

Appendix 3C

On War¹

The Nature of War

War is a violent clash of interests between or among organized groups characterized by the use of military force. These groups have traditionally been established nation-states, but they may also include any non-state group—such as an international coalition or a faction within or outside of an existing state—with its own political interests and the ability to generate organized violence on a scale sufficient to have significant political consequences.

The essence of war is a violent struggle between two hostile, independent, and irreconcilable wills, each trying to impose itself on the other. War is fundamentally an interactive social process. Clausewitz called it a *Zweikampf* (literally a “two struggle”) and suggested the image of a pair of wrestlers locked in a hold, each exerting force and counterforce to try to throw the other. War is thus a process of continuous mutual adaptation, of give and take, move and countermove. It is critical to keep in mind that the enemy is not an inanimate object to be acted upon but an independent and animate force with its own objectives and plans. While we try to impose our will on the enemy, he resists us and seeks to impose his own will on us. Appreciating this dynamic interplay between opposing human wills is essential to understanding the fundamental nature of war.

The object in war is to impose our will on our enemy. The means to this end is the organized application or threat of violence by military force. The target of that violence may be limited to hostile combatant forces, or it may extend to the enemy population at large. War may range from intense clashes between large military forces—sometimes backed by an official declaration of war—to subtler, unconventional hostilities that barely reach the threshold of violence. Total war and perfect peace rarely exist in practice. Instead, they are extremes between which exist the relations among most political groups. This range includes routine economic competition, more or less permanent political or ideological tension, and occasional crises among groups. The decision to resort to the use of military force of some kind may arise at any point within these extremes, even during periods of relative peace. On one end of the spectrum, military force may be used simply to maintain or restore order in civil disturbances or disaster relief operations. At the other extreme, force may be used to completely overturn the existing order within a society or between two or more societies. Some cultures consider it a moral imperative to go to war only as a last resort when all peaceful means to settle disagreements have failed. Others have no such hesitancy to resort to military force to achieve their aims.

Friction

¹ Reproduced in abridged form from MCDP 1, Warfighting, HQ USMC, Department of the Navy, Washington DC, June 20, 1997, pp 3-49.

Portrayed as a clash between two opposing wills, war appears a simple enterprise. In practice, the conduct of war becomes extremely difficult because of the countless factors that impinge on it. These factors collectively have been called *friction*, which Clausewitz described as “the force that makes the apparently easy so difficult.” Friction is the force that resists all action and saps energy. It makes the simple difficult and the difficult seemingly impossible. The very essence of war as a clash between opposed wills creates friction. In this dynamic environment of interacting forces, friction abounds. Friction may be mental, as in indecision over a course of action. It may be physical, as in effective enemy fire or a terrain obstacle that must be overcome. Friction may be external, imposed by enemy action, the terrain, weather, or mere chance. Friction may be self-induced, caused by such factors as lack of a clearly defined goal, lack of coordination, unclear or complicated plans, complex task organizations or command relationships, or complicated technologies. Whatever form it takes, because war is a human enterprise, friction will always have a psychological as well as a physical impact.

While we should attempt to minimize self-induced friction, the greater requirement is *to fight effectively* despite the existence of friction. One essential means to overcome friction is the will; we prevail over friction through persistent strength of mind and spirit. While striving ourselves to overcome the effects of friction, we must attempt at the same time to raise our enemy’s friction to a level that weakens his ability to fight.

Uncertainty

Another attribute of war is uncertainty. We might argue that uncertainty is just one of many sources of friction, but because it is such a pervasive trait of war, we will treat it singly. All actions in war take place in an atmosphere of uncertainty, or the “fog of war.” Uncertainty pervades battle in the form of unknowns about the enemy, about the environment, and even about the friendly situation. While we try to reduce these unknowns by gathering information, we must realize that we cannot eliminate them—or even come close. The very nature of war makes certainty impossible; all actions in war will be based on incomplete, inaccurate, or even contradictory information.

Because we can never eliminate uncertainty, we must learn to fight effectively despite it. We can do this by developing simple, flexible plans; planning for likely contingencies; developing standing operating procedures; and fostering initiative among subordinates.

One important source of uncertainty is a property known as *nonlinearity*. Here the term does not refer to formations on the battlefield but describes systems in which causes and effects are disproportionate. Minor incidents or actions can have decisive effects. Outcomes of battles can hinge on the actions of a few individuals, and as Clausewitz observed, “issues can be decided by chances and incidents so minute as to figure in histories simply as anecdotes.”

By its nature, uncertainty invariably involves the estimation and acceptance of risk. Risk is inherent in war and is involved in every mission. Risk is equally common to action and

inaction. Risk may be related to gain; greater potential gain often requires greater risk. The practice of concentrating combat power toward the main effort necessitates the willingness to accept prudent risk elsewhere. However, we should clearly understand that the acceptance of risk does not equate to the imprudent willingness to gamble the entire likelihood of success on a single improbable event.

Fluidity

Like friction and uncertainty, fluidity is an inherent attribute of war. Each episode in war is the temporary result of a unique combination of circumstances, presenting a unique set of problems and requiring an original solution. Nevertheless, no episode can be viewed in isolation. Rather, each episode merges with those that precede and follow it—shaped by the former and shaping the conditions of the latter—creating a continuous, fluctuating flow of activity replete with fleeting opportunities and unforeseen events. Since war is a fluid phenomenon, its conduct requires flexibility of thought.

It is physically impossible to sustain a high tempo of activity indefinitely, although clearly there will be times when it is advantageous to push men and equipment to the limit. A competitive rhythm will develop between the opposing wills with each belligerent trying to influence and exploit tempo and the continuous flow of events to suit his purposes.

Disorder

In an environment of friction, uncertainty, and fluidity, war gravitates naturally toward disorder. Like the other attributes of war, disorder is an inherent characteristic of war; we can never eliminate it. In the heat of battle, plans will go awry, instructions and information will be unclear and misinterpreted, communications will fail, and mistakes and unforeseen events will be commonplace. It is precisely this natural disorder which creates the conditions ripe for exploitation by an opportunistic will.

Each encounter in war will usually tend to grow increasingly disordered over time. As the situation changes continuously, we are forced to improvise again and again until finally our actions have little, if any, resemblance to the original scheme. By historical standards, the modern battlefield is particularly disorderly. While past battlefields could be described by linear formations and uninterrupted linear fronts, we cannot think of today's battlefield in linear terms. The range and lethality of modern weapons have increased dispersion between units. In spite of communications technology, this dispersion strains the limits of positive control. The natural result of dispersion is unoccupied areas, gaps, and exposed flanks which can and will be exploited, blurring the distinction between front and rear and friendly- and enemy-controlled areas.

The occurrences of war will not unfold like clockwork. We cannot hope to impose precise, positive control over events. The best we can hope for is to impose a general framework of order on the disorder, to influence the general flow of action rather than to try to control each event. If we are to win, we must be able to operate in a disorderly

environment. In fact, we must not only be able to fight effectively in the face of disorder, we should seek to generate disorder and use it as a weapon against our opponent.

Complexity

War is a complex phenomenon. We have described war as essentially a clash between opposed wills. In reality, each belligerent is not a single, homogeneous will guided by a single intelligence. Instead, each belligerent is a complex system consisting of numerous individual parts. A division comprises regiments, a regiment comprises battalions, and so on all the way down to fire teams which are composed of individual (soldiers). Each element is part of a larger whole and must cooperate with other elements for the accomplishment of the common goal. At the same time, each has its own mission and must adapt to its own situation. Each must deal with friction, uncertainty, and disorder at its own level and each may create friction, uncertainty, and disorder for others, friendly as well as enemy.

As a result, war is not governed by the actions or decisions of a single individual in any one place but emerges from the collective behaviour of all the individual parts in the system interacting locally in response to local conditions and incomplete information. A military action is not the monolithic execution of a single decision by a single entity but necessarily involves near-countless independent but interrelated decisions and actions being taken simultaneously throughout the organization. Efforts to fully centralize military operations and to exert complete control by a single decision maker are inconsistent with the intrinsically complex and distributed nature of war.

The human dimension

Because war is a clash between opposing human wills, the human dimension is central in war. It is the human dimension which infuses war with its intangible moral factors. War is shaped by human nature and is subject to the complexities, inconsistencies, and peculiarities which characterize human behaviour. Since war is an act of violence based on irreconcilable disagreement, it will invariably inflame and be shaped by human emotions. War is an extreme trial of moral and physical strength and stamina. Any view of the nature of war would hardly be accurate or complete without consideration of the effects of danger, fear, exhaustion, and privation on those who must do the fighting. However, these effects vary greatly from case to case. Individuals and peoples react differently to the stress of war; an act that may break the will of one enemy may only serve to stiffen the resolve of another. Human will, instilled through leadership, is the driving force of all action in war. No degree of technological development or scientific calculation will diminish the human dimension in war. Any doctrine which attempts to reduce warfare to ratios of forces, weapons, and equipment neglects the impact of the human will on the conduct of war and is therefore inherently flawed.

Violence and danger

War is among the greatest horrors known to humanity; it should never be romanticized. The means of war is force, applied in the form of organized violence. It is through the use of violence, or the credible threat of violence, that we compel our enemy to do our will. Violence is an essential element of war, and its immediate result is bloodshed, destruction, and suffering. While the magnitude of violence may vary with the object and means of war, the violent essence of war will never change. Any study of war that neglects this basic truth is misleading and incomplete.

Since war is a violent enterprise, danger is ever present. Since war is a human phenomenon, fear, the human reaction to danger, has a significant impact on the conduct of war. Everybody feels fear. Fear contributes to the corrosion of will. Leaders must foster the courage to overcome fear, both individually and within the unit. Courage is not the absence of fear; rather, it is the strength to overcome fear. Leaders must study fear, understand it, and be prepared to cope with it.

Physical, Moral, and Mental Forces

War is characterized by the interaction of physical, moral, and mental forces. The physical characteristics of war are generally easily seen, understood, and measured... The moral characteristics are less tangible. (The term "moral" as used here is not restricted to ethics, although ethics are certainly included, but pertains to those forces of a psychological rather than tangible nature.) Moral forces are difficult to grasp and impossible to quantify. We cannot easily gauge forces like national and military resolve, national or individual conscience, emotion, fear, courage, morale, leadership, or esprit. War also involves a significant mental, or intellectual, component. Mental forces provide the ability to grasp complex battlefield situations; to make effective estimates, calculations, and decisions; to devise tactics and strategies; and to develop plans.

Although material factors are more easily quantified, the moral and mental forces exert a greater influence on the nature and outcome of war. This is not to lessen the importance of physical forces, for the physical forces in war can have a significant impact on the others. For example, the greatest effect of fires is generally not the amount of physical destruction they cause, but the effect of that physical destruction on the enemy's moral strength. Because it is difficult to come to grips with moral and mental forces, it is tempting to exclude them from our study of war. However, any doctrine or theory of war that neglects these factors ignores the greater part of the nature of war.

The Evolution of War

War is both timeless and ever changing. While the basic nature of war is constant, the means and methods we use evolve continuously. Changes may be gradual in some cases and drastic in others. Drastic changes in war are the result of developments that dramatically upset the equilibrium of war such as the rifled bore, mass conscription, and the railroad.

One major catalyst of change is the advancement of technology. As the hardware of war improves through technological development, so must the tactical, operational, and strategic usage adapt to its improved capabilities both to maximize our own capabilities and to counteract our enemy's. It is important to understand which aspects of war are likely to change and which are not. We must stay abreast of the process of change for the belligerent who first exploits a development in the art and science of war gains a significant advantage. If we are ignorant of the changing face of war, we will find ourselves unequal to its challenges.

The Science, Art, and Dynamic of War

Various aspects of war fall principally in the realm of science, which is the methodical application of the empirical laws of nature. The science of war includes those activities directly subject to the laws of ballistics, mechanics, and like disciplines; for example, the application of fires, the effects of weapons, and the rates and methods of movement and resupply. However, science does not describe the whole phenomenon. An even greater part of the conduct of war falls under the realm of art, which is the employment of creative or intuitive skills. Art includes the creative, situational application of scientific knowledge through judgment and experience, and so the art of war subsumes the science of war. The art of war requires the intuitive ability to grasp the essence of a unique military situation and the creative ability to devise a practical solution. It involves conceiving strategies and tactics and developing plans of action to suit a given situation. This still does not describe the whole phenomenon. Owing to the vagaries of human behaviour and the countless other intangible factors which influence war, there is far more to its conduct than can be explained by art and science.

Human beings interact with each other in ways that are fundamentally different from the way a scientist works with chemicals or formulas or the way an artist works with paints or musical notes. It is because of this dynamic of human interaction that fortitude, perseverance, boldness, esprit, and other traits not explainable by art or science are so essential in war. *We thus conclude that the conduct of war is fundamentally a dynamic process of human competition requiring both the knowledge of science and the creativity of art but driven ultimately by the power of human will.*

The Theory of War

Having arrived at a common view of the nature of war, we proceed to develop from it a theory of war. Our theory of war will in turn be the foundation for the way we prepare for and wage war.

War as an Act of Policy

War is an extension of both policy and politics with the addition of military force. Policy and politics are related but not synonymous, and it is important to understand war in both contexts. Politics refers to the distribution of power through dynamic interaction, both

cooperative and competitive, while policy refers to the conscious objectives established within the political process. The policy aims that are the motive for any group in war should also be the foremost determinants of its conduct. The single most important thought to understand about our theory is that war must serve policy.

As the policy aims of war may vary from resistance against aggression to the unconditional surrender of an enemy government, so should the application of violence vary in accordance with those aims. Of course, we may also have to adjust our policy objectives to accommodate our chosen means. This means that we must not establish goals outside our capabilities. It is important to recognize that many political problems cannot be solved by military means. Some can, but rarely as anticipated. War tends to take its own course as it unfolds. We should recognize that war is not an inanimate instrument, but an animate force which may likely have unintended consequences that may change the political situation.

To say that war is an extension of politics and policy is not to say that war is strictly a political phenomenon: It also contains social, cultural, psychological, and other elements. These can also exert a strong influence on the conduct of war as well as on war's usefulness for solving political problems. When the policy motive of war is extreme, such as the destruction of an enemy government, then war's natural military tendency toward destruction will coincide with the political aim, and there will tend to be few political restrictions on the military conduct of war. On the other hand, the more limited the policy motive, the more the military tendency toward destruction may be at variance with that motive, and the more likely political considerations will restrict the application of military force. Commanders must recognize that since military action must serve policy, these political restrictions on military action may be perfectly correct. At the same time, military leaders have a responsibility to advise the political leadership when the limitations imposed on military action jeopardize the military's ability to accomplish its assigned mission.

There are two ways to use military force to impose our will on an enemy. The first is to make the enemy helpless to resist us by physically destroying his military capabilities. The aim is the elimination, permanent or temporary, of the enemy's military power. This has historically been called a strategy of annihilation, although it does not necessarily require the physical annihilation of all military forces. Instead, it requires the enemy's incapacitation as a viable military threat, and thus can also be called a strategy of incapacitation. We use force in this way when we seek an unlimited political objective, such as the overthrow of the enemy leadership. We may also use this strategy in pursuit of more limited political objectives if we believe the enemy will continue to resist as long as any means to do so remain. The second approach is to convince the enemy that accepting our terms will be less painful than continuing to resist. This is a strategy of erosion, using military force to erode the enemy leadership's will. In such a strategy, we use military force to raise the costs of resistance higher than the enemy is willing to pay. We use force in this manner in pursuit of limited political goals that we believe the enemy leadership will ultimately be willing to accept.

Means in War

At the highest level, war involves the use of all the elements of power that one political group can bring to bear against another. These include, for example, economic, diplomatic, military, and psychological forces. Our primary concern is with the use of military force. Nevertheless, while we focus on the use of military force, we must not consider it in isolation from the other elements of national power. The use of military force may take any number of forms from the mere deployment of forces as a demonstration of resolve to the enforcement of a negotiated truce to general warfare with sophisticated weaponry.

The Spectrum of Conflict

Conflict can take a wide range of forms constituting a spectrum which reflects the magnitude of violence involved. At one end of the spectrum are those actions referred to as military operations other than war in which the application of military power is usually restrained and selective. Military operations other than war encompass the use of a broad range of military capabilities to deter war, resolve conflict, promote peace, and support civil authorities. At the other end of the spectrum is general war, a large-scale, sustained combat operation such as global conflict between major powers. Where on the spectrum to place a particular conflict depends on several factors: among them are policy objectives, available military means, national will, and density of fighting forces or combat power on the battlefield. In general, the greater this density, the more intense the conflict. Each conflict is not uniformly intense. As a result, we may witness relatively intense actions within a military operation other than war or relatively quiet sectors or phases in a major regional conflict or general war.

Military operations other than war and small wars are more probable than a major regional conflict or general war. Many political groups simply do not possess the military means to wage war at the high end of the spectrum. Many who fight a technologically or numerically superior enemy may choose to fight in a way that does not justify the enemy's full use of that superiority. Unless actual survival is at stake, political groups are generally unwilling to accept the risks associated with general war. However, a conflict's intensity may change over time. Belligerents may escalate the level of violence if the original means do not achieve the desired results. Similarly, wars may actually de-escalate over time; for example, after an initial pulse of intense violence, the belligerents may continue to fight on a lesser level, unable to sustain the initial level of intensity.

Activities in war take place at several interrelated levels which form a hierarchy. These levels are the strategic, operational, and tactical.

The highest level is the strategic level. Activities at the strategic level focus directly on policy objectives.

The lowest level is the tactical level. Tactics refers to the concepts and methods used to accomplish a particular mission in either combat or other military operations. In war,

tactics focuses on the application of combat power to defeat an enemy force in combat at a particular time and place. In non-combat situations, tactics may include the schemes and methods by which we perform other missions, such as enforcing order and maintaining security during peacekeeping operations.

The operational level of war links the strategic and tactical levels. It is the use of tactical results to attain strategic objectives. The operational level includes deciding when, where, and under what conditions to engage the enemy in battle – and when, where, and under what conditions to refuse battle in support of higher aims. Actions at this level imply a broader dimension of time and space than actions at the tactical level. As strategy deals with winning wars and tactics with winning battles and engagements, the operational level of war is the art and science of winning campaigns. Its means are tactical results, and its ends are the established strategic objectives.

The distinctions between levels of war are rarely clearly delineated in practice. They are to some extent only a matter of scope and scale. Usually there is some amount of overlap as a single commander may have responsibilities at more than one level.

Initiative and Response

All actions in war, regardless of the level, are based upon either taking the initiative or reacting in response to the opponent. By taking the initiative, we dictate the terms of the conflict and force the enemy to meet us on our terms. The initiative allows us to pursue some positive aim even if only to pre-empt an enemy initiative. It is through the initiative that we seek to impose our will on the enemy. The initiative is clearly the preferred form of action because only through the initiative can we ultimately impose our will on the enemy. At least one party to a conflict must take the initiative for without the desire to impose upon the other, there would be no conflict. The second party to a conflict must respond for without the desire to resist, there again would be no conflict. If we cannot take the initiative and the enemy does, we are compelled to respond in order to counteract the enemy's attempts.

This discussion leads to a related pair of concepts: the offence and defence. The offence contributes striking power. We normally associate the offence with initiative: The most obvious way to seize and maintain the initiative is to strike first and keep striking. The defence, on the other hand, contributes resisting power, the ability to preserve and protect ourselves. The defence generally has a negative aim that of resisting the enemy's will.² The defence tends to be the more efficient form of warfare – meaning that it tends to expend less energy – which is not the same as saying the defence is inherently the stronger form of warfare. The relative advantages and disadvantages of offence and defence are situationally dependent. Because we typically think of the defence as waiting for the enemy to strike, we often associate the defence with response rather than initiative. This is not necessarily true. We do not necessarily assume the defensive only out of weakness. For example, the defence may confer the initiative if the enemy is compelled

² “Defence rarely produces victory, only various degrees of defeat.” James F Dunnigan, *How to Make War*, 4th Edition, William Morrow, New York, 2003.

to attack into the strength of our defence. Under such conditions, we may have the positive aim of destroying the enemy. Similarly, a defender waiting in ambush may have the initiative if the enemy can be brought into the trap. The defence may be another way of striking at the enemy. While opposing forms, the offence and defence are not mutually exclusive. In fact, they cannot exist separately. For example, the defence cannot be purely passive resistance. An effective defence must assume an offensive character, striking at the moment of the enemy's greatest vulnerability. As Clausewitz wrote, the defence is "not a simple shield, but a shield made up of well-directed blows."

This brings us to the concept of the culminating point, without which our understanding of the relationship between the offence and defence would be incomplete. Not only can the offence not sustain itself indefinitely, but also it generally grows weaker as it advances. Certain moral factors, such as morale or boldness, may increase with a successful attack, but these very often cannot compensate for the physical losses involved in sustaining an advance in the face of resistance. Eventually, we reach the culminating point at which we can no longer sustain the attack and must revert to the defence. It is precisely at this point that the defensive element of the offence is most vulnerable to the offensive element of the defence, the counterattack.

Styles of Warfare

Styles in warfare can be described by their place on a spectrum of attrition and manoeuvre. Warfare by attrition pursues victory through the cumulative destruction of the enemy's material assets by superior firepower. It is a direct approach to the conduct of war that sees war as a straightforward test of strength and a matter principally of force ratios. An enemy is seen as a collection of targets to be engaged and destroyed systematically. The focus is on the efficient application of fires, leading to a highly procedural approach to war. Technical proficiency – especially in weapons employment – matters more than cunning or creativity. Attrition warfare may recognize manoeuvre as an important component but sees its purpose as merely to allow us to bring our fires more efficiently to bear on the enemy. The attritionist tends to gauge progress in quantitative terms: battle damage assessments, "body counts," and terrain captured. Results are generally proportionate to efforts; greater expenditures net greater results—that is, greater attrition. Historically, nations and militaries that perceived they were numerically and technologically superior have often adopted warfare by attrition.

Pure attrition warfare does not exist in practice, but examples of warfare with a high attrition content are plentiful: the operations of both sides on the Western Front of the First World War; the French defensive tactics and operations against the Germans in May 1940; the Allied campaign in Italy in 1943-1944; Eisenhower's broad-front offensive in Europe after Normandy in 1944; US operations in Korea after 1950; and most US operations in the Vietnam War.

On the opposite end of the spectrum is warfare by manoeuvre which stems from a desire to circumvent a problem and attack it from a position of advantage rather than meet it straight on. Rather than pursuing the cumulative destruction of every component

in the enemy arsenal, the goal is to attack the enemy “system”—to incapacitate the enemy systemically. Enemy components may remain untouched but cannot function as part of a cohesive whole. Rather than being viewed as desirable targets, enemy concentrations are generally avoided as enemy strengths. Instead of attacking enemy strength, the goal is the application of our strength against selected enemy weakness in order to maximize advantage. This tack requires the ability to identify and exploit such weakness. Success depends not so much on the efficient performance of procedures and techniques, but on understanding the specific characteristics of the enemy system.

Manoeuvre relies on speed and surprise for without either we cannot concentrate strength against enemy weakness. Tempo is itself a weapon – often the most important. Success by manoeuvre – unlike attrition – is often disproportionate to the effort made. However, for exactly the same reasons, manoeuvre incompetently applied carries with it a greater chance for catastrophic failure. With attrition, potential losses tend to be proportionate to risks incurred. Firepower and attrition are essential elements of warfare by manoeuvre. In fact, at the critical point, where strength has been focused against enemy vulnerability, attrition may be extreme and may involve the outright annihilation of enemy elements.

Like attrition warfare, manoeuvre warfare does not exist in its theoretically pure form. Examples of warfare with a high enough manoeuvre content that they can be considered manoeuvre warfare include Allenby’s decisive campaign against the Turks in Palestine in 1918; German Blitzkrieg operations of 1939-1941, most notably the invasion of France in 1940; the failed Allied landing at Anzio in 1944, which was an effort to avoid the attrition battles of the Italian theatre; Patton’s breakout from the Normandy beachhead in late 1944; MacArthur’s Inchon campaign in 1950; and III Marine Amphibious Force’s combined action program in Vietnam which attacked the Viet Cong by eliminating their essential popular support base through the pacification of rural villages.

All warfare involves both manoeuvre and attrition in some mix. The predominant style depends on a variety of factors, not least of which are our own capabilities and the nature of the enemy.