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# The *Jus Ad Bellum* Anno 2040: An Essay on Possible Trends and Challenges

TERRY D. GILL

## I. INTRODUCTION

How might the law relating to the use of force develop in the next twenty-odd years? To answer this question one has first to briefly map the current state of the law and consider what general shape it is in. Second, it is advisable to consider the past. An overview of how the law has developed over the last twenty years may give some indication how the law is likely to develop in the coming decades. Finally, it is necessary to have a look at the most important emerging developments and challenges—technological and political—to the present legal order regulating the use of force, and make some tentative predictions as to how these might influence the development and adaptation of the law to the new circumstances.

Obviously as a piece on potential future developments, this chapter is by its nature partly speculative. It is based on a number of explicit and implicit assumptions which may or may not turn out to be accurate. History teaches us to be cautious when predicting future developments. This is no more than common sense. After all, who in 1969 would have predicted the end of the Cold War and the dissolution of the Soviet Union some twenty years later?

Consequently, this chapter is divided into three parts: a brief survey of the present state of the law; a quick retrospective look at the past twenty years and how the law has been interpreted and adapted to meet certain new trends; and finally, a tentative look forward at how emerging technological changes and shifts in the distribution of power and influence at the international level may impact upon how the law develops and its ability to address those changes.

## II. WHERE IS THE LAW GOVERNING THE USE OF FORCE NOW?

The international law governing the use of force is contained in the U.N. Charter and in a number of complementary and parallel rules of customary international law. In brief, these rules prohibit the threat or use of armed force in international relations and provide for two generally accepted exceptions to this prohibition. The first of these is the relatively centralized use or authorization to use force by the U.N. Security Council in the maintenance and restoration of international peace and security.<sup>1</sup> This exception is relatively centralized in that the decision or authorization to use force is taken by an organ of an international organization empowered to take such measures, subject to a number of political, legal, and procedural conditions.<sup>2</sup> Notwithstanding the possibility that the Security Council may entrust the actual employment of force to another organization or to one or more Member States, the Council retains ultimate responsibility for the decision and authority to renew, alter, or terminate the authorization at any time it so chooses.<sup>3</sup>

The second exception is the right of States to exercise self-defense in response to an (imminent) armed attack. This right is subject to legal and procedural conditions, namely: necessity, proportionality, immediacy, and the duty to report invocation of self-defense to the U.N. Security Council. Use of force in this way is less centralized than in the context of the U.N. collective security system since it is the State that determines the necessity to act in self-defense. However, such a decision is subject to the subsequent endorsement, acquiescence, or condemnation and rejection by the U.N. Security Council and/or the international community at large.<sup>4</sup>

Although both of these exceptions to the prohibition of the use of force are generally accepted, there are a number of differing opinions on their scope and the modalities of their application. Some of these differences were already around twenty years ago, and others have emerged more recently. They, however, relate more to how far these exceptions apply and the conditions of their application

1. For an overview of the U.N. collective security system, *see, e.g.*, R. Wolfrum, *Preamble*, in *THE CHARTER OF THE UNITED NATIONS: A COMMENTARY* 101–6 (Bruno Simma et al. eds., 3d ed. 2013); LELAND M. GOODRICH ET AL., *CHARTER OF THE UNITED NATIONS: COMMENTARY AND DOCUMENTS* 25–29 (3d ed. 1969).

2. These conditions include the requirement to determine a situation poses a threat to the peace, a breach of the peace, or an act of aggression under Article 39 of the U.N. Charter, the requirement that a decision is reached in accordance with the conditions laid down in Article 27 U.N. Charter, and a reference to Chapter VII of the Charter to name the most important. *See* references referred to in *supra* note 2; Terry D. Gill, *Enforcement and Peace Enforcement Operations*, in *THE HANDBOOK OF THE INTERNATIONAL LAW OF MILITARY OPERATIONS* 95–101, 104–05 (Terry D. Gill & Dieter Fleck eds., 2d ed. 2015).

3. *Id.* 107–09.

4. YORAM DINSTEIN, *WAR, AGGRESSION AND SELF-DEFENCE* 253–55 (6th ed. 2017).

rather than to their legality as such. So as a starting point we can conclude that they constitute recognized exceptions to what is generally accepted as a peremptory rule of international law. The devil is in the detail: Does self-defense allow for preemptive force? May States invoke self-defense in response to a cyberattack with far-reaching consequences? (How) does self-defense apply to attacks conducted by non-State actors, to name several of the more persistent ongoing controversies?<sup>5</sup>

The same cannot be said of several other putative justifications for using force which are put forward from time to time. Such justifications—which are not generally recognized as having a generally accepted legal basis, but nevertheless are vigorously defended by some publicists, and on rare occasion by States—include humanitarian and other forms of armed intervention for ostensibly benign purposes, such as promotion of democracy, in the absence of either a Security Council mandate or a plausible resort to self-defense. These proposed justifications are sometimes seen as having a greater or lesser degree of legitimacy under extenuating circumstances, notwithstanding their prima facie illegality. However, they hitherto lack the general acceptance necessary for the emergence of a new rule of customary law which would override the peremptory prohibition. As a result, they remain controversial at best and unlawful at worst.<sup>6</sup>

Other possible motivations for resorting to force—such as punitive armed reprisals and preventive war—are generally rejected as illegal by States and in academic writing.<sup>7</sup> Aside from these accepted and unaccepted putative exceptions to the prohibition of the use of force and prohibition of intervention, it is well established that States have the right to invite or allow foreign military forces to deploy in their territory and assist the government in maintaining order in situations of widespread internal unrest or breakdown in State authority and/or acting against non-State actors which form a threat to either the host State or other States.

5. On the limits of pre-emptive self-defense, see, e.g., *id.* 222–34; Terry D. Gill, *The Temporal Dimension of Self-Defense: Anticipation, Preemption, Prevention and Immediacy*, in *INTERNATIONAL LAW AND ARMED CONFLICT: EXPLORING THE FAULTLINES* 113–55 (Michael N. Schmitt & Jelena Pejic eds., 2007), KINGA Tibori Szabó, *ANTICIPATORY ACTION IN SELF-DEFENCE* 269 (2011).

6. On humanitarian intervention, see, e.g., DINSTEIN, *supra* note 5, at 75–77; SIMON CHESTERMAN, *JUST WAR OR JUST PEACE: HUMANITARIAN INTERVENTION AND INTERNATIONAL LAW* 45–84 (2001); Thomas Franck, *What, Eat the Cabin Boy? Uses of Force that Are Illegal but Justifiable*, in THOMAS FRANCK, *RECOURSE TO FORCE: STATE ACTION AGAINST THREATS AND ARMED ATTACKS* 174–191 (2002). On cyberattacks, see, e.g., TALLINN MANUAL 2.0 ON THE INTERNATIONAL LAW APPLICABLE TO CYBER OPERATIONS, 328–39 (Michael N. Schmitt ed., 2d ed. 2017). On self-defense and non-State actors, see, e.g., DINSTEIN, *supra* note 5, at 241–49; CHRISTINE GRAY, *INTERNATIONAL LAW AND THE USE OF FORCE* 200–33 (4th ed. 2018); Terry D. Gill & Kinga Tibori Szabó, *Twelve Key Question on Self-Defense against Non-State Actors* 95 *Intl.L.Stud* 467 (2019).

7. On the illegality of reprisals, see, e.g., Ian Henderson, *The Use of Force and International Law* 242–43 (2018). On the illegality of preventive war, see the sources cited in *supra* note 6.

However, since this right does not constitute an exception to the prohibition, or form part of the *jus ad bellum*, it need not concern us further here.<sup>8</sup>

As to the shape the law is in, the picture is a mixed one. On the one hand, there is room for some guarded optimism in view of the fact that the law has remained more or less stable and generally accepted as binding since the present system was put into place in the aftermath of the Second World War. In contrast to the preceding period of the *Interbellum*, no major power has openly repudiated the system as such or called for far-reaching changes in the legal landscape set out above. For a period of just over ten years following the end of the Cold War, the U.N. collective security system enjoyed something of a renaissance and worked more closely “in sync” with the intentions of the Charter’s drafters than at any time before or since. However, this did not result in an unqualified success as the interethnic conflicts in the Balkans and the genocide in Rwanda during the 1990s made painfully clear. Nevertheless, the reaction to these failures at the time was not to reject the system but rather to try to reform and strengthen it, and various initiatives were undertaken to that end.<sup>9</sup>

On the other hand, a series of events in the years since 2002 have combined to halt this resurgence and reduce the effectiveness of the multilateral security system. These include the very controversial and divisive invasion of Iraq in 2003; the financial crisis of 2007–2008, which had a significant impact on the stability and credibility of the rule-based international system as a whole; the split within the Security Council regarding the manner in which the authorization to use force in Libya to protect civilians was carried out in 2011; the long and bloody war in Syria and Iraq in the period 2011 to present, which the U.N. collective security system was unable to stop and which has led to multiple foreign interventions; the invasion and annexation of the Crimea by Russia in February 2014, resulting in the ensuing rise in tension between NATO and the Russian Federation to a level not seen since the end of the Cold War; and the growing tensions in the South and East China Sea regions between an increasingly assertive China and its near and far neighbors in the Pacific.

All of these events are signs that the system is under considerable strain. It has lost a good deal of its ability to prevent major powers from taking the law into their own hands as they see fit when they feel the need to do so, or even

8. On military intervention by consent or invitation, see, e.g., DINSTEN, *supra* note 5, at 125–30; Terry Gill, *Military Intervention with the Consent or at the Invitation of a Government*, in Gill & Fleck, *supra* note 3, at 252–55.

9. Some of these attempts at reform included the “Brahimi Report” officially designated as Report of the Panel on United Nations Peace Operations, U.N. Doc. A/55/305-S/2000/809 (Oct. 2000); the doctrine of protection of civilians in multilateral, especially U.N. peace operations, see *The Protection of Civilians*, in Leuven Manual on the International Law Applicable to Peace Operations 176–82 (Terry D. Gill et al. eds., 2017). On the “Responsibility to Protect” principle, see Report of the High Level Panel on Threats, Challenges and Change Addressed to the Secretary General, U.N. Doc. A/59/565 (Dec. 2, 2004); World Summit Outcome Document, A/Res/60-1, ¶¶ 138–39 (Oct. 24, 2005).

keep less powerful players from causing havoc in specific regions. In these cases, no meaningful remedial action was forthcoming from within the U.N. collective security system. This system is dependent upon a reasonable convergence of interests within the Security Council, especially between the P5 members. Due to the factors mentioned previously, in the past five to ten years such convergence has been significantly less forthcoming than it was in the preceding period, and is likely to remain so for the foreseeable future.

Whether one judges the glass to be half empty or half full is largely a matter of perception. However, although the legal system related to the use of force is still essentially intact and the law is not openly questioned, it is—without doubt—considerably less effective than its supporters would wish.

### III. SOME KEY DEVELOPMENTS IN THE LAW OVER THE PAST TWENTY YEARS

Although the law on the use of force has remained essentially the same since the end of World War II, the past twenty-odd years have seen the emergence of a number of new developments. Reactions to these developments may prove useful in predicting where the law may go in the coming twenty years. Two in particular will receive attention here: the increasing use of force against non-State armed groups since the 9/11 attacks in New York and Washington that took place in September 2001, and the emergence of new technologies with far-reaching military potential—such as unmanned and digital weapons—and how the law may apply to them.

The use of force based on self-defense in response to attacks attributed to armed groups, which are not operating under the control or at the behest of a State, has generated ongoing controversy on the applicability of self-defense in relation to and in reaction to the actions of armed groups across international borders and the modalities of the application of force in such situations.<sup>10</sup> Questions revolve around issues such as whether terrorist acts instigated or controlled from abroad can constitute an armed attack; whether self-defense allows for strikes against armed groups present on the territory of another State without the consent of that State when it is not directly responsible for the actions of the armed group; and how the principles of necessity and proportionality *ad bellum* relate to such possible use of force, to name several.<sup>11</sup>

The other important development which will receive attention is the emergence of new technologies—such as the use of cyber capabilities in the military context and the use of unmanned or remotely controlled weapons systems such as

10. See sources on self-defense and non-State actors cited in *supra* note 7. For a succinct overview of the controversy, see Gill & Tibori Szabó, *supra* note 7, at 469–489.

11. Gill & Tibori Szabó, *supra* note 7, at 490–503.

unmanned or remotely piloted aircraft (aka “drones”).<sup>12</sup> The controversies here are essentially about whether the law relating to the use of force is capable of being applied to these new technologies and, if it is, how the law should be interpreted and applied to them.<sup>13</sup>

Although these controversies are to some extent unresolved, it is fair to say that the law seems to have accommodated them on the essential question of the applicability of the law as such to both of these developments. By now, most States and commentators seem to accept that international law in general, including the law on the use of force, is applicable in principle to cyberspace. Although opinions still differ on specific issues, there seems to be a reasonable degree of agreement that cyber acts with effects comparable to a conventional use of force could constitute a use of force in the sense of Article 2(4) of the Charter, and that the right of self-defense could apply to cyber uses of force which amount to an armed attack. It is important to note that few, if any, such acts have actually taken place until now.<sup>14</sup>

Likewise, no State has argued that unmanned or remotely controlled systems such as “drones” fall outside the law or that operations conducted by them are incapable of being assessed on the basis of existing legal criteria. Opinions do, however, diverge—sometimes widely—on whether specific uses of drones are compatible with the law and whether the use of these systems as such tends to undermine the legal restraints on the use of force, because of their capabilities and lower profile, than do operations conducted by manned aircraft or “boots on the ground.”<sup>15</sup>

Likewise, although the modalities of application of the right of self-defense remain to some extent controversial, there seems to be general agreement that attacks rising above the level of mere criminal acts, which are conducted by autonomous armed groups across international borders can, in principle, open the possibility of the use of force in self-defense in response to them. This is provided that no other reasonable alternatives are available and the use of force is done in

12. The abbreviations UAV and RPA refer to “unmanned aerial vehicles” and “remotely piloted aircraft,” respectively. They refer to the same type of remotely controlled system often referred to in the press as “drones.”

13. The previously mentioned TALLINN MANUAL, *supra* note 7, is one perspective on the interpretation and application of international law in cyberspace, but has itself generated some controversy. See, e.g., Kubo Mačák, *Military Objectives 2.0: The Case for Interpreting Computer Data as Objects Under International Humanitarian Law*, 48 ISR. L. REV. 55–80 (2015). On drones and the right of self-defense, see, e.g., Nigel D. White & Lydia Davies-Bright, *Drone Strikes a Remote Form of Self-Defence?* in RESEARCH HANDBOOK ON REMOTE WARFARE 213–45 (Jens D. Ohlin ed., 2017).

14. TALLINN MANUAL, *supra* note 7. See also U.N. Resolutions relating to the applicability of international law to cyberspace such as U.N. General Assembly, “Group of Governmental Experts on Developments in the Field of Information and Telecommunications in the Context of International Security,” A/68/98, 24/6/ 2013.

15. See, e.g., Geoff Corn, *Drone Warfare and the Erosion of Traditional Limits on War Powers*, in Ohlin, *supra* note 14, at 246–72.

conformity with the principles of necessity and proportionality. The main controversy still revolves around how these principles should be applied and under which conditions, if any, a nonconsensual armed intervention in the territory of another State would be permissible on the basis of self-defense.<sup>16</sup>

One can conclude—albeit with some caution—that the law has proven capable of accommodating new developments and that States generally accept that their actions, including in relation to these developments, are subject to legal assessment. This is not, however, nor has it ever been, a guarantee that States will always adhere to the law. Nevertheless, the fact that States still consider it important to try to justify their acts with reference to the law would seem to warrant some faith in the system's continuing relevance.

#### IV. WHITHER THE LAW? SOME CHALLENGES AND POSSIBLE DEVELOPMENTS IN THE COMING DECADES

Having set out the present state of the law and some of the most important challenges it has faced in the past two decades, we now turn to the future to attempt some predictions on how it may develop in the next two decades. As with any set of predictions, this involves making certain assumptions and choices to try to avoid what already is a highly speculative exercise from becoming unmanageable. In this endeavor the chapter seeks to strike a balance between saying too much and saying too little in an attempt to avoid any chance of error.

Hence, one assumption underlying this look into the future is that there will be essential continuity in the sense that no worldwide conflict on the scale of the world wars of the first half of the twentieth century will take place. Another is that international systems (political, economic, and financial) will, despite many undoubted crises and ups and downs, remain essentially intact. It is additionally assumed that the present members of the system will continue to interact, cooperate, and clash on particular issues in much the same way that they do at present. Furthermore, I presume that no established or emerging major player will cease to wield some degree of influence within the coming twenty odd years, although the relative degree of influence they might wield will be subject to change.

In contrast to these “constants,” this chapter assumes that technology *will* continue to develop steadily and probably increasingly more rapidly and that the present international distribution of wealth, power (in the broad sense of the term), and influence will not remain static over the coming two decades. Finally, I also assume that the present structure of the international legal order itself will remain intact and will be based on the same fundamental rules, principles, and processes that we have had over most of the postwar era. In this regard, I assume that there

16. On the controversial “unwilling or unable” doctrine, *see* in addition to the sources on self-defense and non-State actors cited in note 7. *See also* Ashley Deeks, *Unwilling or Unable: Toward a Normative Framework for Extraterritorial Self-Defense*, 52 VA. J. INT'L L. 483 (2011). And, for a contrary view example, *see* Olivier Corten, *The “Unwilling and Unable” Test: Has it Been and Could It Be, Accepted?*, 29 LEIDEN J. INT'L L. 777 (2016).

will be no revolutionary change in the law governing the use of force in the sense of a wholly different set of legal constraints coming into play, or the abolition or falling into desuetude of the law governing the use of armed force coming about.

With those points in mind, this section considers the impact of two emerging technologies that are likely to have especially significant influence on the application of the law: artificial intelligence (AI) and hypersonic weapons. Additionally, this section considers the shifting international balance and distribution of power, technological capacity and influence, and the effect these changes may have on how the law is perceived and applied.

Until now, technological changes have often posed new challenges to the application and interpretation of the law but have not threatened to displace the regulatory function or essential normative content of the law itself. This was largely true of the emergence of air power and submarine warfare in the first half of the twentieth century, of atomic weapons and ballistic missile technology during the Cold War, and of the development of cyber technology and unmanned and remotely controlled systems over the past twenty years. Many, perhaps most, of these challenges were in the realm of the law of armed conflict (LOAC), also referred to as international humanitarian law (IHL). At different times and to varying extents, there were situations where little or no law, beyond basic principles, existed to apply to particular situations. Consequently, the law sometimes lagged behind a particular technology, as was the case with aerial warfare in the Second World War.<sup>17</sup> However, this is probably less so in relation to the law governing the use of force since the emergence of the contemporary *jus ad bellum* in roughly the decade preceding and the period subsequent to World War II. Once the use of force became subject to legal regulation, and force not used in conformity with these rules became illegal, the rules applied to any kind of armed force, regardless of the technology employed.

Generally speaking, it seems that the rules contained in the *jus ad bellum* are less affected by technological changes than sometimes is the case in other realms of the law, such as LOAC. For example, the policy of nuclear deterrence was relatively easily capable of being fit into the right of collective self-defense and formed the rationale underlying the NATO alliance during the Cold War. In contrast, the actual use of nuclear weapons would be difficult if not wholly impossible to

17. During World War II, The Hague Regulations of 1907 and customary law were applicable to land warfare and arguably included bombardment of land targets from the air. But this was woefully inadequate, as the only provisions which were relevant to aerial bombardment were Articles 25 and 27, which prohibited bombardment of undefended towns and provided for a duty of care to spare as far as possible buildings of cultural, religious, or scientific importance. But since most towns were defended to some extent or another, they were treated as military objectives by all sides and relentlessly bombed after the opening stages of the war with little or no regard to distinction. The failure to adopt the 1923 Hague Draft Convention on Aerial Warfare meant there were no other rules which specifically applied to this type of warfare during a war which saw airpower become a decisive weapon.

reconcile with the humanitarian law of armed conflict.<sup>18</sup> Likewise, although there is some degree of controversy whether a cyberattack might constitute a use of force or an armed attack in the legal sense, there is general agreement that the principles of the U.N. Charter, which prominently include the contemporary *jus ad bellum*, can and do apply in the cyber domain. There is probably less agreement at present on whether LOAC applies to many cyber operations and, if it does, how it applies.<sup>19</sup>

When speculating upon the impact new weapons technologies and related methods of warfare are likely to have upon the law, it is important to try to focus on what the main potential challenges to the existing law are likely to be. With regard to the development of AI and weapons with significant autonomy relating to critical targeting functions of independently selecting and engaging targets, the main challenges seem to lie in the realm of applying the law of armed conflict and other relevant legal and ethical standards to the targeting process. Much of the debate centers on what is referred to as “meaningful human control” in relation to these critical functions and finding an acceptable balance between the capability of the weapon to function in dynamic environments and effectively neutralize threats, while at the same time adhering to the legal and ethical standards of distinction, proportionality, and humanity which are embodied in LOAC and other potentially relevant bodies of law relating to targeting.<sup>20</sup> At present, no truly autonomous weapon which independently selects and engages targets (without preprogramming) exists.

Opinions differ—sometimes widely—on whether such weapons (assuming they ever are developed) are likely to be able to conform to existing legal and ethical standards relating to targeting of individuals and objects. It is also unclear in what type of situations their potential use might be feasible and capable of being carried out in conformity with those standards. There is a considerable body of opinion that thinks they should be banned outright before they have even been developed and deployed because of their alleged inherent incompatibility with law, or undesirability as a matter of ethics or policy.<sup>21</sup>

Whatever the rights and wrongs of this and other opinions may be concerning the legality or lack thereof of the actual employment of such weapons, this controversy does not (or in any case should not) center upon whether machines are

18. On nuclear strategy during the Cold War, see Lawrence Friedman, *The First Two Generations of Nuclear Strategists*, in *MAKERS OF MODERN STRATEGY FROM MACHIAVELLI TO THE NUCLEAR AGE* 753 (Peter Paret ed., 1986). On the difficulty of reconciling nuclear weapons with the humanitarian law of armed conflict, see Nuclear Weapons Advisory Opinion, I.C.J. Reports 1996 ¶ 95, at 262.

19. See *supra* notes 7, 14.

20. See Robin Geiss & Henning Lahmann, *Autonomous Weapons Systems: A Paradigm Shift for the Law of Armed Conflict?*, in Ohlin, *supra* note 14, at 371.

21. See, e.g., Pallab Ghosh, *Call to Ban Killer Robots in Wars*, BBC NEWS (Feb. 15, 2019), <https://www.bbc.com/news/science-environment-47259889>.

likely to supplant human beings in making decisions to use force. This is what the rules of the *jus ad bellum* purport to do. Granted, there are some instant tactical level reactions to on-the-spot attacks directed against, for example, a discrete military platform—such as a warship or military base—whereby an automated system such as a close-in weapon system is employed to ward off a local small-scale attack.

But aside from these types of tactical examples, the use of force at the international level will inevitably be the result of a political decision, usually taken at the highest level of decision-making. Even if an emergency situation occurs, the high-level decision-making likely occurred well in advance, as a preplanned response to a specified “trigger event.”<sup>22</sup> But in any case, it is not the type of decision that is likely to be relegated to an automated system, nor is it realistic or fruitful to speculate on some future dystopia in which machines have taken over the planet and wage war on each other or on humans independently of any human agent, whatever the entertainment value of such fantasies may be. Hence, it does not seem likely that the possible development of weapons systems employing AI and possessing some level of autonomy relating to targeting functions would have a significant impact on the rules relating to the use of force, whatever challenges they might pose to certain rules in other realms of the law. The sometimes-heard argument that autonomous weapons could make war more likely by removing human casualties is based on a premise that such weapons would be strictly competing among themselves, which is—at least for the foreseeable future—more in the realm of science fiction than probability.

However, this may not be true for hypersonic weapons, which are currently under development and, barring some kind of comprehensive arms control agreement in which all major military powers participate, are likely to be deployed within the next few years (and probably well before any truly wholly autonomous weapons are in use). “Hypersonic weapon” is a catch term for a variety of systems which are potentially capable of operating at speeds starting at Mach 5 and reaching perhaps as fast as Mach 10. The potential for destabilization of the geopolitical, military, and legal structures presently in place as a result of the development of such systems is quite significant, despite the fact that they seem to have hitherto attracted much less attention than more exotic future weapons such as “killer robots.”<sup>23</sup>

22. This is a reference to so-called “dormant rules of engagement,” which are designed to address a possible contingency in the form of a “trigger event” such as a nuclear first strike. For more information, see, e.g., Hans J.F.R. Boddens Hosang, *Rules of Engagement: Rules on the Use of Force as Linchpin for the International Law of Military Operations*, Doctoral dissertation, University of Amsterdam 54 (2017), <https://dare.uva.nl/search?identifier=691ccb62-371e-4e09-94d3-3793f4b3a54d>.

23. For a survey of what hypersonic weapons are and are designed to do, see, e.g., James Bosbotinis, *Hypersonic Missiles: What They Are and Can They Be Stopped*, DEFENSE IQ (Aug. 28, 2018), <https://www.defenceiq.com/defence-technology/news/hypersonic-missiles-what-are-they-and-can-they-be-stopped>. See also Nathan Strout, *The Small Sat Solution to Hypersonic*

Hypersonic weapons' destabilizing potential arises from the way their purported speed negates any feasible advance warning or defense available at present—and at least for some time to come—and the impact this may have on the temporal dimension of the right of self-defense. A missile which can travel at a speed of 6,000 to 7,000 mph for distances of over 1,000 miles would render all current early warning systems and air and missile defenses useless.<sup>24</sup> This, in turn, would conceivably push the moment in which it would be perceived to be necessary to conduct a preemptive strike considerably forward—well beyond what is currently thought of interceptive or anticipatory self-defense—into the realm of a preventive strike based simply on the capability of the adversary to conduct a devastating or in any case crippling first strike. Although the speed of the weapon would not in itself affect the applicable law, it could very well have a significant impact on gauging when a defensive response within the “last window of opportunity” was necessary to forestall a potentially devastating attack. Put simply, such weapons could render the Caroline standard of an “imminent” attack moot. This could particularly be the case in situations where it would be difficult to distinguish between mere posturing and testing the limits of an adversary's response, an inchoate possibility of potential attack, and a clear and imminent threat of attack.<sup>25</sup>

This might even make the possibility of entrusting the decision to make a preemptive strike to a machine more likely according to some analysts. This argument is based on the idea that a weapon which can strike at such speed could only be stopped by a machine.<sup>26</sup> Although such a scenario is far from self-evident and, as argued above, it is a point of view and a possibility that seems unlikely for the reason that the decision to activate any type of automated response will almost certainly remain one taken by humans. Still, the argument should not be dismissed out of hand. One could imagine a situation whereby once a system was activated by a human decision maker, it went about its way engaging (potential) threats at lightning speed until someone decided to “turn it off.”

In any case, another reason for not automatically accepting the possibility of fully automated warfare as a reaction to hypersonic weapons is that deterrence would quite possibly still work at some level. This could be true if the hypersonic weapons used in a first strike were not virtually certainly capable of completely

*Weapons Explained*, C4ISRNET (Aug. 6, 2019), <https://www.c4isrnet.com/battlefield-tech/2019/08/06/the-small-sat-solution-to-hypersonic-weapons-explained/>.

24. In addition to sources named in the previous note, see also *HYPERSONIC WEAPONS: BACKGROUND AND ISSUES FOR CONGRESS*, CONGRESSIONAL RESEARCH SERVICE, <https://fas.org/sgp/crs/weapons/R45811.pdf> (last visited Sept. 17, 2019).

25. See sources referred to in *supra* note 6 (on temporal dimension). And for the concept of hybrid threats below the threshold of attack, see, e.g., *Countering Hybrid Threats*, HYBRID COE, <https://www.hybridcoe.fi/hybrid-threats/> (last visited Nov. 22, 2019).

26. See also Michael T. Klare, *An “Arms Race in Speed”: Hypersonic Weapons and the Changing Calculus of Battle*, ARMS CONTROL ASSOCIATION (June 2019), <https://www.armscontrol.org/act/2019-06/features/arms-race-speed-hypersonic-weapons-changing-calculus-battle>.

knocking out command functions and second strike capabilities of the adversary. Assuming some appreciable capability to mount a second strike, either conventionally or with nuclear weapons remained functional, the negative consequences of mounting a first strike at hypersonic speed in the form of a retaliation might continue to outweigh the potential “benefits” of doing so, just as this was the case with the nuclear deterrence of the past. Alongside deterrence, some type of arms control agreement might offer a potential to decrease the destabilizing influence of these systems if such an agreement was seen to be in the interest of all parties capable of developing and deploying them.<sup>27</sup>

At the end of the day, one can conclude that although the development of hypersonic weapons (possibly in combination with the further development of AI) will not inevitably lead to an abandonment of the law regulating the use of force, it may well have a potentially far-reaching impact on the temporal equation in assessing when self-defense is necessary and justified. That is, in and of itself, already something to raise concern and consider as a threat to the restraining influence of the law.

Now I would like to turn to the last component relating to future developments and the law: the question of how the changing distribution of power on the international stage might influence how the law is interpreted and applied. There is always a dynamic element in the power relationship and distribution between States and other international actors. Even in periods of stability, the relative power of a given State vis-à-vis other players in the international system will be subject to a process of continuous evolution and change. For example, the period following the Napoleonic Wars until the outbreak of the First World War is often referred to as the “Pax Britannica,” but the relative strength of Great Britain in relation to other major powers at different points in that era was anything but static during this time.<sup>28</sup>

It is likely that the coming twenty years will be even more dynamic in terms of technological, economic, and social change than the periods we have experienced over the past half century, or most other historical periods for that matter. The prognosis of virtually all observers is that the relative power of the United States will decline in relation to China and that other emerging powers—such as India, Indonesia, Brazil, and perhaps some others—will increase their share of economic output in both absolute and relative terms in relation to the present G7 nations.<sup>29</sup>

27. *Id.*

28. For a historical analysis of the dynamics in power distribution during the modern era, see, e.g., PAUL KENNEDY, *THE RISE AND FALL OF THE GREAT POWERS: ECONOMIC CHANGE AND MILITARY CONFLICT 1500–2000* (1987).

29. See, e.g., European Strategy and Policy Analysis System (ESPAS) report, *The World in 2030*, [https://espas.secure.europarl.europa.eu/orbis/sites/default/files/espas\\_files/about/espas-report-2015.pdf](https://espas.secure.europarl.europa.eu/orbis/sites/default/files/espas_files/about/espas-report-2015.pdf) <https://ec.europa.eu/assets/epsc/pages/espas/index.html>; Marc Champion & Adrian Leung, *Does China Have What It Takes to Be a Superpower?*, BLOOMBERG (Aug. 30, 2018), <https://www.bloomberg.com/graphics/2018-china-superpower/>; James Joyner, *Global Power 2030*, ATLANTIC COUNCIL (Dec. 10, 2012), <https://www.atlanticcouncil.org/blogs/new-atlanticist/global-power-2030>; National Intelligence Council, *Global Trends 2030: Alternative*

Nevertheless, the United States, the EU countries, and Japan will remain advanced economies with very considerable economic and technological resources. And the United States will remain, probably along with China, a military superpower capable of projecting its strength globally.

Russia, although declining somewhat (due to demographic and other factors) in relation to its present power position, will likely remain a significant player, particularly within its region. Economic and technological power usually translates into military potential and so-called “soft power” in the form of influence in multilateral institutions, and cultural influence often has a fairly close relationship with a given country’s “hard power,” although this relationship is by no means directly correlated.<sup>30</sup> Some States which have considerable hard power in terms of economic and military power lag behind in terms of “soft power” (e.g., the Soviet Union previously and China now). Other States continue to wield a relatively large share of “soft power” in relation to their actual present economic and military position (e.g., the United Kingdom and France).

It also seems very likely that in contrast to the bipolar power hegemony during the Cold War and the unipolar situation for the period following the end of the Cold War in 1990 until roughly 2010—during which the United States dominated the global scene economically, militarily and in terms of influence the distribution of power and influence—will change. In the next twenty years and beyond we are likely to be in a much more multipolar world in which no one State is a hegemonic power. Rather, it is probable that power will be distributed among several major powers with a number of important medium players whose alignment (fixed or shifting) may have a significant influence on the ability of the major powers to “have their way” on a specific issue or within a particular region.<sup>31</sup> In this sense, the world of 2030–2040 will, with regard to the balance and distribution of power, be perhaps more similar to the world of the half century preceding World War I. At that time, power was spread more evenly over a group of players than in the recent history since World War II when there were clear “superpowers” in relation to the other players. In the absence of a clear hegemonic power or powers, power relationships tend to be more fluid and on the whole less stable.

But this analogy only goes so far for several reasons. One of these is the much larger role that non-State actors can and probably will play in the next twenty years. Non-State actors certainly play a much more important role than they did during the State-centered nineteenth century. Another reason is the more rapid pace of technological development and its much greater diffusion across the globe in comparison to the recent and more distant past. Moreover, these factors will likely only decrease the stability and predictability of the system rather

*Worlds*, ATLANTIC COUNCIL (Dec. 10, 2012), <https://www.atlanticcouncil.org/publications/reports/global-trends-2030-alternative-worlds>.

30. On soft power, see Joseph S. Nye, *Soft Power: The Means to Success in World Politics* (2005).

31. See Joyner, *supra* note 30.

than increase it. Consequently, the combination of more diffuse power distribution, possible shifting alignments between regions and on specific issues, and the added factors of the increased impact of technology and proliferation of non-State actors will almost certainly make the world a less stable, more volatile, and potentially a significantly more dangerous playing field than it is today.<sup>32</sup>

How could these changes impact upon the law governing the use of force? First, the law itself, in terms of its “black letter” content, probably will not change significantly. The shift in relative power distribution and toward a more multipolar playing field, however, will undoubtedly influence the interpretation—and especially the application—of the law in various ways. One way will possibly be within the U.N. Security Council. It will be difficult, but the current membership and distribution of permanent seats will simply have to change by that time to reflect the shifted power distribution if the Council is to remain a viable institution. India, Indonesia, Brazil, and Nigeria should become permanent members by then, although prospects for expansion of Security Council permanent members in the more immediate future do not look promising at the present, due to the prevailing political climate.<sup>33</sup>

The alternative is that if the Security Council composition remains as it presently is, the Council will almost certainly continue to progressively lose the ability to shape events and maintain a degree of legitimacy. Either way, it would probably mean that the Council would be much less likely to utilize coercive measures without the consent of either the State where a threat to the peace had been determined to exist, or in any case, the consent of the regional organization where the State was located. This may reflect a growing regionalization in peacekeeping and peace enforcement measures, with the Security Council playing less of a direct role than hitherto has been the case. Regional arrangements and organizations arguably already are moving in that direction to some extent, and that trend will likely gain momentum if the Council grows larger or continues to lose legitimacy. Under either circumstance, the consequence is that the Council will be increasingly less likely to engage in nonconsensual intervention unless the States in the region are willing to conduct it with the blessing of the Security Council.<sup>34</sup>

Another probable trend is that States will probably be less willing and capable of projecting military power outside their “own” neighborhood in some other major or regional power’s “own” region without that other State’s acquiescence.

32. See NIC Report, *GLOBAL TRENDS*, *supra* note 30.

33. The UNSC was expanded once in 1965 from 11 to 15 members to take account of the increase of the number of U.N. Member States as a result of decolonization. The issue of further reform of the Council has been on the agenda of the United Nations since the end of the Cold War and received official recognition in the High-Level Panel Report in 2004 on Strengthening the UN and has been debated repeatedly since then until now without reaching consensus.

34. Current and recent examples of this trend include the role of the African Union (with E.U. and U.S. support) in the stabilization mission in Somalia (AMISOM), the role of the European Union, India, and others in counterpiracy operations off the coast of Somalia, and in the Indian Ocean and ECOWAS in peacekeeping in West Africa.

So an operation like the invasion of Iraq in 2003 will be less likely and feasible if opposed by other major powers than it was in 2003 when the United States was the sole superpower.

On the other hand, regional powers will likely have a certain degree of latitude to maintain regional dominance, unless that threatens overall stability. So indirect pressure and even sometimes open intervention—such as Russian action in its “near abroad,” Turkey’s creation of a buffer zone in Syria, and China’s increased dominance in the South China Sea—will be *de facto* if not necessarily *de jure* applications of power projection, coercive diplomacy, and even actual use of force. Moreover, they will probably become more frequent and open as power shifts eastward. This trend will likely be strengthened by the increasing ability and willingness of at least some major and regional powers to dissuade outside intervention in their respective areas of influence. They will likely do this through a combination of the threat posed by area denial capabilities—such as anti-ship missiles and air defense systems—alongside the utilization of so-called hybrid techniques of exploiting internal political and social divisions among potential adversaries. They may also do this by exerting influence aimed at preventing a coherent and resolute response to coercive behavior below the threshold of open warfare.

The net effect of these trends will be to increase the perceived costs of direct intervention outside one’s own region in situations where the stakes were not seen as vital and not worth risking the negative consequences of confronting a rival player in its “own” region.<sup>35</sup> Consequently, although the law will probably look the same, it will increasingly be applied and perceived against the background of a more fluid and openly competitive environment involving more players and in a way that corresponds more to the interests and attitudes of today’s emerging and tomorrow’s actual powers. This is only logical as the way the law is interpreted and applied is always significantly influenced by the distribution of power in any given period.

## V. CONCLUSION

In sum, the law will be very similar, probably even identical, on paper. However, the way it will work and how it will influence the actions of States and other players will be in some respects quite different in twenty years, although many of the signs of these changes are already quite visible. The increased competition and the challenges brought about by new technologies—as well as other factors not discussed in this chapter but highly relevant nevertheless (such as the impacts of climate change and increased competition and military rivalry in outer space)—are all factors which will make the world a good deal less stable and potentially a

35. For discussion of Russia’s area denial strategy in the Crimea, *see, e.g.*, Douglas Barrie, *Anti-access/area Denial: Bursting the “No-go” Bubble?*, IISS (Mar. 29, 2019), <https://www.iiss.org/blogs/military-balance/2019/04/anti-access-area-denial-russia-and-crimea>.

lot more dangerous. However, to try to end on a positive note, there will almost certainly continue to be a role for the legal regulation of the use of force to help prevent that increased instability leading inadvertently to a large-scale confrontation. The role for those committed to the law will be to try to keep the law as relevant and effective as possible.