

Strategy: A Short Guide

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Resumé

Var vi än tittar ser vi termen strategi användas till det ena eller det andra som skyltdockor till en klänning. Men vad är strategi? Hur skiljer sig strategi i krig från strategi i fred? Vilka är elementen som den består av och hur passar de ihop? I vilken omfattning förändras den och i vilken omfattning förblir den densamma? När vi använder oss av strategi, vad ska vi göra och vad ska vi undvika? Baserad på en kombination av abstrakt resonemang, exempel och citat ger den föreliggande artikeln korta svar till dessa frågor.

WHEREVER WE LOOK, we see the term strategy being attached to any – and everything like sequins to a dress. But what *is* strategy? How does strategy in war differ from strategy in peace? What are the elements of which it consists, and how do those elements fit together? To what extent does it change, and to what extent does it always remain the same? When employing strategy in war, what to do and what to avoid? Relying on a combination of abstract reasoning, examples and quotes, the present article provides brief answers to these questions

The term strategy originated in ancient Greece, where it meant the art of the commander (*strategos*). From *strategia* comes stratagem, a term that requires no need for translation. *Strategia* continued in use as long as the Byzantine Empire lasted. One of its derivatives, *Strategikon*, even served as the title of a famous book on the subject said to be written by the late sixth-century Emperor Maurice. In Western Europe it was almost forgotten. Revived late in the 18th century, it stood for the conduct of war at the level between policy and tactics. That is how it was used by two outstanding military writers, Henri Jomini (1779–1869) and Carl von Clausewitz (1779–

1831). As the latter put it, tactics is the art of winning battles; strategy is the art of using battles in order to win the war.

Starting around 1900 both the military and civilians made more and more frequent use of the word. Terms such as "grand strategy," "campaign strategy," "naval strategy," and "air strategy" (to say nothing of "conventional strategy" and "nuclear strategy") appeared and were used to spice up innumerable texts. Later still terms such as "economic strategy," "industrial strategy," and "scientific strategy" were added. Today, things have reached the point where the adjective "strategic" can be applied to any well considered, structured, plan for reaching an objective; starting with investing in the stock exchange and ending with seducing a member of the opposite sex.

Here we shall use the term in a completely different sense: namely, the art of waging a contest in which each party is straining to achieve his objective while at the same time using whatever means he can to prevent the other from doing the same. Strategy, in other words, deals with the *interaction* between two (or more) sides, each of whom does his best to defeat the other and achieve victory for himself.

Thus defined, strategy applies not just to war but also to deterrence and politics—of which, as Clausewitz famously wrote, war is a continuation. It also applies to cyberwar, diplomacy, propaganda and economics, briefly to any contest in which each side tries to achieve his goal while actively trying to prevent the other from doing the same. This fact explains the numerous attempts to adapt the works of some of the most famous strategists, such as Sun Tzu's *Art of War*, to the needs of politicians and corporations.

Strategy also dominates many kinds of games, starting with football and ending with chess. At bottom, just one thing distinguishes military strategy from the rest: namely, the fact that war alone permits the use of any and every means, including also lethal violence aimed at physically destroying the opponent. The similarities between military strategy and strategy as it is applied in other fields are both numerous and important. This brief treatise will focus mainly on the former; the rest will be mentioned, if at all, only for the purpose of comparison.

The outline of the treatise is as follows. Section I explains the nature of strategy, its main qualities, and how it relates to other factors in war. Section II focuses on theory and practice; here the central question is, how does one become a strategist? Section III examines the most important principles of strategy, whereas section IV looks at the way it works in practice. Section V contains our conclusions; finally, there is an appendix containing some additional bibliography for those who are interested.

The treatise is based on the best available literature. Starting with the writings of Clausewitz and Sun Tzu, it includes the *Strategemata*, written around 100 AD by the Roman author Sextus Iunius Frontius;

the works of Antoine-Henri Jomini and Basil Liddell Hart, widely regarded as the most important military author of the first halves of the nineteenth and twentieth centuries, respectively; HDv 300, "Command of Troops," (1936), a volume that reflects the outstanding quality of the German Wehrmacht which issued it and used it; the writings of the French general André Beaufre; as well as those of the Americans Thomas Schelling, William Lind, and Edward Luttwak. As my model I used the US Marine Corps' FM1FM1 (1987) which is famous for its terse, simple, clear and jargon-less language.

The treatise is meant for amateur strategists, defense officials, and members of all services and all ranks. Among the last-named, it is intended, first and foremost to those who face the enemy and risk their lives. To them, too, it is dedicated.

The Nature of Strategy. The Way it Relates to Other Factors in War

To repeat, strategy is the art of engaging in a contest against an opponent who is both permitted and able to hit back while using means similar to one's own. In the absence of such an opponent there can be no question of strategy. To clarify matters, follow three examples of activities in which strategy, as understood in the present treatise, is *not* relevant.

First, imagine a cross-country race involving runners who compete with each other. Runner A may use his understanding of his own strengths and weaknesses, as well as those of runner B, to prepare a detailed plan for winning. For example, by exploiting the fact that his competitor is better at going downhill than uphill; or else that his "finish" is weak. What runner

A cannot do, or at any rate is not supposed to do, is to interfere with runner B by pushing him off course. Should he be caught doing so nevertheless, he will be disqualified.

A second example: imagine an engineering firm tasked with building a bridge over a stream. Such an operation demands advance planning. The plan will start by noting the specifications of the future bridge—the weight it should carry, its capacity, and so on. It will also recognize the characteristics of the river—width, depth, the velocity of the flow, the load-bearing ability of the banks and the bottom, and much more. These data will be used to prepare the various stages of construction; starting by producing and assembling the parts and ending by testing the completed structure for stability and strength. The plan will also recognize the abilities and needs of the workers who do the job, the necessary machines and tools, etc. In all this, the objective is to save time and money by coordinating all the various elements and maximizing efficiency.

Some plans may be better than others. However, they do not involve strategy. The latter is needed only in case the stream, instead of allowing itself to be bridged, should wake up, become a thinking, active being, and start doing what it can to block the project either before construction has started or during the process itself. It may do so by suddenly widening its channel, or narrowing it, or moving it to another place; or by replacing the water with burning fuel; or by accelerating the flow so as to carry away the bridge's parts; or by throwing heavy rocks at the workers. As it does so, building the bridge will turn into a different, and much more difficult, operation.

A third example is constructing and operating a large car-manufacturing plant. Obviously, doing so represents an extreme-

ly complex engineering feat that requires plenty of thought, planning, supervision, and adjustment. Moreover, in this case the process does not end when the factory starts operating; continued supervision will be needed both to adjust production to changing circumstances and to forestall problems or deal with them as they arise. Still, as long as no persons or organizations are trying to deliberately stop production—as long, in other words, as long as there is no sabotage—the rules of strategy remain irrelevant and inapplicable.

It follows that strategy rests on a profound paradox. Obviously the best strategy is to finish off the opponent in a single blow, allowing him no time to respond and leaving him unable to restore his strength. However, a belligerent strong enough to achieve this scarcely needs strategy of any kind. That is why a nuclear war, should it break out, will hardly involve strategy as we understand it. To speak with Clausewitz, the essence of strategy is a contest; however, a contest that is over almost before it starts can hardly be called a contest at all.

Assuming the opponent is active and intelligent, and perhaps even more so in case he is not intelligent, forecasting the moves and countermoves is next to impossible. That was what the great Prussian commander Helmut von Moltke meant when he said that no military plan can reach beyond the first clash with the enemy. On another occasion he told his staff officers, who were in charge of planning campaigns, that while the enemy always had three courses open to him normally he chose the fourth. Accordingly, he added, strategy was little more than "a system of expedients." The most a commander can do is to keep his objective in mind while at the same time trying to foresee each challenge the opponent may pose and deal with it; even so,

since much depends on chance, the outcome remains uncertain. Any attempt to present strategy as if it were solely the result of systematic planning and execution rather than constant improvisation is deceptive and should be rejected.

Another important point is that preparing for war, a one-sided activity, is not a part of strategy. To paraphrase Clausewitz, war is to the preparations for it what fencing is to the art of manufacturing swords. The fencer does not have to know the temperature at which the steel is forged; the swordsmith does not need the fencer's strong arm and supple wrist. To use an example from the history of Israel, mounting the attack that, in June 1967, destroyed the Arab air forces on the ground demanded more runways than were available at the time. Without them, the number of fighter-bombers that the Israelis could launch simultaneously was too small. But that does not mean that clearing and marking the terrain, pouring the concrete, painting the necessary markings, and providing the necessary gear was part of strategy.

Briefly, preparing for war is one thing, waging it an entirely different one. Confusing the two things is an error that may well have catastrophic consequences. A good example comes from the early weeks of World War I. Relying on their highly-developed railway system, the Germans had staked everything on smooth, rapid mobilization. Having devoted all their efforts to that problem, it was only natural that they should come to see the conduct of war itself as an exercise in managing railways. A strict timetable was drawn up—so and so many days for each stage in the offensive against Belgium and France, then so and so many days to turn the army around so as to make it face the Russians in the east.

When the timetable could not be kept, defeat stared the Germans in the face.

Military writers between about 1700 and 1900 often wondered whether the conduct of strategy was a science or an art. Owing largely to the attempt to computerize as much of it as possible, late in the twentieth century the question has re-emerged and become even more important. Most eighteenth century commentators favored the first view. The culmination of this trend was the works of Dietrich von Buelow (1757–1807) whose volume on the subject looks exactly like a geometry textbook, complete with drawings, definitions, and proofs. By contrast, nineteenth century writers, influenced by the Romantic Movement, tended to look at strategy as an art. As such it could not be captured by exact rules, let alone mathematical ones.

Probably the truth is somewhere in between. The opening sentence of the above-mentioned HDv 300 runs as follows: "war is a free creative activity based on scientific principles." At the lowest level where war is conducted, weapons obey the law of physics and are therefore subject to mathematical calculation. An assault rifle fires so and so many rounds to such and such a distance, but will stop firing once its magazine is exhausted. A fighter-bomber has such and such a range, can reach such and such a speed, can carry so much ordnance and no more, deliver it with such and such accuracy, etc. Nor does the fact that performance is to some extent dependent on circumstances that prevent the percentage of hits, the chances of the target being destroyed, and so on, from being calculated fairly accurately.

However, such calculations only go so far. Combining the action of several assault rifles or fighter-bombers may lead to results that are either greater or smaller than the

capabilities of each one separately. When it comes to combining dissimilar weapons, such as assault rifles with mortars or fighter-bombers with tanks, exact calculation is impossible. The question is not just who fires at whom and whether the fire is accurate and destroys the target but how important that target is; furthermore, while some targets are more important than others, much of their importance is in the eyes of the beholder. Accordingly, if things have been properly planned and executed, then the outcome of two plus two may be five; if not, then it may be three.

All this means that issues such as organization, training and doctrine, as well as command and control, are critical. Moreover, even at the lowest level, represented by those who operate the above-mentioned weapons, an important role is played by psychological, social, and cultural factors. The larger the war and the more complex it is, the more numerous the number of factors that must be taken into account. At best, most of those factors can only be subjected to a rough estimate.

The fundamental principles of strategy are immutable. They depend neither on culture, nor on place, nor on time. Beyond a certain minimum, the size of the forces involved – a company or a corps – is irrelevant. So are the weapons used and the environment in which the war takes place, i.e. land, sea, air, outer space, or cyberspace. The reason may be found in the nature of strategy as defined above; namely, the art of engaging a thinking, active opponent who is free and able to hit us just as we try to hit him. The fact that Sun Tzu's work, though written some 2,500 years ago, remains the best ever written on the subject also proves that the principles of strategy are eternal.

As well as being immutable, the principles of strategy are simple and few in number. Each and every one of them has been known and understood for millennia. Take the Biblical story of David and Goliath which is supposed to have unfolded around 1,100 BC. Had David taken up his opponent's challenge, donned the suit of armor that Saul offered him, and engaged in hand-to-hand combat he would have been easily defeated. Taking only his sling and pebbles instead he relied on his superior range and mobility; thus demonstrating an excellent understanding of strategy. Similar examples, starting with the decision of Themistocles to fight the Persians at sea rather than on land and ending with General Schwarzkopf's avoiding a frontal clash with the Iraqis in Kuwait by mounting the "Hail Mary" maneuver, may be cited in their tens of thousands.

Though the principles of strategy are simple, applying them is very difficult. The main reasons for this are as follows. First there is friction, which results from the need to coordinate the activities of numerous participants each of whom has his own agenda. Second comes the vast number of changing circumstances which, never quite repeating themselves, force the strategist to always study and adapt himself to them. Third, is the impact of unpredictable factors such as the weather; fourth, the so-called "fog of war," i.e. the uncertainty that almost always surrounds the opponents' motives and moves as well as our own. The larger the war, and the more complex the environment in which it is fought, the harder the problems. To quote Napoleon, the conduct of strategy, and especially coping with the uncertainty that surrounds it, requires intellectual abilities equal to those of the greatest mathematicians.

Last but not least, war is the domain of deprivation, physical effort, pressure, danger, fear, pain, death, and bereavement. The last-mentioned is often the worst of all. Take the example of General Benjamin Peled, CinC of the Israeli Air Force during the October 1973 War. Imagine what took place in his mind when he was told, in the midst of a briefing, that his pilot-son had been shot down and was missing.

All these factors have been part of war from the beginning, and all will continue to be part of it until the world ends. Whoever depreciates their importance does not know what he or she is talking about and had better go play some kind of games in Disneyland! All of this turns the sober, systematic, and effective conduct of war into an almost superhuman task.

The Theory and Practice of Strategy

Like other fields such as economics and psychology, strategy has two faces. One is descriptive. It seeks to isolate the facts, understand them, and analyze and criticize what took place in past wars. The other is prescriptive; it tries to discover rules, both positive and negative, that will govern future action. Standing on its own, the former is pretty academic and has little to offer practitioners. Standing on its own, the latter lacks a firm foundation and risks losing touch with reality. For optimum results to be obtained the two must be combined. The best commander is like Plato's philosopher-king. He should have a perfect mastery over both theory and practice; integrating them in such a way as to make them reinforce each other.

Strategy may be learnt, up to a point, from books and movies whose subject is military history. After all, what is mili-

tary history if not a vast collection of commanders' intentions, plans, moves, countermoves, stratagems, and the ensuing victories and defeats? The ancient historian Plutarch explains that Alexander's favorite author was Homer and that he took the *Iliad* with him wherever he went. In Napoleon's words, "peruse again and again the campaigns of Alexander, Hannibal, Caesar, Gustavus Adolphus, (French commander) Turenne, (Austrian commander) Eugene and Frederick the Great (of Prussia). Model yourself upon them. This is the only means of becoming a great captain. Your own genius will be enlightened and improved by this study, and you will learn to reject all maxims foreign to the principles of these great commanders."

The most famous commander who was also a great military historian was Julius Caesar. His works, especially the *Bello Gallico*, are a model of brevity and clarity. They integrate and reflect the manifold faces of war, starting with the commander's plans and ending with the experiences of the simple soldier. Another example is Moltke who saw things much the way Napoleon did. Starting around 1800, the period when the first staff colleges opened their doors, many future commanders spent time as instructors; almost all the well-known German generals of both World Wars did so. Another famous case is that of George Patton. Studying military history and visiting battlefields, he used to claim that he re-incarnated famous historical commanders. Supposedly this helped him understand the situation and make the right decisions; as he told his diary, "I have been here before."

Another method, which in some ways is superior to the first, to become a master strategist is by playing wargames. As the ancient Jewish historian Josephus wrote

when trying to explain the secret of Roman military success, "their exercises are bloodless wars, and their wars – bloody exercises." Other armies too have made much use of wargames, starting with the medieval tournament and passing through the famous German *Kriegspiel* all the way to the most advanced computers and simulators. Compared with other forms of training, the greatest advantage of wargames, exercises, maneuvers, simulations, or whatever they are called is their two-sided character. Another is that many of them are capable of being repeated as often as necessary, either employing the same rules and scenarios or changing them.

Wargames are as old as war itself. Their number is vast and they differ very much both in the equipment they require and in the rules that govern them. Some, such as those which are played on a sand-table with the aid of miniatures or with tokens on a board, are relatively cheap and simple. Others are extremely complex, involve hundreds of different rules, or are based millions upon millions of computer-lines. The necessary equipment (simulators) may cost tens of millions of dollars and more. Yet another type of game consists of two-sided maneuvers held with real forces on the ground, at sea, in the air, or in cyberspace. Some wargames resemble real-life war rather closely, others less so. As a rule the greater the similarity the more useful they are for training and study, which is why they are extensively used by armed forces around the world.

It is, however, important to note that no wargame can accurately represent every aspect of war; the reason being that such a game would be equivalent to war itself. Thus, the use of wargames for training and educating strategists involves two dangers. First, as Plato says, any military exercise

that does not involve a certain amount of danger will end up by degenerating into mere foolishness. Second, a real possibility exists that players, instead of using the game to study war, will focus on how to win it in its own terms. Accordingly, wargames can serve training and education only provided designers and participants know exactly how the game in question relates to the real thing. Otherwise they may do more harm than good.

Between them, studying military history and playing wargames are the only methods for mastering the art of strategy as defined in the present document. Here it is important to note that "experience" and "pragmatism" have their limits. To quote Frederick the Great, who, attempting to instruct his generals himself, wrote much military theory: had experience alone been sufficient, then the greatest strategist of all ought to have been the mule that Prince Eugen rode on campaign. At every level on which war is waged, both practice and theory are needed. However, as the strategist rises in rank the number of variables he has to deal with will grow. No single individual will ever be able to go through all possible situations. Accordingly, other things being equal the more senior he is the more important theory is as a starting point for thought and a guide for action.

On the other hand, no theory however good, will in itself suffice to save us from the enemy's sharp sword. Machiavelli's book on *The Art of War*, which made its author famous and is still worth reading, did not turn its author into a great strategist. The same is true of Clausewitz and many others. Woe to the army whose commanders are primarily theoreticians! Strategy is a practical pursuit above all. Like other pursuits, starting with driving and ending with carpentry, it can only be

mastered on the basis of practice and more practice still.

Thus the best teacher of strategy, as well as any other kind of military activity, is war itself. To quote a famous science-fiction book:¹ "There is no teacher but the enemy. No one but the enemy is going to tell you what the enemy is going to do. No one but the enemy will teach you how to destroy and conquer. Only the enemy shows you where you are weak. Only the enemy shows you where he is strong." This kind of study is fast and very effective. But it is also as deadly as destructive, and as costly as war itself. Fools learn from their own experience; wise men learn from the experience of others. A commander who turns his troops into guinea pigs can expect to be deposed, if indeed they do not kill him first.

Some Basic Principles

The Nature of Victory

Strategy is measured by its results. Its supreme, indeed only, goal is to attain victory and avoid defeat. To speak with the ancient Chinese strategist Wu Tzu: "when the dead lie stiff on the battlefield, and you weep for them – you have not attained virtue!".

What distinguishes war from every sort of game, and also from politics and economic life, is the fact that the use of every means, including the most brutal and the most deadly, is permitted. Accordingly, and as long as one side is not sufficiently strong to simply crush the other, its conduct is the most difficult enterprise on earth. It is no accident that tourists in London will meet the statue of Admiral Horatio Nelson standing on its column, and those who visit the Capitol in Washington DC—the one of General Ulysses S. Grant.

Victory means breaking the opponent's will, i.e. creating a situation where he will put down his arms, escape and/or surrender, and comply with our wishes. In theory the best strategy will achieve all this solely by using psychological methods to impress the enemy with the hopelessness of his position, without any need for a physical clash. Turning that ideal into reality is the dream of every strategist.

In practice, the ideal is rarely realized. When it is, as happened for example when the Germans invaded Denmark in 1940 and the Warsaw Pact Czechoslovakia in 1968, the absence of opposition means that strategy is hardly involved. In the vast majority of cases, breaking the opponent's will require killing a considerable number of his troops, destroying his equipment, cutting his communications, taking over his resources, and/or conquering his country. Recently attempts have also been made to paralyze him by means of cyberwar directed against his system of command, control, communication, computers and intelligence.

Nevertheless, the link between the two factors, the psychological and the physical, is not simple. Certainly there is nothing automatic about it. Often the way the two will interact is unpredictable; the fact that an army fights well on one day does not necessarily mean it will do the same on others. Some armies are strong-spirited, others less so. For example, during World War II the Germans, like the French, were defeated; but not in six weeks!

On the one hand, there are many cases when the defeated party suffered most of his losses while he was on the run, i.e. *after* his will to fight had been broken. Good examples are the shameful disintegration of the Prussian Army following the Battle of Jena in 1806 and also that of the Egyptian

Army in the Sinai during the 1967 Arab-Israeli War. On the other, as the World War I French Commander Field Marshal Ferdinand Foch put it, a victorious commander is one who, refusing to accept defeat, goes on fighting until the tables are turned. As the ancient military wisdom runs: if you are getting wet, probably the opponent also does.

Intelligence and the Two Faces of Surprise

We have defined strategy as the art of engaging a thinking, active opponent with the goal of achieving victory and avoiding defeat. Accordingly, its starting point has to be the opponent's moves, capabilities, plans, and nature. A strategy that ignores the opponent can only lead to defeat. Conversely, the importance of understanding the opponent in his own terms cannot be exaggerated. Medieval rulers used to devote as much as one quarter of their total budget to intelligence and espionage. In 2009, according to the best available estimate, the US intelligence budget – including military intelligence and the CIA, but excluding other agencies concerned with internal security – stood at approximately \$ 55 billion.

Neither divine omens, nor crystal balls, nor cards, nor historical analogies can tell us how strong the opponent is, where he is, and, above all, what his future plans are and what his next move is going to be. Such information can only come from the opponent himself; to ensure reliability, it should come from as many sources as possible. Once the information is in it must be organized, carefully put together like pieces in a puzzle, and assessed so that its significance can be understood. Doing so is anything but simple. The command-

er and his intelligence officer are like scientists planning an experiment. They must do what they can to obtain the facts, study them, and draw the right conclusions from them; having done so, they must close the gaps by relying on their intuition and imagination.

In practice, since both sides gather information about one another, the picture is much more complex still. No fewer than three elements are involved. To wit: gathering information about the opponent, including information concerning the information he may have about you; imposing the kind of security that will prevent him from doing the same; and spreading disinformation. The last-mentioned is also known as deception. A good case in point comes from World War II when British intelligence succeeded in identifying and capturing every single German agent in Britain and turned many of them against their original employers.

Each side seeks to form a correct picture of the other while simultaneously presenting him with a false one of himself. The outcome is a dynamic process made up of moves, countermoves, and counter-counter moves; thinking so and so, I must make him think that I think that he thinks that I think that he thinks... For example, in January 1940 an accident caused the German plans for invading the Low Countries and France to fall into Belgian hands. The Belgians suspected deceit – the accident might have been staged. They also tried to deceive the Germans by spreading the rumor that most of the documents had been burnt so that no damage had been done to them (i.e. the Germans). The Allies debated the question for weeks, creating a situation where nobody had the slightest idea what the cache really meant and what to do about it. The Germans on their part decided to take a

risk. Rather than canceling their plan they stuck to it and took steps to convince their opponents that what had taken place was a failed attempt at deception. The trick worked, the Allies fell into the trap, and the rest is history.

In theory, a contest of this kind may lead to the creation of an endless series of mirror-images. In practice, whereas strong chess- and go players can look as many as ten or so moves ahead, there are few if any documented cases when commanders were able to anticipate more than two or three. As a rule, even pre-empting the opponent by one move is a considerable achievement. Probably the reason for this is the extraordinary complexity of war. There are simply too many possibilities. There is also the danger that playing with mirrors, instead of leading to a clear line of thought on which a plan may be based, will result in inability to distinguish between truth and falsehood, confusion, and impotence.

However simple or complex it may be, the goal of the exercise is to use deception in order to obtain surprise. Of all the means that lead to victory, surprise is probably the most important. The decision to open a war (as in the case of the Japanese attack on Pearl Harbor), the place, the timing, the scope, the objectives, and the means employed may all come as a surprise. Perfect surprise will use all these different tools, hitting the opponent like a thunderbolt from a blue sky. It seeks to create a situation where the surprised party will only be able to react by using part of his force, if any. While the impact of surprise differs enormously from one case to the next, it can give the side that uses it a tremendous advantage. Quite often it decides battles, campaigns, and even wars.

In theory good intelligence, meaning such as follows the enemy's intentions

and capabilities and penetrates his mind, should be able to prevent surprise. In practice, experience tends to show that doing so is extremely difficult, often impossible. A good case in point is the Lebanese Terrorist Organization Hezbollah; as its leader, Hassan Nasrallah, said not long after the 2006 war, "had we known how Israel would react (to some of its soldiers being captured and others killed) we would never have opened hostilities." Fear of surprise often leads to a whole series of measures designed to survive it and reduce its impact; starting with dispersion, camouflage and fortification and passing through the creation of redundancy and deployment in depth all the way to watchfulness and exercises aimed at training people to cope with the unexpected. Each of these measures is important and necessary, but only a fool will believe they are fail-proof.

Finally, intelligence on its own is useless or almost so. It only becomes valuable if and when acted upon. Assuming the other problems have been solved, more or less, it is therefore necessary to integrate the personnel responsible for intelligence with that in charge of operations—to allow the latter to look over the shoulders of the former, as it were. In the past many armies, notably the German and Israeli ones, did this by subordinating the intelligence department to the operations department. However, so much has the scope and complexity of military intelligence expanded since 1945 that this solution has become rare. In today's military the two normally form separate departments coming under the chief of staff. Whether that solution is valid, the future will tell.

Objectives, Capabilities, and Planning

Since the enemy's will can rarely be broken by psychological methods alone, every strategic plan must start by identifying the immediate objective. That objective may be to inflict death and destruction; or to envelop and encircle the opponent's forces; or to occupy territory; or to capture key points; or to paralyze his command and control system; and the like. Since no two opponents are identical, and owing also to the endless multiplicity of political, military, technological, economic, and social circumstances, there can be no single methodology for selecting an objective. The important questions, here arranged in no particular order, are, first, what is the nature of the opponent; second, what circumstances are like; third, what one is trying to achieve; and fourth, how one intends to do so.

Objectives should be, and normally are, selected on the basis of two fundamental considerations. The first is the contribution they can make towards victory. The second is the prospect of achieving them. The latter is governed not merely by the capabilities of one side but also, and often mainly, by the other's resistance. The gap between the two things may be immense. In theory, a modern tank can move cover at forty miles an hour and cover 300 miles before refueling. In practice, cases when an armored force covered more than 30 miles a day for a few days on end are extremely rare. Even the Americans, advancing on Baghdad in 2003, needed three weeks to reach it – whereas in theory they could have done so in one day without having to refuel. The average rate of progress was around 15 miles a day, just five (!) percent of the theoretical maximum.

Most of the gap was due to Iraqi resistance, however light. The rest may be put down to the Americans' prudence and friction of every kind. In other campaigns, such as the Allied one in France in the summer of 1944, the gap between theoretical capability and practical performance was much larger still.

An ideal objective is of first rate importance, within our capabilities, and lightly defended. The trick is to find the spot in the opponent's array that is both vulnerable and vitally important so that attacking, destroying or capturing it will lead to a general collapse. It is against that spot that what the Germans call *Schwerpunkt*, center of gravity, should be directed. A good example, which Napoleon in his *Military Maxims* also mentions, is the line between two formations. In October 1973 the Israel Defense Force's discovery of the seam between the Egyptian 2nd and 3rd Armies enabled it to cross the Suez Canal and brought about the turning point in the war. However, the opponent is not stupid. Normally he will do whatever he can to defend what he sees as the most important points. Hence, rarely is a decision obtained by such methods.

The objective having been selected, one must examine whether the available means, as well as the opponent's anticipated resistance, puts it within reach. Should the answer be positive, one must examine whether it really contributes towards the attainment of victory. An ideal plan is one in which the two things, the desirable and the possible, coincide absolutely. In practice, owing to the limitations of intelligence and the inability to consider all circumstances, such coincidence is very hard to achieve. Of all the errors strategists commit this is probably the most common one. For example, when the Germans invaded

ed the Soviet Union in 1941 they believed the Red Army had 200 divisions, whereas in fact there were 360. Consequently the Wehrmacht did not succeed in crushing the opponent, did not capture either Moscow or Leningrad, and failed to break the opponent's will.

The opposite error is to select the objective on the basis of our ability to achieve it without regard to the contribution doing so may make towards victory. An excellent example is the Japanese attack on Pearl Harbor. Both planning and execution were near-perfect (though an intelligence failure meant that the American carriers, representing the main force of the Pacific Fleet, were not in port at the time it was attacked). However, the Japanese High Command hardly even asked whether the blow would break the American will to fight; it simply assumed that the US was a decadent state whose population was not prepared to mobilize, fight, and sacrifice. Had the Japanese asked themselves this question, then very likely they would never have started the war.

Once the objective has been selected detailed planning can start. It includes allocating forces and resources, dividing the mission between them, building a system of command and control, and briefing. All these are essential for success. Often they are extremely complicated to carry out; to use another World War II example, how does one deploy three and a half million men with all their equipment along the border between Germany and the USSR, keep them supplied, ensure that each unit knows its mission, all without alerting the opponent to what is going on? Nevertheless, and except for the plans for deceiving the opponent as discussed in the previous section, doing all this is not part of strategy proper.

Short Wars, Long Wars, Offensive and Defensive

War is a violent contest whose supreme goal is to break the enemy's will. Hence the best strategy is always to be very strong, both quantitatively and qualitatively. The two things are inversely related. Normally increasing quantity will cause a decline in quality, and vice versa. The World War I British mathematician Frederick Lanchester argued that, to balance a quantitative advantage of 2:1, a qualitative one of 4:1 is needed. In case the quantitative advantage is 3:1 the qualitative gap should be 9:1, and so on. Reality, however, is much more complicated. Finding the correct balance between the two things is extraordinarily hard. Probably it can be achieved, if at all, only by trial and error. Yet since preparing for war is not part of strategy proper we shall not discuss the problem here.

Assuming threats and a show of force are not enough, several methods for breaking the enemy's will present themselves; a short war and a long war, offense and defense. As a rule, the fastest way to victory is to combine a short war with the offense. Normally that is the choice of the strong. Napoleon, for example, used to say that what distinguished him from other generals was the fact that, unlike them, he always focused all his efforts at the opponent's jugular, forcing him to defend it and thus creating an opportunity to attack him and crush him. That was what he did in the 1806 campaign against Prussia and also in the 1809 one against Austria. In 1812 he tried the same strategy in Russia, but on that occasion things did not work out for him.

Another important advantage the attacker enjoys is the initiative. It permits him to dictate the time and place of the campaign,

determine the amount of resources he wants to commit, and get in the first blow. The defender cannot do the same and must be content by reacting. For example, before 1960 or so fighter pilots used to identify one another by sight alone. This enabled the attacker to use sun and clouds in his favor, whereas the defender, unable to do so, found himself in an inferior position. As a result, countless pilots were shot down before they ever saw the enemy.

Conversely, cases when the attacker went for a long war and attrition are fairly rare. One prominent example was the Battle of Verdun in 1916. On that occasion the Germans, commanded by General Erich von Falkenhayn, hoped to use their artillery to bleed the French Army until it literally had no troops left. Another example is the so-called "War of Attrition" Egypt waged against Israel in 1969-70. Incidentally, in both cases the outcome was failure. The defenders' will remained unbroken. They did not retreat, they did not run, and they did not surrender. The attackers ended by suspending the offensive without having achieved their objective. In Vietnam, the American attempt to exert attrition on the opponent—in other words, kill Viet Cong and North Vietnamese troops faster than they could be fed into the battle—also ended in failure.

The situation of the weak party is more problematic. Since defending normally requires fewer troops than attacking, his first thought may be to adopt a defensive posture and surrender the initiative. Not only can the defender make better use of cover, but his lines of communication remain steady. Nor does he not have to detach troops to occupy and garrison conquered territory.

On the other hand, the defender runs the risk that, having lost the initiative, his forc-

es will be gradually worn down. Should the process last too long, it can only end in disaster. He may therefore be compelled to gird his loins, go on the offensive, and try to crush the opponent before the latter can bring his numerical superiority to bear. An excellent example is the 1967 Israeli offensive against Egypt, Jordan, and Syria. Yet this strategy entails a risky gamble. Neither the Pakistani attempt to defeat India in 1965, nor the Iraqi one to defeat Iran in 1981, succeeded.

Combined Arms and Orchestration

Practically all armed forces, and modern ones more than most, are anything but homogeneous. They are large organizations made up of many different units, which, in turn, are differently organized, equipped, and trained. Some operate on land, others at sea, others in the air, and others still in outer space or in cyberspace. Some rely primarily on firepower, others on mobility. Some are meant for the offense, others for the defense. Some are suitable for fighting in open terrain, others specialize in mountain warfare or underwater or whatever.

Combined arms means integrating various units and weapons in such a way that each one will bring its own strengths to bear while at the same time having its weaknesses covered by the rest. By doing so, a whole is created that is greater than the sum of its part and capable of coping with various threats as required.

One way to use combined arms is to put the opponent on the horns of a dilemma to which there is no solution. For example, for centuries on end European commanders used cavalry to force the opposing infantry to form dense formations known as squares, the reason being that it is only when fighting in such formations that in-

fantrymen can face the faster, more powerful horsemen. Once the squares had been formed they could be targeted by artillery, forcing them to disperse; thus damning the opponent if he did and if he did not. Similarly, in World War I the gunners on both sides often fired a mixture of high explosive and gas. The former would force the opponent to take shelter; the latter, being heavier than air, compelled him to abandon it.

Another example is the German armored division as used in the Soviet Union and also in the Western Desert in 1941–43. The division's main components were tanks, anti-tank artillery, artillery, and infantry. The tanks' speed and armor made them effective against artillery and infantry, but they were vulnerable to anti-tank fire and required infantry to protect them. Infantry was effective against anti-tank artillery, which could not fire at each soldier separately, but it could not cope with tanks or with artillery and had to be protected by anti-tank artillery and tanks. Anti-tank artillery was effective against tanks but its short range and the ammunition on which it relied meant that it had to be protected by tanks (against artillery) and artillery (against infantry). Artillery was effective against infantry and anti-tank artillery, but lacking armor it was vulnerable to tanks and had to be protected by anti-tank artillery. The principle is simple and not unlike the children's game known as rock, scissors and paper. Practice is much more complex. It requires training, coordination, and excellent command and control.

The simplest way to explain orchestration is to use an analogy with chess. Every mediocre player understands what is meant: namely, using the various pieces in such a way that each of them will serve several purposes at once. The white pe-

on on line 6 or 7 covers its king but also threatens to be queened. A bishop, correctly positioned, can dominate certain squares, threaten both the opponent's knight and his rook, and block a possible attack on its king. The larger the number of purposes served by each piece separately and by all combined, the better the play. As the game develops the purpose of each piece keeps changing, but the principle remains.

Imagine an army on the attack. Unit A forms a reserve, but is also ready to defend against an opponent coming from another direction. Unit B carries out a diversionary attack but is also in charge of protecting the army's communication. Units C and D provide mutual cover, but they also threaten the opponent. The number of possibilities is infinite. This was precisely the field in which Napoleon was the unsurpassed master. He deployed his corps, normally eight in number, like the waving arms of an octopus, engaging the enemy, forcing him to stay still, and closing upon him.

Speed and its Enemies

As a rule, speed is one of the main principles of strategy. The side whose army moves faster and beats the opponent to the pass through which he must move; or the one whose faster aircraft and ships enable him to offer battle or refuse it at will; or the one whose system of command and control works faster in gathering intelligence, making a decision, carrying it out, and receiving feedback; that side will enjoy an immense advantage. Speed may also be vital in achieving surprise. As Napoleon, writing to his cavalry commander Marshal Joachim Murat in the midst of the 1806 campaign against Prussia, put it; *activité, activité, vitesse, je me recommande a vous*. In the words of the Confederate General

Bedford Forrest, "the secret of victory is to get there fustest with the mostest"; assuming, of course, that "there" has been correctly identified in the first place.

As so often, talking of the principle is easy, applying it very hard. Three factors tend to work against speed. First, friction, already mentioned, which obstructs each move just as water obstructs a man trying to walk in it; other things equal, the larger the force the worse the problem. Second, the need for secrecy, which complicates things and slows them down; third, uncertainty, which may cause decisions to be postponed or not made at all.

Each of those factors may be overcome. The commander, applying his willpower, can ignore friction and use his authority to push the machine by force. However, doing so is like driving a car without oil; the more gas one gives, the sooner it will break down. One may reduce the size of the force, but doing so means taking a risk. Secrecy may be abandoned wholly or in part, but doing so may well lead to surprise being lost. Finally, while it is possible to reduce uncertainty by gathering more and more information the outcome may be paralysis. An error in any of these matters may easily lead to disaster.

Strategy in Action

To repeat, the principles of strategy are simple. They are valid under all circumstances, at all times, and in all places. Nevertheless, owing to ever-changing circumstances and also because the enemy does not sit still, applying them is very hard. Weapons and tactics developed for open warfare are unsuitable for that which is fought in cities; facing terrorists and guerrillas, the methods used in regular warfare are useless or almost so.

Since strategy is a two-sided activity in which the moves of each side reflect those of the other, the way it works is best described by means of pairs of opposites. The number of pairs is almost infinite. Many of them are linked and overlapping; hence any attempt to discuss them all will merely lead to endless repetitions. The ones listed below are merely the tip of the iceberg. They are meant not to exhaust the subject but simply to illustrate it.

Maintenance of Aim versus Flexibility

The importance of "maintenance of aim" hardly needs explaining. In strategy, as in any other human activity, the determination to overcome obstacles, take losses if necessary, and proceed towards one's goal is indispensable for success. However, it is possible to go too far in this respect; there do exist situations and moments when a new course must be set.

Since it is a question of looking into the future, and since hope dies last, as the proverb says, identifying those situations and moments is very hard. Yet doing so is essential, or else maintenance of aim may turn into hitting one's head against a brick wall. The Italians on the river Isonzo in 1915-17 provide a good example of this. They attacked the Austrians no fewer than eleven times, losing every single battle and taking hundreds of thousands of casualties. Worse still, these attacks opened the way to the October 1917 Austrian counteroffensive at Caporetto which almost knocked Italy out of the war.

The willingness to change, AKA flexibility, is needed both on the offense and on the defense. The attacker must be prepared to change his objectives and his methods; the defender must be able to follow suit.

Also, flexibility is a prerequisite for taking up any opportunity that may arise.

The willingness to change objectives and methods apart, the most important way to maintain flexibility is by having reserves at hand. Such reserves may consist of material resources, or of unengaged forces, or both. Reserves allow the attacker to change the objective of the attack, its place, and its power; conversely, the defender is able to reinforce weak spots or to counterattack. In both cases, everything depends on correct timing. Historically, most commanders used to keep one tenth to one third of their forces in reserve. Less is dangerous; more is wasteful.

Lacking a reserve, a commander will find it much harder to influence the campaign. He may be able to do so, if at all, only by taking a risk and moving forces from one sector of the front to another. When Winston Churchill, in the midst of the 1940 German invasion of France, asked the French High Command where its reserves were and was told that there were none, he immediately knew that everything was lost.

The supreme form of flexibility, and also the most useful one, is to voluntarily carry out a move without waiting for the opponent to force one to. Particularly famous in this respect was the Mongol false retreat which they used to lure the opponent forward, surround him, and annihilate him. Another example was the 1917 German retreat to the Hindenburg Line. Not only did it force the Allies to invest time and resources in constructing a new infrastructure and pushing their forces forward, but it also saved the Germans seventeen divisions to use as they pleased.

Yet flexibility, like its opposite maintenance of aim, must have its limits. Too much flexibility may mean losing the initi-

ative to the opponent. It may also lead to confusion and demoralization. Either way, the outcome can be defeat.

Husbanding and Sacrificing Force

Supposing a single blow will not end the war, one of the strategist's main tasks is to husband his forces. Doing so is especially important in a war of attrition where the last available division, kept in reserve, may well decide the issue. Another method is to stay on the defense, which normally requires fewer forces than the offense does. That is what the Germans on the Western Front did from 1916 to the spring of 1918. As a result, they invested considerably less in killing each enemy soldier than the Allies did.

As so often, the principle is harder to explain than to implement. A force that is being husbanded can be used, if at all, within strict limits; this may be carried to the point of pure passivity. A perfect example is the French Air Force in 1940. Kept in reserve – the French High Command believed the war would be a long one and that the last man and the last aircraft would decide the issue – it hardly interfered with the German invasion. As a result, when the campaign ended the number of combat-ready French aircraft was higher than at the beginning!

Rarely, if ever, have wars been won by pure defense. Even the famous Roman commander Fabius Cunctator ("the delayer") ended by losing his job to Scipio Africanus, a younger and more active man, who took the offensive against Hannibal and defeated him. Even the Red Army, which attempting to husband its forces in 1942 gave up tens of thousands of square miles of territory, ended up by halting at Stalingrad, fighting, and taking horrendous losses before counterattacking.

Moreover, sacrificing forces may be absolutely necessary. A commander on the defensive may sacrifice some of his troops so as to gain time and save the rest. For example, by ordering a surrounded fortress to hold out at any cost; or by having a bridge blown even though he well knows that some of his troops are still on the other side. To save his ship a captain, knowing full well that part of the crew will be lost, may order the watertight doors closed.

Sacrificing force may also be part of an offensive, when it serves to mislead the opponent, tempt him into making the wrong moves, and lead him into a trap. What all these cases have in common is that human lives are deliberately sacrificed. A commander who cannot make himself sacrifice some of his forces when necessary, or who is prohibited from doing so by his superiors and the society he is fighting for, will not be able to fight and win a war.

Concentration versus Dispersion

To quote Clausewitz, the first rule of strategy is to be as strong as possible, first in general and then at the decisive point. The second, which follows from the first, is to concentrate one's forces against the right enemy, at the right place, at the right time. A force that does not participate in accomplishing the principal task of breaking the enemy's will is a force wasted. If it has to be kept supplied and guarded it may even do harm.

Like everything else, concentrating force is easily comprehended but hard to carry out. First, doing so means leaving other fronts (assuming there is more than one) or the rest of the front exposed. Doing so may be risky indeed; even the Israelis, when attacking the Egyptian Air Force in June 1967, only used about 95 percent of their

available combat aircraft. Second, concentrating force may very well mean having to do without a reserve with all the attendant risks.

In practice things are much more complicated still. A concentrated force is easier to discover than a dispersed one. Its intentions are also easier to gauge. From there it is a relatively easy to foil its movement—either by opposing it with an equal force, or by a geographic movement that will turn its move into a blow in the air, or by threatening it from another direction. To succeed in its mission a concentrated force will have to disperse, forcing the opponent to do the same. Having dispersed, however, it may be unable to accomplish its objective and risks being beaten in detail.

Direct versus Indirect Approach

The shortest way from A to B is always a straight line, and it is strewn with the corpses of the idiots who took it. Normally taking the direct approach will cause the opponent to block it. The outcome, a frontal clash, is likely to be bloody and indecisive. Hence one should avoid the direct approach, make indirect and unexpected moves, and start by attacking the places where the enemy is weak in order to cut off his arms and legs, so to speak. The shortest line becomes the longest, and the other way round; the indirect approach becomes direct, and vice versa.

Coming out of World War I, during which both sides repeatedly paid a very high price for their attempts at direct attack, the British pundit Liddell Hart developed this idea into a doctrine and a theory. At its heart was the claim that the indirect approach was the most important tool of strategy and that it was (almost) the only way to win victory in war. A very good ex-

ample is Napoleon's crossing of the Alps in the winter of 1800, which led him straight into the Austrian rear. Other examples are not lacking.

Breakthrough versus Envelopment

As a rule, the fastest road to victory is to break through the opponent's center, causing his force to disintegrate into fragments that can be overcome separately, if indeed they have to be overcome at all. While many victories have been won in this way, this method suffers from two disadvantages. First, assuming the opponent is on guard, achieving a breakthrough is necessarily hard and is likely to meet with strong resistance. Second, advancing into the opponent's territory inevitably means exposing oneself and putting one's neck into a noose. The Israeli crossing of the Suez Canal back in October 1973 provides an excellent example of such a situation.

The other possibility is envelopment that may lead to complete encirclement. Both envelopment (outflanking) and encirclement create a situation whereby one side attacks the other from an unexpected direction and forces him to redeploy. Doing so is a time-consuming operation at best. Furthermore, to quote the Israeli commander General Ariel Sharon, nothing so terrifies soldiers as do enemy troops suddenly appearing in their rear. To top it all, encirclement will cause the opponent's communications to be cut.

As always, the advantages are balanced by disadvantages. First, whoever outflanks will automatically find himself outflanked. Second, in most cases envelopment requires numerical superiority, or else the ring will be too thin and easily broken. For example, at Falaise (in northwestern France) in 1944,

the Allies, fearing a German breakthrough, did not close the ring around them.

Advance versus Retreat

With very few exceptions – one of them being the 1999 Kosovo War – victory depends on physically advancing into the enemy's territory and capturing key objectives; military bases, geographical and topographical points, communications knots, natural resources, industrial plant, cities, and various symbolic objectives. Occupying them may augment the resources of one side, decrease those of the other, and help bring about the moment when the opponent's will is broken.

Yet advancing into hostile territory does not come free. The invader's communications are extended and he must detach forces so as to garrison his conquests. Advancing on Moscow at the head of 300,000 men – his main force – Napoleon reached it with just 100,000 left. At that point his initial numerical superiority had already been lost. Another problem is the occupied population. The more time passes, the more likely it is to turn against the invader. An advance may be compared to a stream of water issuing from an overturned pitcher. At first the flow is strong and fast; but the further it goes the weaker it becomes until it stops altogether.

The situation of the retreating side is just the opposite. While losing some of his resources, the more he retreats the shorter his communications and the closer he gets to the centers of his power. His very weakness may increase his strength. Unless victory is achieved—unless, that is, the side on the retreat breaks down and gives up—a culminating point may well be reached, causing the two sides' roles to be reversed. That is just what happened when the French

halted the Germans at the Marne in 1914, and also in 1941 when the Soviets brought the same Germans, advancing on Moscow, to a halt.

In all this, the decisive factor is time. The attacker only has limited time to achieve his objectives. Failing to do so, he will be tied down and may very well end up by being defeated. For the defender, the situation is just the opposite: as long as he is not defeated, he wins.

Strength versus Weakness

To speak with Sun Tzu, a good strategist uses rocks to break eggs, and eggs – to camouflage or neutralize rocks. He concentrates strength against weakness and uses weakness at one spot to concentrate strength at another. He puts being against non-being; fullness against emptiness, and emptiness against fullness; the unexpected against the expected, the expected against the unexpected. Like fireflies, they should constantly switch places; all this, without the strategist either losing sight of his objective or allowing things to escape his control.

When it comes to the conduct of strategy, each side's weaknesses, i.e. the things he cannot or does not want to do, are at least as important as his strengths. One side must set a trap and the other – march into it. An excellent example is the Battle of Cannae in 216 BC. On the one hand were the Romans, accustomed to advancing straight forward so as to bring their superior discipline and fighting power to bear. On the other was the Carthaginian commander Hannibal. He used this Roman propensity to lead them by the nose, so to speak, inducing them to advance into his retreating array, enveloping them, and killing 70,000 of them in a single day. The

outcome was the worst defeat suffered by Rome in an entire millennium. What made it possible was the fact that the strengths of one side fitted exactly – perversely, one might say – into the weaknesses of the other, and the other way round.

Such a fit is extremely rare. It can be brought along only by deception, which in turn must be based on a thorough understanding of the opponent. Indeed, it could be argued that no attempt at deception can succeed unless the other party is prepared to deceive himself. As the early twentieth-century Chief of Staff, Field Marshal Alfred von Schlieffen, once put it, for a really great victory to be won the opposing parties must cooperate, each in his own way.

”The Golden Mean” versus Asymmetry and Risk-Taking

Speed versus its enemies, i.e. friction, secrecy, and uncertainty; maintenance of aim and flexibility; preserving force and sacrificing it; concentration and dispersion; direct and indirect approach; advance and retreat; strength versus weakness; these are just a few of the numerous pairs of opposites that characterize strategy. Each method can only be used at the expense of the other; in other words, there is always a cost. As a struggle unfolds, its character will be governed by the way both sides navigate between the opposites.

The Greek philosopher Aristotle believed that people and groups going through life should find the golden mean between them. Neither too much nor too little, was his motto. His approach makes a lot of sense, all the more so because we are unable to forecast the future; hence we have to take a balanced approach while preparing for every contingency.

However, when it comes to strategy his advice is plainly wrong. To repeat, a good strategist uses rocks to break eggs, and eggs—to camouflage or neutralize rocks. He concentrates strength against weakness and uses weakness at one spot to concentrate strength at another; being against non-being; and so on. Following the golden mean implies surrendering all these in favor of a frontal clash, face to face, without any attempt to deceive the opponent, or circumvent him, or maneuver him into an untenable position. Applying this approach against a mediocre opponent, the result is apt to be equally mediocre. Applying it against one who is more than mediocre, the outcome is very likely to be defeat.

Thus the correct conduct of strategy requires not just the ability to foresee, and cope with, all possible threats, but also, and perhaps mainly, creating asymmetric situations and risk-taking. On occasion the risk may be very great indeed. A commander who, having taken such a risk, fails in his endeavor is almost certain to be deposed. Under some regimes he may even be executed. However, unless the odds are greatly stacked in his favor to begin with, risk-taking alone can lead to good results.

How Asymmetry Turns into Symmetry

A frontal clash between two opposing, more or less equal, forces will normally lead to mutual attrition. That is why good strategy is normally asymmetric. However, this question also has another face rarely, if ever, discussed in the literature.

Of necessity, any successful strategy must be based on intelligence; studying the opponent, getting to know him, and adapting one's methods to fit his *modus operandi*, even his nature. Since the effort is mu-

tual, the more time passes the more both sides will change, adapt themselves to fighting the specific opponent at hand, and become alike. One cannot play football on one side of the court and basketball on the other; trying to do so will necessarily result in a hybrid. Here it is worth reminding the reader that both games, though they only permit very little violence, resemble war in that they are subject to the rules of strategy as explained in his treatise.

Any asymmetric contest, unless it ends within a reasonable time, will become symmetric. To deal with a regular army one needs another regular army; to fight guerrillas one need forces that themselves will operate in the guerrilla mode. As the process unfolds, the weak may very well become strong and the strong, weak. A football team that is only allowed to play a much weaker opponent will end up by losing its edge; the same is true of a military. A mere look at the American campaign in Afghanistan, which was easy at first but has since deteriorated into bloody stalemate, will confirm this analysis and the need to avoid such a situation at almost any cost. Other examples are not lacking.

Following Rules and Breaking Them

Strategy is the art of conducting a contest in which each side does what he can to study the other, deceive him, prevent him from achieving his aim, and hit him as hard as he can. Supposing the opponent is no fool, repeating the same move, even the most successful one, is the highway to disaster; notwithstanding the fact that, on occasion, such repetition may itself take the opponent by surprise. Accordingly, the first prerequisite for the successful conduct of strategy consists of a thorough understanding

of the opponent. To this must be added endless creativity not inferior to that of a great artist such as Michelangelo or Picasso.

The above rules, if they deserve to be called that, are far from absolute. They cannot be reduced to algorithms and cannot be fed into a computer. They are based on sound common sense; applying them is largely a question of intuition and imagination. The more complex the environment in which a war takes place and strategy is applied, the harder it is to gain good results. The real purpose of the rules is not to tell commanders how to cope with each situation as it may arise, but to save them the need to think out everything from the beginning and re-invent the wheel. Instead of calling them rules, we might perhaps speak of parameters.

Yet even that is not the end of the matter. When it comes to strategy, perhaps more than in any other field of human endeavor, acting within the existing, well-known parameters is likely to be a recipe, not for success but for failure. What is really needed is breaking the rules and putting others in their place; in other words, turning the impossible into the possible and using it like a sledgehammer to hit the astonished opponent's head.

An excellent case in point is the Arab decision to start the October 1973 War in spite of their opponent's command of the air, something neither the Israel Defense Force nor many other armed forces around the world had ever considered possible. As General Douglas McArthur once put it, it is for breaking the rules that great commanders are remembered. Only one word can express the necessary quality: genius.

Some Concluding Comments

Strategy is the capstone of the art of war, the supreme contest that governs, or ought to govern, all other factors. Its importance cannot be exaggerated. Only the correct conduct of strategy, based on deep thought and thorough preparation, can guarantee the survival of rulers, states, nations and civilizations. In case it fails, then *vae victis!* That is why it has been examined and re-examined countless times by some of the best minds of the last twenty-five centuries.

Strategy as presented in this treatise is the art of engaging an active, thinking opponent who is doing his utmost to achieve his own aims while at the same time doing whatever he can to prevent the other from attaining his. That is why we have ignored internal politics as well as the special problems of combined warfare. We have done so in spite of the fact that those factors are often very important and may well present the strategist with additional difficulties. For example, President Roosevelt's motive in insisting that the Allies invade North Africa on 8 November 1942 had everything to do with the upcoming elections to Congress. The Allies' decision to invade Sicily in July 1943 was not unconnected with their fear that Stalin might conclude a separate peace.

As noted, predicting strategic moves and counter-moves is extremely difficult, often next to impossible. Yet this coin also has a reverse face. Uncertainty concerning the future is not only an important characteristic of strategy; it is also a prerequisite for the latter's existence. Without uncertainty, neither strategy nor war itself would be needed.

Finally, this treatise has presented strategy as if it were mainly an intellectual contest broadly similar to chess or go. That

is why the term "opponent" was used in preference to the more emotional "enemy." It goes without saying that the intellect plays a vital role in strategy; the last thing anybody needs is a commander who neither grasps the relevant principles nor knows how to make the necessary calculations. Nevertheless, it is important to remember, know, understand – no term is strong enough – that war, before it is anything else, is the domain of deprivation, physical effort, pressure, danger, fear, pain, death, and bereavement.

It is amidst all these factors that the strategist operates. Doing so requires much more than a first-class intellect; he must be an Atlas capable of carrying a world on his shoulders. He has to be a model of mental stability, iron nerve, courage, determination, toughness, and ruthlessness; he may even need more than a touch of cruelty. Those qualities alone will enable him to survive among the horrors, some of them occasioned by the enemy and others by his own orders, and to do, not once but as often as necessary, what can be done and has to be done. This is what William Shakespeare was aiming at when he wrote:

In peace there's nothing so becomes a man
As modest stillness and humility;
but when the blast of war blows in our ears,
then imitate the action of the tiger.
Stiffen the sinews, summon up the blood,
Disguise fair nature with hard-favored rage.
Then lend the eye a terrible aspect;
Let it pry through the portage of the head
Like the brass cannon; let the brow overwhelm
as fearfully as doth a galled rock
overhang and jutty his confounded base,
swilled with the wild and wasteful ocean.
Now set the teeth and stretch the nostril wide;
hold hard the breath, and bend up every spirit
to his full height!

The author is an Israeli professor, military historian and theorist.

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