

Wartime paradigms and the future of western military power

OLIVIER SCHMITT*

It's about time. From the perception of the imminence of threats at the political level to the seizing of initiative through proper timing at the tactical level, temporal considerations are of the essence in war and warfare. However, while International Relations scholarship has recently started to explore the importance of time in understanding international politics,¹ such approaches are rarer when it comes to the study of war. Yet it is worth exploring how different understandings of time shape the preparation and the conduct of war, as such understandings have important implications for security policies, force structures and operational planning.

This article aims to launch a discussion about this issue. It argues that since the Cold War western warfare, from force structure to the conduct of operations, has been guided by a specific 'wartime paradigm' combining an optimization for speed and an understanding of war as risk management.² It shows how the changing character of warfare directly challenges this wartime paradigm and why, if western forces are to prevail in future conflicts, the establishment of a new wartime paradigm guiding technological improvements and operational concepts is of critical importance.³

The article proceeds in four steps. First, I discuss the importance of time in war, showing that the perception of 'time' changes according to the socio-

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¹ Andrew R. Hom, 'Timing is everything: toward a better understanding of time and international politics', *International Studies Quarterly* 62: 1, 2018, pp. 69–79; Sarah Bertrand, Kerry Goettlich and Christopher Murray, 'The politics of time in international relations', *Millennium* 46: 3, 2018, pp. 251–2.

² Warren Chin, 'Technology, war and the state: past, present and future', *International Affairs* 95: 4, July 2019, pp. 765–84; Lawrence Freedman, 'The rise and fall of Great Power wars', *International Affairs* 95: 1, Jan. 2019, pp. 101–18; Tracey German, 'Introduction: re-visioning war and the state in the twenty-first century', *International Affairs* 95: 4, July 2019, pp. 759–64.

³ Andrew B. Kennedy and Darren J. Kim, 'The innovation imperative: technology and US–China rivalry in the twenty-first century', *International Affairs* 94: 3, May 2018, pp. 553–72.

political context, and introducing the concept of the ‘wartime paradigm’ to describe a specific perception of time (anchored in a particular regime of historicity), which influences how warfare is conceived of and conducted. The second section argues that, as the result of a conjunctural encounter between a socio-technological imaginary based on ‘chaoplexic’ warfare and a security–political imaginary emphasizing risk management, a specific wartime paradigm became established in western warfare after the Cold War.⁴ The third section describes the changing character of warfare, and particularly the emerging challenges for western forces.⁵ The fourth section discusses the consequences of this changing character of warfare for the post-Cold War western wartime paradigm, and the need for western warfare to adopt a new wartime paradigm in order to maintain operational superiority.

The importance of time in war

In war, time is of the essence. The relationship between war and time is grounded in the fact that both are fundamentally related to politics, while proper time management at the tactical and operational levels can provide battlefield advantages. Of course, time is not a neutral substance experienced by all individuals equally, but a construct which varies in shape and texture:⁶ as early as 1889, philosopher Henri Bergson made the observation that time was ‘qualitatively multiple’. Therefore, perceptions of time evolve and are intimately connected to social and political changes. For example, western Europe between 1750 and 1850 was marked by a profound transformation of the perception of time, combining feelings of social acceleration and increased distance from the past, rebellion against authoritative arguments made with reference to the past, and impressions of revolutionary change which culminated in the invention of an all-encompassing discipline of ‘history’ taught at universities.⁷ During this profound transformation, the perception of time evolved from a conception of recursive timescapes to one of a ‘restless iteration of the new’.⁸ Another important transformation occurred between 1880 and 1918, as ‘a series of sweeping changes in technology and culture created distinctive new modes of thinking about and experiencing time and space’.⁹ It should, then, come as no surprise that political power and time are intimately related. Fundamentally, political discourses are narratives about the (imagined) past of a political community, its (desired) future, and the connections between the two through time. We thus have multiple examples of political attempts to control

⁴ Antoine Bousquet, ‘Chaoplexic warfare or the future of military organization’, *International Affairs* 84: 5, Sept. 2008, pp. 915–29.

⁵ Alice Pannier and Olivier Schmitt, ‘To fight another day: France between the fight against terrorism and future warfare’, *International Affairs* 95: 4, July 2019, pp. 897–916; Peter Viggo Jakobsen and Sten Rynning, ‘Denmark: happy to fight, will travel’, *International Affairs* 95: 4, July 2019, pp. 877–97.

⁶ Vyvyan Evans, *The structure of time: language, meaning and temporal cognition* (Amsterdam: John Benjamins, 2005).

⁷ Reinhart Koselleck, *Futures past: on the semantics of historical time* (New York: Columbia University Press, 2004).

⁸ Peter Fritzsche, *Stranded in the present: modern time and the melancholy of history* (Cambridge, MA: Harvard University Press, 2004), p. 5.

⁹ Stephen Kern, *The culture of time and space, 1880–1918* (Cambridge, MA: Harvard University Press, 1983), p. 1.

time as a way to establish power, including struggles over the shift from the Julian to the Gregorian calendar in western Europe;¹⁰ the Nazi eschatological fantasy of building a ‘Thousand-Year Reich’;¹¹ and the French Jacobins’ creation of a ‘republican calendar’ supposed to signal a clean break from the old regime. Political leaders sometimes justify their decisions by direct reference to a specific perception of the impact of time on the flow of life; François Hartog calls these specific understandings ‘regimes of historicity’.¹² For example, building on Hartog, Christopher Clark has demonstrated that different German leaders had different understandings of the role of time which affected their political leadership.¹³

Perceptions of time are also related to war-making. Thomas Lindemann and Jens Thoemmes identify three domains in which understandings of time are related to war.¹⁴ The first is self-identity: war narratives always involve the notion of extracting the individual from the present in order to protect the future of the political community. The second is the definition of the enemy, who can be presented as belonging to another temporality (‘backward barbarian’). It is telling that, reacting to Russia’s aggression against Ukraine, former US secretary of state John Kerry declared: ‘You just don’t, in the twenty-first century, behave in nineteenth-century fashion by invading another country on completely trumped up pretext’:¹⁵ the clash of political objectives is also perceived, and presented, as a clash of temporalities. Finally, the third domain is the understanding of war. For example, if war is perceived as cyclical, and thus inevitable, decision-makers can have a higher tolerance of violence and thus self-limit their own agency.

There is a direct connection between time and strategy. Strategy is action in space and time; Colin Gray even calls time ‘the great enabler’ of strategy.¹⁶ Yet, as Andrew Carr rightly argues,¹⁷ conceptualizations of the importance of time in war are surprisingly underdeveloped in comparison with discussions of geography or technology, with most analyses of the importance of time being limited to tactics.¹⁸ In his attempt to establish a systematic account of the relationship between war, strategy and temporal phenomena, Carr identifies four constituent concepts of time in relation to strategy: order, duration, significance and transition. Order and time are related in a number of ways, but one particularly worth exploring is the role of different time horizons in strategic interactions. For example, depending on their time horizons, states may favour short-term

¹⁰ Robert Poole, *Time’s alteration: calendar reform in early modern England* (Abingdon: Routledge, 1998).

¹¹ Roger Griffin, *Modernism and fascism: the sense of beginning under Mussolini and Hitler* (Basingstoke: Palgrave Macmillan, 2007).

¹² François Hartog, *Regimes of historicity: presentism and experiences of time* (New York: Columbia University Press, 2015).

¹³ Christopher Clark, *Time and power: visions of history in German politics, from the Thirty Years’ War to the Third Reich* (Princeton: Princeton University Press, 2019).

¹⁴ Thomas Lindemann and Jens Thoemmes, ‘*Epistémès* temporelles et conflits armés’, *Temporalités* 21: 1, 2015, <https://journals.openedition.org/temporalites/2968>.

¹⁵ Will Dunham, ‘Kerry condemns Russia’s “incredible act of aggression” in Ukraine’, *Reuters*, 2 March 2014.

¹⁶ Colin Gray, *Theory of strategy* (Oxford: Oxford University Press, 2018), p. 130.

¹⁷ Andrew Carr, ‘It’s about time: strategy and temporal phenomena’, *Journal of Strategic Studies*, publ. online 2018, <https://www.tandfonline.com/doi/abs/10.1080/01402390.2018.1529569?journalCode=fjss20>.

¹⁸ Bernard A. Friedman, *On tactics: a theory of victory in battle* (Annapolis, MD: Naval Institute Press, 2017); Michel Yakovlevf, *Tactique théorique*, 3rd edn (Paris: Economica, 2016).

cooperation and thus enable rivals who will challenge them in the long run.¹⁹ Time can also enable the constitution of a specific political order: the invocation of ‘wartime’ in US political discourses has enabled changes in laws and practices amounting to a transformation of the US political order.²⁰ Duration and significance are related to the pace and rhythm of strategy: they are about understanding the timing and phasing of activities, and when they are supposed to achieve the greatest effect. It seems that such understandings may be culturally influenced, as evidenced by different perceptions of time by Clausewitz and Sun Tzu.²¹ Finally, transition refers to the political phasing between war and peace, and the military and political ways of achieving that transition.²²

These scholars all point to the fact that individuals have specific understandings of the articulation between past, present and future (‘regimes of historicity’), and that these understandings have important political consequences. However, when it comes to war-making, their analyses are usually located at the political/grand strategic levels, while military professionals usually discuss the impact of time at the tactical level (in order to achieve dominance in a specific situation). There is, then, a conceptual gap between these two levels, since, even when it comes to the preparation and conduct of war (warfare), regimes of historicity also shape the perception of time. I give the name ‘wartime paradigm’ to this specific perception of time by policy-makers anchored in a particular regime of historicity, which influences how warfare is conceived and conducted. ‘Wartime paradigms’ are thus a heuristic device which helps to conceptualize how perceptions of time shape the preparation and the conduct of war: it is located below the political/grand strategic level (studying the impact of time perceptions on international relations),²³ but above the military–tactical level, which is usually more ‘concerned with ‘timing’ (seizing the right opportunity, sequencing or cumulating military activities, etc.) than with time perception. I argue that wartime paradigms are subsets of specific regimes of historicity and emerge at the intersection between socio–technological and security–political imaginaries. In the next section, I show how a specific wartime paradigm, geared towards optimizing for speed and treating war as risk management, can be identified in western warfare since the end of the Cold War. My understanding of ‘western warfare’ is not essentialist but refers to a constellation of largely similar military practices found in the armed forces of a number of countries considering themselves allies or close partners. ‘Western warfare’ is thus more than NATO, and includes the military practices of the Australian, Swedish or Israeli armed forces, for example.

¹⁹ David Edelstein, *Over the horizon: time, uncertainty, and the rise of Great Powers* (Ithaca, NY: Cornell University Press, 2017).

²⁰ Mary L. Dudziak, *War time: an idea, its history, its consequences* (Oxford: Oxford University Press, 2012).

²¹ Laure Paquette, ‘Strategy and time in Clausewitz’s *On War* and in Sun Tzu’s *The Art of War*’, *Comparative Strategy* 10: 1, 1991, pp. 37–51.

²² Joachim Krause, ‘How do wars end? A strategic perspective’, *Journal of Strategic Studies* 42: 7, 2019, pp. 920–45.

²³ Andrew R. Hom, *International relations and the problem of time* (Oxford: Oxford University Press, forthcoming 2020).

The wartime paradigm of western warfare after the Cold War

In 1977, Paul Virilio argued in his classic *Speed and politics* that ‘history progresses at the speed of its weapons systems’.²⁴ For Virilio, speed (not class or wealth) was the main driver of techno-social progress. However, this progress was made possible only through a gradual militarization of society in which a multiplicity of projectiles (soldiers, vessels, information technologies, etc.) are embedded in a larger assemblage, enabling ever faster conflicts. Speed also has strong psychological effects, notably sustaining the armed forces’ cohesion: ‘Speed is the hope of the West; it is speed that supports the armies’ morale.’²⁵ The fascination with speed in western armed forces is thus far from being a specific feature of the post-Cold War era. However, the distinctiveness of the wartime paradigm of western warfare after the Cold War lies in the convergence of two interrelated imaginaries: a socio-technological imaginary emphasizing acceleration and speed (including in warfare) that was gradually cemented after the Cold War, and a new post-Cold War political imaginary considering war as risk management.

The socio-technological imaginary is related to what Hartmut Rosa calls ‘acceleration’:²⁶ technological acceleration; the compression of the present through the acceleration of cultural and social innovation; and the acceleration of life rhythms. Interestingly, Rosa identifies the competition induced by the capitalist socio-economic order as one of the main drivers of social acceleration. The increased competitive pressure in the age of neo-liberalism (which began in the 1970s) led to an acceleration of practices in multiple social domains,²⁷ including in the dominating ideas and conceptions of warfare. This trend is directly connected to the growing use of network approaches and non-linear sciences as metaphors to understand warfare, what Bousquet calls ‘chaoplexic warfare’ and which also emerged in the 1970s through the application of the theories of chaos and complexity to warfare.²⁸ This imaginary drew on the study of non-linear sciences to derive military concepts guiding transformation in doctrinal thinking. Even during the Cold War, the US armed forces led the way in emphasizing the importance of speed as a way to achieve operational superiority. The intellectual cornerstone for this renewed emphasis on speed was laid conceptually by John Boyd with his OODA (observe–orient–decide–act) loop, which was a way of conceptualizing the role of tempo and speed in warfare and contributed to the adoption of manoeuvre warfare in the Marine Corps.²⁹ The emphasis on speed was confirmed by the adoption of the ‘Airland Battle’ doctrine in 1982 with the new iteration of the *Field Manual 100-5: Operations. FM-100-5* emphasized *agility*, defined as the ability to ‘act faster than the enemy’, which would enable US forces

²⁴ Paul Virilio, *Speed and politics* (South Pasadena, CA: Semiotexts, 2006; first publ. 1977), p. 90.

²⁵ Virilio, *Speed and politics*, p. 78.

²⁶ Hartmut Rosa, *Social acceleration: a new theory of modernity* (New York: Columbia University Press, 2013).

²⁷ Robert Hassan, *Empires of speed: time and acceleration of politics and society* (Leiden: Brill, 2009); John Tomlinson, *The culture of speed: the coming of immediacy* (London: Sage, 2007).

²⁸ Antoine Bousquet, *The scientific way of warfare: order and chaos on the battlefields of modernity* (London: Hurst, 2009).

²⁹ Ian T. Brown, *A new conception of war: John Boyd, the US Marines, and maneuver warfare* (Quantico, VA: Marine Corps University Press, 2018).

to generate sufficient mass through better synchronization.³⁰ The emphasis on speed intensified after the end of the Cold War and with the intellectual domination of the ‘Revolution in Military Affairs’ and/or ‘Transformation’ paradigms. The concept of ‘network-centric warfare’ is a good illustration of this socio-technological imaginary, as it is an example of the US military thinkers’ vision of ‘an emerging, information superiority-driven, information technology-enabled conception of warfare, one in which the ability to gather, process, distribute, and act on information *faster* than the enemy is seen as the key to victory’.³¹ Accelerating in order to reach a higher speed (in all dimensions of warfare) than the opponent was thus perceived as the key to victory: testifying to the Senate Armed Services Committee in 2003, Defense Secretary Donald Rumsfeld praised ‘speed and the ability to get inside the enemy’s decision cycle and strike before he is able to mount a coherent defense ... and intelligence and the ability to act on intelligence rapidly, in minutes, instead of days and even hours’.³²

After the Cold War, this dominating socio-technological imaginary emphasizing speed in warfare became intertwined with a new security imaginary considering war as a tool of risk management, which led to a peculiar understanding of the relationship between time and strategy-making. In 2006, Rasmussen contended that the post-Cold War security agenda emphasized risks rather than threats.³³ This risk management approach is ontologically related to temporality, since it places the focus not on present dangers, but on whatever risk may emerge in the future: ‘the risk age puts a premium on anticipating events’,³⁴ which leads to ‘assessing present options in terms of the future’.³⁵ Following sound managerial logic, the consequence is a temptation to use armed forces as a way to pre-emptively *shape* a political environment in order to minimize the risks of deviance from accepted behaviour. Therefore, in such military campaigns, the adversary is no longer seen as an enemy with opposed political objectives who needs to be fought (as illustrated by the conceptual confusion over the term ‘enemy’ in political–military circles in the past two decades³⁶), but rather as a potential offender whose nefarious activities need to be managed, policed and reduced to a level of acceptable risk. The problem with this approach is that it leads directly to never-ending military operations: ‘cyclical open-ended approaches remain necessary since risks cannot be completely eliminated and require constant management’.³⁷ Thus the way is laid for ‘forever wars’, or the establishment of a ‘permanent state of emergency’³⁸

³⁰ Benjamin M. Jensen, *Forging the sword: doctrinal change in the US Army* (Palo Alto, CA: Stanford University Press, 2016).

³¹ Sean Lawson, *Non-linear science and warfare: chaos, complexity and the US military in the information age* (Abingdon: Routledge, 2013), pp. 3–4, emphasis added.

³² Quoted by Lawson, *Non-linear science*, p. 4.

³³ Mikkel Vedby Rasmussen, *The risk society at war* (Cambridge: Cambridge University Press, 2006).

³⁴ Christopher Coker, *War in an age of risk* (Cambridge: Polity, 2009), p. 2.

³⁵ Yee-Kuang Heng, ‘The continuing resonance of the war as risk management perspective for understanding military interventions’, *Contemporary Security Policy* 39: 4, 2018, p. 547.

³⁶ Christian Olsson, ‘Can’t live with them, can’t live without them: “the enemy” as object of controversy in contemporary western wars’, *Critical Military Studies* 5: 4, 2019, pp. 359–77.

³⁷ Heng, ‘The continuing resonance’, p. 552.

³⁸ Didier Bigo and Laurent Bonelli, ‘Ni état de droit, ni état d’exception. L’état d’urgence comme dispositif spécifique?’, *Cultures et Conflits*, 112, 2019, pp. 7–14.

following terrorist attacks. Indeed, ‘risk management is a never-ending process—it is about living with insecurity, not providing security through deterrence of the threat from an outside actor, as was the case in the Cold War’.³⁹

This peculiar wartime paradigm combining speed in warfare and risk management led to a distinctive shape of western warfare after the Cold War. The first noticeable trend was the use of military interventions as a tool of risk management by western countries: ‘Military interventions from Kosovo to Afghanistan and Iraq in 2003 were evaluated as risk management campaigns justified by political leaders using a risk calculus averting undesirable scenarios.’⁴⁰ Other campaigns, for example in Libya, or interventions in the Sahel, Yemen and Somalia by western forces, certainly also fit this description. This military interventionism, anchored in a security imaginary treating war as risk management,⁴¹ became intertwined with the development after the Cold War of a new force structure guided by the ambition to optimize for speed. In a context of ‘peace dividends’ and decreasing budgets, the services tried to maximize their fighting power by capitalizing on existing US military advantages, reinforcing the flexibility and modularity of forces. For example, in 1997 General Scales produced a report entitled *Speed and knowledge*, which was supposed to provide a blueprint for future force requirements in the US Army. Of course, the path towards full modularity and information dominance was far from direct, not least because of the stabilization operations that were initiated in Afghanistan and Iraq;⁴² but the wartime paradigm guiding operational concepts was still focused on increasing the speed and tempo of operations, with the two Iraq wars seeming to validate this operational ambition of ‘shock and awe’.⁴³ The importance of speed became deeply ingrained in US operational thinking; General Mattis (who commanded the 1st Marine Division in the 2003 Iraq War) even declared: ‘We knew that the centre of gravity was speed ... speed equals success.’⁴⁴ The 2003 Iraq War was thus a perfect example of this specific wartime paradigm: it combined the fascination with speed in warfare as described above with a political decision to act based on a perception of Saddam Hussein’s regime as a risk to be eliminated (instead of a threat to be deterred).⁴⁵

This emphasis on speed was not limited to the conduct of military operations, but also affected the overall force posture, as a consequence of military force being perceived as a tool of risk management. One example illustrating the influence of this wartime paradigm in shaping the force structure is the concept of ‘prompt

³⁹ Michael J. Williams, ‘(In)security studies, reflexive modernization and the risk society’, *Cooperation and Conflict* 43: 1, 2008, p. 66.

⁴⁰ Heng, ‘The continuing resonance’, p. 544.

⁴¹ Stéfanie von Hlatky and H. Christian Breede, eds, *Going to war? Trends in military interventions* (Montreal: McGill-Queen’s University Press, 2016); Michael Mayer, ‘Trigger happy: the foundations of US military interventions’, *Journal of Strategic Studies* 42: 2, 2019, pp. 259–81.

⁴² Theo Farrell, Sten Rynning and Terry Terriff, *Transforming military power since the Cold War: Britain, France, and the United States, 1991–2012* (Cambridge: Cambridge University Press, 2013).

⁴³ Keith L. Shimko, *The Iraq wars and America’s military revolution* (Cambridge: Cambridge University Press, 2010).

⁴⁴ Quoted in Anthony King, *Command: the twenty-first century general* (Cambridge: Cambridge University Press, 2019), p. 259.

⁴⁵ Michael J. Mazarr, *Leap of faith: hubris, negligence and America’s greatest foreign policy tragedy* (New York: Public Affairs, 2019).

global strike' (PGS), which has been discussed in the United States since 2001. The concept, and its associated capabilities, are typical of this wartime paradigm combining risk management and speed, since it is supposed to give the United States a fast, worldwide response capability in order to tackle any potentially emerging threat immediately. For example General Cartwright, commander of STRATCOM between 2004 and 2007, declared that PGS 'provides to the nation the ability to rapidly plan and rapidly deliver effect in any place on the globe' and 'tailor it for his target and deliver it very quickly, with very short time lines on the planning and delivery, any place on the face of the Earth'.⁴⁶ Similarly, the 'Global Response Force' is supposed to give the United States the ability to send ground troops anywhere in the world in less than 24 hours. As the unit tasked with the Global Response Force mission, the 82nd Airborne Division has an airborne battlegroup on standby at all times, able to fly at three hours' notice, and is able to mount a full brigade combat team within 18 hours of an order to deploy. In this wartime paradigm, acting fast (both in deploying forces and in conducting operations) is key to effective management of risks, but the effort is relentless: it is about being ready to act fast, for ever. This thinking also influenced how new technologies, such as drones and cyber capabilities, were perceived in terms of their relationship to an ever-accelerating present and their capability to control, or not, an apocalyptic future.⁴⁷ This wartime paradigm and its operational consequences have not been limited to the United States, but have spread to its western allies.

Norms of conventional warfare,⁴⁸ as well as 'security imaginaries',⁴⁹ shape the generation of military power through adherence to legitimate scripts of military organization and activity, thus leading to a degree of military isomorphism. Because of the requirement to contribute to global risk management, other western armed forces started to transform themselves, in selective emulation of the United States, in order to optimize their deployability and fast reaction times. Anthony King has traced this process in detail in the case of European armed forces, concluding that 'Europe's forces are being turned into deployable reaction forces, capable of rapid interventions in regions of ethnic and religious conflict and state failure'.⁵⁰ In a trend indicative of policy priorities, reaction forces and special forces have been privileged in terms of resource allocation, often at the expense of regular troops (thus leading in some cases to two-tier military organizations). Of course, because the US-style force transformation was heavily dependent on technological assets most European countries could not afford, the emulation process was selective

⁴⁶ US Congress, Senate Committee on Armed Services, testimony of Admiral James E. Cartwright, 4 April 2005. Quoted in Amy F. Woolf, 'Conventional prompt global strike and long-range ballistic missiles: background and issues', *Congressional Research Service*, 25 Oct. 2010, p. 4.

⁴⁷ Elke Schwarz, *Death machines: the ethics of violent technologies* (Manchester: Manchester University Press, 2019); Tim Stevens, *Cyber security and the politics of time* (Cambridge: Cambridge University Press, 2015).

⁴⁸ Theo Farrell, 'World culture and military power', *Security Studies* 14: 3, 2005, pp. 448–88.

⁴⁹ Joelen Pretorius, 'The security imaginary: explaining military isomorphism', *Security Dialogue* 39: 1, 2008, pp. 99–120.

⁵⁰ Anthony King, *The transformation of Europe's armed forces: from the Rhine to Afghanistan* (Cambridge: Cambridge University Press, 2011), p. 7.

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and incomplete.⁵¹ Even so, the overall transformation was still guided by the same wartime paradigm of optimizing for speed in order to manage international risks.

The post-Cold War wartime paradigm has thus shaped a particular way of using force for western warfare. On the one hand, the conception of war as risk management led to a strategic posture in which armed forces have to be able to react quickly to whatever emergency may arise, while also being able to manage such risks in the long run. The ‘forever war’ is fundamentally a vision in which armed forces must be able to act fast, wherever, whenever and for as long as deemed necessary: it is in fact a vision of ‘forever policing’. On the other hand, the operational and doctrinal concepts guiding the transformation of western armed forces emphasized achieving military superiority by disrupting the adversary’s system through superior speed (in intelligence-gathering and processing, decision-making, targeting, etc.). This vision was achievable thanks to the unipolar moment during which the United States and its allies did not face adversaries of comparable status able to seriously challenge their military dominance, despite obvious setbacks in Iraq and Afghanistan. The wartime paradigm combining a preference for speed and risk management endured despite the failures of these two campaigns, which temporarily forced western military organizations to adapt,⁵² and to adopt operational concepts (notably counter-insurgency or COIN doctrines) emphasizing pacing and long-term engagement in support of host societies. Yet the embrace of counter-insurgency by the US (and western) armed forces was ultimately limited as it did not fit with preferred operational approaches,⁵³ and the entire COIN endeavour, with its emphasis on long-term commitments, ended up being politically unacceptable to leaders expecting speedy results.⁵⁴ As an operational concept, COIN dovetailed with the ‘risk management’ imaginary, but did not fit with the emphasis on speed in warfare; as a result, COIN doctrines were adopted only to a limited extent and were not sustained for long in western militaries.

However, the emerging era of ‘strategic competition’ and the character of warfare associated with it is likely to clash with the wartime paradigm that has been guiding western warfare since the Cold War. I now turn to an assessment of this emerging era before discussing its operational consequences.

Emerging challenges for western warfare

In this section, I summarize the main developments in the character of warfare that are likely to challenge western armed forces. This overview serves as a foundation

⁵¹ Terry Terriff, Frans Osinga and Theo Farrell, eds, *A transformation gap? American innovations and European military change* (Palo Alto, CA: Stanford University Press, 2010).

⁵² Theo Farrell, Frans Osinga and James A. Russell, eds, *Military adaptation in Afghanistan* (Palo Alto, CA: Stanford University Press, 2013).

⁵³ Pascal Vennesson, ‘Fighting, fast and slow? Speed and western ways of war’, in Sten Rynning, Olivier Schmitt and Amelie Theussen, eds, *Western perceptions of time and the pace of war* (Washington DC: Chatham House/Brookings Institution Press, forthcoming 2020).

⁵⁴ Douglas Porch, *Counterinsurgency: exposing the myths of the new way of war* (Cambridge: Cambridge University Press, 2013); M. L. R. Smith and David Martin Jones, *The political impossibility of modern counterinsurgency* (New York: Columbia University Press, 2015).

to assess the main developments on the battlefield, whose impact on the western wartime paradigm I shall discuss in the next section. In a nutshell, in case of conflict, western forces will have to fight in much more contested environments.

The first aspect of this contested environment is the development of so-called anti-access/area denial (A2/AD) capabilities. A2/AD capabilities refer to a combination of technologies (long-range anti-aircraft and anti-ship missiles, new generation fighters such as the Russian SU-57 and the Chinese J-20, anti-satellite weapons, mining, electronic and cyber warfare, etc.), operational postures and tactics designed to prevent access to a given geographic area for either defensive or offensive purposes.⁵⁵ To a large extent, the development of A2/AD capabilities is a reaction by potential adversaries to what they perceive as being the main feature of western warfare, namely force projection.⁵⁶ The development of such force postures is, then, a logical step in the historical dialectical relationship between offensive and defensive capabilities, a classic case of strategic adaptation. These A2/AD capabilities are not impenetrable and of course do not constitute an invulnerability totem,⁵⁷ but they nevertheless will complicate force deployment for western forces.

This is part of a more general trend of increased lethality on the battlefield linked to the diffusion of mature precision-strike capabilities and open technological innovation to potential adversaries: a phenomenon Audrey Kurth Cronin refers to as 'widespread lethal empowerment'.⁵⁸ Countries such as Russia and China are now able to use the long-range precision strikes once the preserve of western arsenals, which directly threaten critical stationary installations (such as headquarters or major bases) where the resources necessary for western states to wage war are concentrated. The current development of hyper-velocity missiles, able to fly at speeds of Mach 5 and higher, is another illustration of the dissemination of long-range strike capabilities. Nor is the spread of precision-strike capabilities limited to major states: non-state actors such as Hezbollah have demonstrated limited possession of such resources.⁵⁹ Overall, the United States and its allies 'should assume that they will fight in highly contested environments against technologically advanced opponents, that they will be unlikely to avoid detection in any domain, and that they will lose large numbers of military systems in combat'.⁶⁰

Another way for competitors to try to offset western military advantages has been to shift the area of competition below the threshold of open warfare.⁶¹

⁵⁵ Bjorn Elias Mikalsen Gronning, 'Operational and industrial military integration: extending the frontiers of the Japan-US alliance', *International Affairs* 94: 4, July 2018, pp. 735–54.

⁵⁶ Sam J. Tangredi, *Anti-access warfare: countering A2/AD strategies* (Annapolis, MD: Naval Institute Press, 2013); Stephen Biddle and Ivan Oelrich, 'Future warfare in the western Pacific', *International Security* 41: 1, 2016, pp. 7–48; Stephan Frühling and Guillaume Lasconjarias, 'NATO, A2/AD and the Kaliningrad challenge', *Survival* 58: 2, 2016, pp. 95–116.

⁵⁷ Keir Giles and Mathieu Boulegue, 'Russia's A2/AD capabilities: real and imagined', *Parameters* 49: 1–2, 2019, pp. 21–36.

⁵⁸ Audrey Kurth Cronin, *Power to the people: how open technological innovation is arming tomorrow's terrorists* (Oxford: Oxford University Press, 2019).

⁵⁹ Thomas G. Mahnken, 'Weapons: the growth and spread of the precision-strike regime', *Daedalus* 140: 3, 2011, pp. 45–57; Roger N. McDermott and Tor Bukkvoll, 'Tools of future wars: Russia is entering the precision-strike regime', *Journal of Slavic Military Studies* 31: 2, 2018, pp. 191–213.

⁶⁰ Christian Brose, 'The new revolution in military affairs', *Foreign Affairs* 98: 3, 2019, p. 122.

⁶¹ Rory Cormac and Richard J. Aldrich, 'Grey is the new black: covert action and implausible deniability',

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Recent events such as Russia's use of troops without regular uniforms to annex Crimea and its support for insurgents in eastern Ukraine, China's construction of artificial islands in the South China Sea, and acts of political subversion such as interference in western elections have led some commentators to identify a blurring of the distinction between war and peace.⁶² Confronted by the technological and material strengths of western armed forces, state and non-state adversaries try to nullify this advantage by targeting potential weaknesses, in this case in western societies. For example, some Russian military theorists argue that the very nature of war may be changing, with information warfare and subversion becoming the most important dimensions, since they shape the enemy's willingness to fight.⁶³ Russia is engaged in a military modernization programme which is a component of its self-perception as a Great Power, but 'this does not mean ... that stronger armed forces automatically signal Putin's desire to pursue expansionist policies ... In any case, the country's relative military power is still limited in many respects.'⁶⁴ Competition with western countries is conducted below the threshold of open violence and aims to 'divide, demoralise and distract the West enough so that it cannot resist as Russia asserts its claims.'⁶⁵ China is also engaged in subtle forms of coercion against western societies (for example, putting pressure on western companies and airlines to refer to Taiwan as a Chinese territory, or intimidating researchers), while jihadist and far-right terrorist groups also attempt to shape political contexts and narratives through a combination of violence and propaganda.⁶⁶ Attempts at coercion can also be made through information operations: in a context of a 'global data shock' which facilitates 'the wide use of strategic manipulation under information overload',⁶⁷ social media networks have presented a new opportunity to shape perceptions.⁶⁸ In short, actors trying to offset western warfare 'apply military technology and operations to achieve direct and indirect societal impact, while at the same time "weaponising" and employing toward the same aim a plethora of social tools, dual-use technologies, the law, social networks, cyber, demographics and economics'.⁶⁹

International Affairs 94: 3, May 2018, pp. 477–94; Mikael Wigell, 'Hybrid interference as a wedge strategy: a theory of external interference in liberal democracy', *International Affairs* 95: 2, March 2019, pp. 255–76.

⁶² Elie Perot, 'The blurring of war and peace', *Survival* 61: 2, 2019, pp. 101–10; Yevgeniy Golovchenko, Marieke Hartmann and Rebecca Adler-Nissen, 'State, media and civil society in the information warfare over Ukraine: citizen curators of digital disinformation', *International Affairs* 94: 5, Sept. 2018, pp. 975–94.

⁶³ Oscar Jonsson, *The Russian understanding of war: blurring the lines between war and peace* (Washington DC: Georgetown University Press, 2019).

⁶⁴ Bettina Renz, *Russia's military revival* (Cambridge: Polity, 2018), p. 17; 'Russian responses to the changing character of war', *International Affairs* 95: 4, July 2019, pp. 817–34.

⁶⁵ Mark Galeotti, *Russian political war: moving beyond the hybrid* (Abingdon: Routledge, 2018), p. 2.

⁶⁶ Ross Babbage, *Winning without fighting: Chinese and Russian political warfare campaigns and how the West can prevail* (Washington DC: Center for Strategic and Budgetary Assessments, 2019); Martin Hearson and Wilson Prichard, 'China's challenge to international tax rules and the implications for global economic governance', *International Affairs* 94: 6, Nov. 2018, pp. 1287–308; Ian Klinke, 'Geopolitics and the political right: lessons from Germany', *International Affairs* 94: 3, May 2018, pp. 495–514.

⁶⁷ Robert Mandel, *Global data shock. strategic ambiguity, deception, and surprise in an age of information overload* (Palo Alto, CA: Stanford University Press, 2019), p. 196.

⁶⁸ Peter W. Singer and Emerson T. Brooking, *LikeWar: the weaponization of social media* (New York: Houghton Mifflin Harcourt, 2018).

⁶⁹ Ariel E. Levite and Jonathan Shimshoni, 'The strategic challenge of society-centric warfare', *Survival* 60: 6, 2018, pp. 91–118.

An increasingly challenging domain for western armed forces is electronic warfare (EW), in particular its integration with cyber activities (including information operations), a phenomenon captured by the label ‘cyber electromagnetic activities’ (CEMA).⁷⁰ Potential adversaries have realized that western warfare is heavily dependent on C4ISR (command, control, communications, computers, intelligence, surveillance and reconnaissance) capabilities and are thus developing tools to counter such systems through jamming, interference and disruption of communications and radar systems or combat platforms. For example, Russia has made a sustained investment in EW capabilities since 2009 and now systematically integrates EW capabilities at the strategic, operational and tactical levels.⁷¹ Russia mobilized these capabilities in Ukraine, for example by tracking the electromagnetic signature of devices used by Ukrainian forces (for targeting or disruption purposes), countering the use of unmanned aerial vehicles or directly sending text messages encouraging defection to Ukrainian soldiers on the front line. This is where the convergence between cyber activities and EW is particularly interesting, since Russian forces have been able to gather intelligence on Ukrainian troop movements by monitoring social media, before hacking the Global System for Mobile Communications (GSM) networks by diffusing Multimedia Messaging Service (MMS) and installing malware on their mobile phones which then allows Russian troops not only to read text messages and listen to conversations, but also to send tailored text messages to the soldiers as part of information operations.⁷² While the overall strategic success of Russia’s actions in Ukraine is debatable,⁷³ this is nevertheless a noteworthy tactical evolution. Similarly, China plans to achieve electromagnetic dominance through a combination of appropriate intelligence, multilevel integration of assets and resources, ‘precise release of energy’ (electromagnetic, directed or sound) through careful targeting, and ‘effects in multiple areas’ (the integration of deterrence, deception and destruction in the electromagnetic domain).⁷⁴ Western forces have acknowledged this vulnerability and are acquiring capabilities and developing tactics and operational concepts designed to mitigate the growing threat of advanced adversary CEMA capabilities; but nevertheless they face new difficulties compared with the period of western dominance in EW in the 1990s and 2000s.

Finally, two environments are likely to be critical for future operations. First, extra-atmospheric space is increasingly contested. Space assets provide armed forces with near worldwide coverage and access to otherwise denied areas, thus

⁷⁰ Ewan Lawson, ‘Into the ether: considering the impact of the electromagnetic environment and cyberspace on the operating environment’, in Peter Roberts, ed., *The future conflict operating environment out to 2030*, occasional paper (London: Royal United Services Institute, 2019), pp. 55–60.

⁷¹ Roger N. McDermott, *Russia’s electronic warfare capabilities to 2025: challenging NATO in the electromagnetic spectrum* (Tallinn: International Centre for Defence and Security, 2017).

⁷² Aaron F. Brantly, Nerea M. Cal and Devlin P. Winkelstein, *Defending the borderland: Ukrainian military experiences with IO, cyber, and EW* (West Point, NY: US Army Cyber Institute, 2017).

⁷³ Lawrence Freedman, ‘Ukraine and the art of limited war’, *Survival* 56: 4, 2014, pp. 7–38.

⁷⁴ Zi Yang, ‘PLA stratagems for establishing wartime electromagnetic dominance: an analysis of “the winning mechanisms of electronic countermeasures”’, *China Brief* 19: 3, 2019, <https://jamestown.org/program/pla-stratagems-for-establishing-wartime-electromagnetic-dominance-an-analysis-of-the-winning-mechanisms-of-electronic-countermeasures/>.

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contributing to major war-fighting functions, such as situational awareness and navigation (through the Global Positioning System, GPS), communications or early warning (of a missile launch, for example). However, as a consequence of the maturity of the precision-strike regimes and electromagnetic capabilities discussed above, potential adversaries today have more options to target space assets, by means such as anti-satellite missiles or electronic jamming. In future operations, western forces will have to ensure they still have access to the space assets that sustain the capabilities they need to wage high-speed networked warfare.

Second, it is likely that western forces will in the future have to operate in megacities; this represents a major development in the history of urban warfare.⁷⁵ The urban environment can be operationally particularly challenging:

Urban warfare is a manpower and resource intensive, highly violent, decentralized type of combat that demands capable and flexible small-unit leadership; combined arms operations are essential, with infantry and armor closely aligned and ground forces are supported by air power; good intelligence is critical albeit often hard to attain, and perhaps most importantly, the presence of large civilian populations inevitably complicates nearly all aspects of urban operations. In asymmetric warfare between conventional state forces and armed non-state actors, the city levels the playing field.⁷⁶

After three decades of largely avoiding urban warfare, western forces are likely to have to confront it again, the battle of Mosul in 2016–17 representing just the beginning of a new trend.

All these developments have consequences for the pace at which western warfare is conducted.

Towards a new wartime paradigm for western warfare

As discussed in the second section of this article, the counter-insurgency campaigns in Iraq and Afghanistan briefly challenged the emphasis on speed but kept the ‘risk management’ imaginary intact. In this section, I argue that the emerging character of warfare portrayed above has differentiated effects on speed (slowing down the pace of operations in certain areas and accelerating it in others) but also challenges the conception of war as a tool of risk management. This being so, the durability of western military power will be determined not only by successful doctrinal adaptation or military innovation but also, and more fundamentally, by the evolution of the western wartime paradigm that dominated the post-Cold War era.

First, the emerging character of warfare signals a change in pace with various consequences for the emphasis on speed. Some developments are designed to actually slow down the pace of western warfare. At the strategic level, information warfare and operations in the ‘grey zone’ (below the threshold of open conflict) aim at paralysing decision-making in a variety of ways. The obvious long-term objective is to shape political contexts in target societies so that certain constituent-

⁷⁵ David Kilcullen, *Out of the mountains: the coming age of the urban guerrilla* (London: Hurst, 2013).

⁷⁶ Margarita Konaev, *The future of urban warfare in the age of megacities*, Focus Stratégique no. 88 (Paris: Institut Français des Relations Internationales, 2019), p. 51.

cies may come to view the adversaries' objectives more favourably, and thus create political pressure on decision-makers: divided societies need more convincing by their leaders and are thus slower to react, potentially buying some precious time for an adversary.⁷⁷ Moreover, information operations are designed to confuse by hiding key signals in a massive output of informational noise which has to be treated, assessed and prioritized: such operations complicate decision-making by negating the information advantage that western warfare was supposed to enjoy. As such, the saturation of information channels drastically complicates intelligence assessments.⁷⁸ Making decisions on the basis of imperfect information is not a new challenge, but current decision-makers have been accustomed to much more clarity when deciding on the use of military force: they will need to adjust to this new context, which will slow down decision-making processes at the strategic level. This approach was, for example, used by Russia in order to create a *fait accompli* when invading Crimea: through a combination of cyber and electromagnetic operations, use of special forces and information operations designed to confuse external audiences, western countries' reaction time was significantly extended.⁷⁹

Attempts to slow down western warfare also take place at the operational level. Threats to space-based assets, the use of megacities as battlefields and the establishment of A2/AD 'bubbles' all constitute efforts to negate the western advantage in speed. For example, the diffusion of advanced anti-aircraft weapon systems such as the Russian S-400 represents a clear challenge to the air supremacy that western forces have enjoyed since the Gulf War and will force planners to design operations taking into account this loss of supremacy. However, the loss of absolute supremacy is not the same thing as an inability to achieve supremacy for a limited period of time, for example by temporarily spoofing, disabling or deceiving defence systems. 'Baiting' the defence by testing it, eventually forcing the operators to fire expensive missiles, and waiting for the right opportunity to engage is one of the ways to achieve some limited air superiority in defence-rich areas of operations. Again, this is nothing new—western air forces have been challenged before—but it is another change in the pace of operations from the post-Cold War era.

Things are different at the tactical level. First, fast mobilization and high readiness are still useful in order to establish a *fait accompli*. Moreover, the rise of mature precision-strike regimes and the convergence between cyber and electronic warfare actually for the most part *accelerate* the pace for western forces, for example prompting the chief of the Australian Army to entitle his 2018 'futures statement' *Accelerated warfare*.⁸⁰ One of the main risks here is posed by new generations of missiles, which can quickly strike a concentration of ground forces or critical enablers such

⁷⁷ Olivier Schmitt, 'When are strategic narratives effective? The shaping of political discourse through the interaction between political myths and strategic narratives', *Contemporary Security Policy* 39: 4, 2018, pp. 487–511.

⁷⁸ Chad W. Fitzgerald and Aaron F. Brantly, 'Subverting reality: the role of propaganda in 21st century intelligence', *International Journal of Intelligence and CounterIntelligence* 30: 2, 2017, pp. 215–40.

⁷⁹ Michael Kofman, Katya Migacheva, Brian Nichiporuk, Andrew Radin, Olesya Tkacheva and Jenny Oberholtzer, *Lessons from Russia's operations in Crimea and eastern Ukraine* (Santa Monica, CA: RAND, 2017).

⁸⁰ Lt-Gen. Rick Burr, *Accelerated warfare: futures statement for an army in motion* (Canberra: Australian Army, July 2018); Maryanne Kelton, Michael Sullivan, Emily Bienvenue and Zac Rogers, 'Australia, the utility of force and the society-centric battlespace', *International Affairs* 95: 4, July 2019, pp. 859–76.

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as airborne early warning and control systems, planes and capital ships. Offensive tactical cyber and EW operations can also very quickly achieve crippling military effects. CEMA capabilities affect timing in terms of both pacing and speed. First, it is possible to install malware or access vulnerabilities which will be activated only at a specific moment: pacing matters when it comes to how to probe defences, identify vulnerabilities and decide when to exploit them. Second, once activated, these resources can be immediately disruptive, forcing the target to react quickly in order to mitigate the most dangerous effects of such attacks: speed is of the essence. Overall, these new threats drastically augment the range from the targets at which western forces can operate in relative safety, and in turn compress decision-making time for tactical commanders. Here again, solutions may exist, for example through the use of automated and/or artificial intelligence-assisted command and control functions, which could facilitate tactical commanders' decision-making processes and alleviate the feeling of being overwhelmed by events.

An exception to this acceleration at the tactical level could be the use of special operations forces (SOFs). In recent years, SOFs have been extremely popular with decision-makers, because of their discreet, high-impact nature and their utility in targeting and killing terrorist leaders (in line with a risk management approach). However, the increased lethality of the battlefield and the mounting challenges on the electromagnetic spectrum will change the operating tempo of SOF operators. In place of the emphasis on fast kinetic actions in immediate reaction to an intelligence report, they will gradually refocus their activities on shaping the future battlefield through infiltration, sabotage, and advice and training missions, sometimes not communicating for several days at a time in order to minimize their electromagnetic signature.⁸¹ Again, historically this is not new for special forces (it recalls the ways SOFs such as the Jedburghs were employed during the Second World War), but it represents a change of operational pace to which contemporary decision-makers are not accustomed when deploying SOFs.

It is clear, then, that the pace of warfare is shifting, accelerating in certain areas and slowing down in others, which means that speed can no longer be the dominant feature of the overarching paradigm designed to achieve battlefield superiority. Moreover, this shifting pace of warfare is combined with military developments questioning the durability of the 'risk management' approach to war, which—in a nutshell—allowed the prolongation of western military power in the post-Cold War era through a reinvention of the main institution for security coordination (NATO) and an evolution of practices (military interventions) that guided the transformation of western armed forces. Thus both dimensions of the established wartime paradigm are now challenged.

For the past 30 years, western warfare has been coalition warfare, with the NATO alliance playing a major role in coordinating security policies, sometimes including non-NATO states (an example would be the Swedish or Australian

⁸¹ James D. Kiras, 'Future tasks: threats and missions for SOF', *Special Operations Journal* 5: 1, 2019, pp. 6–24; Philip Lohaus, 'Special operations forces in the gray zone: an operational framework for using special operations forces in the space between war and peace', *Special Operations Journal* 2: 2, 2016, pp. 75–91.

participation in the International Security Assistance Force in Afghanistan). Moving towards risk management was instrumental in ensuring NATO's survival after the Cold War, when the alliance had to reinvent itself.⁸² As Michael Williams wrote in 2008, 'whereas the "other" of the Soviet Union previously defined NATO in modernity, in late or postmodernity NATO now defines itself'.⁸³ Of course, NATO did not entirely replace its defence and deterrence missions with risk management; but after the end of the Cold War the emphasis was clearly on the latter, even to the point of creating tensions within the alliance.⁸⁴ However, the evolving character of war may change this dynamic, as already suggested by a difficult but renewed emphasis on deterrence since 2014.⁸⁵ In the event of a NATO–Russia crisis in which Russia were to use its long-range hypersonic strike capabilities, the North Atlantic Council (NAC) would have no time to authorize physical interception (the time between detection and impact could be as low as six minutes): thus the speed of the emerging weapons systems could lead to strategic paralysis. Since there is virtually no way to speed up the NAC response sufficiently, the answer can only be political: this should force NATO to think about a pre-delegation of authority to the alliance military commanders, and raises important questions of alliance solidarity and civil–military relations.⁸⁶ But above all, what is required is a shift in mentality, such that NATO thinks in terms of threats (to be deterred) rather than risks (to be managed): a renewed emphasis on deterrence could thus have a positive effect on strategic stability.⁸⁷ This will require NATO to reprioritize defence over risk management.

Moreover, this changing security environment fundamentally questions the military practice that has been strongly associated with western risk management in the past 30 years: military interventions. The results of these interventions have been debatable at best,⁸⁸ a conclusion which questions their effectiveness, and the military developments discussed above suggest that they are going to be increasingly difficult to conduct, a conclusion which questions their efficiency. In short, the 'forever policing' through military interventions that is at the heart of the risk management approach to war is directly challenged by the gradual contestation of the battlefield.

Overall, the changing character of warfare directly questions a wartime paradigm based on a combination of speed and risk management. For western forces, it is probably tempting to stick to this wartime paradigm and do 'more of the

⁸² Christopher Coker, *Globalisation and insecurity in the twenty-first century: NATO and the management of risk* (London: International Institute for Strategic Studies, 2002); Michael J. Williams, *NATO, security and risk management: from Kosovo to Kandahar* (Abingdon: Routledge, 2009).

⁸³ Williams, '(In)security studies', p. 61.

⁸⁴ Theo Farrell and Sten Rynning, 'NATO's transformation gaps: transatlantic differences and the war in Afghanistan', *Journal of Strategic Studies* 33: 5, 2010, pp. 673–99.

⁸⁵ Jens Ringsmose and Sten Rynning, 'Now for the hard part: NATO's strategic adaptation to Russia', *Survival* 59: 3, 2017, pp. 129–46.

⁸⁶ Trevor McKrisken and Maxwell Downman, "'Peace through strength": Europe and NATO deterrence beyond the US Nuclear Posture Review', *International Affairs* 95: 2, March 2019, pp. 277–96.

⁸⁷ Heather Williams, 'The impact of speed and innovation on western military primacy', in Rynning et al., eds, *Western perceptions of time and the pace of war*.

⁸⁸ Donald M. Snow, *The case against military intervention: why we do it and why it fails* (Abingdon: Routledge, 2015).

same': it is the default and comfortable position, as illustrated by recent US military doctrinal statements.⁸⁹ For example, General Allvin, the US Joint Staff's director of strategy, plans and policy, declared that speed has to be a characteristic of the US forces: 'We have to up our game in speed of recognition, speed of decision and speed of action, because it is coming at us that fast.'⁹⁰ However, this effort to increase speed yet further is likely to fail, for several reasons. At the strategic and operational levels, the slowing down of western warfare imposed by information operations or A2/AD strategies cannot simply be overcome by the default answer of better technologies and more intricately networked armed forces. For example, when it comes to information operations, no emphasis on speed will solve the deep political issues exposed by this type of interference. Political debates are necessary in a democracy, and the priority should be not to evade them in order to fast-track or automate decision-making, but instead to be aware of malign influences aiming at degrading the western capability to act. Second, there is only so much one can do in order to regain some speed in urban warfare, or in order to counter A2/AD strategies: the very nature of the military challenges imposes a slowing down at the operational level, and it would be better to accept this than to cling onto an idea of speed as the solution to all operational challenges. At the tactical level, the increasing speed at which western forces can be threatened will to some degree be mitigated by advancing technologies, but this will only allow western forces to compete with adversaries; it will not guarantee battlefield dominance. In a context in which both potential adversaries and western forces emphasize speed on the battlefield, there is an asymptotic limit to what technological progresses can offer in terms of military advantage: the return on investment decreases over time. Offsetting this increasing speed will require new operational concepts and force structures that remain to be invented.

More fundamentally, the future of western military power rests on the extent to which the risk management imaginary is adapted to a security environment of Great Power competition in which destructive capabilities are widely diffused to both state and non-state actors.

In sum, the wartime paradigm that has dominated western warfare since the end of the Cold War is increasingly challenged and counterproductive. In order for western forces to remain relevant, it is important to establish a new wartime paradigm fit for twenty-first-century warfare. In principle, this paradigm should dispense with the perception of warfare as risk management and move on from the 'chaoplex warfare' that has hitherto dominated operational concepts.

Conclusion

This article has argued that a specific wartime paradigm based on speed and risk management has guided western warfare since the end of the Cold War.

⁸⁹ Nina A. Kollars, 'War at information speed? Competing multi-domain warfighting visions', in Rynning et al., eds, *Western perceptions of time and the pace of war*.

⁹⁰ Jim Garamone, 'Military global integration is about change, Joint Staff official says', press release, US Department of Defense, Washington DC, 15 May 2019.

Contemporary and foreseeable developments in potential adversaries' capabilities are directly challenging this wartime paradigm, and thus the way western forces prepare for and conduct war. In order to maintain their operational superiority, western forces need to take into serious consideration not only the changing political and technological contexts of warfare, but also its evolving pace at the strategic, operational and tactical levels.

This article does not claim to be exhaustive in its treatment of the future pace and tempo of warfare. What it does aim to do is to open up a discussion among western forces; to prompt them to reflect on their assumptions about the importance of speed in the conduct of military operations, and on what the consequences of adapting to a changing pace of warfare mean in terms of force structure, operational planning and tactical training. It also aims at challenging the risk management approach to war that has so far dominated the post-Cold War era but is becoming gradually irrelevant.

For scholars of war and strategic studies, further research needs to be done in analysing the conditions of emergence of 'wartime paradigms', as I call them in this article. I have suggested that these wartime paradigms are subsets of broader regimes of historicity and emerge through the combination of socio-technological and security-political imaginaries. However, the mechanisms through which a wartime paradigm comes to dominate need to be explored. A related major issue is to what extent it is in fact possible for wartime paradigms to be changed. Authors such as Virilio and Rosa imply that wartime paradigms emphasizing speed are ontologically related to the political and economic structure of western countries as the result of centuries-long processes of development in capitalism, individualism and liberal democracy: they would probably argue that the current wartime paradigm is unlikely to be substantially altered. My own view is more contextual, as I perceive the current wartime paradigm as the result of a conjunctural encounter of a socio-technological imaginary based on chaoplexic warfare and a security-political imaginary emphasizing risk management, either of which would have been a necessary but insufficient condition for a wartime paradigm. In any case, further research is needed, looking at other historical periods and geographic contexts in order to better understand how wartime paradigms emerge, and how they influence the conduct of warfare.