Journal of Military and Strategic Studies

VOLUME 19, ISSUE 3

Changing Participation in War: Is a Paradigmatic Shift Underway?

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Introduction

War, an ever-present phenomenon, has rarely been static for long. Even if war's essential nature – as politically driven violent activity between opposing wills – has remained unchanged, its conduct has, under the influence of many factors, constantly evolved. Clausewitz made clear that every era has its "own kind of war, its own limiting conditions and its own peculiar preconditions."[1] Massive upheavals in the political and social order of Europe transformed the conduct warfare in his time. The emergence of nationalism led to a substantial increase in the capacity of states to mobilize huge citizen armies.[2] Reflecting on the significance of this revolution in war's participation, he wrote:

[1] Carl von Clausewitz, *On War*, trans. and ed. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), p. 593.

[2] For what has become a classic treatment on systemic change in war in international affairs, refer to Robert Gilpin, *War and Change in World Politics* (Cambridge: Cambridge University Press, 1981).

ISSN : 1488-559X

> In the eighteenth century […] war was still an affair for governments alone …. At the onset of the nineteenth century, peoples themselves were in the scale on either side…. Such a transformation of war might have led to new ways of thinking about it.[3]

The mass involvement of the populace in national warfare not only transformed the conduct of interstate warfare;[4] it perhaps even recast the concept of the state itself.[5] Are we now experiencing an equivalent bouleversement in the established practice of warfare brought about by a tremendous shift in participation? This article posits that such a major transformation is underway, and, moreover, that it may prove to be on a scale comparable to that which took place over the course of the nineteenth century.[6]

To focus on change in participation in war is not to make the claim that this is the only way in which war, as it is currently conceptualized, is evolving – it is but one aspect of more comprehensive change underway. Nevertheless, understanding who might participate in war and, as a corollary, the particular tools and methods used to carry out violence in pursuit of political goals, is of acute importance to defense planners and warfighters. Western militaries are primarily organized, albeit often imperfectly, around an estimation of who their likely opponents are and who they might be in the future. Major shifts in war's participants thus present intense challenges for those charged with figuring out how best to employ destructive and/or disruptive force.

Arguably, conflicts already underway are defying traditional ideas about the conduct of war and, more specifically, who makes up its identifiable contestants. Indeed, there is plenty of evidence to suggest that defense establishments in the West and elsewhere are engaged in deep introspection about the suitability of existing

[3] Carl von Clausewitz, *On War*, trans. and ed. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), pp. 583-84.
[4] Hew Strachan, *European Armies and the Conduct of War* (London: Routledge, 1983), pp. 38-59.
[5] Lars-Erik Cederman, T. Camber Warren, and Didier Sornette, "Testing Clausewitz: Nationalism, Mass Mobilization, and the Severity of War," *International Organization* 65, No. 4 (2011): pp. 605-638.
[6] It took time for this model to take hold in Prussia and then later Britain. Deborah Avant, "From Mercenary to Citizen Armies: Explaining Change in the Practice of War," *International Organization* 54, No. 1 (2000): p. 41.

capabilities for safeguarding their nations' critical interests at home and abroad.[7] The aim of this article is to contribute to this broad discussion about the evolution in the character of war by mapping changes in participation: that is, who is likely to fight today and in the future. It advances the argument that a major shift in warfare's participation *is* happening and that it is a consequence of wider changes in warfare as well as a *cause* of change itself. To illustrate this bidirectional aspect, the first two sections are primarily concerned with how major trends in the international security environment and the use of force are transforming participation in warfare. These developments are questioning the central place that modern, regular armed forces – at least so far as they are currently configured – have held in violent contests. The second half of the analysis switches attention to the way some countries, by increasingly deputizing combat to both other humans but increasingly to machines, are themselves fundamental altering participation in warfare. Driven by the desire to reduce the burdens of military action – chiefly the human costs and the concomitant political risk military intervention poses to decision-makers – states are increasingly externalizing organized violence through the use of surrogates, producing revolutionary change to the praxis of warfare.[8] Though this paper does not prescribe remedies for how best to respond to these developments – leaving the formulation of solutions to those better placed to do so, such as defense establishments – it does conclude by offering some broad observations that may be of value to policy-makers and warfighters.

War's Gravitational Pull

It is widely believed that power in the post-Cold War world has spread more widely among states and, simultaneously, has cascaded from states down to non-state

[7] See for example: Pasi Eronen, Tiina Ferm, Mika Kalliomaa, Nadja Nevaste, Irina Olkkonen, Juha-Antero Puistola, Finnish Dept of Defense, *The Finnish Comprehensive Security Concept as a Model for Countering Hybrid Influencing*, available at https://www.hybridcoe.fi/publication-tags/strategic-analysis/; and the European Union's *2016 Joint Framework on Countering Hybrid Threats*, available at https://eurlex.europa.eu/legal-content/EN/TXT /?uri=CELEX%3A52016JC0018

[8] Andreas Krieg, "Externalizing the Burden of War: The Obama Doctrine and US Foreign Policy in the Middle East," *International Affairs* 92, No. 1 (2016): pp. 97-113.

entities.[9] In many spheres, including the prosecution of organized violence, private actors, trans-national groups, and small states have acquired a larger share of power relative to major established powers.[10] This is partly a consequence of the empowering effect of new technologies. Perhaps the most distinguishing feature of the contemporary international system is that powerful states have lost their monopoly on the use of force.[11] One manifestation of this redistribution of power is that the most prevalent form of conflict in recent decades has not been major inter-state war but rather intra-state war. By the very nature of such wars, one or more of the sides fighting is not the state.

Though violent non-state actors are nothing new,[12] until recently war was thought of almost exclusively as a two-way military fight between the organized militaries of unified political entities – typically depicted as states.[13] Even when military thinkers such as Clausewitz contemplated the participation of non-state combatants in war, it was typically assumed that they would fight on behalf of their state against an invader rather than using violence to independently pursue their own political agenda.[14] The traditional and perhaps idealized image of war fits poorly with the conduct of much of the conflict today, in Syria for example, where participation is far from being the preserve of the state. Rapid technological advances in recent years have played no small part in creating the necessary conditions for the mobilization and entry of new participants into conflict. In short, war's gravitational pull has been strengthened by technological change, bringing a multitude of new participants into its orbit.

Compared to the twenty-first century, technology exerted only a moderate influence on the conduct of warfare in the century or so before Clausewitz's

[9] Jessica T. Mathews, "Power shift," *Foreign Affairs* (January/February, 1997), pp. 50-66.
[10] This argument was made at the end of the Cold War. See Joseph S. Nye, "Soft Power," *Foreign Policy* 80 (1990): pp. 153-171.
[11] Richard N. Haass, "The Age of Nonpolarity: What Will Follow U.S. Dominance?" *Foreign Affairs* (May/June 2008), p. 45.
[12] Jakub J. Grygiel, *Return of the Barbarians: Confronting Non-State Actors from Rome to the Present* (Cambridge: Cambridge University Press, 2018).
[13] Emile Simpson, "Clausewitz's Theory of War and Victory in Contemporary Conflict," *Parameters* 47, No. 4 (Winter 2017-18): p. 11.
[14] Hew Strachan, *Clausewitz's On War, A Biography* (New York: Atlantic Monthly Press, 2007), p. 182. On Clausewitz's view of small wars, see Sebastian Kaempf, "Lost through NonTranslation: Bringing Clausewitz's Writings on 'New Wars' Back In," *Small Wars & Insurgencies* 22, No. 4 (2011): pp. 548-73.

observations. Much of the current discussion about contemporary and future of warfare, however, centers on the impact of new and emerging technologies. Yet technology, of and by itself, does not independently produce change; it matters more whether technologies are taken up individuals and organizations and how they are utilized.[15] Along the conflict spectrum, new and emerging technologies have already given a range of non-state political actors a greater ability to engage in violent contestation. The forces associated with globalization have significantly lowered entry barriers for individuals, non-state groups and weak states to acquire and use advanced technologies. This has removed many of the historical constraints placed on the actions available to weak parties imposed by their lack of access, relative to powerful states, to advanced weapons and equipment. In short, it has allowed prospective contestants to more readily engage in military conflict. This is in part also a consequence of the growing relevance and availability of dual-use, commercially available technologies, such as drones, in contemporary conflict. Referring to the battle to retake the Iraqi city of Mosul in late 2016, the head of US Special Operations Command concluded that the adaptive use of off-the-shelf drones by Islamic State fighters was the "most daunting problem" his operators faced on the battlefield in 2016.[16] Armed militants and others can now access capabilities – elements of an air force in the case drones, for example – that were, until recently, exclusively within the purview of powerful states.[17]

Accelerating technological change is also profoundly shaping contemporary warfare by influencing who decides to engage in fighting.[18] The character of communications today has altered the patterns of popular mobilization, producing a

[15] Harro Van Lente, Charlotte Spitters, and Alexander Peine, "Comparing Technological Hype Cycles: Towards a Theory," *Technological Forecasting and Social Change* 80, No. 8 (2013): pp. 1615-1628.
[16] Comments made by Gen. Raymond Thomas at a Special Operations Forces conference are quoted in David B. Larter, "SOCOM commander: Armed ISIS drones were 2016's 'most daunting problem'," *Defense News*, 16 May (2017), http://www.defensenews.com/articles/socom-commander-says-isis-drones-were-2016s-most-daunting-problem; and Ash Rossiter, "Drone Usage by Militant Groups: Exploring Variation in Adoption," *Defense & Security Analysis* 34, No. 2 (2018), https://doi.org/10.1080/14751798.2018.1478183.
[17] US Department of Defense *2010 Quadrennial Defense Review Report*, IV, https://www.defense.gov/Portals/1/features/defenseReviews/QDR/QDR_as_of_29JAN10_1600.pdf.
[18] James Kadtke and Linton Wells II, *Policy Challenges of Accelerating Technological Change: Security Policy and Strategy Implications of Parallel Scientific Revolutions* (Washington, DC: National Defense University, 2014).

modern day version of the *levée en masse*.[19] Mobilization is a crucial element, not just in producing numbers of willing fighters but also in inspiring violence. Widespread access to digital communication technologies, most notably the internet, has empowered individuals and facilitated the spread of ideologically inspired violent movements. Likeminded individuals can connect without reference to geographical distance, making it far easier for populations within and across state boundaries to network, organize and therefore challenge, if they wish to do so, the status quo. Above all, information technologies such as social media platforms, where the individual is both producer and distributor of information, have disrupted set hierarchies and spread power among more people and groups. As a form of participation, the fragmented, networked enemy produced by today's information revolution may turn out to be just as transformative to the conduct of war as the forces unleashed by the French Revolution. Absent of centralized control structures, this type of mobilization often lacks clear direction but this also makes its trajectory and action difficult to predict. It also makes identifying adversaries who are potentially hostile and against whom the use of force may be envisaged inherently problematic.[20] For one thing, the prevailing concept of war as a fight between unified entities is unable to incorporate violent actors with unclear hierarchies and opacity in terms of who is a real or prospective combatant and who is not. And even if combatants are identified, it is uncertain what effect military action predicated on the traditional conception of war may have on such networked groups. Against adversaries with relatively flat hierarchies, it is hard to locate and strike at anywhere approximating their enemy's center of gravity. Indeed, operations against one part of a network may well have little or no impact on the network as a whole, precisely because it is not unified.[21] Military successes cannot easily be translated into political results as a consequence.[22]

[19] Audrey Kurth Cronin, "Cyber-Mobilization: The New Levée En Masse," *Parameters* 36 No. 2 (2006): p. 84.

[20] David Kilcullen warns against aggregating these often loosely connected networks and confronting them as a single entity. See: *The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One* (London: Hurst, 2009).

[21] On this point see Simpson, "Clausewitz's Theory of War," p. 10.

[22] If correct, this would seem to undermine Clausewitz's injunction to defeat an enemy by seeking out their center of power. Clausewitz, *On War*, p. 596.

The democratization of technology is enabling weak adversaries to cheaply counter costly and complex state capabilities. The lack of unity within these movements, however, constrains the overall effect they can produce. Nonetheless, with better access to destructive and disruptive tools – ranging from advanced weapons systems to cyber capabilities – many more actors are in a position to influence the strategic environment.[23] The playing field is evening *and* becoming more crowded with participants.

Participation below War's Threshold

Many aspects of the 'new wars' that became prominent at the end of the last millennium are not new.[24] Western countries nonetheless only began to prioritize non-traditional security challenges in the 1990s. Preparing for and involvement in conflict other than inter-state war became the norm rather than the exception, especially after the 9/11 attacks. The seemingly diminished prospect of major power war was partly a consequence of US military preponderance in the post-Cold War international system. It was also at least in equal part, however, a consequence of the increasing destructive potential of war in the nuclear age.

The recent challenge posed to international order by the revisionist behavior of China, Russia, Iran and others has led the U.S. and other like-minded allies to re-prioritize state challengers as the primary threat to national security.[25] The U.S. *2018 National Defense Strategy* – perhaps the most explicit expression of this change in priority – downgrades terrorism as a national-security priority in favor of "inter-state strategic

[23] See the statement of US Army General Joseph L. Votel (Commander of U.S. Special Operations Command) before the House Armed Services Committee, Subcommittee on Emerging Threats and Capabilities on 18 March 2015. Transcript of statement available at: https://docs.house.gov/meetings/AS/AS26/20150318/103157/HMTG-114-AS26-Wstate-VotelUSAJ-20150318.pdf.

[24] Beatrice Heuser, "Small Wars in the Age of Clausewitz: The Watershed between Partisan War and People's War," *Journal of Strategic Studies* 33, No. 1 (2010): pp. 139-162.

[25] In different ways and with various motives, all three are seeking change to the status quo international order or within their respective regions. See Walter Russell Mead, "The Return of Geopolitics: The Revenge of the Revisionist Powers," *Foreign Affairs* 93, No. 3 (May/June, 2014): pp. 69-79.

competition."[26] The re-emergence of state challengers, however, does not necessarily mean that Western armed forces should return to preparing primarily for encounters against traditional participants: the regular militaries of state rivals. Instead, there are good reasons to think that revisionist states will pursue strategies of confrontation that are below the threshold of Western conceptions of idealized war – a clash of arms between states with a definite start and end. For one thing, conflictual relations between some of the major powers continue to be tempered, as they were in the Cold War, by nuclear escalation risks. Similarly, greater economic interdependence among the major economies makes the costs of a prospective major war very severe indeed – for all parties. For these reasons, revisionist states pursuing assertive foreign policies will likely continue to carry out aggressive actions under the threshold of what has typically been considered an act of war, namely a declared attack with conventional forces on another nation's territory or its people. Avoiding such overt aggression makes perfect sense.

In recent years, revisionist powers have displayed an adeptness at carrying out a combination of disruptive and violent activities that have, at least for now, avoided provoking conventional military responses. These indirect, yet aggressive and sequenced actions have taken place in the ambiguous no-man's-land between peace and war. They have spawned many neologisms, such as 'non-linear', 'gray zone', or 'hybrid' war.[27] Whatever the term employed to describe this approach, its common features are the integrated employment of political, economic, informational, and other non-military measures, in addition to discreet military action, such as sabotage operations by Special Forces.[28] This approach to contentious politics shares many of the characteristics or

[26] Accessed at: https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf.

[27] Michael Mazarr, *Mastering the Gray Zone: Understanding a Changing Era of Conflict* (Carlisle, PA: United States Army War College Press, 2015); Frank Hoffman, "The Contemporary Spectrum of Conflict: Protracted, Gray Zone, Ambiguous, and Hybrid Modes of War," Heritage Foundation Index of Military Power, available at: http://index.heritage.org/military/2016/essays/contemporary-spectrum-of-conflict/; and John Chambers, *Countering Gray-Zone Hybrid Threats: An Analysis of Russia's New Generation Warfare and Implications for the US Army* (US Military Academy-Modern War institute, West Point, United States, 2016).

[28] These are certainly the central aspects as understood by Russia. See: Russian Federation, *Voennaya Doktrina Rossiiskoi Federatsii* [The Military Doctrine of the Russian Federation], approved by the President

warfare but minimizes the use of overt military force. Actions are on too small a scale to provoke a reaction but nonetheless degrade credibility of the defender who lets transgressions go unchecked.[29]

Many of the tools and techniques being used, such as subversion, have been employed for centuries. Their renewed relevance in the contemporary world comes from the fact that several major powers have used them extensively in recent crises to achieve strategic objectives and because their potency is amplified by modern technology. The efficacy of sustained information operations today, for example, is indelibly a consequence of technological advancement in communications.

The methods of confrontation being employed by some revisionist states do not fit with the traditional paradigm of what has come to be understood in the West as war. These actions give war a more ambiguous form, questioning the very suitability of the word to categorize violent activity today. This ambiguity extends to the participants undertaking these actions. In this kind of conflict, as one expert on Russian hybrid warfare explains, "hackers, trolls, assassins, politically connected business executives, spin doctors, paid-for protestors and street thugs are often more useful and more usable than conventional tools of warfare."[30] The growing importance of cyberspace as an operational domain for this approach has been especially critical in changing not only where contestation happens but it is also revolutionizing who the participants are. In the cyber domain, revisionist states have mobilized and brought to bear their civilian resources – from government-sponsored hackers conducting penetration tests of secure networks to so-called 'troll armies' spreading propaganda and misinformation. Furthermore, self-styled hacktivist patriots have launched cyber-attacks against perceived enemies and spread disinformation through social media. A hybrid force of state and coerced or co-opted non-state actors have executed a persistent information

of the Russian Federation on 25 December 2014. See also US Defense Intelligence Agency (DIA), *Russia Military Power: Building a Military to Support Great Power Aspirations* (Arlington, VA: DIA, 2017).

[29] On the 'salami slicing' tactics, see Thomas C. Schelling's classic work: *Arms and Influence*, New Ed. (New Haven: Yale University Press, 2008), especially pp. 66-68.

[30] Christopher S. Chivvis, *Understanding Russian "Hybrid Warfare"* (Santa Barbara, CA: The RAND Corporation, 2017), pp. 2-4; and Bob Seely, *A Definition of Contemporary Russian Conflict: How Does the Kremlin Wage War?* (Russia and Eurasia Studies Centre, Henry Jackson Society, 2018), p. 5.

confrontation against Ukraine since at least 2014.[31] The involvement of non-state actors increases the flexibility and deniability of information operations.[32] By their very nature, these social media relationship tools are decentralized and participatory.[33] As they are not centrally controlled, it is difficult to clearly discern the extent of political direction at play. This ambiguity is, of course, an advantage to those who might be seeking to find a relatively risk-free way of seeking to weaken an adversary. Alongside these benefits, the cost-effectiveness of utilizing non-military participants in this domain is especially appealing to weaker states. As one expert noted at a recent US Senate Intelligence Committee hearing on Russian activities: "A handful of cyber criminals costs a lot less than an armored brigade and can cause a great deal more damage with much smaller risks."[34]

Ambiguity of participation in these conflicts below the threshold of war is precisely what is being sought. For those on the receiving end of such activities, it makes crafting a suitable active defense very difficult. Retaining the traditional Western paradigm of war as the central organizing principle around which military forces are designed may leave them poorly positioned to confront this challenge. Militaries may have predilection for fighting similar-looking foes[35] – the armed forces of other states –

[31] *Disinformation: A Primer in Russian Active Measures and Influence Campaigns, Before the Senate Intelligence Committee* 115th Congress (30 March, 2017) [Congressional testimony by Clint Watts], https://www.intelligence.se
nate.gov/sites/default/files/hearings/S%20Hrg%20115-40%20Pt%201.pdf.

[32] In the case of Russia, nongovernment entities such as the Internet Research Agency, an infamous troll farm that produces manipulative social media content, and groups of supportive or coerced hackers also conduct information operations in coordination with the Russian government. See T. S. Allen and A. J. Moore, "Victory without Casualties: Russia's Information Operations," *Parameters* 48, No. 1 (Spring 2018): p. 66; and US DIA, *Russia Military Power*, p. 40.

[33] David Filipov, "The Notorious Kremlin-Linked 'Troll Farm' and the Russians Trying To Take It Down," *Washington Post*, 8 October 2017, https://www.washingtonpost.com/world/asia_pacific/the-notorious-kremlin-linked-troll-farm-and-the-russians-trying-to-take-it-down/2017/10/06/c8c4b160-a919-11e7-9a98-07140d2eed02_story.html?noredirect=on&utm_term=.71238ea1137b.

[34] *Disinformation: A Primer in Russian Active Measures and Influence Campaigns, Before the Senate Intelligence Committee* 115th Congress (30 March, 2017) [Congressional testimony by Eugene B. Rumer], https://www.int
elligence.senate.gov/sites/default/files/hearings/S%20Hrg%20115-40%20Pt%201.pdf.

[35] On the question of the determinants that influence how militaries are organized, see: Stephen P. Rosen, *Winning the Next War: Innovation and the Modern Military* (Ithaca, NY: Cornell University Press, 1991).

but recent trends point towards an expansion of participants in conflict with an unclear relationship to state sponsors and operating within non-traditional domains.

Surrogate Participants

Whilst armed conflict between military forces of opposing nation states appears to be increasingly rare, it does not mean that governments have cast away entirely their belief in the utility of using violence to achieve political ends, especially if the risks can be mitigating (or transferred) by outsourcing the fighting to others. Supplementing capability, or, more likely, substituting for the deployment of ground forces from the home country, can take the form of either working with and through the armed forces of an ally or utilizing non-state armed groups, including private security companies (PMCs). Indeed, in many conflicts today, various states have shown an increasing proclivity to sponsor and rely upon auxiliaries for much of the fighting on the ground.[36]

To be sure, the use of proxies in conflict has a very long lineage. Throughout history and across geography, major powers have used and empowered local surrogates. Though Clausewitz wrote nothing about how European powers capitalized on auxiliaries from among indigenous populations, these forces were critical for imperial expansion and the maintenance of order in conquered territory. Just as the Aztecs acquired and held on to their vast empire with great economy of force in this way,[37] so did Britain in many parts of its formal empire, as in India,[38] or those places where imperial control was more informal, such as in Eastern Arabia.[39] Leveraging the

[36] Sibylle Scheipers, "Cooperating with Auxiliaries in the Middle East: Historical Approaches and Strategic Implications," *Survival* 57, No. 4, (2015): pp. 121-138.
[37] Ross Hassig, *Aztec Warfare: Imperial Expansion and Political Control* (Oklahoma: University of Oklahoma Press, 1988), p. 19.
[38] David Omissi, *The Sepoy and the Raj: The Indian Army, 1860-1940* (London: Macmillan, 1994).
[39] Ash Rossiter, "Screening the Food from the Flies": Britain, Kuwait, and the Dilemma of Protection," *Diplomacy & Statecraft* 28, No. 1 (2017): pp. 85-109.

capabilities of local security partners was a major component of the US's national security strategy during the Cold War and has remained so ever since.[40]

The bottom-up nature of military capability today means that there are perhaps even greater opportunities for states to employ surrogates in combat in place of their own regular armed forces. It is easier to communicate with would-be local allies than be and these potential surrogates now are more likely to have independent access to conflict-shaping technologies. The use of such surrogate forces by state parties is one of the most prominent features of contemporary conflict. From the ongoing Russian use of local groups in the Donbass region of eastern Ukraine to the U.S. working with Syrian Kurdish forces, states seemingly see surrogates as an attractive way to engage in conflict.[41]

The motives for delegating the fighting to external parties varies from place to place. In foreign settings, indigenous proxy forces may have better knowledge of local dynamics and the operating environment than the external intervener could ever hope to acquire.[42] They typically have greater legitimacy amongst the population than foreign troops. Moreover, working through auxiliaries provides the option for the intervener to walk away more easily when the situation goes awry.[43] Surrogates thus provide an easy-in and easy-out alternative to major combat operations. In line with desire of some states to keep their involvement in conflict ambiguous, proxies also offer the prospect of complete or partial deniability. Whereas committing regular forces may trigger a robust response from adversaries, employment of surrogates allows the sponsoring states to operate below the threshold of war. In Syria, for example, a myriad of external actors who do not want to get drawn into direct military confrontation with one another are

[40] On the questionable efficacy of this policy see: Stephen Biddle, Julia Macdonald, and Ryan Baker, "Small Footprint, Small Payoff: The Military Effectiveness of Security Force Assistance," *Journal of Strategic Studies* 41, No. 1-2 (2018): pp. 89-142.

[41] Vladimir Rauta, "Proxy Agents, Auxiliary Forces, and Sovereign Defection: Assessing the Outcomes of Using Non-state Actors in Civil Conflicts," *Southeast European and Black Sea* Studies, Vol. 16, No. 1 (2016), pp. 91-111; and Mark Galeotti, "Hybrid, Ambiguous, and Non-Linear? How New is Russia's 'New Way of War'?" *Small Wars & Insurgencies* 27, No. 2 (2016): pp. 282-301.

[42] Geraint Hughes and Chris Tripodi, "Anatomy of a Surrogate: Historical Precedents and Implications for Contemporary Counter-Insurgency and Counter-Terrorism," *Small Wars & Insurgencies* 20, No. 1 (2009): pp. 1-35.

[43] Idean Salehyan, "The Delegation of War to Rebel Organizations," *Journal of Conflict Resolution* 54, No. 3, (2010): pp. 493–515

pursuing their strategic interests in the country largely in this way. Lastly, using auxiliaries reduces the need to obtain and maintain public support for military action and reduces the prospect of outright opposition.

The trend towards delegating combat to non-state parties is evinced by the increased use of private military companies (PMC) in recent years.[44] Whilst much of the discussion about PMCs has focused on their monetary cost-cutting benefits, some countries are finding creative ways to use them in current conflicts in order avoid normal international constraints on the use of force.[45] Russia's employment of military contractors in Syria appears to be grounded in this logic.[46]

The growing use of surrogates by many states does not mean that a complete substitution is underway; government forces still fight alongside surrogates and they will continue to do so. Nonetheless, recent trends point to a major shift in warfare's participants away from the use of regular armies by the state to the employment of auxiliaries, including non-state actors such as militant groups and PMCs. The identity of states in the modern system has traditionally been wedded to the norm of state control over non-state violence. Greater reliance on non-state armed actors to carry the burden of fighting on the ground could serve to erode this ideal with consequences for the legitimacy of the state model in some parts of the world.[47]

Remote Participation

Abstractly, remote warfare refers to the tendency for Western states to favor approaches to countering threats and performing military actions at a distance with minimal cost in blood. Delegating the fighting to someone else is one way of achieving

[44] See Peter W. Singer, *Corporate Warriors: The Rise of the Privatized Military Industry* (Ithaca, NY: Cornell University Press, 2008); and Sean McFate, *The Modern Mercenary: Private Armies and What They Mean for World Order* (Oxford, Oxford University Press, 2014).
[45] Peter W. Singer, "Corporate Warriors: The Rise of the Privatized Military Industry and its Ramifications for International Security," *International Security* 26, No. 3 (2002): pp. 186-220.
[46] "Syria war: Who are Russia's shadowy Wagner mercenaries?" *BBC*, 23 February 2018, https://www.bbc.com/ne
ws/world-europe-43167697.
[47] Janice E. Thomson, *Mercenaries, Pirates, and Sovereigns: State-Building and Extraterritorial Violence in Early Modern Europe* (Princeton, NJ: Princeton University Press, 1994).

this. Aligned with this desire to 'de-risk' war, many states are turning more and more to remote and increasingly autonomous systems. In this sense, the surrogate is increasingly a technological platform, such as manned or unmanned air power or other autonomous weapons systems, rather than a human auxiliary.[48]

The use of unmanned systems has become a prominent feature of modern warfare particularly in the air domain.[49] Unmanned systems are not only airborne of course. They are beneath and on the oceans, on land, and in space. Dozens of countries are actively engaged in research and development in robotic warfare, as well other forms of non-human conflict. Emerging Russian systems include humanoid military robots, tank drones, and other robotic military vehicles.[50] Furthermore, China is now a major exporter of armed aerial drones and has even experimented with developing an armed unmanned helicopter.[51]

The operational appeal of substituting humans for unmanned systems is clear: they provide access to areas deemed too dangerous to send people; they allow for greater stand-off distance; and they have loitering capacities that manned systems cannot provide. The political benefits of removing the human from direct and immediate danger of being killed are also obvious. The loss of a drone, for example, is not met with the same public response as when a manned aircraft is downed and the pilot is either killed or captured. Yet, it is not just state militaries that see the value of remote warfare. A number of violent non-state actors have also incorporated drones into their tactical repertoires. To date, however, this has primarily been for intelligence, surveillance, and reconnaissance (ISR) and propaganda purposes than for direct

[48] See in particular Paul Scharre, *Army of None: Autonomous Weapons and the Future of War* (New York: W. W. Norton and Company, 2018)
[49] Michael C. Horowitz, Sarah E. Kreps, and Mathew Fuhrmann, "Separating Fact from Fiction in the Debate over Drone Proliferation," *International Security* 41, No. 2 (Fall 2016): pp. 7-42.
[50] John Haltiwanger, "Russia's military has new robot tank it says fights better than human soldiers," *Newsweek*, 9 November 2017, http://www.newsweek.com/russia-military-new-robot-tank-fights-better-human-soldiers-706836.
[51] Jeffrey Lin and Peter W. Singer, "China has a new armed drone helicopter," *Popular Science*, 21 March 2016, https://www.popsci.com/chinas-new-armed-drone-helicopter.

attack.[52] All actors may find incentives in making war as remote as possible through exchanging direct human participation in fighting with that of machines.

Lessening the risks inherent in warfare by replacing humans with machines becomes more attractive in step with technological advances in robotics and computing. To date, the key technologies for armed robotic systems have focused on tele-operated command and control demands. Technological developments in the area of artificial intelligence (AI), however, raise the prospect of lethal remote-controlled systems becoming increasingly autonomous. The potential of AI has been over-stated for more than a generation, but advances in the last few years suggest that the age of autonomy is fast approaching.[53] Autonomous systems with no direct human input may soon be used to destroy unmanned machines and prevent cyber intrusions. It is unclear at this stage whether fully autonomous weapons systems with be used to kill manned aircraft or human combatants. In all probability, adversaries will race to employ these capabilities and the powerful operational advantages they confer. In a highly revealing statement, Russian President Vladimir Putin remarked in September 2017, "Whoever becomes the leader in this sphere [AI] will become the ruler of the world."[54] Letting intelligent machines make traditionally human decisions about killing humans may be necessary to survive on the future battlefield. This is not only the case in terms of physical systems as applying AI to command and control functions and cyber operations will likely be increasingly common in the future.

Although we are in the early experimental phase of robotic warfare – and far from the institutionalized phase – it is clear that robotics will have a tremendous impact on participation in warfare. One reason is that autonomous robotic systems give states the ability to radically scale up their presence on the battlefield.[55] Moreover, the number robots that can potentially be fielded are not coupled to the number of humans a military employs. If the resultant battlefield of the future becomes increasing the

[52] Given the typical superiority in terms of firepower that state parties possess, attacking indirectly and with a degree of impunity will certainly have great appeal for insurgents and terrorists. See Rossiter, "Drone Usage by Militant Groups".
[53] Paul Scharre, *Army of None: Autonomous Weapons and the Future of War* (New York: W. W. Norton, 2018).
[54] James Vincent, "Putin Says the Nation That Leads in AI 'Will Be the Ruler of the World,'" *Verge*, 4 Sept. 2017, https://www.theverge.com/2017/9/4/16251226/russia-ai-putin-rule-the-world.
[55] Paul Scharre, *Army of None.*

preserve of increasingly remote and autonomous machines, existing notions about participation in warfare will be irrevocably overturned. Human contestants will not be absent in warfare and will remain responsible for directing it. In this way, warfare will continue to be fought by, with, and through people.

Conclusion

The tools and methods of warfare are changing, and, as a result, so too are the participants. Since the end of the Cold War, changes in the international security environment, closely related to technological advances, have strengthened war's gravitational pull, bringing a multitude of new participants into its orbit. With few exceptions, the 'old wars' of the nineteenth and twentieth centuries were fought by the regular armed forces of nation states.[56] In contrast, current warfare is characterized by varying combinations of state militaries and non-state actors such as paramilitaries, warlords, transnational terrorist groups, and private security companies.[57] In addition, the nonlinear pace of technological change and the seemingly irreversible trend toward a greater use of machines in combat, will continue to stretch traditional concepts of war – which are in good part built upon long-held assumptions about who is a recognizable contestant in war –perhaps beyond breaking point.

These broad developments in war's participation are both a result of warfare's evolution but also a cause of change by themselves. As the above narrative has attempted to explicate, changing participation in warfare has resulted from the actions taken by many states – namely, to lessen the risks and costs of war through the use of surrogates, many of whom are non-state actors. One possible consequence of states turning to remote means of fighting (either through the use of human proxies, such as local militant groups, or autonomous weapon systems) might be a rapid shrinkage in the number of professional troops in regular armed forces.

[56] On this point see Sibylle Scheipers, *On Small War: Carl Von Clausewitz and People's War* (Oxford: Oxford University Press, 2018).
[57] Mary Kaldor, *New and Old Wars: Organised Violence in a Global Era, 3rd ed.* (Cambridge: Polity Press, 2012).

Conventional military force is only one of several instruments of national power, and it has proven to be an increasingly subordinate one in contemporary conflicts. Nonetheless, militaries will almost certainly remain the principal investment most states will make for their security. The broad conclusions that emerge from this analysis point to a greater need for militaries to think about how their capabilities can be integrated into a more multifaceted strategy so that they remain the primary participant in future warfare – in whatever guise it emerges. Despite ongoing efforts at adaptation in many countries, in all likelihood military institutions will find reasons to prepare for conventional combat and pursue the chimera of a decisive victory over a similar-looking rival. Bureaucratic interests, existing budgetary commitments, and institutional preferences will, however, likely combine to limit the speed at which military organizations are willing and able to change.

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