviathan (1651), quoted in Steven Pinker, *The Better Angels of our Nature: Why Violence has Declined*, New York: Viking Press, 2011, p. 33.

43. David Kilcullen, *Out of the Mountains: The Coming Age of the Urban Guerilla*, London, UK: C. Hurst and Company, 2013, pp. 3-16.

44. See Major General James M. Dubik, "Has Warfare Changed? Sorting Apples from Oranges," *Landpower Essay No. 02-3*, Arlington, VA: Institute of Land Warfare, Association of the United States Army, July 2002, p. 2.

45. Wright notes the similarities between the "institutions" of war and the duel—both are trials by combat that "decided the justice of the cause under the regulation" of law or custom. Wright, pp. 176-178.

46. J. F. C. Fuller, *The Generalship of Ulysses S. Grant*, 1929, Reprint, Cambridge, MA: Da Capo Press, 1991, p. 386.

47. Kenneth Waltz, *Man, The State, and War*, New York: Columbia University Press, 1959, pp. 12-14, 16-17, 81, 160, 238.

48. Jared Diamond, "Vengeance is Ours," *The New Yorker*, April 21, 2008.

49. Niccolo Machiavelli, *The Art of War*, 1521, trans. by, Neal Wood, Cambridge, MA: Da Capo Press, 2001, p. 4.

50. Department of Defense, *DOD Dictionary of Military and Associated Terms*, Washington, DC: U.S. Department of Defense, June 2007, available from *www.dtic.mil/doctrine/new_pubs/dictionary.pdf*.

51. Michael Howard, "The Use and Abuse of Military History," *Royal United Service Institute Journal*, Vol. 107, Iss. 625, February 1962, pp. 4-8, reprinted in *Parameters*, Vol. 11, No. 1, March 1981, p. 10.

52. Brodie, p. 438.

53. Dubik, "Has Warfare Changed," p. 4.

54. Mick Cook, "The Dead Prussian: A Podcast about War and Warfare," available from *www.thedeadprussian.com/*.

55. Gray, *Modern Strategy*, pp. 113-127.

56. Barbara W. Tuchman, *The Guns of August*, New York: Presidio Press, 1994, p. 19.

57. Clausewitz, pp. 227, 236.

58. *Ibid.*, p. 608.

59. *Ibid.*

60. Azar Gat, *War in Human Civilization*, New York: Oxford University Press, 2006, p. 666:

the more the rulers and elite were able to use their control over the machinery of the state and their social-economic clout to coerce or sway the social body, the more it meant that it was mainly for the attainment of *their* interests that politics—and war—were geared [emphasis in original].

61. Clausewitz, p. 95:

However many forms combat takes, however far it may be removed from the brute discharge of hatred and enmity of a physical encounter, however many forces may intrude which themselves are not part of fighting, it is inherent in the very concept of war that everything that occurs must originally derive from combat.

62. Helene Cooper, "The War of the Future? Picture Big Armies and Many Fronts," *The New York Times*, June 10, 2016.

63. James M. McPherson, *Battle Cry of Freedom: The Civil War Era*, New York: Oxford University Press, 1988, p. 647; Allen C. Guelzo, *Gettysburg: The Last Invasion*, New York: Vintage Books, 2013, pp. 103, 113-114.

64. Lincoln to General Joseph Hooker, June 5, 1863, quoted in Harold Holzer, ed., *Lincoln on War*, Chapel Hill, NC: Algonquin Books, 2011, p. 188; James M. McPherson, *Tried By War: Abraham Lincoln as Commander in Chief*, New York: The Penguin Press, 2008, p. 180, quoting Lincoln: "Lee's Army, and not Richmond, is your true objective point . . . could you not break him?"; see also T. Harry Williams, *Lincoln and his Generals*, New York: Vintage Books, 1952, pp. 252-253.

65. Gat, pp. 18-19.

66. *Ibid.*, p. 664, "That 'war' is customarily defined as large-scale organized violence is merely a reflection of the fact that human societies have become large and organized".

67. *Ibid.*, p. 670, agreeing with Keegan's criticism of Clausewitz, and arguing that human beings' evolutionary path that has biologically driven us toward attaining resources—mates, territory, comfort, security—through the use of violence in organized groups is fundamentally indistinct from so-called "political" and "cultural" roots of war; see also Wylie, p. 69:

> while there may be a good deal of truth in this [strategy of targeting the enemy army as the prime goal], it does not have the inevitability of sunrise. Unthinking acceptance has frequently let this aphorism function as a narrowing limitation to the vision of the military mind, blinding the strategist to the possibility that there may be some course of action other than a head-on collision of armies.

68. Robert F. Kennedy, *Thirteen Days: A Memoir of the Cuban Missile Crisis*, New York: W. W. Norton and Company, 1969, pp. 36-37, quoting General David Shoup and President Kennedy's reply.

69. Clausewitz, p. 127.

70. John Warden, "The Enemy as a System," *Airpower Journal*, Spring 1995, available from *www.airpower.maxwell.af.mil/airchronicles/apj/apj95/spr95_files/warden.htm*.

71. Colin S. Gray, "Strategy: Some Notes for a User's Guide," *Infinity Journal*, Vol. 2, Iss. 2, 2012, p. 7.

72. H. R. McMaster, "The Pipedream of Easy War," *The New York Times*, July 20, 2013.

73. Dylan Thomas, "Do Not Go Gentle Into That Good Night," in Dylan Thomas, *The Poems of Dylan Thomas*, New York: New Directions Publishing Corporation, 1952, available from *https://www.poets.org/poetsorg/poem/do-not-go-gentle-good-night*.

74. Emile Simpson, *War From the Ground Up: Twenty-First-Century Combat as Politics*, Oxford, UK: Oxford University Press, 2013, pp. 23, 67-71; and see General Raymond Odierno, "The Force of Tomorrow: The Army's top general on the future of war." *Foreign Policy*, February 4, 2013, available from *foreignpolicy.com/2013/02/04/the-force-of-tomorrow/*.

75. Pinker, pp. 256-257.

76. Gregoire Chamayou, *A Theory of the Drone*, New York: The New Press, 2013, pp. 31-35.

77. J. F. C. Fuller, *Generalship, Its Diseases and Their Cure: A Study of the Personal Factor in Command 13*, London, UK: Military Service Publishing Co., 1936, p. 13.

78. Robert M. Gates, *Duty: Memoirs of a Secretary at War*, New York: Vintage Books, 2014, pp. 591-592.

79. Dave Grossman, *On Killing: The Psychological Cost of Learning to Kill in War and Society*, New York: Back Bay Books, 1996, p. 102.

80. Matt Walje, "Drone Warfare and Jus ad Bellum: Mala Prohibita under Right Intention," The Polemistes Ethos: a discussion of Ethics and Warfare Weblog, available from *https://thepolemistesethos.wordpress.com/2012/09/27/hello-world/*, accessed December 5, 2015; David Cortright, "License to Kill," Cato

Unbound: A Journal of Debate, January 9, 2012, available from *www.cato-unbound.org/2012/01/09/david-cortright/license-kill*.

81. Cora Sol Goldstein, "Drones, Honor, and War," *Military Review*, November-December 2015, pp. 75-76.

82. Cora Currier, "The Kill Chain," Part 3 of "The Drone Papers" *The Intercept*, October 15, 2015, available from *https://theintercept.com/drone-papers/the-kill-chain/*.

83. Mark Bowden, "The Killing Machines," *The Atlantic*, September 2013, pp. 60-61; and see Audrey Kurth Cronin, "Why Drones Fail: When Tactics Drive Strategy," *Foreign Affairs*, July/August 2013, pp. 44-54, 46.

84. See, e.g., Donald Rumsfeld, *Known and Unknown: a Memoir*, New York: The Penguin Press, 2012, pp. 389-390, 608.

85. P. W. Singer, *Wired For War: The Robotics Revolution and Conflict in the 21st Century*, New York: The Penguin Press, 2009, pp. 391-396.

86. Bowden, pp. 58-70, 60.

87. Sebastian Junger, *War*, New York: Hachette Book Group, 2011, p. 140. Wayne Lee would call this an illustration of the modern American "strategic culture" dominating decisions among the civilian and military elite as they work through defining the scope of their objectives and what "victory" looks like. See Lee, p. 7.

88. Leon Panetta, *Worthy Fights*, New York: Penguin Books, 2014, p. 389. But he also expressed more prosaic and strategic rationales: other modern nations, like China, have or will soon have access to these long-distance, cheap, machines (thus relying on the same arms-race argument for the development and increasing size of our nuclear arsenal during the Cold War) as well as the drone's ability to give the United States a valuable entry method into "certain parts of the world" that — if left untouchable by our drones — (from p. 391) cannot be conceded to those "actively plotting and engineering violence against our country" from these less-than-well-governed places.

89. Cronin, pp. 47, 49.

90. Headquarters, Department of the Army, Training and Doctrine Command, *The U.S. Army Operating Concept: Win in a Complex World, 2020-2040*, Pamphlet 525-3-1, Washington, DC: U.S. Government Printing Office, October 31, 2014, pp. 8-9.

91. Headquarters, Australian Army, *Land Warfare Doctrine 1: The Fundamentals of Land Power*, Canberra: Department of Defence, Commonwealth of Australia, 2014, p. 16.

92. Chief of the General Staff, dir., Development, Concepts and Doctrine Centre, *Operations*, Army Doctrine Publication, Swindon, UK: Development, Concepts and Doctrine Centre, 2010, p. 3-2.

93. Headquarters Army Training Command, *Indian Army Doctrine*, Shimla, India: Ministry of Defence, Government of India, October 22, 2004, pp. 43-44, available from *www.css.ethz.ch/content/specialinterest/gess/cis/center-for-securities-studies/en/services/digital-library/publications/publication.html/157030*.

94. Joint Centre for Concepts, Doctrine and Experimentation, *Capstone Concept for Military Operations*, No. 130/DEF/CICDE/NP, Paris, France: Joint Centre for Concepts, Doctrine and Experimentation, September 12, 2013, available from *www.cicde.defense.gouv.fr/IMG/pdf/20130916_np_cicde_fra-jc-01-ccmo.pdf*; and see Joint Centre for Concepts, Doctrine and Experimentation, *Conflicts in the next 15 years and Operational Consequences*, No. 129/DEF/CICDE/NP, Paris, France: Joint Centre for Concepts, Doctrine and Experimentation, May 29, 2012, p. 9, available from *www.cicde.defense.gouv.fr/IMG/pdf/20120529_np_cicde_fra_jdr-007-conflicts.pdf*.

95. See, e.g., Hoffman, "Hybrid Warfare and Challenges," p. 34:

The U.S. military faces enormous complexity. This complexity has been extended by globalization, the proliferation of advanced technology, violent transnational extremists, and resurgent powers.

96. Clausewitz, p. 515.

97. Major George S. Patton, Jr., "Comments on 'Cavalry Tanks'," *The Cavalry Journal*, Vol. XXX, No. 122, January, 1921, reprinted in *Military Review*, November-December 2015, pp. 43-44.

98. General Rupert Smith, *The Utility of Force: The Art of War in the Modern World*, New York: Vintage Books, 2005, p. xii.

99. *Ibid.*, pp. 3-5.

100. Kilcullen, p. 16.

101. *Ibid.*, pp. 263-264.

102. Singer, p. 376.

103. Simpson, p. 2.

104. Jean S. Pictet, ed., *The Geneva Conventions of 12 August 1949: Commentary: I Geneva Convention For the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field*, Geneva: International Committee of the Red Cross, 1952, p. 32.

105. See the revision of the original draft of U.S. Marine Corps, *Strategy*, Marine Corps Doctrinal Publication 1-1, Washington, DC: Headquarters, U.S. Marine Corps, Department of the Navy, 1997, completed by Christopher Bassford, *Policy, Politics, War, and Military Strategy*, n.p., original 1997, periodically revised, available from *www.clausewitz.com/readings/Bassford/StrategyDraft/index.htm#Define*.

106. See generally Kilcullen.

107. Clausewitz, p. 220.

108. Dietrich Dorner, *Logic of Failure: Recognizing and Avoiding Error in Complex Situations*, trans. by, Robert Kimber, Cambridge, MA: Basic Books, 1996, p. 44.

109. Michael J. Gallagher, Joshua A. Geltzer, and Sebastian L. v. Gorka, "The Complexity Trap," *Parameters*, Vol. 42, Spring 2012, p. 11.

110. Quoted in Keegan, *A History of Warfare*, p. 90.

111. McMaster, "Moral Ethical, and Psychological Preparation of Soldiers and Units for Combat," p. 9.

112. Dorner, p. 44.

113. Michael Walzer, *Just and Unjust Wars: A Moral Argument with Historical Illustrations*, 2nd Ed., New York: Basic Books, 1992, p. xi.

114. Brian Turner, "Here, Bullet," in Brian Turner, *Here, Bullet*, Farmington, ME: Alice James Books, 2005.

115. Lawrence H. Keeley, *War Before Civilization: The Myth of the Peaceful Savage*, Oxford: Oxford University Press, 1996, p. 3.

116. Remarque, p. 10.

117. Michael R. Gordon and General Bernard E. Trainor, *The Generals' War*, New York: Back Bay Books, 1995, p. 154.

118. General Tommy Franks, *American Soldier*, New York: HarperCollins Publishing, 2004, p. 357.

119. Bob Woodward, *Obama's Wars*, New York: Simon and Schuster, 2010, pp. 375-376.

120. Barack H. Obama, "Nobel Lecture," given in Oslo City Hall, Norway, on December 10, 2009, available from *www.nobelprize. org/nobel_prizes/peace/laureates/2009/obama-lecture_en.html*.

121. Bill Clinton, "Statement on Kosovo," March 24, 1999, Transcript available from *millercenter.org/president/speeches/ speech-3932*.

122. Clausewitz, p. 141.

123. Peter Paret, "Clausewitz," in Peter Paret, ed., *Makers of Modern Strategy: from Machiavelli to the Nuclear Age*, Princeton, NJ: Princeton University Press, 1986, p. 193.

124. Lieutenant General Frederic J. Brown, U.S. Army (ret.), "Perpetual Transitions," *Military Review*, November-December 2002, p. 80:

Now, networkcentric [sic] operations and Special Forces appear to some to be fashionable landpower solutions for global threats. Although the current mantra is faster and lighter, the capability to rapidly deploy a credible landpower force might not be desirable if the tradeoff is seriously diminished warfighting capability. To close with and decisively defeat in close combat any enemy of whatever nature endures as the rationale for landpower, however unfashionable that capability might be.

125. General Wesley K. Clark, *Waging Modern War*, New York: PublicAffairs, 2001, pp. 417-418; see also Daniel P. Bolger, *Why We Lost: A General's Inside Account of the Wars in Iraq and Afghanistan*, New York: Houghton Mifflin, 2014, p. 428, "Above that tactical excellence yawned a howling waste."

126. Clark, p. xxiv.

127. Paret, "Clausewitz," p. 193.

128. Simpson, p. 228; see also Frances Larson, "Why public beheadings get millions of views," presented at the TED Conference, held June 2015, at the TEDGlobalLondon stage, available from *www.ted.com/talks/frances_larson_why_public_beheadings_get_millions_of_views*#t-176961, June 2015.

129. Howard, reprint, p. 12.

130. Nathan K. Finney, "Landpower: More than Simply the Element of Decision," *Infinity Journal*, Vol. 5, Iss. 1, Fall 2015, pp. 30-32.

131. Goldstein, p. 70.

132. Clausewitz, p. 515.

133. Andrew Mack, "Why Big Nations Lose Small Wars: The Politics of Asymmetric Conflict," World Politics, Vol. 27, No. 2, 1975, pp. 198-199.

134. Generally, to "red team" a process or plan is to provide a formal venue and staff for alternative analysis or "devil's advocacy" that focuses on identifying a process or plan's assumptions and risks and challenging them, often only for the sake of being

the lone contrarian in the room. See University of Foreign Military and Cultural Studies, *Red Team Handbook*, v. 6.0, Leavenworth, KS: University of Foreign Military and Cultural Studies, 2012, pp. 1-11.

135. Thomas Kuhn, *The Structure of Scientific Revolutions*, Chicago: University of Chicago Press, 1996, pp. 6-7, 10-11, 23, 37.

136. U.S. Marine Corps, *Warfighting*, Marine Corps Doctrinal Publication 1, Washington, DC: Headquarters, U.S. Marine Corps, Department of the Navy, 1997, p. 3.

137. Clausewitz, p. 132.

138. U.S. Marine Corps, *Warfighting*, pp. 5-9, 14, discussing friction, uncertainty, chance, non-linearity, disorder, and violence as elemental attributes and "inherent characteristics" of armed conflict.

139. Edward J. Villacres and Christopher Bassford, "Reclaiming the Clausewitzian Trinity," *Parameters*, Vol. 25, Autumn 1995, pp. 9-19.

140. Strachan, pp. 29-30; Clausewitz, p. 89.

141. Christopher Bassford, "Tip-Toe Through the Trinity: The Strange Persistence of Trinitarian Warfare," June 17, 2017, updated January 5, 2017, fig. 4, available from *www.clausewitz. com/mobile/trinity8.htm*.

142. *Ibid*., fig. 6, available from *www.clausewitz.com/mobile/ trinity8.htm*.

143. Michael I. Handel, *Masters of War: Classical Strategic Thought*, Portland, OR: Frank Cass Publishers, 2001, p. 105, fig. 9.3.

144. *Ibid*., p. 107, fig. 9.5.

145. Clausewitz, p. 89.

146. *Ibid*., p. 119.

147. M. L. R. Smith asks the same of strategy, wondering if there are "unmanifested forms" that might provide insight into

some of the physical realities of conflict, in M. L. R. Smith, "Quantum Strategy: The Interior World of War," *Infinity Journal*, Vol. 3, Iss. 1, Winter 2012, p. 10, concluding that "symbolic deeds of individual resistance" are some of the inherently uncertain and unstable "sub-atomic" matter of strategy.

148. Clausewitz, pp. 77, 149.

149. Lisa Randall, *Knocking on Heaven's Door: How Physics and Scientific Thinking Illuminate the Universe and the Modern World*, New York: Ecco, 2011, pp. 101-112.

150. Howard, reprint, p. 14.

151. Keegan, *The Face of Battle*, p. 51.

152. As Wright put it (p. 19):

War is thus at the same time an exceptional legal condition, a phenomenon of intergroup social psychology, a species of conflict, and species of violence. While each of these aspects of war suggests an approach to its study, war must not be identified with any [single] one of them.

153. Keegan, *The Face of Battle*, p. 12.

154. Walzer, p. 31, "Wars are not self-starting . . . usually they are more like arson than accident: war has human agents as well as human victims." In addition, p. 43, "war is a social creation."; See also Brodie, p. 2.

155. Keegan, *A History of Warfare*, p. 12.

156. Fuller would disagree, as he argued toward the end of his study of General Grant, in Fuller, *The Generalship of Ulysses S. Grant*, pp. 385-391:

the destructiveness of war is always apparent, but its creative influences are generally hidden away . . . [destruction is a predicate requirement so that a] new condition of life may be established.

157. Winston S. Churchill, *Painting as a Pastime*, 1932, Reprint, Greensboro, NC: Unicorn Press Ltd., 2013, pp. 45-46.

158. Simpson, pp. 28-29.

159. Despite the scholarly convention that warns against the use of first-person, egocentric anecdotes of the scholar to convey a point, I have used my own experience in art to build this analogy, for better or worse. For a more systematic and substantive study of the recursive and nonlinear "creative process," I recommend Mihaly Csikszentmihalyi, *Creativity: Flow and the Psychology and Discovery and Invention*, New York: Harper Perennial, 1997, pp. 79-106, esp. 104-05.

160. James M. Dubik, *Just War Reconsidered: Strategy, Ethics, and Theory*, Lexington, KY: University Press of Kentucky, 2016, p. 25.

161. Nassim Nicholas Taleb, *The Bed of Procrustes*, New York: Random House, 2016, p. 65.

162. Marvin Minsky, *The Society of Mind*, New York: Simon and Shuster, 1988, p. 64.

163. *Ibid*.

164. *Ibid*., pp. 18-25.

165. For a quick illustration and explanation of a fugue, and the use of it as a metaphor for how human cognition and self-consciousness evolves into a complex self-referencing system from less complex or even simple individual mental components, see Douglas R. Hofstadter, *Godels, Escher, Bach: an Eternal Golden Braid*, New York: Basic Books, 1999, pp. 8-10.

166. Sun Tzu, similarly, dissected war into five constituent elements or factors, encompassing the where, how, who, and why of fighting. See Sun Tzu, *Art of War*, trans. by, Ralph D. Sawyer, Boulder, CO: Westview Press, 1994, p. 167.

167. Clausewitz, p. 120.

168. *Ibid*., pp. 87-88, 149, 579, 605-607.

169. David Kaiser, "Back to Clausewitz," *Journal of Strategic Studies*, Vol. 32, No. 4, 2009, p. 670.

170. Keegan, *A History of Warfare*, p. xvi.

171. Drew Gilpin Faust, This Republic of Suffering: Death and the American Civil War, 2008, Reprint, New York: Vintage Books, 2009, p. 55.

172. As quoted by Fulcher of Chartres in version 1, "Medieval Sourcebook: Urban II (1088-1099), Speech at the Sermon of Clermont, 1095, Five versions of the Speech," in Paul Halsall, ed., "Internet Medieval Sourcebook" Fordham University Center for Medieval Studies, last modified November 4, 2011, available from *legacy.fordham.edu/halsall/source/urban2-5vers.html*.

173. *Ibid*.

174. *Ibid*.

175. *Ibid*.

176. Thomas Asbridge, *The Crusades: The Authoritative History of the War for the Holy Land*, New York: HarperCollins Publishing, 2010, pp. 33-40; Georg Strack, "The Sermon of Urban II in Clermont and the Tradition of Papal Oratory," *Medieval Sermon Studies*, Vol. 56, 2012, pp. 30-33.

177. Keegan, *A History of Warfare*, pp. 106-114.

178. Gray, "Strategy," p. 4.

179. Mack, pp. 177-178, 181, 184.

180. Asbridge, p. 37.

181. Michael Porter, "What is Strategy?" *Harvard Business Review*, November-December 1996, p. 62.

182. Clausewitz, p. 120.

183. *Ibid*., pp. 113-122.

184. This is the author's personal account of the attack that killed Captain Eric Paliwoda, commander of Company B "Beast," 4th Engineer Battalion, attached to 1-8th Infantry Battalion, 3rd Brigade, 4th Infantry Division, is also told in Bolger, pp. 148-153,

and by Lieutenant Colonel (Retired) Nathan Sassaman, "Task Force 1-8's Battalion Commander," in Nathan Sassaman and Joe Layden, *Warrior King: The Triumph and Betrayal of an American Commander in Iraq*, New York: St. Martin's Press, 2009, pp. 227-231. I was one of three Platoon Leaders under Captain Paliwoda's command. After preparing all morning for a large deliberate raid that was to launch that night, I was getting my hair cut by one of the headquarter platoon's sergeants inside one of those containerized housing units when the first mortars struck just behind our company's cantonment on Forward Operating Base (FOB) Eagle (soon after, it was renamed FOB Paliwoda). General Bolger's account is inaccurate in one respect: at the time of Eric's death, when a mortar detonated just outside his living trailer and a fragment of metal punctured his heart, there were no wire and mesh Hesco bastion filled with sand protecting our living areas; the ironic silver lining to the attack was that it spurred the delivery and construction of such security measures not just at FOB Eagle but across Iraq and Afghanistan, likely saving countless limbs and lives.

185. See John A. Nagl, *Knife Fights: A Memoir of Modern War in Theory and Practice*, New York: Penguin Books, 2014.

186. Clausewitz, p. 119.

187. Kaiser, p. 676.

188. Clausewitz, pp. 78-91.

189. Geoffrey Parker, ed., *The Cambridge History of Warfare: Edition 1*, New York: Cambridge University Press, 2005, p. 1; Keegan, *A History of Warfare*, pp. 111-114.

190. Amnon Altman, *Tracing the Earliest Recorded Concepts of International Law: The Ancient Near East (2500-330 BCE)*, Leiden: Martinus Nijhoff Publishers, 2012, p. 61.

191. Marcus Tullius Cicero, *De Officiis*, Book I, trans. by Walter Miller, London, UK: William Heinemann, 1913, ch. X, p. 31, and ch. XI, pp. 33-36, available from *https://ryanfb.github.io/loebolus-data/L030.pdf*.

192. *The Holy Bible*, New King James Version, Nashville, TN: Thomas Nelson Bibles, 1982, Deut. 20:10-14, 20:19-20, available from *https://www.bible.com/bible/114/DEU.20.nkjv*.

193. See the translation of the *Muwaṭṭaʾ of Imam Malik* by Aʾisha `Abdarahman at-Tarjumana and Ya`qub Johnson, trans., "Translation Of Malik's Muwatta," n.p., n.d., Book 21, No. 21.3.10, available from *www.documentacatholicaomnia. eu/03d/0725-0811,_Malik%27s_Muwatta,_Hadith,_EN.pdf*.

194. War Department, Adjutant General's Office, prep. by Francis Lieber, General Orders No. 100, *Instructions for the Government of Armies of the United States in the Field*, Washington, DC: The Government Printing Office, 1863, Art. 29.

195. *Ibid.*, Art. 30.

196. *Ibid.*, Art. 11.

197. *Ibid.*, Art. 15.

198. *Ibid.*, Art. 22.

199. *Ibid.*, Art. 35.

200. *Ibid.*, Art. 38.

201. *Ibid.*, Art. 44.

202. United Nations, "Respecting the Laws and Customs of War on Land, and its Annex, Regulations Concerning the Laws and Customs of War on Land," The Hague Convention No. IV, held at The Hague, signed on October 18, 1907, entered into force January 26, 1910, Art. 22.

203. Thomas Aquinas, *The Summa Theologiæ of St. Thomas Aquinas*, Rev. 2nd ed., trans. by Fathers of the English Dominican Province, London: Burns Oates and Washbourne, 1920, Pt. II-II, quest. 40, available from *www.newadvent.org/summa/3040. htm#article1*.

204. United Nations, "Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate

Effects," United Nations Conference on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects, held in Geneva, concluded on October 10, 1980, entered into force December 2, 1983.

205. United Nations, "Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977," Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law applicable in Armed Conflicts, held in Geneva, adopted June 8, 1977, entered into force December 7, 1978.

206. Colonel Fred Green, "An Address to the American Society of International Law, on the Subject of Implementing Limitations On the Use of Force: The Doctrine of Proportionality and Necessity," reprinted in "The American Society of International Law: Proceedings of the 86th Annual Meeting," held in Washington, DC, April 1-4, 1992, pp. 39, 62-67.

207. See generally Mark S. Martins, "Rules of Engagement for Land Forces: a Matter of Training, Not Lawyering," *Military Law Review*, Vol. 143, Winter 1994.

208. Renee Montagne, host, "Rules Of Engagement Are A Dilemma For U.S. Troops," NPR, December 11, 2009, available from *www.npr.org/templates/story/story.php?storyId=121330893*; and see Jason Motlagh, "Petraeus Toughens Afghan Rules of Engagement," *Time*, August 6, 2010, available from *content.time.com/time/world/article/0,8599,2008863,00.html*.

209. I ask for the reader's indulgence as I use this metaphor—obviously, this use of the term "entropy" is adapted from the technical physical and chemical meaning, but I use the concepts of pressure, heat, and entropy liberally to describe the psychological and organizational effects of this "dilating" process.

210. See David E. Johnson, *Modern U.S. Civil-Military Relations: Wielding the Terrible Swift Sword*, Washington, DC: Institute for National Strategic Studies, National Defense University, 1997, pp. vi-viii.

211. Department of the Army, *Operational Terms and Military Symbols*, Army Doctrine Publication 1-02, Washington, DC: Headquarters, Department of the Army, August 31, 2012, p. 2.

212. Department of the Army, Unified Land Operations, Army Doctrine Publication 3-0, Washington, DC: Headquarters, Department of the Army, October 10, 2011, pp. 1-2.

213. *Ibid.*, p. 6.

214. *Ibid.*, p. 9.

U.S. ARMY WAR COLLEGE

Major General John S. Kem
Commandant

*****

STRATEGIC STUDIES INSTITUTE
AND
U.S. ARMY WAR COLLEGE PRESS

Director
Professor Douglas C. Lovelace, Jr.

Director of Research
Dr. Steven K. Metz

Author
Major Daniel Maurer, U.S. Army

Editor for Production
Dr. James G. Pierce

Publications Assistant
Ms. Denise J. Kersting
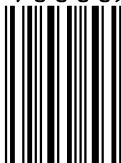
*****

Composition
Mrs. Jennifer E. Nevil

U.S.ARMY

THE
UNITED STATES
ARMY WAR COLLEGE

STRENGTH *and* WISDOM

FOR THIS AND OTHER PUBLICATIONS,

VISIT US AT

http://www.carlisle.army.mil/

90000>

9 781584 877660

This Publication   SSI Website   USAWC Website