

CENTRE OF GRAVITY

Application and Utility of the Concept in the Modern Art of War

One of the most delicate tasks modern strategists and military planners have is to define a centre of gravity for a stipulated strategic problem. The concept is described by Carl von Clausewitz and is emphasized as a vital tool in modern doctrines. After the strategic defeat in Vietnam in 1975, the US military revived the writings of von Clausewitz, and the centre of gravity concept became one of the cornerstones of strategic planning, not only in the US but also in NATO and other allied countries. There is an ongoing debate about the true meaning and application of the concept in the US,¹ but there is a lack of discussion about its utility in modern strategy. The purpose of this article is to problematize the centre of gravity concept as an introduction to a deeper study of its utility in the Modern Art of War.

The way we understand war in the western world today has its roots in the Napoleonic notion of war, together with the manner in which Carl von Clausewitz codified these events, and war in general, in his magnum opus *On War*. The Napoleonic way of conducting war was characterized by a divided approach to maintaining operational speed, rapid concentration with converging army corps towards a planned, decisive point and the utilization of surprise, aiming to win decisive battles. Tactical success on the battlefield was tightly connected to the task of imposing a desired political outcome by the use of strategy, i.e. the strategy utilized and transformed success on the battlefield for political purposes. Defeat of the enemy's main force should have a catalytic effect on the overall strategic situation and lead directly to the desired political outcome, which is the meaning of a decisive battle. This way of applying force has shaped the western military ideal of rapid decisive action and given rise to a perception of the decisive nature of military means. This perception can be exemplified by manoeuvre warfare-oriented concepts such as the German Blitzkrieg, the Russian Deep Attack and the American Air-Land Battle – all three aimed at winning a rapid trial of strength on the battlefield. The confrontations and conflicts that have appeared since 1945 have differed in many ways from this ideal, which is the main reason for examining the utility of the centre of gravity concept further.

As a starting point I would like to begin with an overview of von Clausewitz's theoretical approach to the centre of gravity concept. There are two main passages in *On War* about this: in book VI – Defence and book VIII – War plans. The first passage

appears in the chapter about "Defence of a Theatre of Operations". It is a clear-cut prescription for military success and is heavily influenced by the Napoleonic way of waging war. Von Clausewitz uses an analogy with mechanics to explain that a military blow is most effective where the *bulk* of enemy forces are situated. He writes:

A centre of gravity is always found where the mass is concentrated most densely. It presents the most effective target for a blow; furthermore the heaviest blow is that struck by the centre of gravity. The same holds true in war.²

This quotation illustrates the idea of a main battle and implies that the scale of military victory decides the sphere of influence on the outcome. In this part von Clausewitz measures success by numbers – the scale of victory relates to "*the size of the defeated force*". Numbers are a tactical way of measuring. He turns to the problem that an enemy force consists of many parts, one of which is usually more important to the overall effort than the others. This is a main force, the centre of gravity, which gives the other parts of the force "direction and movement". The criterion for determining this is the fighting power that each part possesses according to the strategic conditions. The importance of such a part depends on the cohesion of the force and its effort. We can see here that the military importance of a centre of gravity is influenced by political conditions. The homogeneity and unity of interest of a force decides the cohesion of its effort, which influences the importance of the centre of gravity in reality. Von Clausewitz uses the analogy of centre of gravity to illustrate the fact that a military blow should be directed to the point where enemy cohesion can most effectively be undermined. This deduction derives from the assumption that loss of its unity of command diminishes the enemy's overall strategic performance the most. He writes:

The fighting forces of each belligerent – whether a single state or an alliance of states – have a certain unity and therefore some cohesion. Where there is cohesion, the analogy of the centre of gravity can be applied. Thus, these forces will possess certain centres of gravity, which, by their movement and direction, govern the rest; and those centres of gravity will be found wherever the forces are most concentrated. But in war as in the world of inanimate matter the effect produced on a centre of gravity is determined and limited by the cohesion of the parts. In either case, a blow may well be stronger than the resistance requires, and in that case it may strike nothing but air, and so be a waste of energy.³

He underlines the difference in cohesion between commanding a force representing a single nation and commanding an allied force, which is heavily dependent on a unity of political interest. On the other hand, an allied force possesses the power of

a broader political interest, which today is of the utmost importance. One can easily imagine the constellation of states and forces in Europe at the beginning of the 19th century, with France on one side and the Allied Forces on the other, as an inspiration for this elaboration. The political character of war can be traced to the difficulties of unity and cohesion in coalition warfare. Von Clausewitz goes on:

There is a deciding difference between the cohesion of a *single* army, led into battle under the personal command of a *single* general, and that of an *allied force* extending over 250 or 500 miles, or even operating against different fronts. In the one, cohesion is at its strongest and unity at its closest. In the other, unity is remote, frequently found only in mutual political interests, and even then rather precarious and imperfect; cohesion between the parts will usually be very loose, and often completely fiction.⁴

Von Clausewitz writes about the close relationship between the centre of gravity and the genius of the commander. To distinguish a centre of gravity is a core strategic act in the art of war. He also illuminates the basic tactical problem of dispersing a force to establish territorial control versus keeping the striking power of a concentrated force. This is a minor problem in conventional war of today due to the potential of airpower and long-range precision firepower. Operation Iraqi Freedom 2003 demonstrated once more the devastating effect of conventional airpower on massed and *available* ground formations. A major tactical and operational concentration in numbers within a limited space has also become very dangerous when there is risk of nuclear escalation. This can be exemplified by the NATO planning to handle a potential Soviet armoured breakthrough in the West-German Fulda Gap with tactical nuclear weapons during the Cold War.

It is therefore a major act of strategic judgement to distinguish these centres of gravity in the enemy forces and to identify their spheres of effectiveness... Basically there are two conflicting interests: one, *possession of the country*, tends to disperse the fighting forces; the other, a stroke at the centre of gravity of the enemy's forces, tends, in some degree, to keep them concentrated.⁵

To distinguish a centre of gravity for the purpose of defending a theatre of operation, von Clausewitz makes a distinction between two elements – *the period of waiting* and *the decision*. The concept is only valid if there is a desire to gain a decision by battle on both sides. The centres of gravity and the operational theatres they create must become active agents in order to be valid. Von Clausewitz writes, "If one [side] drops the idea of decision the centres of gravity are neutralized..."⁶ Instead, control of the country will emerge as the most important issue. To summarize this passage, von

Clausewitz connects decision by major battle, concentrating on attacking the most important part of the enemy's fighting force, that which stimulates the power of cohesion, with the genius of the commander. To distinguish the centre of gravity is of the utmost importance in the art of war, but such a target is not always applicable. One precondition is a mutual desire for decision. The use of the centre of gravity concept today does not take this into account, which raises doubts about its utility in modern conflicts. Von Clausewitz stresses that this is not a new way of waging war but a logical explanation, an effort to codify military success in history. It is important to remember that *On War* is not a fully edited piece. The year 1827 is pinpointed as the time when von Clausewitz realized that his analysis of war dealt too much with 'absolute war', in other words the major wars of the Napoleon era and not the more usual limited ones. The emperor was both the political and military leader in one and the same person, and the framework his offensive war of conquest is not applicable to all wars. Through this discovery, von Clausewitz gained an insight into the importance of the political nature of war and the primacy of policy. Policy limits the conduct of war in reality. War is a function of policy.⁷ This leads to the statement of the dual nature of war, limited versus unlimited wars, depending on political purpose, and the observation that war is a true chameleon that keeps its basic nature although every concrete manifestation has a character of its own. He started to rewrite his creation, but failed to complete the work before his death in 1831. This means that *On War* has a mass of contradictions in it and is written while in two frames of mind.⁸ Beatrice Heuser uses a distinction between *Clausewitz the idealist* and *Clausewitz the realist*. The new realist frame of mind influences three books out of the eight in the work, the rewritten Book I and the last two, Books VII and VIII. That means that the first passage, the one just examined, about the centre of gravity, is written in the old idealist frame of mind. How, then, did he define the concept in his new realist frame of mind?

To put the passage in Book VIII, about War Planning, into context, I would first like to summarize von Clausewitz's conception of the nature of war, because it is important to bear these theoretical themes in mind when analysing this part. In Book I he stipulates "*War is thus an act of force to compel our enemy to do our will.*"⁹ War is a conscious political act to enforce a given policy. In this sense the *function* of war is to render the enemy powerless to resist our demands. The *aim* of warfare is to overcome or disarm the enemy or prevent the danger posed by it.¹⁰ As a *social event*, von Clausewitz stipulates that "*War is an act of human intercourse... War is a clash between major interests...*", which can be compared with commerce in the human sense.¹¹ The *core activity* of war is *fighting*, and "*Fighting, in turn, is a trial of physical and moral forces through the medium of the latter.*"¹² Von Clausewitz emphasizes the inherent power of escalation in the activity of fighting, which influences the conduct of war. Further-

more he characterizes the phenomenon of war as a *true chameleon*, which adapts to the conditions in every given case. The *dynamics of war* is composed of a *paradoxical trinity* of primordial violence, hatred and enmity. The first should be regarded as a blind natural force, the second as a play of chance and probability and the third as an act of subordination to political primacy and purpose, "which makes it subject to reason alone." These tendencies correlate with a second trinity composed of the passion of the people that fill the fighting spirit with energy, the creative skill of the commander to implement force according to the circumstances and the reason of the government to use force as an instrument.¹³ The second trinity can be used to understand civil-military relations and the important soft parts of fighting power. These themes help us to understand war in the manner of von Clausewitz.

The passage about center of gravity in Book VIII is located in the chapter "Closer Definition of the Military Objective: The Defeat of the Enemy". The Military (strategic) Objective is a strategic interpretation of the political object and an intellectual way of transforming the object into operational practice. The objectives must be attainable, within operational reach and understood by the military commander and other agencies working to fulfil them. Von Clausewitz defines the military objective as 'the defeat of enemy'.¹⁴ He argues that the meaning of defeat can vary depending on the circumstances. It is not necessary every time to conquer and occupy enemy territory, which relates to the dual nature of war, depending on the political purpose. He refers to the campaigns of Napoleon and draws the conclusion "...that success is not due simply to general causes. Particular factors can often be decisive – details only known to those who were on the spot."¹⁵ From this empirical evidence he theorizes about the concept of centre of gravity in his realist frame of mind. The meaning of the concept in Book VIII is that these *particular factors* will bring strategic success. The centre of gravity is the strategic factor that will have a catalytic effect on the outcome, when it is influenced in the proper way according to the circumstances. This places the concept at the core of strategic calculation, together with the end and means. Von Clausewitz writes:

...one must keep the characteristics of both belligerents in mind. Out of these characteristics a certain centre of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed. Small things always depend on great ones, unimportant on important, accidentals on essentials. This must guide our approach. For Alexander, Gustavus Adolphus, Charles XII and Frederick the Great, the centre of gravity was their army. If the army had been destroyed, they would all have gone down in history as failures. In countries subject to domestic strife, the centre of gravity is generally the capital. In small countries that rely on large ones, it is usually the army of their protector. Among alliances, it lies in the community of interest, and in popular uprisings it is the personalities of the leaders and public opinion.¹⁶

Here we can see von Clausewitz starting to say that strategic calculation needs a holistic approach – to take the whole into account and distinguish the particular that will be decisive. His first example of a particular decisive factor is the destruction of the main fighting force, along the same line as in Book VI, which indeed is von Clausewitz' prescription for shaping success. But he also goes on with fresh ideas and develops the concept further on the lines of his new frame of mind, influenced by the political character of war. In cases of internal strife the decisive spot is the capital with its economic and public institutions together with a high-density population – the heart and brain of the nation. In uprisings the decisive factor is the personality of the leader, who can influence and guide the people, although it can also be the support of the people for the cause. Without public support an uprising loses its power, which can be compared to Mao's ideas of revolutionary warfare. Von Clausewitz also repeats his statement that a centre of gravity in fighting an alliance is found in the alliance's community of interests. Strategy should exploit these decisive factors and concentrate the war effort on them and in that way gain a catalytic effect on the outcome instead of shattering the force. When the enemy loses his mental equilibrium and physical balance, the opportunity will arise to exploit the situation further and wrestle the enemy to the ground. The main weight of one's own force should be directed against the enemy's, to use occasional favourable circumstances to the full by destroying the centre, the main part of the enemy's power of resistance.¹⁷

It is against these [centres of gravity] that our energies should be directed. If the enemy is thrown off balance, he must not be given time to recover. Blow after blow must be aimed in the same direction: the victor, in other words, must strike with all his strength and not just against a fraction of the enemy's.¹⁸

This illuminates the clear relationship between the idea of foreseeing the decisive factor in the conception of a military plan and operational concentration of effort. In a theoretical sense, the sole purpose of a centre of gravity is to provide the possibility for applying the principle of concentration of force – a decisive point for the war effort to converge on. Von Clausewitz writes at one point "Still, no matter what the central feature of the enemy's power may be..."¹⁹ This illustrates that he has expanded the character of what can be a decisive factor in a strategic estimate. He is open to wider suggestions, depending on the circumstances. Though the application of force is still guided by his idealist frame of mind, the best way is to deliver a decisive blow at the centre of the enemy's strength. The basic recipe remains defeat and destruction of the enemy's fighting forces, seizure of the enemy's capital or delivery of an effective blow against his principal ally. Von Clausewitz opens up a broader view of decisive factors in the strategic estimate, but remains an idealist in his operational prescription for the

use of force, perhaps because of his admiration of Napoleon. Von Clausewitz tried to generalize his strategic experience and reflections into a general theory of war, but did he overstretch the practical limits of the centre of gravity concept when he transformed his views from his first frame of mind to his second? In the first, idealist frame of mind, characterized by a military decision in 'absolute war', it is easy to follow the logic of a major victory producing a major impact on the outcome. This follows the view that the essence of war is fighting, which is a "*trial of physical and moral forces*". On the other hand, in his second, realist frame of mind, that of political primacy, one can have doubts about the realism and utility of reducing a complex strategic situation to a single centre of gravity. There is a tension here between tangible and non-tangible factors. The character is more a clash of wills than a collision of strength. From a theoretical point of view one must reflect and think carefully how the centre of gravity concept may be valid in modern strategic practice. The idea of reducing the problem is good, but putting the analysis into operation is a challenge. Perhaps the concept is most valid in the idealist frame of mind and not the realist one.

The realist perspective is shaped by the primacy of policy to give logic to force. War has its own grammar, but no logic of its own.²⁰ There is a basic relationship in strategy between ends, ways and means. Policy creates logic by stipulating a desired end – a political objective. Strategy, in turn, transforms the end into attainable objectives and animates the available means to form a 'strategic path consisting of integrated lines of operations for the purpose of creating force that supports the political object. Von Clausewitz writes, "The main lines along which military events progress, and to which they are restricted, are political lines that continue throughout the war into the subsequent peace."²¹ Militarizing the lines of operation is a typical phenomenon among western military in planning for war and one which emphasizes fighting for the purpose of winning battles, a belief in the decisive nature of military means.²² The objectives also tend to be more military than political in their nature, which can limit their effective range in the real world. Elliot Cohen stresses that the most effective wartime conduct of operations often occurs when in-depth civilian-military relations exist.²³ In a *phenomenal sense* it is well known today that tactical success doesn't automatically lead to strategic success, which was the American lesson of the Vietnam War, for example. This is very well addressed by the conversation between a North Vietnamese Colonel and an American one in Saigon in 1975; " 'You know you never defeated us on the battlefield', said the American colonel –. The North Vietnamese colonel pondered this remark a moment – 'That may be so,' he replied 'but it is also irrelevant.' "²⁴ The American tactical success on the battlefield was not transformed into a strategic effect by means of an appropriate strategy. The battles were not as decisive as von Clausewitz's idealist perspective would have prescribed.

Instead, the other side had a superior strategy and the war was not decided by battles but by the power of durability. Colin S. Gray, writing about the difficulties of strategy,²⁵ defines strategy as “the use that is made of force and the threat of force for the ends of policy.”²⁶ A way of describing the effectiveness of a strategy is the concept of *strategic effect* in relation to *strategic performance*. Von Clausewitz is very clear on the distinction between action and the effect of action, and Gray develops this relationship as “Strategic effect is the impact of strategic performance upon the course of events.”²⁷ The strategic effect achieved by the US in Vietnam between 1965 and 1973, for example, depended on its rather poor strategic performance. The American strategy failed to appreciate the true deciding conditions and exploit them in the proper way. This also illustrates the fact that force is a relationship and not a possession.²⁸ It is the way in which the strategy will transform the available means, and not only military ones, to force in relation to the end. Strategy is complex, with many interacting dimensions. And it has no single master dimension; there exists no silver bullet in strategy. Instead, Gray describes 17 interacting dimensions that shape strategic performance. These are divided into three main groups; (i) *People and politics* – people, society, culture, politics, ethics, (ii) *Preparations for war* – economics and logistics, organization, military administration, information and intelligence, strategic theory and doctrine, technology, (iii) *War proper* – military operations, command, geography, friction – chance – and uncertainty, the adversary, and finally time. These dimensions will in one way or another influence and shape the strategic performance. This will make the application of the centre of gravity concept a challenging undertaking. The complex interaction between these numerous conditions turns strategic practice into an art – the art of war – an art of creating a working force of pressure and resistance from the blurred relationships of the strategic conditions. Von Clausewitz focused on the conditions of the *enemy's* centres of power, but the factors influencing today's strategic environment are broader, as the Vietnam War demonstrated. Von Clausewitz's application of force was a reflection of his time, and the same goes for his examples of centres of gravity, though they deserve our attention.

I would like to present a comparison of the application of the centre of gravity concept to three post-Cold War campaigns – Desert Storm in Kuwait, 1991, Allied Force in Kosovo, 1999, and Operation Iraqi Freedom, 2003. All three campaigns were dominated by the remaining superpower, the USA.

Campaign	Principal Strategic Objective	Centre of gravity	Function of Force
Operation Desert Storm Kuwait 1991	<ol style="list-style-type: none"> 1. To seek the complete withdrawal of Iraqi forces from Kuwait 2. To liberate and secure Kuwait 3. If necessary, to conduct operations to destroy Iraqi armed forces. 4. To promote security and stability in the Arabia/Persian Gulf Region.²⁹ 	<p>Strategic CoG Saddam Hussein</p> <p>Operational CoG Republican Guard</p>	To coerce Saddam II to withdraw his troops from Kuwait.
Operation Allied Force Kosovo 1999	<ol style="list-style-type: none"> 1. To demonstrate the seriousness of NATO's opposition to aggression and its support for peace. 2. To deter Serbian attacks and escalation in Kosovo. 3. To reduce Serbia's military capabilities for waging war against Kosovo.³⁰ 	<p>Strategic CoG Slobodan Milosevic</p> <p>Operational CoG Serbian 3. Army forces fielded in Kosovo</p>	To coerce Slobodan Milosevic to give up aggression in Kosovo
Operation Iraqi Freedom Iraq 2003	<ol style="list-style-type: none"> 1. To remove the regime of Saddam Hussein 2. To neutralize Iraqi military capacity and the potential of its WMD.³¹ 	<p>Franks matrix of coalition key capabilities such as operational lines and slices such as Iraqi key capabilities.³²</p> <p>Strategic CoG Baghdad as the centre of power for Saddam II</p> <p>Operational CoG Republican Guard</p>	To destroy the power and influence of Saddam Hussein

Table 1 Comparison of three modern conflicts

We can see from the above comparison certain similarities in the chosen centres of gravity – regardless of strategic objectives or strategic context. The decisive factors are the leader or the capital, together with the main fighting force, on the same lines as exemplified by von Clausewitz in 1832. The selection of a centre of gravity in each of these three cases becomes almost trivial and the question is whether this was in reality of any use at all. The centres of gravity are also military in nature, and the question is how they correspond to the political objects and the strategic objectives. I think

the comparison illustrates a stereotypic application of the concept in modern strategic practise. This raises the question of whether the concept helps to shape strategic performance and transform this into a positive strategic effect in the end. Von Clausewitz emphasized how important it was for a statesman and a commander to understand that every war is different and to accept the true conditions in order to be successful in the conduct of war. Dogmatic truth cannot make up for a skilful application of force. War as a phenomenon is larger than a trial of strength and must be conducted with a wider approach. Generalship is first and foremost about gaining the ultimate objective and only secondarily about winning battles. It is easy to simplify strategic calculation to an equation of ends and means, but it is important not to forget to appreciate the kind of war that will spring up out of the specific conditions, because this will influence the function of force in society. Von Clausewitz writes:

The first, the supreme, the most far-reaching act of judgment that the statesman and commander have to make is to establish by that test the kind of war in which they are embarking; neither mistaking it for, nor trying to turn it into, something that is alien to its nature.³³

From this theoretical overview we can see that the function of a centre of gravity in the sense of von Clausewitz is closely related to the application of force – the way of waging war – in von Clausewitz’s case the Napoleon way of waging war. The ongoing debate about the definition of the concept in the US is also a reflection on the American way of applying force. Russell Weighly has characterized this as reliance on overwhelming force, attrition, a technology centred approach and a desire for military victory leading to unconditional surrender.³⁴ The definition of centre of gravity in the American case reflects the American strategic culture by emphasizing the *destroy* and *neutralize* function. We can see clear similarities to the von Clausewitz approach of delivering decisive blows at the centre of enemy power in US Joint Doctrine:

Joint doctrine defines centers of gravity as: “Those characteristics, capabilities, or localities from which a military force derives its freedom of action, physical strength, or will to fight.”... The essence of operational art lies in being able to mass effects against the enemy’s sources of power in order to destroy or neutralize them. In theory, destruction or neutralization of enemy centers of gravity is the most direct path to victory.³⁵

To sum up the perspective of war as an art, I think it is highly questionable to use the centre of gravity concept in a mechanical or dogmatic way. Modern war as a social, political, military and economic phenomenon is far too complex. It is also questionable whether it is the task of a strategist to reduce a strategic problem to a single, if

possible, decisive factor in advance. Instead, it is more likely that there is a confluence of deciding events and factors which makes up the strategic performance and decides the strategic effect. The obvious question is whether application of the concept has an utility in the modern art of war, or whether something needs to be changed in future strategic practise.

The character of war changes and every era in history has its own form of war, depending on prevailing conditions and the spirit of the age, among other things. The history of warfare describes a form of evolution. The logic of war remains, but the grammar changes, according to von Clausewitz:

We can thus only say that the aims a belligerent adopts, and the resources he employs, must be governed by the particular characteristics of his own position; but they will also conform to the spirit of the age and to its general character. Finally, they must always be governed by the general conclusions to be drawn from the nature of war itself.³⁶

The application of the concept of centre of gravity is von Clausewitz's deduction as to what has been successful warfare in the course of history, though he was probably most influenced by how Napoleon waged war. This has shaped the predominant paradigm of 'interstate industrial war', as a model of the western understanding of war, according to the British General Sir Rupert Smith, who reflected that the pattern of the conflicts that have occurred since 1945 differs in many ways from this paradigm. He argues that a new paradigm of conflict has emerged step by step since the Second World War, and that the change has affected the application and utility of force in the art of war.³⁷ Smith examines the fact that modern industrial armed forces have time after time gained tactical success but failed to achieve strategic success – in French Indochina, Algeria, Vietnam, Afghanistan and Lebanon, for example. The strategic performance has not had the desired impact upon the courses of events, and consequently it has not delivered the decisive strategic effect. Literally, David has defeated Goliath by possessing a superior strategy. Smith stipulates the new paradigm as 'War amongst the people' with its roots in guerrilla warfare and revolutionary war. He defines it as a dichotomy relative to interstate industrial war, and stresses that it is not asymmetrical warfare in the American sense. The aim of warfare has always been to create a positive and decisive asymmetrical situation. To view a different strategic behaviour as asymmetric relative to one's own does not help to shape a good strategic performance. A comparison may be made here between the two paradigms recognized by Smith;

War amongst the people is different: it is the reality in which the people in the streets and houses and fields – all the people anywhere – are the battlefield. Military engagements can take place anywhere: in the presence of civilians, against civilians,

in defence of civilians. Civilians are the targets, objectives to be won, as much as an opposing force.

	Interstate Industrial War	War Amongst the People
Purpose	To achieve the desired political outcome by the destruction of the opponent's ability to resist. Hard, clear-cut objectives such as to seize or defend territory.	Establishing conditions for decision by other means. Soft, often vague, objectives
Sequence of hostilities / escalation	Peace – crisis – war – resolution – peace	No predefined sequence. Continues criss-crossing between confrontation and conflict
Object	'To destroy the opponent's army and prevent the government from making war and protecting the people. To break the trinity of government, armed forces and people.	'To constantly and expensively undermine the stronger army and thereby break the will of the government and people to make war. 'To wear down the will to fight by making the price for commitment to high for a limited end.
Character of the act of force	Mainly a trial of strength leading to a loss of will to resist.	Military force used only in tactical acts. One side, at least, will avoid major battles. Instead time and duration are in focus as strategic weapons.

Table 2 Comparison of the characteristics of two paradigms of war – the predominant 'interstate industrial war' and the emerging 'war amongst the people'.³⁸

Von Clausewitz proposes three broad, general military objectives – the armed forces, the country and the enemy's will.³⁹ The political objective and available means will decide how these are mixed and defined in each specific case. The purpose of war in the interstate industrial war paradigm is to achieve the desired political outcome by destruction of the opponent's ability to resist, which places the armed forces in focus. Smith instead emphasizes the role of people in modern conflicts. The isolated battlefield no longer exists, instead operations take place among people for people and for the power of people's opinions. Here we can see the importance of the media as a means of influence. He also stresses that the parties to modern conflicts are mostly non-state ones, comprising multinational groupings of some form ranged against a non-state actor or actors.

As the concept of 'war amongst the people' has sprung up out of revolutionary and guerrilla warfare, one can identify a general strategy consisting of at least three lines of operation. These are, according to Smith, (i) *Propaganda of the deed*, aiming to make

the cause significant and to force the government and the people to pay attention, (ii) a *Strategy of provocation*, aiming to turn the effect of the strength and weight of the stronger actor back against himself, like the technique in judo, making the stronger actor look like a violent and brutal oppressor in the eye of the observer - leading to a loss of the moral high ground. (iii) *Erosion of the capability for government* – targeting both the means and will to govern, along with gaining the acceptance of the people. The strategic objective is to alter the will of the people and not the will of the opponent, which differs from the opinion of von Clausewitz. It is easy to recognize the outlines of *the strategy for a long war*, as carried out by the IRA in Northern Ireland, in this description. One can criticize Smith for overstating the changes of paradigm,⁴⁰ but modern strategic experience suggests that there are some really good points in this work. If the paradigm of warfare has changed, it is plausible to think that this will also influence the application and utility of the centre of gravity concept.

I would like to mention some examples of doubts. According to von Clausewitz, in Book VI, there must be a mutual desire for a decision to be reached by battle in order to make the centre of gravity an active agent and a valid concept. This is not the case in 'war amongst the people' - in fact the opposite is true. It is still valid to target the unity of political interest, however, because the strategy stipulated above aims to break the enemy's cohesion by force and make room for real strategic influence on people's opinions and for manoeuvres to a position of political power. Furthermore, the idea of operating in a clandestine cell organization is to avoid the possibility of the stronger party distinguishing an operational centre of gravity that can be destroyed. This fact is also recognized by von Clausewitz: "A general uprising... should be nebulous and elusive; its resistance should never materialize as a concrete body, otherwise the enemy can direct sufficient force at its core".⁴¹ The meaning of von Clausewitz' centre of gravity approach, that "by constantly seeking out the centre of his power, by daring all to win all, one will really defeat the enemy,"⁴² may, in other words, work against its purpose and in favour of the opponent's strategy of provocation. That means that the original purpose of the centre of gravity, as a tool for concentrating military power in time and space on a decisive battle is not valid under these circumstances. One precondition for the functioning of the centre of gravity concept is some sort of unity, in order to achieve a domino effect by destroying the centre of enemy resistance, leading to a decisive impact on the other parts of the enemy forces. A loose clandestine network of the modern kind, without this unity, challenges strategists to find new ways of achieving a domino effect on the adversary's fighting forces and gaining a catalytic effect on the outcome at the strategic level of war. Von Clausewitz's idealist application of the notion of centre of gravity is guided by the idea of decision by battle – "defeat of the enemy consists of overcoming the resistance concentrated

in his centre of gravity"⁴³ – in other words, a major blow, and not seeking or creating a decision off the battlefield. Von Clausewitz named *public opinion* as an example of a possible centre of gravity in popular uprisings in his realist frame of mind, and he also devoted a short chapter to "The People in Arms" as a part of Book VI – Defense. Here he describes small-scale warfare, guerrilla warfare, as an outgrowth from 'the fermentation process known as war', caused by the element of violence in war.⁴⁴ Werner Hahlweg points out that von Clausewitz incorporated 'the people's war' into military theory and underlines the attention that modern advocates of guerrilla warfare, such as Che Guevara and Mao Tse-Tung, have paid to this.⁴⁵ The question occurs as to what merit the centre of gravity concept has in a 'war amongst the people' when viewed in his realist frame of mind.

Modern strategy making can be viewed as a *process* of interaction involving the government and commander with the armed forces and the people. This second trinity of von Clausewitz influences the dynamics of war and serves as a basic model for understanding civil-military relations. From this point of view the modern strategy maker is in the middle, trying to put political objects into operations. To correlate the end and the means in a strategic way, one needs a political direction and somehow a fixed end, otherwise it is not possible to identify the decisive factors that will have a major impact on the outcome. In other words - one needs to think carefully before defining a centre of gravity if the circumstances are very fluid. If the political authority does not know what it wants to achieve, there is no idea there to be put into practice. It is difficult to find a proper catalyst for progress if you don't know where you are heading. Henry Kissinger touches upon this problem: "Rare is the statesman who at the beginning of a war has so clear a perception of its political objective; rarer still is a war fought to lay the basis for moderation in its aftermath."⁴⁶ Smith also points to the existence of vague political guidance.⁴⁷ The strategic objectives of today are not clear-cut any more. They are rarely a matter of seizing or defending a territory, but instead they are connected more with public safety, which demands criteria for success. In multinational constellations, objectives are products of political bargaining, which soak out clarity of thought for the purpose of keeping the alliance united, as can be exemplified by the NATO operations in Kosovo in 1999. The former NATO supreme commander (SACEUR), General Wesley Clark, described the ambivalence of the NATO and US political leadership when attempting to stipulate a desired political end to the conflict in Kosovo in 1999: "I had no doubts about what we had to do on the military side, but a number of us had begun to ask in private about the political goals of the campaign."⁴⁸ One must ask how a situation can be militarily clear if the political purpose is unclear. It must be very difficult to distinguish a centre of gravity, the core of the strategic problem, without knowing the desired function of

the use of force. Clark also describes the difficulties of being a strategic commander without a clear strategy: "However, operating without a clear and agreed strategy or a strong unified Washington made leadership feel like physical conditioning using some kind of 'resistance training.' It was like running in the loose sand on a beach."⁴⁹ The end clearly corresponds to a desired *function* of force in the strategic process. Rupert Smith summarizes four major functions of modern force in the light of his own experience. These are to ameliorate, contain, deter or coerce and destroy.⁵⁰ The first two are usually without a clear aim, according to Smith, but the last two must be nested in a working strategy, which requires a desired political outcome. Otherwise it is not possible to stipulate strategic objectives, and the force loses its logical meaning as a political instrument. It doesn't matter whether one has physical superiority of means if the mental side of the strategy suffers, which in the end will affect the moral side – the will to endure and win.

An illustration of my view of strategic calculations is provided in Table 3 below, which tries to show that it is necessary to adopt a broad view. Many military estimates of today focus explicitly on end and means, and not on an understanding of force, the function of force, how war is going to work in a particular context and what the consequences will be. When the end-state is described, the analysis of the mission starts with its Intelligence Preparation of the *Battle-space*. The main purpose is to find the staging areas and the avenues of approach for tanks, fighter-bombers and frigates. Instead more focus should be placed on understanding the context and how force can have utility. From my point of view the logical sequence of a strategic estimate is: (i) understanding of the prevailing conditions, in order to formulate (ii) a desirable political end that shapes (v) an understanding of the kind of war that is involved. (iii) Strategic objectives are defined in relation to the political end (ii) and the desired function of force (vi). When the logic and an understanding of that logic have been created, the creation of a grammar proceeds with an appreciation of the means (iv) available for creating force in relation to the end and the prevailing conditions. The synthesis will form integrated lines of operation (vii) which will help the strategist to understand the character of the war and its limits (viii). The distinguishing of decisive factors, a confluence of events or perhaps a centre of gravity, is an iterative process and cannot be viewed as a static stipulation.

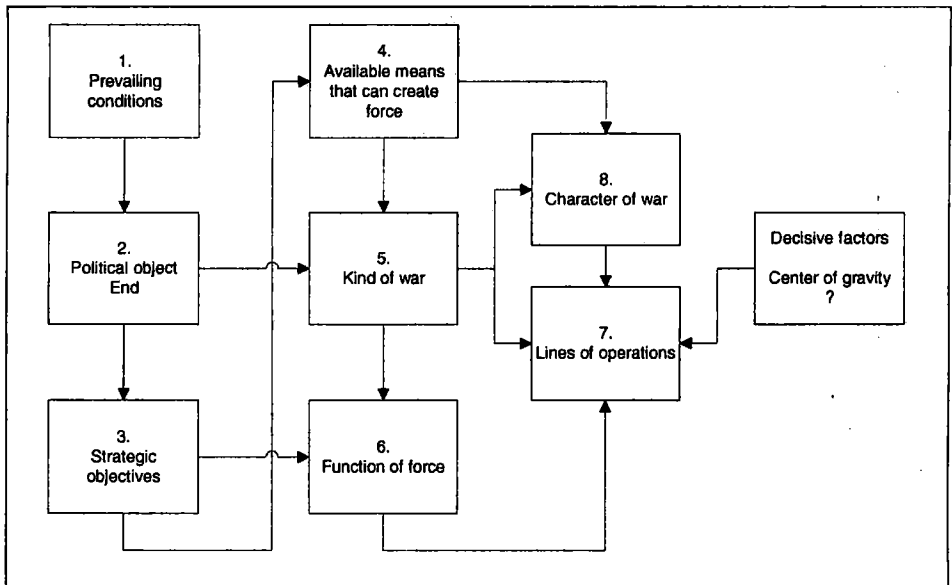


Table 3 The author's view of strategic calculation

I would like to conclude this short overview of the centre of gravity concept with this model of strategic calculation. The original idea of the centre of gravity concept was to provide a focal point for the kind of concentration in time and space that is aimed at winning a decisive battle, and I have tried to problematize this idea in the context of modern strategy. There is good reason to have doubts regarding the application and utility of the centre of gravity concept in the post-Cold War era. The original idea of the concept is sound and it is reasonable to examine the subject further for the purpose of learning more about modern strategy. The centre of gravity concept is at the core of practical strategy, which makes it interesting and important.

This essay has provided an overview of the centre of gravity concept - its origins, purpose, application and utility in the modern art of war. I have not tried to find any answers, but have just set out to expose a set of questions about this debated concept. The intention is to go on with a deeper, more thorough study of the application and utility of the concept in the modern art of war in the form of a dissertation in military science. I would therefore like to sum up this essay with five thoughts formulated as questions: (i) Did von Clausewitz overstretch the practical reach of the concept when he transformed it from his idealist frame of mind to his realist one? (ii) What impact has the lack of political guidance on the utility and application of the concept in the modern strategic process? (iii) How does the desired function of force influence the utility of the concept? (iv) How does the concept cope with the emerging new para-

digm of conflict? (v) Is the stereotypic application of the concept a result of over-reliance on doctrinal idealistic truth, instead of trusting the genius of the commander to appreciate the prevailing conditions in a particular situation?

The centre of gravity concept is indeed challenging and interesting, but what is its utility in the modern art of war?

Notes

- 1 See Antulio J. Echevarra, 'Center of Gravity Recommendations for Joint Doctrine', (*Joint Forces Quarterly*, issue 35), pp. 10–17, also Joseph L. Strange et al., 'Center of Gravity What Clausewitz Really Meant', (*Joint Forces Quarterly*, issue 35), pp. 20–27, and Milan Vego, 'Center of Gravity' (*Military Review*, March – April 2000), pp. 23–29.
- 2 Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976; reprint, 1989), p. 485. Unless otherwise specified, all references in this essay are to this edition.
- 3 von Clausewitz, pp. 485–86.
- 4 von Clausewitz, p. 486 (italics in the original).
- 5 von Clausewitz, p. 486.
- 6 von Clausewitz, p. 488.
- 7 This assumption is questioned by Martin van Creveld, *The Transformation of War* (New York: Free Press, 1991), and John Keegan, *A History of Warfare* (London, Hutchinson, 1993), in their dissent from von Clausewitz.
- 8 See Beatrice Heuser, *Reading Clausewitz* (London, Pimlico, 2002), pp. 24–43.
- 9 von Clausewitz, p. 75 (italics in the original).
- 10 von Clausewitz, p. 77.
- 11 von Clausewitz, p. 149.
- 12 von Clausewitz, p. 127 (my italics).
- 13 von Clausewitz, p. 89.
- 14 von Clausewitz, p. 595.
- 15 von Clausewitz, p. 595.
- 16 von Clausewitz, pp. 595–596.
- 17 von Clausewitz, p. 75.
- 18 von Clausewitz, p. 596.
- 19 von Clausewitz, p. 596.
- 20 von Clausewitz, p. 605.
- 21 von Clausewitz, p. 605.
- 22 Operation Iraqi Freedom was operationalized based on military objectives. See Andrew W. Terrill et al., *U.S. Military Operations in Iraq: Planning, Combat and Occupation* (Carlisle, Strategic Studies Institute, 2006), p. 23 See also Pierre Lassard, 'Campaign Design for Winning the War...and the Peace', (*Parameters*, summer 2005), pp. 36–50, for a discussion of militarizing campaign design.
- 23 In Terrill et al., p. 23.
- 24 Harry G. Summers Jr, *On Strategy: A Critical Analysis of the Vietnam War* (Novato, Presidio Press, 1982), p. 1.
- 25 Colin S. Gray, 'Why Strategy is difficult', (*Joint Forces Quarterly*, Summer 1999), pp. 6–12.
- 26 Colin S. Gray, *Modern Strategy*, (Oxford, Oxford University Press, 1999), p. 17.
- 27 Gray, *Modern Strategy*, p. 19.
- 28 Michael Foucault.
- 29 Norman Schwarzkopf, *It doesn't take a hero* (London, Transworld Publishers Ltd, 1992), p. 386.
- 30 According to President Clinton, White House Office of the Press Secretary, "Statement by the President on Kosovo" (March 24, 1999).

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- ³¹ Franks, pp. 330–331.
- ³² Franks, pp. 339–40.
- ³³ von Clausewitz, *On War*, p. 88.
- ³⁴ Russell F. Weighley, *The American Way of War: A History of United States Military Strategy and Policy* (Bloomington: Indiana University Press, 1973).
- ³⁵ Department of Defence – Joint Chiefs of Staff, *Joint Doctrine Encyclopaedia* (1997), pp. 84–85.
- ³⁶ von Clausewitz, p. 594.
- ³⁷ Rupert Smith, *The Utility of Force: The Art of War in the Modern World* (London, Allen Lane, 2005).
- ³⁸ Smith, pp. 267–305.
- ³⁹ von Clausewitz, p. 90–91.
- ⁴⁰ See, for example, Lawrence D. Freedman, Military, Scientific, and Technological (*Foreign Affairs*, March/April 2006), [<http://www.foreignaffairs.org/20060301fabook85230/general-sir-rupert-smith/the-utility-of-force-the-art-of-war-in-the-modern-world.html>] 2006-08-21.
- ⁴¹ von Clausewitz, p. 481.
- ⁴² von Clausewitz, p. 596.
- ⁴³ von Clausewitz, p. 596.
- ⁴⁴ von Clausewitz, pp. 479–483.
- ⁴⁵ Werner Hahlweg, 'Clausewitz and Guerrilla Warfare' published in Michael I. Handel, *Clausewitz and Modern Strategy*, (Oxon, Frank Cass and Company Limited, 1986 reprint 2004), pp. 125–133.
- ⁴⁶ Henry Kissinger, *Years of Upheaval* (London, George Weidenfeld & Nicolson Ltd, 1982), p. 460.
- ⁴⁷ Smith, pp. 306–331.
- ⁴⁸ Wesley K. Clark, *Waging Modern War* (New York, Public Affairs, 2001 reprint paperback ed. 2002), p. 208.
- ⁴⁹ Ibid.
- ⁵⁰ Smith, pp. 320–321.