

Planning versus Chaos in Clausewitz's On War

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ABSTRACT Clausewitz laid great emphasis on the planned construction of war, but this idea has received little attention from his commentators, who generally attach far greater importance to what he said about the chaotic elements of war, in particular its interactive nature and the friction inseparable from its conduct. This article gives long-overdue recognition to planning as a dominant theme of *On War*. The essential point Clausewitz makes concerning interaction is not that the enemy's responses are bound to disrupt our plans, but that our plans must aim to predict and incorporate his responses. Clausewitz acknowledges that friction creates enormous difficulties for the realization of any plan, but it is precisely in respect of this challenge that he develops the concept of military genius, whose capabilities are seen above all as the executive arm of planning.

KEY WORDS: Clausewitz, planning, chaos

Did Clausewitz regard war planning as a contradiction in terms? His description of war as 'a continuous interaction of opposites' (p.136)¹ in which 'my opponent...dictates to me as much as I dictate to him' (p.77) seems to imply that neither side could hope to conduct its operations in accordance with a preconceived plan. Nor are the enemy's countermeasures seen as the only hindrance to the realization of a plan: there is also the problem of 'friction', the innumerable slight malfunctions and mishaps which 'combine to lower the general level of performance, so that one always falls far short of the intended goal' (p.119). How long could any plan survive in such a doubly resistant medium? According to Beatrice Heuser, Clausewitz 'wrote that no war plan outlasts the first encounter with the enemy, a view that was echoed by Moltke'. That is indeed a well-known opinion of Field Marshal

¹All page numbers given in my text refer to Carl von Clausewitz, On War, ed. and trans. Michael Howard and Peter Paret (Princeton, Princeton UP 1976).

²Beatrice Heuser, Reading Clausewitz (London: Pimlico 2002), 89.

Count Helmuth von Moltke's,³ but it is not a quotation from Clausewitz. Presumably Heuser means to say that Clausewitz's thoughts on friction and interaction entail precisely what Moltke summed up in his famous axiom, and there is on the face of it an argument to be made for this point of view.

But in the last analysis there is a better argument to be made for the opposite point of view. I want to show that planning occupies a central place in the Clausewitzian scheme of things, while friction and interaction are not treated as a twofold negation of planning, but simply as problems that have to be solved when a plan is formulated and acted upon. The idea that Clausewitz conceived of war as essentially unpredictable and uncontrollable derives from an exaggeration of what he said about those disruptive factors and a corresponding neglect of what he said about the cohesive influence of planning. Let us begin by outlining his advice on the planned construction of war, and then see whether that programme stands up against his own account of the chaotic tendencies in war.

Reviewing On War as work in progress in July 1827, Clausewitz indicated that 'Book Eight, "War Plans", will deal with the organization of a war as a whole' (p.69). In the introduction to Book Eight he says that its subject matter is 'warfare as a whole', which he directly equates with 'the planning of a war and of a campaign' (p.577). We have clearly reached the culmination envisaged right at the start of the work, where Clausewitz explains that he will 'consider first the various elements of the subject, next its various parts or sections, and finally the whole in its internal structure' (p.75) – and this integrative climax stands under the rubric of planning. The same development is adumbrated in the first chapter of Book Three when Clausewitz states that 'in our exposition of strategy we shall...proceed from the simple to the complex, and conclude with the unifying structure of the entire military activity – that is, with [the war plan and] the plan of campaign' (p.180). But what did Clausewitz understand by a war plan?

³The context is Moltke's essay of 1871 'Ueber Strategie', where he writes: 'The material and moral consequences of every major battle are so far-reaching that they usually bring about a completely altered situation, a new basis for the adoption of new measures. One cannot be at all sure that any operational plan will survive the first encounter with the main body of the enemy. Only a layman could suppose that the development of a campaign represents the strict application of a prior concept that has been worked out in every detail and followed through to the very end.' (Helmuth von Moltke, *Militärische Werke*, ed. Großer Generalstab, Abteilung für Kriegsgeschichte I, Vol. II, 2, *Moltkes taktischstrategische Aufsätze aus den Jahren 1857 bis 1871* (Berlin: Mittler 1900), 291–2).

⁴The words in square brackets are supplied from the original German, which reads 'Kriegs- und Feldzugsplan'; see Carl von Clausewitz, *Vom Kriege*, 17th edition, ed. Werner Hahlweg (Bonn: Ferd. Dümmlers Verlag 1966), 248.

What form should it take if it is to provide 'the unifying structure of the entire military activity'? At the beginning of Book Three he says:

The strategist must...define an aim for the entire operational side of the war... In other words, he will draft the plan of the war, and the aim will determine the series of actions intended to achieve it: he will, in fact, shape the individual campaigns and, within these, decide on the individual engagements. (p.177)

This passage calls for a highly integrated scheme outlining the course of the war from start to finish. In Book Eight we find a similar insistence on the need for comprehensive planning:

War plans cover every aspect of a war, and weave them all into a single operation that must have a single, ultimate objective in which all particular aims are reconciled. No one starts a war - or rather, no one in his senses ought to do so – without first being clear in his mind what he intends to achieve by that war and how he intends to conduct it. (p.579)

A teleological ordering of events has to be determined before the action itself begins: the requirement is that 'with his first move the general must already have a clear idea of the goal on which all lines are to converge' (p.583).

Clausewitz associates this type of planning with 'absolute war', which aims to overthrow the enemy and is therefore 'completely governed and saturated by the urge for a decision' (pp.488-9). He concedes, however, that it is not the only kind of warfare that we know. History furnishes countless examples of limited wars in which the combatants looked for 'separate successes each unrelated to the next', for 'a small advantage' not involving great cost or danger to themselves: 'The more the element of violence is moderated, the commoner these cases will be' (p.582). In such cases the direct impetus to outright victory is replaced with a more cautious and sporadic pattern of engagement for which a thoroughgoing war plan in the sense outlined above would not be appropriate. Both sides might well be content 'to pursue minor advantages for their own sake and leave the future to itself' (p.583). Clausewitz acknowledges that limited conflicts represent the 'usual appearance' of war, an observation that might tend to discredit the whole idea of war's absolute potential - if it were not for the contrasting evidence of very recent times.

Clausewitz reminds his contemporaries that 'with our own eyes we have seen warfare achieve this state of absolute perfection. After the short prelude of the French Revolution, Bonaparte brought it swiftly

and ruthlessly to that point.' It is the example of Napoleon that 'should cause us to turn again to the pure concept of war with all its rigorous implications' (p.580). Clausewitz does not feel able to predict with certainty what influence this model will have on the future conduct of war, but he does remark that 'once barriers - which in a sense consist only in man's ignorance of what is possible - are torn down, they are not so easily set up again'. He therefore surmises that '[a]t least when major interests are at stake, mutual hostility will express itself in the same manner as it has in our own day' (p.593). From this it follows that 'war should often (indeed today one might say normally) be conceived as an organic whole whose parts cannot be separated, so that each individual act contributes to the whole and itself originates in the central concept' (p.607). In this epoch war will tend towards its absolute expression, and the more it does so, 'the clearer appear the connections between its separate actions, and the more imperative the need not to take the first step without considering the last' (p.584).

There is, then, no mistaking Clausewitz's fundamental conception of modern war planning. Before he embarks on a war, the commander must form a precise idea of how it will develop through a series of connected actions from start to finish. This decidedly linear approach will seem problematic to those who agree with Alan Beyerchen that Clausewitz conceived of war as 'a profoundly nonlinear phenomenon'. One crucial piece of evidence for that view is a remark Clausewitz is supposed to have made concerning interaction between the warring parties. Apparently he stated that 'the very nature of interaction is bound to make it unpredictable' (p.139), and for Beyerchen this comment has far-reaching implications: 'Clausewitz thus understood an essential feature of nonlinearity and applied its consequences in his understanding of war: the core cause of analytical unpredictability in war is the *very nature of interaction* itself.'6

There is, however, a serious problem with the English translation at this point, and the original German does not bear out Beyerchen's conclusion. Clausewitz did not assert that interaction is bound to be unpredictable: he actually wrote that 'die Wechselwirkung ihrer Natur nach aller Planmäßigkeit entgegenstrebt', which simply means that interaction resists all efforts to carry out a plan. In other words, the reciprocal nature of war presents a difficulty for the planned conduct

⁵Alan Beyerchen, 'Clausewitz, Nonlinearity, and the Unpredictability of War', *International Security* 17/3 (Winter 1992/93), 85. This article is also accessible via *The Clausewitz Homepage* in a section devoted to 'Clausewitz and Complexity' <www.clausewitz.com/CWZHOME/Beyerchen/CWZandNonlinearity.htm>.

⁶Ibid. (printed version), 73.

⁷Clausewitz, Vom Kriege, 186.

of war. That is not just because the enemy wants to frustrate our plans, but also because the response of this or that enemy to any given measure is 'the most singular factor among all the particulars of action'. As such it can certainly not be foretold by theory, which 'must stick to categories of phenomena and can never take account of a truly unique case'. In the same context Clausewitz indicates that plans based on 'general circumstances' share the limitations of theory since they are 'frequently disrupted by unexpected particular events' (p.139). But 'general circumstances' are not the only data available for the purposes of planning. Clausewitz refers us back to a passage on the 'problem of calculating psychological forces', where he shows that such calculations can work towards quite specific results:

Everyone knows the moral effects of an ambush or an attack in flank or rear. Everyone rates the enemy's bravery lower once his back is turned, and takes much greater risks in pursuit than while being pursued. Everyone gauges his opponent in the light of his reputed talents, his age, and his experience, and acts accordingly. Everyone tries to assess the spirit and temper of his own troops and of the enemy's. All these and similar effects in the sphere of mind and spirit have been proved by experience: they recur constantly, and are therefore entitled to receive their due as objective factors. (p.137)

There is nothing here about interaction being unpredictable; on the contrary, our understanding of a particular enemy and our expectations as to how he will behave under certain circumstances are raised to the level of 'objective factors' which play an essential part in the framing of our own designs.

Clausewitz covers similar ground in the first chapter of Book One. What is said there about my opponent dictating to me as much as I dictate to him refers to a purely theoretical model of interaction consisting solely in the mutual escalation of force by enemies considered solely in terms of their capacity to exert more and more force (p.77). But Clausewitz sets up this model in order to deconstruct it. He points out that in a real war 'neither opponent is an abstract person to the other' (p.78). The antagonists have become definite agents rather than 'mere figments of a theory', so now 'reality supplies the data from which we can deduce the unknown that lies ahead'. Deducing the unknown that lies ahead is, of course, prediction under another name. If we study our opponent we can make a reasonable guess about the way he is likely to behave, and shape our plans around that extrapolation: 'From the enemy's character, from his institutions, the state of his affairs and his general situation, each side, using the *laws* of probability, forms an estimate of its opponent's likely course and acts accordingly' (p.80).

But that does not mean both sides will be equally successful in deducing the likely conduct of their opponent. Clausewitz notes the wide diversity of intellectual temper between different generals, and comments: 'One will expect a visionary, high-flown and immature mind to function differently from a cool and powerful one' (p.139) – and from the latter type one would obviously expect a more sober and realistic judgement of his adversary. There is also the straightforward matter of differences in intelligence quotient. Clausewitz observes that some who attained the highest commands 'turned out barely mediocre...because their intellectual powers were inadequate' (pp.146–7) – and we may suppose that such men were not very good at making logical inferences from the character of their enemy.

Courage too has a part to play in assessing and exploiting the psychology of an opponent. In respect of the analysis of moral factors, Clausewitz refers to courage as 'the lens, so to speak, through which impressions pass into the brain' (p.137). The more powerful the lens, the more it reveals of the enemy's vulnerability. Boldness, Clausewitz says, 'must be granted a certain power over and above successful calculations involving space, time, and magnitude of forces, for wherever it is superior, it will take advantage of its opponent's weakness' (p.190). Among commanders, then, there is a definite gradation of the capacity for reading the mind of an enemy and exploiting that insight. When Clausewitz characterizes war as 'a continuous interaction of opposites', he is not postulating an equivalence of the opposites. I may reasonably hope to understand my adversary better than he understands me, so that my plan will be founded on a more reliable anticipation of his behaviour patterns. The way he is likely to respond will be factored into my planning and the theoretically bilateral nature of war modified by my dominating initiative. To render war one-sided is surely a valid aim of strategy, indeed we might go so far as to say that strategy would dissolve altogether if it gave in to the notion that 'my opponent... dictates to me as much as I dictate to him'.

The ideal course of action would be one that took full advantage of the most penetrating analysis of the enemy, and for Clausewitz that ideal seems to be exemplified in Frederick the Great's campaign of 1760, 'famous for its dazzling marches and maneuvers', remarkable too for the fact that '[a]t no other time was he able to hold off such a superior enemy at so little cost'. Outwardly, this campaign had the appearance almost of foolhardiness; long after the event 'eye-witnesses still wrote about the risk, indeed the imprudence, of the King's positions' and of 'the marches undertaken under the eyes, frequently under the very guns, of the enemy'. But the King's audacity was based on an intimate

assessment of his opponent: 'Frederick chose these positions and made these marches, confident in the knowledge that [Austrian Field Marshal Count Leopold von Daun's methods, his dispositions, his sense of responsibility and his character would make such maneuvers risky but not reckless' (pp.179–80). Daun typified that class of commanders who create impediments for themselves by their own 'lack of resolution, courage and enterprise, and unwillingness to take responsibility' (p.465). It would seem that those who exaggerated the risks that Frederick incurred were misguided by theory: they assumed that the enemy was most likely to exploit the opportunities presented to him because in theory that was the obvious thing for an enemy to do. whereas Frederick was astute enough to gauge the other side's response as Clausewitz says it should be gauged - 'by what he is and does, instead of... by what he, strictly speaking, ought to be or do' (p.78).

Clausewitz demonstrates here that a successful strategy may be formed around a prediction of the enemy's response, precisely because that is 'the most singular factor among all the particulars of action'. All generalizations about war are modified by particulars, especially by the nature and circumstances of the enemy. Though it may be true in principle that '[t]he attacker's rear is inherently more vulnerable than the defender's', the actual danger in any given case is 'gauged chiefly by the enemy's character and situation' (p.547). Against an unadventurous foe the attacker would not require large detachments to secure his lines of communication and could therefore mount a more powerful and sustained offensive, his ambition expanding in measure with his estimate of enemy restraint.

Knowledge of your enemy also influences the choice between a complex and a simple plan of operations. Clausewitz thinks that the former might well promise greater success, but only if the enemy is assumed to be passive; if he takes the initiative, follows a simpler plan and strikes more quickly, he may catch us still at the preliminary stage of our own operation and thereby 'gain the advantage and wreck the grand design'. Here again Clausewitz says that planning must be guided by an assessment of the enemy's 'character and situation': the more aggressive the enemy, the sooner he will seek a confrontation, so we have to estimate how 'active, courageous, and resolute' he will be in order to determine an appropriate time scale for bringing our own plans to a head. The golden rule is to outdo the enemy in simplicity, which presupposes that we can tell which enemy is likely to go all out for a quick decision and which is likely to adopt a more convoluted scheme (pp.228-9). In order to 'apply the right standard of measurement in his plan of operations', a general always has to assess his opponent's willingness to use decisive measures (p.517). The technique that worked so well against a cautious opponent like Daun would be folly if employed against a confident and energetic commander like Napoleon, who 'could ruthlessly cut through all his enemies' strategic plans in search of battle, because he seldom doubted the battle's outcome' (p.386).

Clausewitz cannot help admiring Napoleon's eagerness for battle because it resonates with his own belief that 'all strategic planning rests on tactical success alone' (p.386) and that 'only great tactical successes can lead to great strategic ones' (p.228). But Clausewitz also shows how such a proclivity, even when it is rewarded with tactical success, might compromise the strategic outcome if it is followed without due regard to another cardinal principle, which is to take the utmost advantage of the enemy's weaknesses. The example here is Napoleon's conduct during February 1814 in the Campaign of France, when he faced the invading armies of Field Marshals Gebhard von Blücher and Prince Karl von Schwarzenberg. Clausewitz agrees with the general view that Napoleon brilliantly exploited the separation of the allied forces by first defeating Blücher's Army of Silesia and then quickly turning against Schwarzenberg's Army of Bohemia and defeating it too. But Clausewitz also thought that the second attack was a mistake which ultimately cost Napoleon the campaign. Rather than seeking another tactical decision, Napoleon should have exploited the first one by relentlessly pursuing Blücher's stricken force all the way back to the Rhine. Schwarzenberg disposed of a much larger army than Blücher, but the latter's 'enterprising spirit' made him the real Schwerpunkt of the alliance.

The right course for Napoleon was to concentrate all his effort in that direction while the Austrian command was held in check by its own notorious hesitancy. Schwarzenberg would have been unnerved and inhibited by the constant pressure on his ally; he would have seen it first and foremost as an indirect threat to himself, not as the chance to launch a decisive attack of his own while the main enemy force was out of his way. Clausewitz imagines a strategist of the geometric persuasion objecting that 'as Bonaparte, in his thrust towards the Rhine, was threatening Schwarzenberg's base, so Schwarzenberg was threatening Paris, which was Bonaparte's'. Looked at just in terms of distances and dispositions on the map, the pursuit of Blücher was ruled out because it would have left Paris at the mercy of Schwarzenberg. But Clausewitz refutes this schematic analysis with a psychological observation that he thinks must have been apparent to one and all: under these circumstances 'it would not have occurred to Schwarzenberg to advance on Paris'. Thus the risk of allowing the Allied Commanderin-Chief freedom of action was far outweighed by the risk Napoleon actually took of letting Blücher live to fight another day. A determined pursuit of the Prussians would have induced both allied armies to fall back across the Rhine, whereas the mere battlefield defeat of both allowed them to recover and join forces the following month to advance on Paris with overwhelming superiority (pp.162–4).8

Whatever one may think of this historical critique, it does bring out the point I am driving at, which is that Clausewitz viewed prediction as an important aspect of strategy, a key to creating advantages that could prove decisive for the outcome. Of course, he did not hold that all action in war is predictable; indeed he admits that everyone would like to act in ways the enemy least anticipates. This universal desire is perfectly justified, since 'many examples, great and small', demonstrate how surprise 'confuses the enemy and lowers his morale', and thereby 'multiplies the results'. But Clausewitz goes on to say that surprise is harder to achieve in strategy than in tactics, and in any case 'surprise can rarely be outstandingly successful'. To do something quite unexpected may be 'highly attractive in theory, but in practice it is often held up by the friction of the whole machine' - which explains why it would be so surprising if it did work, and why prudence will often dictate that we had better try something a little less surprising (p.198). The obvious allure of 'the most overwhelming surprise' has to be weighed, like the product of a gold or silver mine, against 'the cost of the labor that went into it' (p.322). Clausewitz's thoughts on this subject indicate once more that each side should be able to form a pretty good idea of the realistic options available to the other, so that big surprises are not an everyday feature of strategic interaction.

But in studying On War for evidence of a nonlinear philosophy of war, Alan Beyerchen hits upon the biggest surprise of all – the thought that a victory could have 'the entirely unexpected effect of rallying the losing side'. The reference is to a passage where Clausewitz considers 'whether defeat in a major battle may be instrumental in arousing forces that would otherwise have remained dormant', so that 'the consequences of a victory may actually appear to be injurious'. But he concludes that when they do occur, such instances should not come as a complete surprise; this sort of response will enter into the strategic equation 'only where there is reason to expect it', that is, when it seems likely given 'the character of the people or state defeated' (pp.256–7). The implication is that such powers of resurgence can normally be inferred from what we know of our enemy and should be factored into our own plans from the outset, counted as an aspect of his strength and hence as a measure of the greater strength we shall require in order to

⁸See also Clausewitz's 'Strategic Critique of the Campaign of 1814 in France' (extracts), in Carl von Clausewitz, *Historical and Political Writings*, ed. and trans. Peter Paret and Daniel Moran (Princeton, Princeton UP 1992), 205–19, esp. 217.

⁹Beyerchen, 'Clausewitz, Nonlinearity, and the Unpredictability of War', 84.

gain the final victory. If we possess that superiority, then a major defeat which makes the enemy redouble his efforts could not be regarded as 'injurious' to ourselves, since it will have destroyed at least some part of the resources which this particular enemy is going to mobilize against us in any case before he will admit that he is beaten.

If, on the other hand, we deem our own strength insufficient to overcome a redoubled effort on the part of the enemy, then we must refrain from a battle which would produce that result, and content ourselves with whatever successes we have already achieved. This is what Clausewitz means by 'the culminating point of victory' (p.572), the point at which any further attack would probably lead to a reversal of fortunes. He says that it is 'important to calculate this point correctly when planning the campaign' (p.566) – which does not mean that planning can never envisage a total victory, but rather that we must determine at he planning stage whether or not we are strong enough to pursue that aim.

One aspect of the relevant calculation is to 'guess¹⁰ whether the burning pain of the injury he has been dealt will make the enemy collapse with exhaustion or, like a wounded bull, arouse his rage' (pp.572–3). This is a matter of well-informed guesswork, the data for which includes 'the spirit of the troops' (p.567) as well as 'the character of the people and the government, the nature of the country, and its political affiliations' (p.569). So we see that the phenomenon Beyerchen represents as 'entirely unexpected', and hence as having something to do with nonlinearity, is for Clausewitz a turn of events whose likelihood can be reasonably estimated in advance and must be carefully weighed in our deliberations about the scope of a strategic plan.

Clausewitz did not espouse a nonlinear theory of war, but he did have a very definite view of such thinking – he held it to be a snare and a delusion. This attitude is plainly expressed in his discussion of territorial acquisitions in war. For Clausewitz all strategy revolves around the actual or potential decision by force of arms: 'In the planning of a campaign or a war, this alone will decide the measures that have to be taken from the outset.' He allowed that the seizure of provinces, cities, fortresses and so on may be of operational value, but only in so far as it strengthens the overall position of one's own forces and thereby contributes to the essential object of destroying the forces of the enemy. Clausewitz contrasts this, 'the natural and only sound

¹⁰The German verb used here (Clausewitz, *Vom Kriege*, 843) is not *raten*, to guess at something, but *erraten*, which has the connotation of guessing correctly. Thus you can say in German *falsch geraten!* ('you guessed wrong!'), but *falsch erraten!* would make no sense.

view to take', with a very different outlook which he clearly considers a form of strategic illiteracy:

If we do not learn to regard a war, and the separate campaigns of which it is composed, as a chain of linked engagements each leading to the next, but instead succumb to the idea that the capture of certain geographical points or the seizure of undefended provinces are of value in themselves, we are liable to regard them as windfall profits. In so doing, and in ignoring the fact that they are links in a continuous chain of events, we also ignore the possibility that their possession may later lead to definite disadvantages. This mistake is illustrated again and again in military history. (pp.181–2)

The key perspective here is the realization that all warlike actions are 'links in a continuous chain of events'. Clausewitz is saying that the nonlinear outlook is the state in which we find ourselves before we have learned to connect things properly. It is a case of arrested theoretical development, and in practice a licence for hazardous opportunism. Nonlinear thought prompts nonlinear behaviour, a neglect of the essential object for the sake of adventitious gains which may well turn out to be hostages to fortune. The commander should resist any such temptation and follow a clearly defined pathway, every step of which 'has a specific purpose relating to the whole' (p.227). Such consistency tends to energize military effort and inure it against disruption: 'The forces gather momentum, and intentions and actions develop with a vigor that is commensurate with the occasion, and impervious to outside influences' (p.182).

If a war plan develops as 'a chain of linked engagements each leading to the next', then we have to admit that a serious defeat at any juncture could undo the concept as a whole. Clausewitz leaves no room for doubt on this point: 'If a decision by fighting is the basis of all plans and operations, it follows that the enemy can frustrate everything through a successful battle' (p.97). Thus it is perfectly conceivable that a plan might not even survive the first clash of arms if that resulted in an irretrievable defeat. Conversely, though, we may assume that the plan will retain its validity and remain in force as long as the battles it depends on, the battles comprising its organic structure, turn out successfully. It is therefore quite misleading to attribute to Clausewitz the peremptory view that 'no war plan outlasts the first encounter with the enemy'. He saw plenty of scope for divining what the enemy was likely to do, and he advocated a kind of planning that aimed to subsume the enemy's responses and thereby gain control over the course of events.

But what the enemy gets up to is not the only problem in war. Another great challenge resides in the instrument with which a war is carried on. Clausewitz employed the image of friction to cover all the things that could go wrong with the internal workings of an army in the field. How damaging is this phenomenon to the prospects of planning? Azar Gat maintains that the concept of friction establishes a 'gulf between planning and reality', 11 but that metaphor is inconclusive as it leaves us wondering whether or not the 'gulf' might be traversed. Fortunately Gat clears up the ambiguity when he refers, in his critique of the Schlieffen Plan, to one of 'the army's most fundamental beliefs, bequeathed from Clausewitz and Moltke, that friction would frustrate all pre-conceived plans'. 12 Now we know that he interprets friction as setting an *impassable* gulf between planning and reality.

But let us consider the key quotation adduced by Gat in support of his view, a sentence taken from Clausewitz's Principles of War for the Crown Prince (1812): 'The conduct of war... resembles the working of an intricate machine with tremendous friction, so that combinations which are easily planned on paper can be executed only with great effort'. 13 This remark does not imply that 'friction would frustrate all pre-conceived plans'. In fact it implies that if 'great effort' is made, then a war may indeed be conducted in accordance with the plan drawn up beforehand. Clausewitz was not advising the Crown Prince to dismiss planning as a waste of time, he was simply warning him that it is very hard work to put a plan into effect. Why does Gat not take the point? It is because he seizes on the dramatic idea of 'tremendous friction' and lends it such extra potency in his own mind as to invert the real meaning of the sentence, which is that 'great effort' overcomes 'tremendous friction' and the plan gets implemented. In On War Clausewitz explores the difficulties of this task in much more detail. He did not believe they could always be surmounted, but he was very far from believing that the endeavour to do so would always be in vain.

Clausewitz says of friction that 'only a small part is the *direct result* of the enemy's activity, his resistance, or his operations' (p.104). Rather, friction is a fate that befalls the 'military machine' in the course of its own activity (p.119). In the field the army as well as its commander-in-chief are exposed to a stressful 'climate of war' made up of 'danger, exertion, uncertainty, and chance' (p.104). Under the

¹¹Azar Gat, A History of Military Thought from the Enlightenment to the Cold War (Oxford: OUP 2001), 188.

¹²Ibid., 370.

¹³Quoted in ibid., 187–8. For the original German see Clausewitz, *Die wichtigsten Grundsätze des Kriegführens zur Ergänzung meines Unterrichts bei Sr. Königlichen Hoheit dem Kronprinzen*, in Clausewitz, *Vom Kriege*, 978.

physical and psychological pressures of war each individual soldier is liable to act in ways that 'delay things or somehow make them go wrong'. Friction occurs in the form of '[c]ountless minor incidents – the kind you can never really foresee', which 'combine to lower the general level of performance, so that one always falls far short of the intended goal' (p.119). This 'tremendous friction' is 'everywhere in contact with chance' (p.120), and chance 'makes everything more uncertain and interferes with the whole course of events' (p.101). Especially when the accumulated wear and tear has a depressing effect on the general level of morale, we can expect that things will 'no longer run like a well-oiled machine. The machine itself begins to resist' (p.104). If an army is gradually worn down from the moment it begins to operate, how can it be relied upon to carry out a pre-ordained plan from start to finish? How may the grand narrative of the war plan be unfolded step by logical step when the instrument of war is rendered less efficient with every move it makes?

We should not be misled into thinking that the occurrence of friction necessarily results in defeat. Since friction is a general characteristic of war it is obvious that both sides will be affected by it, but it would be nonsense to conclude that both sides will therefore lose all the battles they engage in. Although friction ensures that 'one always falls far short of the intended goal', that cannot apply to the goal of winning, otherwise no-one would ever win anything. Clausewitz says that 'a general and an army cannot remove the stain of defeat by explaining the dangers, hardships, and exertions that were endured' (p.116). To dwell on these factors would merely suggest that they were important for the outcome and that one's opponent had coped with them rather better – and so deserved his victory. We may suppose that the side which deals more effectively with the problem will be more likely to prevail, all other things being equal. It is not a question of eliminating friction altogether, but of striving to outdo the enemy in this respect as in all others. The task, then, is to reduce as far as possible the impact of friction on the performance of one's own army, and that struggle will be one determinant of success or failure in the series of battles which mark out the progress of the war plan.

Peter Paret has emphasized that alongside the 'imponderable' element of friction, Clausewitz also examines 'the often unquantifiable forces that combat friction'. Paret is referring to the set of moral and intellectual qualities summed up in the idea of 'genius', which he says can overcome friction '[t]o a degree at least'. That inexact conclusion seems exactly right given Paret's formulation of the problem: we could

¹⁴Peter Paret, 'Clausewitz', in idem (ed.), Makers of Modern Strategy from Machiavelli to the Nuclear Age (Oxford: Clarendon Press 1998), 203.

hardly expect a more precise measurement of the extent to which something 'often unquantifiable' counters something 'imponderable'. The question is whether Clausewitz really meant to offer such indeterminate advice. I believe he took a much more definite and optimistic view of how far genius could overcome friction, a view that becomes evident when he discusses the role of the supreme commander as author and executor of the war plan.

Chapter Three of Book One is given over to an analysis of 'Military Genius' in its struggle with the tribulations of war. Clausewitz says that he will not confine the discussion to 'genius proper, as a superlative degree of talent', but rather 'survey all those gifts of mind and temperament that in combination bear on military activity' (p.100). Clearly the survey is meant to apply not only to the supreme commander, but also to his subordinates. Thus the driving ambition of a 'great general' is matched lower down the scale by a 'spirit of endeavor on the part of commanders at all levels', which 'vitalizes an army and makes it victorious' (p.105). Clausewitz also denies a monopoly of intelligence to the highest ranks and insists that 'having brains and using them' is necessary for 'the plain, efficient soldier' too (p.110). But it is not an egalitarian view since Clausewitz allows for huge differences in the degree of genius required depending on the station of the individuals concerned. 'Every level of command has its own intellectual standards', and 'the standard rises with every step' (p.111). On the ascending graph moral capabilities must increase in line with the intellectual, since for the most part 'mind and temperament work together' (p.109). Towards the summit of this progression the curve rises much more steeply: 'Appropriate talent is needed at all levels', but at the very top 'the demands for intellectual and moral powers are vastly greater' (p.111).

The unique burden of supreme command is especially felt on those occasions when '[t]he machine itself begins to resist' and 'each man's strength gives out', so that 'the inertia of the whole gradually comes to rest on the commander's will alone'. In that situation the lesser forms of military genius no longer support the commander-in-chief, because his subordinates are by now nothing more than a dejected 'mass' that will 'drag him down to the brutish world where danger is shirked and shame is unknown' – unless the 'ardor of his spirit' proves strong enough to 'rekindle the flame of purpose in all others' (pp.104–5).

In what follows I will concentrate on the role of the supreme commander, not just because that is where military genius achieves by far its highest expression, but also because it is where we may eventually arrive at some definite answers about the contest of planning and friction. In his capacity as planner, the commander-in-chief may limit the repercussions of friction in advance by making due allowance

for it in his plan: 'The good general must know friction in order to overcome it whenever possible, and in order not to expect a standard of achievement in his operations which this very friction makes impossible' (p.120). Thus a certain amount of slippage, a quotient of error and mischance, is included in the probabilities on which the commander bases his calculations in the first place. Clausewitz also exhorts the commander to 'act with the utmost concentration' (p.617) and insists that 'there must be an effort to make sure the main operation has precedence. The more that precedence is realized, the simpler everything will be and the less will it be left to chance' (p.624), whereas the dispersal of effort means that 'friction everywhere increases and greater scope is left for chance' (p.612). If we try to regulate the main advance to keep in step with secondary actions, that will paralyze the attack and afford too many 'opportunities for chance' (p.622). A plan may thus be shaped from the outset in such a way as to reduce interference by friction and accident.

This seems an appropriate point at which to consider another aspect of Beyerchen's plea for a nonlinear reading of Clausewitz. Beyerchen maintains in effect that the concept of friction amounts to a chaos theory of war. He cites the Edward Lorenz model of weather development - '[w]ith certain parameters, the system proved so sensitive to the initial conditions that it was estimated that quite literally a butterfly flapping its wings in one part of the world would be sufficient to cause a major storm to emerge somewhere else' - and goes on to assert that Clausewitz believed much the same thing in respect of war, namely that '[u]nnoticeably small causes can be disproportionately amplified' to the point where they produce '[d]ecisive results'. 16 Beyerchen is arguing that any one of the '[c]ountless minor incidents' which Clausewitz says 'you can never really foresee' could prove decisive for the outcome: 'The issue is not just that "for want of a nail the shoe was lost...," but that one can never calculate in advance which nail on which shoe will turn out to be critical'. On this view, accidents are dangerous not only in their cumulative effect, but also because even the slightest of them could itself have ruinous consequences for the whole undertaking.

Beyerchen appeals in this connection to a passage where Clausewitz states that '[p]articular factors can often be decisive – details only known to those who were on the spot... issues can be decided by chances and incidents so minute as to figure in histories simply as anecdotes' (p.595). But these remarks support Beyerchen's thesis only

¹⁵Beverchen, 'Clausewitz, Nonlinearity, and the Unpredictability of War', 66.

¹⁶Ibid., 80.

¹⁷Ibid., 77.

as long as they are seen in isolation from the argument of which they form a part. Once restored to that context they lose definitive force. On the very next page we arrive at the quite contrary view that Clausewitz says 'must guide our approach', the principle that '[s]mall things always depend on great ones, unimportant on important, accidentals on essentials' (p.596).

The real point being made is that small things can exert a grossly disproportionate influence only when the greater order of things allows it, that is, when the war effort as a whole is not tightly organized around the central strategic aim. A very slight disturbance may have inordinate consequences, as Beyerchen says of the butterfly effect, 'within certain parameters', and for Clausewitz those fateful parameters would be set by a dissipation of the strategic effort. This whole passage moves towards the doctrine of the Schwerpunkt, which is defined as 'the central feature of the enemy's power' and therefore as 'the point against which all our energies should be directed' (p.596). This concentration is vital not only for its destructive impact on the enemy, but also because it constitutes the great, the important, the essential thing which, according to Clausewitz, governs the small, the unimportant and the accidental things and therefore cannot be subject to their capricious effects.

If minute details are 'often' decisive, the reason must be that the need to concentrate one's forces is often disregarded, a fault that Clausewitz highlights in his critique of staff planning methods. When a single operation is 'split into several', that is usually because general staffs make such plans as a matter of course just to show off their own virtuosity. Modern armies are routinely divided for no good reason, but simply 'in order to display "consummate art" by reuniting two weeks later at the utmost risk'. Clausewitz brands this habitual use of 'devious routes and combinations' as a form of institutional 'idiocy' (p.623). His antidote is to stress once more, and with great deliberation, the paramount importance of the opposite approach. Of the 'two basic principles that underlie all strategic planning', the first is that 'the ultimate substance of enemy strength must be traced back to the fewest possible sources, and ideally to one alone. The attack on these sources must be compressed into the fewest possible actions – again, ideally, into one' (p.617). As we have seen, Clausewitz argues repeatedly that concentration tends to squeeze out the influence of erratic events, so we have his implicit assurance that plans which adhere to the first principle of planning are most unlikely to be overturned by the loss of a nail.

When it comes to enacting his plan, a commander-in-chief sets out 'in the dark' on an 'uncharted sea full of reefs'. He will need 'the greatest skill and personal exertion, and the utmost presence of mind' in order to deal with much unforeseen adversity. But 'from a distance' the constant struggle with mischance is unlikely even to be noticed, since 'everything may seem to be proceeding automatically' (p.120). This vignette implies that the commander is, on balance, coping effectively with the difficulties, however daunting their metaphorical representation; if he were not, the shipwreck would surely be apparent, even 'from a distance'. When we observe a suitably talented commander handling his army in the field, it is evident that things are going as expected, going according to plan. The misperception of the remote witness is to think that this is happening 'automatically', when it is in fact an achievement of the commanding general as vigilant and resolute helmsman of the plan.

Clausewitz is able to identify a range of qualities for mastering the various sources of friction. For this task a commander 'needs more than experience and a strong will. He must have other exceptional abilities as well.' (p.121) Much of what happens in war is 'wrapped in a fog of greater or lesser uncertainty', but that gloom can be penetrated by 'a skilled intelligence to scent out the truth' (p.101). In order to win his 'relentless struggle with the unforeseen' a commander must have 'an intellect that, even in the darkest hour, retains some glimmering of the inner light which leads to truth' as well as 'the courage to follow this faint light' (p.102). That courage is another name for '[d]etermination, which dispells doubt', while presence of mind is 'an increased capacity of dealing with the unexpected' (p.103). Among the various character types it is 'men who are difficult to move but have strong feelings' that are 'best able to summon the titanic strength it takes to clear away the enormous burdens that obstruct activity in war' (p.107). We note how each motif of friction appears under close escort by a countervailing human agency. It is significant that Clausewitz refers to this whole discussion not as a catalogue of difficulties, but as 'our review of the intellectual and moral powers that human nature needs to draw upon in war' (p.110). One capacity in particular enables the commander to grasp and sway the complex patterns of war, and that is the synthesizing talent Clausewitz calls by the French term coup d'oeil, which originally meant skill in quickly assessing the advantages of terrain. The man who possesses this 'ability to see things simply, to identify the whole business of war completely with himself', is in a position 'to dominate events and not be dominated by them' (p.578).

Even so, the commander's triumph over friction is not presented as a foregone conclusion. He overcomes friction 'whenever possible', meaning that he will not always be able to do so (p.120). Clausewitz admits that the vicissitudes of war are 'bound to influence his plans, or at least the assumptions underlying them' (p.102). At one level this may simply entail minor adjustments to the plan in the course of operations.

The strategist must always 'go on campaign himself', so that '[d]etailed orders can then be given on the spot, allowing the general plan to be adjusted to the modifications that are continuously required' (p.177). These alterations clearly do not represent an abandonment of 'the general plan', but a means of prosecuting it more effectively. They are simply a part of what Clausewitz understood by the execution of a plan. He deals separately with those cases where a commander judges the accumulated influence of friction to be 'sufficiently powerful to cause a change in his plans'. By 'change' he means something quite different from the 'modifications' referred to above: he is now talking about a situation where the original design has failed. This is the nearest thing to a *locus classicus* for those who maintain that Clausewitz was deeply sceptical about the value of planning. Here indeed is an admission that plans may be frustrated.

The real point, however, is what Clausewitz makes of such a crisis: he says that if the commander has to drop his original plans, then 'he must usually work out new ones' (p.102). Thus the failure of a plan is not taken to indicate the general unreliability of planning. The commander whose plan has broken down does not conclude that all plans are unworkable, instead he goes straight back to the drawing board and comes up with a viable alternative. According to Clausewitz's definition of planning, this means that the new situation becomes the starting point for a new scheme, which, like its abandoned forerunner, plots a logical sequence of victories, 'a chain of linked engagements', leading to the end of the war. Even if a particular plan unravels, planning guides action throughout the war.

Moreover, Clausewitz regarded the total breakdown of a plan as a relatively infrequent occurrence. Though reports of difficulties may come thick and fast, '[u]sually, of course, new information and reevaluation are not enough to make us give up our intentions: they only call them in question' (p.102). In other words, the occasions when we are clearly obliged to discard our existing plans and make new ones are unusual, though the problems will often seem grave enough to engender doubts with regard to our existing plans. Clausewitz thought that in the latter event there should be no change of plan. He enunciates 'an imperative principle', which is 'in all doubtful cases to stick to one's first opinion and to refuse to change unless forced to do so by a clear conviction' (p.108). What is the reasoning behind this ruling? Clausewitz obviously believed that mere doubt concerning a projected course of action does not give sufficient grounds for switching to another. If a commander becomes uncertain about the viability of his original plan, that means he is just as uncertain as to whether a different plan would be any better. After all, if he could conceive of a distinctly superior alternative for meeting the changed circumstances, then he

would no longer be *in doubt* concerning the original plan, he would be quite certain that it was no longer the right one.

Clausewitz is positing a genuine case of uncertainty, but a commander cannot remain for very long in such a state without incurring 'the perils of hesitation' (p.103). He must decide on the issue even if he cannot resolve it, so his decision, if it is to be rational at all, must flow from reasons transcending his thoughts on the issue itself. If he sees nothing to choose between the original concept and the possible alternatives, then he must consider at a more general level the likely merits of a plan drawn up in tranquillity as compared with one made in the heat of battle, where 'there may be no time to review the situation or even to think it through' (p.102). Clausewitz affirms that judgement in war is guided by 'the laws of probability', which 'are difficult enough to apply when plans are drafted in an office, far from the sphere of action; the task becomes infinitely harder in the thick of fighting itself' (p.117).¹⁸

For Clausewitz, then, armchair strategy is as a rule an 'infinitely' safer bet than strategy made on the hoof. That is why he believes that preference should normally be given to plans which are 'the results of [earlier] contemplation' (p.108),¹⁹ rather than those which might be hurriedly improvised while a campaign is under way. In war a commander 'is exposed to countless impressions, most of them disturbing, few of them encouraging... *Perseverance* in the chosen course is the essential counterweight, provided that no compelling reasons intervene to the contrary' (p.193).

We see, then, that although Clausewitz allows for circumstances in which the original plan should be dropped in favour of a new one, he does not think that it would very often be appropriate to do so. Friction would inevitably give rise to difficulties, but not usually on such a scale as to invalidate the plan. Even in doubtful cases, the right thing to do was to adhere to one's first intentions. All of this, however, presupposes a commander who is capable of making an accurate assessment of the situation at any given moment, recognizing, for example, the difference between '[disturbing] impressions' and 'compelling reasons', or the

¹⁸In this translation, the wording 'far from the sphere of action' makes it sound as if the initial plans are made while the action is already taking place somewhere else. In fact Clausewitz says that when a commander first draws up his plans he is 'noch außer der eigentlichen Kriegssphäre' – as yet uninvolved in the actual sphere of war (Clausewitz, *Vom Kriege*, 156). It is a relation of time, not of space. The point is not that the plans are made at a safe distance from the war, but that they are made before it starts.

¹⁹The word 'earlier' is supplied from the original German, which enjoins 'das Halten an diesen Resultaten eines früheren Nachdenkens' (Clausewitz, *Vom Kriege*, 143).

grounds for doubt and the grounds for certainty. That is an enormously difficult task which will place great demands on his intellectual and moral faculties.

One problem is that the information on which he bases his assessment will not present itself to the commander's mind as a fixed and final result, but rather as a 'torrent of events and new opinions' (p.108). Bad news acquires added force when it comes bit by bit, putting the recipient under a constant psychological strain. Reports of difficulties 'continually impinge on our decisions, and our mind must be permanently armed, so to speak, to deal with them' (p.102). The commander's evaluation of bad news is never a purely analytical exercise, but also a form of mental combat. In order to appreciate the reports accurately he has to discount the extra weight which they gain by attacking his consciousness one after the other, and he has to do this not retrospectively, but while he is being subjected to the very pressure that needs to be analyzed.

A further problem which makes things seem worse than they really are is the unreliability of intelligence: 'Many intelligence reports in war are contradictory; even more are false, and most are uncertain.' Intelligence has a pessimistic bias since '[a]s a rule most men would rather believe bad news than good, and rather tend to exaggerate the bad news'. Whenever a commander fears that his earlier calculations have been upset by events, that may turn out to be an illusion produced by bad intelligence 'making things appear entirely different from what one had expected'. False information tending to gloom and despondency conjures up a landscape of imagined perils: 'War has a way of masking the stage with scenery crudely daubed with fearsome apparitions.'

The real danger is that these simulacra make a more vivid impression than systematic thought, and so 'even the man who planned the operation and now sees it being carried out may well lose confidence in his earlier judgment'. The commander is called upon to resist the false appearances that discourage him from persisting with his plan. He must seek to exorcise them by trusting in 'the laws of probability' and in his own 'standard of judgment' gained from 'knowledge of men and affairs and from common sense'. If these factors are brought into play, then the dire misinformation to hand may be critically interrogated rather than passively accepted (pp.117–18).

This makes it sound as though a well-developed sense of proportion would suffice to dispel the lurid apparitions and restore a balanced picture of reality. But to think in a calm and objective way under the psychological pressures of war requires a great source of inner strength. What is needed is 'the ability to keep one's head at times of exceptional stress and violent emotion', and Clausewitz doubts whether strength of intellect alone could ensure that degree of composure (p.105).

To counteract the emotional disturbance caused by the climate of war he invokes a more profound and powerful emotion, which is 'simply the sense of human dignity, the noblest pride and deepest need of all: the urge to act rationally at all times' (p.106). The practical demand for the intellect to go about its business undeterred by the alarms and frights of war is linked with an uplifting idea of what it means to be human. An exalted pathos of rationality will sustain the general's commitment to the rational structure of his plan and help him to deal rationally with the swarm of contrary indicators.

It is essential that he should do so, since the 'difficulty of accurate recognition constitutes one of the most serious sources of friction in war'. But once a commander has overcome the friction inside his head and 'the horizon becomes unobstructed', then 'developments will confirm his earlier convictions' so the original plan will be vindicated and will remain in force. The commander who kept calm, used his brains, and saw things clearly enough not to be panicked into changing his mind will have crossed 'one of the great chasms between planning and execution' (pp.117–18).

This 'great chasm' irresistibly recalls Azar Gat's image of the 'gulf between planning and reality', but the meaning of the metaphor is quite different in the two instances. Gat wants to convey the idea that a war plan could never be translated into reality. His gulf is impassable and symbolizes the irredeemable futility of planning. It is of a piece with his attributing to Clausewitz the theory that 'friction would frustrate all pre-conceived plans'. But Clausewitz's own image of the chasm refers to an obstacle that can be overcome. He does not stare down helplessly into the divide between planning and execution; instead he offers advice and encouragement for the task of bridging it.

One further point deserves to be made about the relation of planning and execution. So far we have considered planning as a template for action, a scheme that underlies the conduct of a war – in other words, as something passive in itself. But Clausewitz also indicates the positive effect that the logic of a plan may have for the morale of a commander striving to realize it. Once the course of action is charted, the task is 'to follow through steadily, to carry out the plan, and not to be thrown off course by thousands of diversions'. It is easier to achieve that constancy of purpose in a tactical situation, where 'one presses boldly on' because 'one is carried away by the pressures of the moment'. It is far more difficult at the strategic level, where 'the pace is much slower' and there is 'ample room for apprehensions, one's own and those of others; for objections and remonstrations and, in consequence, for premature regrets' occasioned by 'unnecessary doubts' (pp.178–9).

But Clausewitz also argues that there is, in the very nature of extended operations, a compensating factor that serves to reinforce the

commander's power of endurance. He says that the resistance of the will to protracted difficulties 'needs the support of the intellect', and then he declares that 'the longer the duration of an activity, the greater the degree of planning it involves, and this is one of the sources from which endurance derives its strength'. He means that the cogency of strategic planning is one aspect of the intellectual support which endurance needs in order to see a plan through to its conclusion. The plan is important not just as a set of instructions, but also for the rational principle which it embodies and reflects back to its author. A commander is not only guided by the logic of his plan, he is also inspired by it in his endeavour to maintain 'great lucidity and firmness of mind' (p.178) against all the doubts and distractions thrown up during a lengthy operation.

Clausewitz did not teach that preconceived plans are predestined to failure because of the interactive nature of war or the friction inseparable from its conduct. He allowed that in bare theory the course of a war is unpredictable because it results from the interaction between two entities of which little more can be said than that they will oppose each other with ever-increasing violence. In practice, however, that picture is modified by the respective character, talent, and general circumstances of the two sides. In a real war we confront a definite enemy about whom a great deal may be known, and our plans should be based on what that knowledge tells us about his probable responses in certain situations. It was, Clausewitz thought, a reasonable ambition of planning to exploit or at least absorb those responses and thus eliminate interaction in the proper sense of the word. That kind of planning embraces the countermeasures of the other side and may truly be said to represent 'the organization of a war as a whole'.

However, an atmosphere of calm is most conducive to working out the probabilities involved in such a design. Clausewitz thought that a plan excogitated in a quiet office before the fighting begins was far more likely to succeed than one hurriedly put together halfway through a campaign, and he therefore stressed the desirability of sticking to the course of action originally intended. He acknowledged that friction creates formidable barriers along the way, but he argued that they can usually be overcome by a supreme commander who possesses the exceptional qualities appropriate to his station. Clausewitz sets a very

²⁰Clausewitz, *Vom Kriege*, 138. I have translated this quotation myself because the Howard/Paret version (Clausewitz, *On War*, 105) leaves out the direct reference to planning and misattributes the pronoun 'derselben'. The original states that 'die Standhaftigkeit...von dem Verstande unterstützt sein will; denn mit der Dauer einer Tätigkeit nimmt die Planmäßigkeit derselben zu, und aus dieser schöpft die Standhaftigkeit zum Teil ihre Stärke'.

high standard for that responsibility because he regards the execution of a plan as very difficult – or, to give the correct emphasis, he sets that very high standard because he regards the execution of a plan as *merely* very difficult. If he thought it was impossible, if he really believed that 'friction would frustrate all pre-conceived plans', then it would be meaningless for him to set any standard of capability for executing a plan – or indeed to set any value on conceiving one in the first place.

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