Contesting Use of Force Norms Through Technological Practices

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Abstract

International law on the use of force has become increasingly contested. Such contestation also happens in the form of technologically-mediated state practices, for example via designing and using drones or weapon systems integrating autonomous or Artificial Intelligence (AI) technologies. Over time, such practices can deliberatively and tacitly shape new norms. To make sense of such dynamics, the article differentiates between an international normative order and an international legal order and theorises how their congruence/incongruence affects (social and legal) norms governing the use of force. These arguments combine norm research with scholarship across critical international law, practice theories, and science and technology studies to examine the emergence of contested areas in between the international normative and legal orders. The paper examines the practice of targeted killing in the context of *jus contra bellum* and the emerging norm of 'meaningful'

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human control in *jus in bello*. These examples demonstrate the emergence of significant areas of contestation in between the international normative and legal orders – and the adverse consequences of this development for the restraining quality of international law.

Keywords

critical international law – practices – norms – targeted killing – human control

This article discusses how deliberative and non-deliberative practices related to the design and patterns of use associated with weapon technologies, such as aerial drones and weapon systems integrating autonomous or AI technologies in targeting, can gradually alter the international normative order governing the use of force. International Relations (IR) scholarship often chiefly anchors the study of normative order in international law. This captures primarily how international, legal norms that are enshrined in some form of soft/hard international law guide state behaviour. Scholarship at the intersection of critical norm research and critical international law[1] has increasingly captured how practices of contestation vis-à-vis use-of-force norms have become part of states' security policies and their potential impact on international law.[2] What is missing, however, is an analytical focus on the weapon technologies that animate these practices and may arguably make them possible in the first place. In the past decades, operating particular weapon technologies such as aerial drones or systems integrating autonomous or AI technologies in targeting has gone hand-in-hand with states engaging in novel, wide interpretations of self-defence. Here, states have both performed practices that depart from established interpretations of the law governing the use of force and practices that *de facto* 'normalise' using force

1 Critical international law encompasses diverse scholarship including, for example, postcolonial and feminist approaches. This article draws on one particular strand that is chiefly associated with Martti Koskenniemi's work.

2 Susanne Krasmann, 'Targeted Killing and Its Law: On a Mutually Constitutive Relationship', LJIL 25 (2012), 665-682; Neil C. Renic, 'Justified Killing in an Age of Radically Asymmetric Warfare', European Journal of International Relations 25 (2019), 408-430; Jack McDonald, *Enemies Known and Unknown: Targeted Killings in America's Transnational War* (London: Hurst Publishers 2017); Aiden Warren and Ingvild Bode, *Governing the Use-of-Force in International Relations. The Post-9/11 US Challenge on International Law* (Basingstoke: Palgrave Macmillan 2014); Rebecca Sanders, 'Human Rights Abuses at the Limits of the Law: Legal Instabilities and Vulnerabilities in the 'Global War on Terror', Rev. Int'l Stud. 44 (2018), 2-23.

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in novel ways. Examples of these are practices surrounding the 'unwilling or unable' formula in the context of using armed drones[3] or those shaping what counts as an 'appropriate' quality of human control over the use of force in weapon systems integrating autonomous or AI technologies in targeting.[4] While these practices are potentially significant in relation to use of force norms, we cannot fully capture them in the language of international law. Unlike customary international law, they have not become uniform and widespread, nor do they manifest in a consistently stated belief in the applicability of a particular rule or are, indeed, 'evidence of a general practice accepted as law'.[5] In addition, some of these practices are performed in spaces hidden from the public eye, lead to the emergence of norms that are not publicly discussed.

I argue that integrating arguments from critical norm research, practice theories, critical international law, and science and technology studies (STS) can foster an understanding of such dynamics – and draw attention to the role played by technologies therein – in three steps. First, as a starting point, we need to account for the indeterminate and potentially permissive nature of international law on the use of force, including the (increasing) presence of contested areas therein. Critical legal scholarship highlights that international law provides a baseline but indeterminate structure, 'deferring substantial resolution elsewhere' and leaving room for interpretations in varied ways.[6] As international law is indeterminate, the international normative order governing the use of force contains a spectrum of accepted understandings that are fluid. Further, law governing the use of force, both *jus in bello* and

3 Gareth D. Williams, 'Piercing the Shield of Sovereignty: An Assessment of the Legal Status of the "Unwilling or Unable" Test', UNSWLJ 36 (2012), 619-641; Dawood I. Ahmed, 'Defending Weak States Against the "Unwilling or Unable" Doctrine of Self-Defense', Journal of International Law and International Relations 9 (2013), 1-37; Ingvild Bode, 'Manifestly Failing and Unable or Unwilling as Intervention Formulas' in: Aiden Warren and Damian Grenfell (eds) *Rethinking Humanitarian Intervention in the 21st Century* (Edinburgh: Edinburgh University Press 2017), 164-191.

4 Ingvild Bode and Hendrik Huelss, *Autonomous Weapon Systems and International Norms* (Montreal: McGill-Queen's University Press 2022); Elvira Rosert and Frank Sauer, 'How (Not) to Stop the Killer Robots: A Comparative Analysis of Humanitarian Disarmament Campaign Strategies', Contemporary Security Policy 42 (2021), 4-29; Daniele Amoroso and Guglielmo Tamburrini, 'Autonomous Weapons Systems and Meaningful Human Control: Ethical and Legal Issues', *Cur*rent Robotics Reports 1 (2020), 187-194; John Williams, 'Locating LAWS: Lethal Autonomous Weapons, Epistemic Space, and "Meaningful Human" Control', Journal of Global Security Studies 6 (2021); Elke Schwarz, 'Autonomous Weapons Systems, Artificial Intelligence, and the Problem of Meaningful Human Control', Philosophical Journal of Conflict and Violence 5 (2021), 53-72.

5 International Court of Justice, 'Statue of the International Court of Justice', 1945, Art. 38 (1).

6 Martti Koskenniemi, *The Politics of International Law* (Oxford: Hart 2011), 61.

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jus contra bellum, is constraining but also permissive of applying force.[7] The permissiveness stems from how the laws of war outline circumstances under which the use of force is lawful. The law thereby offers legal language as a symbolic resource to justify uses of force. This, in combination with its indeterminate nature, opens the door for states performing practices in the service of using force.

Second, new (legal and social) norms may become part of the international normative order not only from the top-down, that is after having been institutionalised into soft or hard international law, but also from the bottom-up, that is resulting from practices, understood as patterned ways of doing things in social contexts.[8] According to Brunnée and Toope's interactional approach to international law, social norms may become legal norms when these satisfy legality requirements.[9] But even social norms that do not make this transition can influence the international legal order.

I define such social norms as intersubjective understandings of 'appropriateness'. This builds on well-known definitions of norms in constructivist scholarship,[10] but also goes beyond them in two analytically significant ways: first, rather than conceptualising appropriateness as fixed or predefined, I argue that there are flexible constitutions of appropriateness that come out in practices, such as procedural or functional forms of appropriateness.[11] Second, this thinking builds on an expanded concept of norms. This expanded concept recognises how what is normative exist on different plains (e. g. fundamental/substantive and procedural),[12] while also acknowledging how normality, associated with making normal over the course of repeated similar types of practices over time, as inherent to how norms

7 Ian Hurd, 'The Permissive Power of the Ban on War,' European Journal of International Security 2 (2016), 1-18.

8 Anna Leander, 'Thinking Tools,' in: Audie Klotz and Deepa Prakesh (eds), *Qualitative Methods in International Relations: A Pluralist Guide* (Basingstoke: Palgrave Macmillan 2008), 11-27 (18).

9 Jutta Brunnée and Stephen J. Toope, 'Interactional Legal Theory, the International Rule of Law and Global Constitutionalism', in: Anthony F. Lang Jr. and Antje Wiener (eds), *Handbook on Global Constitutionalism* (Cheltenham, UK: Edward Elgar Publishing, 2017), 170-182.

10 I also use the broader term 'understanding' rather than 'standard'. For classic constructivist definitions of norms see Martha Finnemore and Kathryn Sikkink, 'International Norm Dynamics and Political Change', IO 52 (1998), 887-917; and Peter J. Katzenstein, 'Introduction. Alternative Perspectives on National Security' in: Peter J. Katzenstein (ed.), *The Culture of National Security. Norms and Identity in World Politics* (New York: Columbia University Press 1996), 1-32.

11 Ingvild Bode and Hendrik Huelss, 'Autonomous Weapons Systems and Changing Norms in International Relations', Rev. Int'l Stud. 44 (2018), 393-413.

12 Bode and Huelss (n. 11).

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work.[13] In this way, casting norms as understandings of appropriateness signals a broad conceptualisation that is not necessarily connected to moral-ethical principles of justice but also encompasses procedural-functional appropriateness[14] and what is perceived to be normal. This understanding of norms diversifies the sites where norms emerge beyond deliberative fora that have often been emphasised in present studies[15] towards considering bottom-up processes where operational, non-deliberative and often hidden practices can also become sources of norms.

Third, technologies and technological practices shape the direction of such processes. Following STS viewpoints, technologies, such as drones or weapon systems integrating autonomous or AI technologies in targeting, are not merely tools or instruments. Instead, technology is 'a body of skills and knowledge by which we control and modify the world'.[16] Technology is, therefore, a deeply political and social set of practices: 'It entails far more than the individual material components. Technology involves organization, procedures, symbols, new words, equations, and most of all, a mindset.'[17] Practices that employ new technologies can 'reconstitute users and change the choices available to them.'[18] Such STS insights have begun to shape agendas in critical security studies,[19] but they have not been integrated into norm research and practice theories. I therefore argue that the *technological* practices performed in the service of using force (can) alter norms and therefore shape the international normative order. This

13 Hendrik Huelss, 'Norms Are What Machines Make of Them: Autonomous Weapons Systems and the Normative Implications of Human-Machine Relations', International Political Sociology 14 (2020), 111-128.

14 Bode and Huelss (n. 11).

15 Antje Wiener, *Contestation and Constitution of Norms in Global International Relations* (Cambridge: Cambridge University Press 2018); Elvira Rosert, 'Norm Emergence as Agenda Diffusion: Failure and Success in the Regulation of Cluster Munitions', European Journal of International Relations 25 (2019), 1103-1131; Adam Bower, 'Norms Without the Great Powers: International Law, Nested Social Structures, and the Ban on Antipersonnel Mines,' International Studies Review 17 (2015), 347-373.

16 Martin Bridgstock, *Science, Technology, and Society. An Introduction* (Cambridge: Cambridge University Press 1998), 6.

17 Ursula Franklin, *The Real World of Technology* (Berkeley, CA: House of Anansi Press 1999), 1.

18 Simon Frankel Pratt, *Normative Transformation and the War on Terrorism* (Cambridge: Cambridge University Press 2022), 3.

19 Rocco Bellanova et al., 'Toward a Critique of Algorithmic Violence,' International Political Sociology 15 (2021), 121-150; Rocco Bellanova, Katja Lindskov Jakobsen and Linda Monsees, 'Taking the Trouble: Science, Technology and Security Studies', Critical Studies on Security 8 (2020), 87-100; Lucy Suchman, 'Algorithmic Warfare and the Reinvention of Accuracy', Critical Studies on Security 8 (2020), 175-187; Marijn Hoijtink and Matthias Leese (eds), *Technology and Agency in International Relations* (London: Routledge 2019).

expanded concept recognises how what is normative exist on different plains.

Considering practices related to drones and weapon systems integrating autonomous or AI technologies in targeting along a trajectory shows how these shape norms, often developing outside of deliberative processes and with (sometimes) only loose attachment to institutionalised legal frameworks. In applying these thoughts, I study how such practices may gradually, incrementally, and silently erode the current normative order from the bottom-up in constituting a *new normality* that *shifts* use-of-force thresholds (jus contra bellum) and exhaust what is permissible in the laws of war (jus in bello). This normality shapes what is considered to be functionally appropriate but is often detached from what may be considered normative in a moral-ethical sense. The new normality rests on legislative and systemic contestation[20] because it includes technological practices invested in controversies about the scope of legal norms but also those challenging foundational norms of international law.

The remainder of the article is structured as follows. First, I develop my argument on what makes up an international normative order in more detail and outline how this relates to international law and an international legal order. In a second step, I argue that we can track changes in the normative order through looking at practices. This section differentiates a legal understanding of s*tate practice* from the broader, sociological notion of *state practices*. Such practices may be public, discursive, and deliberative or non-deliberative, operational, hidden. Both sets of practices are technologically mediated. Third, the paper illustrates the utility of such analytical arguments for understanding the emergence of increasingly contested areas of international law relating to the use of force. While contestation is typically expressed discursively, 'not all modes of contestation involve discourse *expressis verbis*'.[21] Non-deliberative, operational practices can therefore also be forms of behavioural contestation.[22] Focussing on targeted killings and human control over the use of force, I highlight how technological practices surrounding designing and using weapon systems become significant for shaping the normative order and, through the back door, international law.

20 Max Lesch and Christian Marxsen, 'Norm Contestation in International Peace and Security Law: Towards an Interdisciplinary Analytical Framework', Introduction to the Symposium 'Norm Contestation in International Peace and Security Law', held at the Max Planck Institute for Comparative Public Law and International Law, Heidelberg, on 23-24 September 2021, HJIL 83 (2023), 11-38.

21 Antje Wiener, *A Theory of Contestation* (Heidelberg: Springer 2014), 1.

22 Anette Stimmer and Lea Wisken, 'The Dynamics of Dissent: When Actions Are Louder Than Words', Int'l Aff. 95 (2019), 515-533.

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I. An International Normative Order Distinct from International Law

International Relations chiefly understands international order by way of top-down, macro perspectives as a 'rules-based system',[23] often closely tied to a positivist understanding of international law. Institutions and rules constitute and stabilise this structure, which is amendable via formal, deliberative acts or discursively performed, deliberative practices.[24] Understood in this way, an international order based on international law is a comparatively stable system.

But scholarship in critical international law or those written at the intersection of IR and international law suggest a different direction. Going beyond positivism, such studies point instead to the nature of international law as indeterminate and thereby leaving room for interpretations, 'depend[ing] on what one regards as *politically* right, or just'.[25] As Hurd argues, 'the line separating acceptable from unacceptable behaviour is not cleared or fixed'.[26] His work demonstrates the extent to which international law is permissive, especially when it comes to the use of force. International law governing the use of force centred on the general prohibition in the United Nations (UN) Charter's Article 2(4) singles out (individual and collective) self-defence as the only legitimate, unilateral recourse to force. This arguably washes out some of law's constraining power by *de facto* 'encourag[ing] states to go to war under the banner of self-defence'.[27] A quick look at overall state practices in the UN-Charter era underlines the significance of this argument. Justifying practices of using force as exceptions to the general prohibition of Article 2 (4) has been rare, despite a history of state non-compliance.[28] Instead, 'states have referred to the Article 51 self-defence exception as a means to attain greater traction in justifying the use of force'.[29] The legal language of self-defence has become a resource for states to use in their justifications of force as necessary, legal, and legitimate.[30]

23 Joseph S. Nye Jr., 'Will the Liberal Order Survive?', Foreign Aff. 96 (2017), 10-16 (11).

24 Doug Stokes, 'Trump, American Hegemony and the Future of Liberal Order', Int'l Aff. 94 (2018), 138.

25 Koskenniemi (n. 6), 61.

26 Hurd (n. 7), 10.

27 Ian Hurd, 'Permissive Law on the International Use of Force', American Society of International Law Proceedings 109 (2015), 65.

28 Lesch and Marxsen (n. 20).

29 Warren and Bode (n. 2), 22.

30 Hurd (n. 27), 65.

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Critical approaches to international law connect well to research on norms in IR. Studying norms in IR broadly examines legitimacy and appropriateness in the sense of oughtness or justice as the bases for understanding human, and therefore state, action.[31] As noted earlier, I follow a broader understanding of appropriateness that also covers functional, procedural notions of appropriateness (see also section II.). As such, I understand law and legal norms as a sub-group of norms. Communicating such understandings of appropriateness can be deliberative or discursive but does not necessarily have to be. It may be 'learned and internalized through socialization and education' or 'based on identifying the normatively appropriate behaviour'.[32] Such tacit norms are, however, often not prioritised in norm research in IR. This may be because IR norm scholarship emphasises international law as a focal point of both norm emergence and norm contestation – and law accentuates the public and deliberative communication of content. After all, primary sources of international law (treaties, customary international law, general principles of law) typically rely on being publicly expressed in language. With some exceptions, for example scholarship interested in the legal significance of silence,[33] research on norms and international law focuses on the discussion, deliberation, communication, critique, discourse on norms as 'trails of communication that can be studied'.[34]

Building on such thoughts, I follow a flexible understanding of order. Specifically, I differentiate between an international order based on law (an international legal order) and an international order based on norms (an international normative order).[35] The international normative order predates the international legal order and is constituted by social norms. Although social norms typically contain shared understandings that international law is

31 Ian Hurd, 'Legitimacy and Authority in International Politics', IO 53 (1999), 379-408; James G. March and Johan P. Olsen, *Rediscovering Institutions: The Organizational Basis of Politics* (New York: The Free Press 1989).

32 March and Olsen (n. 31), 22.

33 Dustin A. Lewis, Naz K. Modirzadeh and Gabriella Blum, 'Quantum of Silence: Inaction and Jus Ad Bellum' (Cambridge, MA: Harvard Law School Program on International Law and Armed Conflict, 2019), <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3420959>; Elisabeth Schweiger, 'The Risks of Remaining Silent: International Law Formation and the EU Silence on Drone Killings', Global Affairs 1 (2015), 269-275; Paulina Starski, 'Silence within the Process of Normative Change and Evolution of the Prohibition on the Use of Force: Normative Volatility and Legislative Responsibility', Journal on the Use of Force and International Law 4 (2017), 14-65; Danae Azaria, 'Acquiescence, Estoppel and Related Concepts. State Silence in International Law,' United Nations Audiovisual Library of International Law, 26 October 2022, <https://legal.un.org/avl/ls/Azaria_IL.html>.

34 Annika Björkdahl, 'Norms in International Relations: Some Conceptual and Methodological Reflections', Cambridge Review of International Affairs 15 (2002), 9-23 (13).

35 Bode and Huelss (n. 4).

necessarily based on,[36] they need not be publicly expressed but may also be tacit in nature.[37] Further, the international normative order is also constituted by how it needs to reconcile stability and change, as well as by its inherent indeterminacy. This connects to Brunnée and Toope's understanding of 'international law as a distinctive practice of justification and contestation'.[38] In the international normative order, actors therefore negotiate, develop, and shape interpretations and understandings of international law in practices. But the international normative order goes beyond this by also featuring social norms that have no immediate connection to international law and may not only be communicated publicly via deliberative practices but also tacitly or at sites not accessible to the public via non-deliberative practices (see next section).

***Figure 1**. An international legal and an international normative order*

The international legal order captures all institutionalised standards of international law, such as treaties, protocols, declarations, or resolutions, as well as established customary international law. By contrast, the international normative order contains the full range of accepted interpretations and practices in relation to such standards, as well as other, intersubjective (and potentially functional or procedural) understandings of appropriateness that are not (necessarily) attached to international law. As such, the international legal order is grounded in the international order via shared social

36 Jutta Brunnée and Stephen J. Toope, 'International Law and the Practice of Legality: Stabilty and Change', V. U. W. L. Rev. 49 (2018), 429-445 (437).

37 Peter L. Berger and Thomas Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge* (London: Penguin 1967), 13; Friedrich V. Kratochwil, *Rules, Norms, and Decisions: On the Conditions of Practical and Legal Reasoning in International Relations and Domestic Affairs* (Cambridge: Cambridge University Press 1989), 11.

38 Brunnée and Toope (n. 36), 434.

understandings but also needs to be supported by an ongoing 'practice of legality'.[39] This maintenance work of international law that occurs in practices performed in the context of the international normative order over time defines the character of the international legal order – in potentially both positive, i. e. strengthening, but also adverse ways. The performance of practices therefore shapes both the international legal and the international normative orders. While all practices can potentially be the sources of new norms or re-shape existing ones, not all practices necessarily have this effect. This is because practices describe a basic category of social interaction – from a practice theoretical perspective, everything social is constituted in practices.[40]

II. State Practice Versus State Practices and How Practices Shape the Normative Order

Conceptualising the relationship between the international legal and the international normative orders allows us to represent dynamics of how states use force, for example forcefully targeting terrorist suspects via technological practices such as drone warfare. I argue in the following that such dynamics cannot be fully captured using solely the traditional, positivist language of international law.

The availability and use of drones as well as other security technologies, such as loitering munitions, has led states to propose new, often wider, interpretations of the law of self-defence, such as those concerning the 'unwilling or unable formula'.[41] But a purely legal terminology or logic cannot capture how significant such *practices* are. This is because they do not correspond to the understanding of state practice as expressed in customary international law: they do not constitute 'a general practice accepted as law'[42] and do not speak to a consistently stated belief in the applicability of a particular rule. Distinguishing between international legal and normative orders promises to capture such evolving, unruly understandings of appropriateness by combining insights from norm research with practice theories and STS.

39 Brunnée and Toope (n. 36), 437.

40 Theodore R. Schatzki, *The Site of the Social: A Philosophical Account of the Constitution of Social Life and Change* (University Park, PA: Pennsylvania State University Press 2002); Davide Nicolini, *Practice Theory, Work, and Organization: An Introduction* (Oxford: Oxford University Press 2013).

41 Bode (n. 3).

42 International Court of Justice (n. 5), Art. 38(1).

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Practice theories understand practices, that is 'socially meaningful patterns of actions',[43] as the micro building blocks of all social constructions. As such, they can procedurally capture how such constructions are constituted, sustained, or change. This process-orientation is a characteristic feature of practices, thereby 'uncover[ing] that behind all the apparently durable features of our world there is always the work and effort of someone'.[44] Practice theories analytically aim at both 'what actors do and say'.[45] With this, scholars highlight the performance of practices as 'a process of doing something'.[46] Connecting such insights from practice theories to questions of normativity as an analytical endeavour is, however, just getting started.[47] Focusing on practices understood in this broader, sociological sense therefore provides a useful analytical 'thinking tool'[48] to study how the international legal order and the international normative order interact.

States articulate and perform new interpretations of international law as well as new social understandings of appropriateness (norms) not immediately related to international law in the forms of deliberative and non-deliberative practices. In other words, they perform both practices of saying and practices of doing. Actors perform deliberative practices after reflecting and considering upon their choices of action. These typically concern not only interpreting standards of international law but also formulating new understandings which claim to be normative but that are only loosely (if at all) tied to accepted,

43 Federica Bicchi and Niklas Bremberg, 'European Diplomatic Practices: Contemporary Challenges and Innovative Approaches', European Security 25 (2016), 391-406 (394).

44 Nicolini (n. 40), 3.

45 Christian Bueger and Frank Gadinger, *International Practice Theory*, (2nd edn, Basingstoke: Palgrave Macmillan 2018), 2.

46 Emanuel Adler and Vincent Pouliot, 'International Practices', International Theory 3 (2011), 1-36 (7).

47 Jason Ralph and Jess Gifkins, 'The Purpose of United Nations Security Council Practice: Contesting Competence Claims in the Normative Context Created by the Responsibility to Protect', *European Journal of International Relations* 23 (2017), 630-653; Frank Gadinger, 'The Normativity of International Practices', in: Alena Drieschova, Christian Bueger and Ted Hopf (eds), *Conceptualizing International Practices. Directions for the Practice Turn in International Relations* (Cambridge: Cambridge University Press 2022), 100-121; Max Lesch, 'Praxistheorien und Normenforschung in den Internationalen Beziehungen: Zum Beitrag der pragmatischen Soziologie', Praxis der Kritik, 10 May 2017, 31-54, <https://doi.org/10.17185/DUEPUBLICO/70132>; Max Lesch and Dylan M. H. Loh, 'Field Overlaps, Normativity, and the Contestation of Practices in China's Belt and Road Initiative', Global Studies Quarterly 2 (2022), ksac068, <https://doi.org/10.1093/isagsq/ksac068>; Simon Frankel Pratt, 'From Norms to Normative Configurations: A Pragmatist and Relational Approach to Theorizing Normativity in IR', International Theory 12 (2020), 59-82; Pratt (n. 18); Bode and Huelss (n. 4); Steven Bernstein and Marion Laurence, 'Practices and Norms: Relationships, Disjunctures, and Change' in: Alena Drieschova, Christian Bueger and Ted Hopf (eds), *Conceptualizing International Practices* (Cambridge: Cambridge University Press 2022), 77-99.

48 Leander (n. 8).

standing interpretations of international law. Non-deliberative practices are often operational, bodily performed, and hidden from the public eye.[49] For example, these might be technological practices that relate to how (new) weapon systems are designed and used. Such non-deliberative practices are not necessarily influenced by interpretations of existing international law, but still contribute to constituting the normative order by sustaining tacit norms.

In this, normative order is not only the result of planned, deliberate discursive practices, but also of the effect of how sustained, unplanned practices play out and build up at the macro level. The distinction between deliberative and non-deliberative practices or practices of saying and doing is an ideal-typical one. I am using this distinction that has long been present in sociological practice theories to explore how practices can become sources of norms – and, in particular, how understandings that only remain tacitly expressed via practices, can become sources of norms.

As noted, I understand norms as having two dimensions: they are normative and they make normal.[50] First, I follow an expanded understanding of normativity. While normativity can be understood as only referring to fundamental norms, such as constructivist scholarship also recognises different types of norms, including organising principles and standardised procedures.[51] For Wiener, these norms are hierarchically situated in that organising principles and standardised procedures implement fundamental norms and carry less normative substance.[52] But there is the potential for reversing this sequence through analysing organising principles and standardised procedures as potential sources of a new, functional type of normative substance.[53] What is normative is therefore not only tied to pre-defined, fundamental ideas of oughtness and justice that may originate in law, but may also emerge from what is functionally efficient and effective.[54] Second, this functional normativity overlaps with normality or making certain practices appear normal. Critical security studies, drawing on Foucault, have long considered the 'normal' as a site of struggle.[55] The notion of functional normativity allows for an intersection with these perspectives in considering the conse-

49 Stimmer and Wisken (n. 22;)Bode and Huelss (n. 4).

50 Huelss (n. 13).

51 Antje Wiener, 'Enacting Meaning-in-Use: Qualitative Research on Norms and International Relations', Rev. Int'l Stud. 35 (2009), 184.

52 Wiener (n. 51), 184.

53 Bode and Huelss (n. 11).

54 Bode and Huelss (n. 11).

55 Didier Bigo, 'Security and Immigration: Toward a Critique of the Governmentality of Unease', Alternatives: Global, Local Political 22 (2002), 63-92; C. A. S.E Collective, 'Critical Approaches to Security in Europe: A Networked Manifesto', Security Dialogue 37 (2006), 443-444.

quences of the process by which something becomes defined as 'normal' or 'commonplace'.[56]

Looking at how actors perform practices and how they enter the international normative order can tell us something about the relationship between the international legal and the international normative order and how it changes. To start with, saying that international law is indeterminate is not the same as saying 'anything goes' in the realm of international normative order. Deliberative and non-deliberative practices carry more or less weight depending on how many actors perform them, as well as who performs them, creating cases of more sustained or less stringent shared understandings. Deliberative practices positing new use-of-force justifications performed by states routinely refer to new interpretations in connection to existing legal standards or looser forms of attachment to what is currently accepted as 'appropriate'. Legal specialists assess such practices over time, an endeavour that is fundamentally political.[57] Over time, these dynamics determine whether there will be a change in what is considered legally appropriate.

In cases where practices performed in the realm of the international normative order do not trigger an evolving agreement, there will be mismatches between the legal and normative orders in the form of contested areas. These contested areas describe deliberative and non-deliberative practices that interpret and/or justify the use of force but are at least partly outside the scope of established, intersubjective understandings of appropriateness. Whether these come to enter the normative order in full is an open, empirical question.

The presence of such contested areas in between the international legal and the international normative order matters because they decrease their congruence with each other. If there is a high, overall congruence between the legal and normative orders, this arguably creates a certain stability of expectations for state behaviour. This can demonstrate the constraining power of international law – as even elements of permissiveness *are ruled in*, to a certain extent. States have agreed upon the international legal framework on a voluntary basis. If they also share a set of practices in the realm of the international normative order interpreting this framework, this congruence between the legal and normative orders can offer a more reliable set of rules for states to comply with.[58]

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56 Ingvild Bode, 'Practice-Based and Public-Deliberative Normativity: Retaining Human Control over the Use of Force', European Journal of International Relations, online first (2023), https://doi.org/10.1177/13540661231163392.

57 Hurd (n. 7), 14.

58 Richard Falk, 'Global Security and International Law' in: Mary Kaldor and Iavor Rangelov (eds), *The Handbook of Global Security Policy* (Walden, MA: Wiley 2014), 320-337 (324).

But the indeterminate and permissive dynamics of international law leave considerable room for states to offer contested use-of-force justifications – or engage in contestable practices of doing. These dynamics can lead to a growing incongruence or even mismatch between the legal and the normative orders. As I argue below, both deliberative and non-deliberative, technologically-mediated state practices vis-à-vis using drones and weapon systems with autonomous features have led to such areas of mismatch, to contested areas in international law on the use of force. These contested areas arise when previously shared expectations surrounding international legal standards do not match their emerging, new norm-based interpretation in deliberative and non-deliberative practices.

What is the wider significance of these mismatches or the emergence of contested areas between the international legal and the international normative orders? To address this question, I return to the nature of international law as simultaneously restraining and permissive. The restraining quality of international law is arguably stronger when states share significant understandings of when it is legal (and legitimate) to resort to force in the first place (*jus contra bellum*) and how a resort to force should be conducted (*jus in bello*). This corresponds to an alignment of the legal and normative orders. By contrast, the permissive quality of international law is stronger when states have different significant understandings of when it is legal (and appropriate) to resort to force and how a resort to force should be conducted. Here, legal and normative orders misalign. At any given time, there are likely to be fewer or more areas of contestation in between the legal and the normative orders, as well as within the normative order itself. Some norms may be accepted by a larger group of (state) actors than others and these constellations change over time. Depending on how significant these areas of contestation are, there is going to be greater or smaller match/mismatch between the legal and normative orders. So, state practices that, over time, shape new norms in deliberative and non-deliberative ways in the realm of the international normative order may not immediately affect the international order. But they will, over time, have an indirect effect on the restraining potential of international law, and therefore the source of its legitimacy in and 'pull' on international relations.

These arguments depart from Hurd's, who argues that looking for a shared kernel of legal/normative understandings is ultimately futile because there are no objective standards describing what is legal. But even when there is no 'objective' standard of legality, we can still track evolving shared, intersubjective understandings. In fact, we can point to (many) areas of international law with significant numbers of shared understandings, while other areas see

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increasingly patchy understandings. One such area are the laws of war and other understandings governing the use of force.

III. Technological Practices and Contested Areas of International Law Governing the Use of Force

To highlight the significance of a mismatch between the legal and normative orders on the use of force, I focus on evolving technological practices states perform regarding *jus contra bellum* and *jus in bello*.

First, starting with *jus contra bellum*, and in line with Hurd's arguments, practices that states perform both deliberatively and non-deliberatively employ the language/logic of self-defence in attempts to broaden the scope of standards such as attribution, imminence, and necessity in pushing targeted killing.[59] Self-defence has figured prominently in justifications by targeted killing's most prominent performers: the United States and Israel. In part, these practices involve contesting the norm prohibiting state-sponsored assassination,[60] but also go beyond them in recurring on wide interpretations of self-defence. Over the past 20+ years, such practices have decreased the extent to which self-defence standards remain shared and what their precise legal content is. Overall, this section focuses on how states perform largely deliberative technologically-mediated practices and engage in discursive forms of legislative and, on occasion, systemic contestation.[61]

Second, in terms of *jus in bello*, I address the requisite quality of human control over the use of force. What is contested here is less clear because a requirement for human control over the use of force features in the spirit rather than in the letter of international law. I focus on how non-deliberative,

59 Bode and Huelss (n. 4), 124-129.

60 Mathias Großklaus, 'Friction, Not Erosion: Assassination Norms at the Fault Line between Sovereignty and Liberal Values', Contemporary Security Policy 38 (2017), 260-280, <https://doi.org/10.1080/13523260.2017.1335135>; Jason W. Fisher, 'Targeted Killing, Norms, and International Law', Colum. J. Transnat'l L. 45 (2007), 711-758.

61 The practice of targeted killing has, of course, also drawn much critique from *jus in bello* perspectives. Scholarship has examined the extent to which targeted killings adhere to the principles of distinction and proportionality, but also whether they happen in the context of armed conflict and what this means for maintaining the distinction between war- and peacetime. Mary Ellen O'Connell, 'Evidence of Terror', Journal of Conflict and Security Law 7 (2002), 19-36; Philip Alston, 'The CIA and Targeted Killings beyond Borders', Harvard National Security Journal 2 (2011), 283-446; Sarah Kreps and John Kaag, 'The Use of Unmanned Aerial Vehicles in Contemporary Conflict: A Legal and Ethical Analysis', Polity 44 (2012), 1-26; Molly McNab and Megan Matthews, 'Clarifying the Law Relating to Unmanned Drones and the Use of Force: The Relationships Between Human Rights, Self-Defense, Armed Conflict, and International Humanitarian Law', Den. J. Int'l L. & Pol'y 39 (2011), 661-694.

hidden practices of designing and using weapon systems integrating automated and autonomous technologies in targeting have shaped what states consider appropriate in terms of human control – and how this relates to (and shapes) the role human control plays in international law.

What follows is methodologically based on a textual analysis of arguments presented by international legal scholars and jurists working with various methodological doctrine-based approaches. While 'where the law stood on the morning of 11 September 2001'[62] was not clear and undisputed, 9/11 arguably started a trend of much more clearly and frequently voiced and radically opposing understandings of it. In this, I follow the arguments presented by many commentators of the law. The section on *jus in bello* and human control further draws on empirical material I collected via participant observation (Certain Conventional Weapons [CCW] debate on Lethal Autonomous Weapon Systems [LAWS] from 2017-2021), expert interviews (2017-2020), a collaborative qualitative data catalogue of automated and autonomous features in 28 air defence systems,[63] and the close study of practices of human-machine interaction in four air defence systems associated with high-profile failures that led to the downing of civilian as well as military airplanes (friendly fire incidents).[64]

1. *Jus contra bellum*: Targeted Killing

I focus on how states, typically deploying armed drones, have evaluated targeted killing and the extent to which targeted killing individual non-state actors as a practice has begun to appear more 'appropriate'. Has there been contestation of previous understandings of state-sponsored assassination and their legality? Rather than delving deep into the relationship between targeted killing and assassination, I take them to be conceptually related and argue that the parameters of their relationship are changing. This change triggers an emerging, contested area between the legal and the normative orders.

62 Joerg Kammerhofer, 'The Resilience of the Restrictive Rules on Self-Defence' in: Marc Weller (ed.), *The Oxford Handbook of the Use of Force in International Law* (Oxford: Oxford University Press 2015), 627-648 (629).

63 Tom Watts and Ingvild Bode, 'Autonomy and Automation in Air Defence Systems Catalogue', February 2021, DOI: 10.5281/zenodo.4485695.

64 Ingvild Bode and Tom Watts, 'Meaning-Less Human Control. The Consequences of Automation and Autonomy in Air Defence Systems' (Oxford and Odense: Drone Wars UK & Centre for War Studies, University of Southern Denmark, February 2021), <https://dronewars.net/wp-content/uploads/2021/02/DW-Control-WEB.pdf>.

Targeted killing is 'the use of lethal force attributable to a subject of international law [for our purposes a state] with the intent, premeditation and deliberation to kill individually selected persons who are not in the physical custody of those targeting them'.[65] Until 9/11, targeted killing had been publicly condemned by most states, including by the United States who is now one of the primary performers of this practice.[66] Targeted killing existed, but states did not publicly acknowledge it.[67]

By contrast, in the context of counterterrorism and vis-à-vis non-state actors, targeted killing is in the process of being perceived as more 'appropriate', often in functional terms.[68] States such as the United States, the United Kingdom, Turkey, Russia, Saudi Arabia, the United Arab Emirates, Libya, and Israel have explicitly or implicitly acknowledged that they engage in the targeted killing of terrorist suspects or non-state actors.[69] Scholars argue that targeted killing represents a change in norms governing the use of force from one of two angles: norm erosion and norm emergence. Norm erosion focuses on the potentially eroding norm prohibiting state-sponsored assassination.[70] Norm emergence, by contrast, argues that targeted killing itself is emerging as a new norm, in particular after the 'positive' response to the targeted killing of Bin Laden in 2011.[71] Here, affirmations did not only come from United States (US) allies but also from then UN Secretary-General Ban Ki-Moon who argued that 'justice has been done to such a mastermind of international terrorism',[72] thereby seemingly asserting that Bin Laden's targeted killing was legal and legitimate.

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65 Nils Melzer, *Targeted Killing in International Law*, Oxford Monographs in International Law (Oxford: Oxford University Press 2008), 5.

66 James Igoe Walsh, 'The Rise of Targeted Killing', Journal of Strategic Studies 41 (2018), 143-159 (144).

67 Thomas Ward, 'Norms and Security: The Case of International Assassination', International Security 25 (2000), 105-133 (115).

68 Melzer (n. 65), 9.

69 E.g. President Barack Obama, 'Remarks by the President at the National Defense University', The White House, 23 May 2013, <http://www.whitehouse.gov/the-press-office/2013/05/23/remarks-president-national-defense-university>.

70 Großklaus (n. 60).

71 Betcy Jose, 'Bin Laden's Targeted Killing and Emerging Norms', Critical Studies on Terrorism 10 (2017), 44-66; Betcy Jose, 'Not Completely the New Normal: How Human Rights Watch Tried to Suppress the Targeted Killing Norm', Contemporary Security Policy 38 (2017), 237-259; Jeffrey S. Lantis, *Arms and Influence: U. S. Technology Innovations and the Evolution of International Security Norms* (Stanford, CA: Stanford University Press 2016).

72 UN Secretary-General, 'Secretary-General, Calling Osama Bin Laden's Death "Watershed Moment", Pledges Continuing United Nations Leadership in Global Anti-Terrorism Campaign', UN Meetings Coverage and Press Releases, 2 May 2011, <https://www.un.org/press/en/2011/sgsm13535.doc.htm>.

But at least two significant uncertainties remain when evaluating whether targeted killing as a practice has come to shape new understandings of appropriateness or norms – and especially the extent to which a normalisation coincides with a new normativity. First, only a limited number of seven states appear to regularly perform this practice: Israel, Iran, Libya, Saudi Arabia, Turkey, the United Arab Emirates, the United Kingdom, and the United States.[73] This limited range does not signify the emergence of a regular, shared understanding of appropriateness. Further, the main performers of this practice continue to be mainly the United States and Israel, limiting the group of performers even more. Scholars such as McDonald even argue that targeted killing in its current form represents a uniquely American form 'individuated warfare' in the specific context of the post-9/11 conflict against Al Qaeda.[74] Only the United States has the technological, intelligence, bureaucratic, and logistical infrastructure necessary to target individuals 'from half a planet away'.[75] Access to digital technology was paramount to setting up this infrastructure, in particular 'the combined information processing capabilities of the US military'.[76]

Second, many states have remained conspicuously silent when it comes to assessing targeted killing. Interpreting silence is not straightforward: while some scholars consider it a tacit expression of support (acquiescence),[77] others hold that silence cannot be interpreted as proof of changing international law.[78] Given the ambiguous nature of silence, its interpretation in discourse on international law therefore becomes 'a political act'.[79] From my perspective, silence simply adds to a situation of uncertainty in a contested area of use-of-force law.[80]

Technologically-mediated practices have played a crucial role in enabling the US to conduct targeted killing, including via drone strikes.[81] To process

73 E.g. Max Mutschler and Marius Bales, 'Liquid or Solid Warfare? Autocratic States, Non-State Armed Groups and the Socio-Spatial Dimension of Warfare in Yemen', Geopolitics, 27 January 2023, 1-29, <https://doi.org/10.1080/14650045.2023.2165915>.

74 McDonald (n. 2), chap. 6.

75 McDonald (n. 2), 146.

76 McDonald (n. 2), 152.

77 Theresa Reinold, 'State Weakness, Irregular Warfare, and the Right to Self-Defense Post-9/11', AJIL 105 (2011), 244-286; Christian J. Tams, 'The Use of Force against Terrorists', EJIL 20 (2009), 359-397, <https://doi.org/10.1093/ejil/chp031>.

78 Olivier Corten, *The Law Against War. The Prohibition on the Use of Force in Contemporary International Law* (Oxford and Portland, OR: Hart 2010); Lewis, Modirzadeh and Blum (n. 33).

79 Schweiger (n. 33), 273.

80 Christian Marxsen, *Völkerrechtsordnung und Völkerrechtsbruch. Theorie und Praxis der Illegaliät im Ius Contra Bellum* (Tübingen: Mohr Siebeck 2021), 243 f., 254 f., 319 f.

81 Warren and Bode (n. 2), chap. 5; Renic (n. 2).

and analyse sensor data for this, the US Air Force uses the Distributed Common Ground System (DCGS).[82] Targeted killings are carried out in direct response to the analysis of this data, which is provided to American drone operators via the encrypted mIRC chat programme. Both its own databases and the databases of other national security agencies are used by the DCGS when working with data.[83] Depending on which sensor collected the data, it is stored in several silos. After being gathered, sensor data continues to be used by the system and serves as the foundation for targeting decisions.

Currently, analysing such sensor data requires numerous human operators and is labour-intensive.[84] This may lead to a greater reliance on AI technologies for the DCGS's processing and analysis of sensor (and other types of) data for targeted killing. The US wants to consolidate all data into a single, global repository from which US military personnel can access it from any location. In order to compare the massive volumes of data and find patterns that humans are unable to see, AI technologies are expected to play a key role. Automation would be used to manage and make 'actionable' the various pieces of data that are currently scattered. This direction is evidenced by the US Air Force taking the lead in Project Maven and its successor programmes.[85] This testifies to the deeper integration of AI technologies throughout various stages of the targeting cycle, from target analysis through target assessment. As there are considerable functional constraints to the extent to which human operators can doubt or question target analyses offered by AI technologies, this development may have detrimental effects on humans' ability to remain in meaningful control of the targeting cycle (see also subsequent section on *jus in bello*).[86]

This brief discussion of the DCGS demonstrates that we should investigate the extent to which the spread of targeted killing practices is mediated by available technologies. Some commentators argue that 'while the story of the

82 Elsa Rassbach, 'US-Experten Warnen vor Deutscher Beteiligung an Eurodrohne', Telepolis, 13 April 2021, <https://www.heise.de/tp/features/US-Experten-warnen-vor-deutscher-Beteiligung-an-Eurodrohne-6012113.html>.

83 Lance Menthe et al., 'Technology Innovation and the Future of Air Force Intelligence Analysis', (Santa Monica, CA: RAND Corporation 2021), <https://www.rand.org/pubs/research_reports/RRA341-2.html>.

84 Roger Mola, 'The Intel Net. The Sprawling, Secretive Process between Sensor and Action', Air & Space Magazine (September 2016), <https://www.airspacemag.com/military-aviation/the-intel-net-180960363/>.

85 Richard H. Shultz and Gen. Richard D. Clarke, 'Big Data at War: Special Operations Forces, Project Maven, and Twenty-First Century Warfare', Modern War Institute, 25 August 2020, <https://mwi.usma.edu/big-data-at-war-special-operations-forces-project-maven-and-twenty-first-century-warfare/>.

86 Bode and Huelss (n. 4).

rise of targeted killings is in large part the story of the rise of the drone, politics rather than technology drove both developments'.[87] From an STS perspective, this is rather missing the point as politics and technology are invariably intertwined and one cannot therefore be analysed in isolation from the other. Yet, instrumental perceptions of technology abound in the literature on weapon systems and warfare, rather than considering how the design and use of technology shapes and is intertwined social meaning. Technological features inherent to drones have shaped new understandings of appropriateness.[88] The presumed efficiency and effectiveness of targeted killing via drones, associated with the promise of 'surgical strikes', the protection of own troops, and ultimately of the home public in acts of preventive self-defence, appears to have turned drones into the most 'appropriate' security instrument to counter terrorism abroad.[89] What is technologically available and possible mediates states' choices. This does not mean that context does not matter: the US-declared 'war on terror' constituted an important push factor for the broader take-up of drone technology, which had been technologically available for some time prior. 9/11 as a social context therefore did away with some social constraints over using unmanned aircraft. But the use of drones has also followed its own dynamics.

Analysing targeted killing as part of the relationship between legal and normative orders therefore brings new insights. Specifically, I take targeted killing to be a set of practices that can be largely associated with legislative contestation[90] because they contest the legal substance of the norm prohibiting state-sponsored assassination[91] and may even constitute the putting forward of a new targeted killing norm via a process of gradual normalisation. Currently, these practices are however not uniform nor widespread. Targeted killing appears to have become 'more appropriate', largely in functional terms, only in relation to counterterrorism and towards non-state actors rather than vis-à-vis state leaders or other high-level representatives of the state as the controversy over the 2020 US targeted killing of Iranian General Soleimani demonstrates.[92] It is also highly unlikely that the chief performers

87 Walsh (n. 66), 150.

88 Vicky Karyoti, '9/11's Legacy of Drone Warfare Has Changed How We View the Military', The Conversation, 7 September 2021, <https://theconversation.com/9-11s-legacy-of-drone-warfare-has-changed-how-we-view-the-military-167393>.

89 Warren and Bode (n. 2), chap. 5.

90 Lesch and Marxsen (n. 20).

91 They may therefore be a form of applicatory contestation following Nicole Deitelhoff and Lisbeth Zimmermann, 'Things We Lost in the Fire: How Different Types of Contestation Affect the Robustness of International Norms,' International Studies Review 22 (2020), 51-76.

92 Luca Ferro, 'Killing Qasem Soleimani: International Lawyers Divided and Conquered', Case W. Res. J. Int'l L. 53 (2021), 163-196.

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of targeted killing, the US and Israel, would accept a widespread, generalised practice of targeted killing that would contest the norm prohibiting state-sponsored assassination in more fundamental ways.

One can thus argue that the contours of norm prohibiting state-sponsored assassination are still intact.[93] Yet, the consequences of this initial legislative contestation can actually be destabilising for the international legal order and thereby results in an incremental systemic contestation. They create greater uncertainty and an area of mismatch between legal norms and the associated, acceptable standards of appropriateness (norms). This has a destabilising effect in creating more available interpretations that legitimise recourses to the use-of-force. This normalises the use-of-force as a first rather than as a last resort.

Further, it is notable that the practice of targeted killing is intimately tied to 'acting under colour of law'.[94] Arguably, speaking about targeted killing in the language of law, whether to claim its legality or illegality, still puts them onto the terrain of the international normative order. Framing targeted killing as a functional, military tactic, moreover, highlights the juxtaposition between the indeterminacy and permissiveness of international law, which ultimately leaves 'space for security matters to embed themselves in the law'.[95]

2. *Jus in bello*: Human Control Over the Use-of-Force

The development of targeted killing as a practice has demonstrated how (available) security technologies can shape what states consider as appropriate when using force. This section takes this argument about technological practices as sources of normative content further by examining the question of immediate or direct human control over the use-of-force. The extent to which force (will) remain under human control has come to the attention of the international community from the mid-2010 s onwards through the debate on so-called autonomous weapon systems (AWS), that 'once activated, can select and engage targets without further human intervention'.[96] This late

93 Ward (n. 67).

94 Philip Alston, 'Interim Report of the Special Rapporteur in Extrajudicial, Summary or Arbitrary Executions. UN Document No. A/65/321', 23 August 2010, 3.

95 Krasmann(n. 2), 677.

96 Christof Heyns, 'Autonomous Weapons Systems: Living a Dignified Life and Dying a Dignified Death', in: Nehal Bhuta, Susanne Beck and Robin Geiß (eds), *Autonomous Weapons Systems: Law, Ethics, Policy*, (Cambridge: Cambridge University Press 2016), 3-20 (4).

awakening is surprising, given that the story of warfare has long revolved around increasing the physical distance between soldiers and their enemies/targets.[97] This striving for distance has become pronounced in modern, industrial-scale warfare through air campaigns, cruise and ballistic missiles, networked warfare, and drone warfare.[98] This story even predates the industrial age, starting with developments in military technology such as the crossbow or the catapult.

However, distance did not necessarily imply a loss of immediate human control, nor did it introduce decision-making tasks to the realm of human-machine interaction. This qualitative difference to how humans exercise control over the use of force only became more pronounced with the use of more complex technology, especially in relation to integrating automated, autonomous and AI technologies in targeting.[99]

Yet, even here, worrying about future, potential or emerging 'fully' autonomous weapons pushes the debate unnecessarily into the future.[100] We should instead start looking at the much longer trajectory of how automated and autonomous technologies, essentially rudimentary forms of weaponised AI, have been integrated into targeting system of weapons over decades. Guided missiles, air defence systems, loitering munitions, active protection systems, and counter-drone systems all integrate automated and autonomous technologies into targeting.[101] Even the humanitarian arms control debates about anti-personnel landmines, cluster munitions, or explosive weapons, for example, can be characterised as debates about a lack of immediate human control over specific decisions to use force. States have therefore performed and continue to perform often non-deliberative, operational practices of designing and using such sensor-based targeting systems in warfare. Such practices have arguably shaped what counts as a normal and therefore 'appropriate' quality of human control. In other words, they have shaped an emerging norm of human control. A close examination of the substance of such practices demonstrates that this norm sets a minimal standard. It assigns humans a reduced role in specific use of force decisions and evaluates this diminished decision-making capacity that is a result of complex human-machine interaction as 'appropriate'. This assessment is based on the in-depth

97 Bode and Huelss (n. 4).

98 McDonald (n. 2), 145.

99 Denise Garcia, 'Lethal Artificial Intelligence and Change: The Future of International Peace and Security,' International Studies Review 20 (2018), 334-341, <https://doi.org/10.1093/isr/viy029>.

100 Bode (n. 56).

101 Vincent Boulanin and Maaike Verbruggen, 'Mapping the Development of Autonomy in Weapon Systems' (Solna, SE: SIPRI 2017).

study of largely operational practices states performed in relation to air defence systems.[102]

The role of human operators has been fundamentally changed through integrating automated and autonomous technologies into air defence systems. The major qualitative change is that the role of the human operator has been minimised while, simultaneously, becoming increasingly complex. The human operators' roles in air defence systems have changed from active controllers to passive supervisors. This has meant that they have lost both situational awareness and a functional understanding of how algorithmic systems make targeting decisions. While human operators often formally retain the final decision, in practice the decision that is made based on information from highly complex systems in fast evolving situations is often *meaningless*. This diminished role of human control has been gradually normalised over the performance of many similar practices over time. Different types of air defence systems with automated and autonomous technologies in targeting have been in use since the 1970 s and at least 89 states operate such systems.[103]

This emerging norm has been shaped in a largely silent process that precedes the ongoing debate about AWS at the CCW by decades and continues to run parallel to it. The debate on AWS has yet to scrutinise this emerging norm.[104] Currently, if states parties address air defence systems or other existing weapon systems integrating autonomous or automated technologies in targeting at all, they do so in three ways: (1) by ignoring that precedents set by such systems are relevant for AWS; (2) by identifying AWS as a future, potential problem rather than one that already exists; and (3) by positively acknowledging precedents set by existing weapon systems as a *gold standard* of direct, meaningful human control.[105] Such dynamics positively affirm the norms emerging from largely non-deliberative, hidden practices rather than scrutinising it, thereby undercutting efforts to retain meaningful human control over the use of force.

What do such dynamics signify for the international legal order? Currently and curiously, there is no provision in international humanitarian law specifying that weapons need to remain under human control. We may argue instead, that human control is a constitutive norm of international humanitarian law that is located in its spirit, rather than in its letter, and

102 Bode and Watts (n. 64).

103 Boulanin and Verbruggen (n. 101), 37.

104 Ingvild Bode et al., 'Prospects for the Global Governance of Autonomous Weapons: Comparing Chinese, Russian, and US Practices', Ethics and Information Technology 25 (2023), 1-15 (5), <https://doi.org/10.1007/s10676-023-09678-x>.

105 Bode (n. 56).

rests on a monotheistic approach that privileges humans.[106] As Heyns argues, 'it is an implicit assumption of international law and ethical codes that humans will be the ones taking the decision whether to use force, during law enforcement and in armed conflict. Since the use of force throughout history has been personal, there has never been a need to make this assumption explicit.'[107]

The debate already turns around the extent to which human control over the use of force is required for states to adhere to International Humanitarian Law (IHL). Here, many stakeholders to the debate, including states and civil society actors, answer in the affirmative: making legal determinations about such key principles as proportionality and distinction requires the exercise of human, deliberative judgment.[108] The ability of states using AWS to adhere to distinction depends, for example, on whether distinguishing between civilians and combatants is something that their targeting algorithms are capable of or the extent to which we see this as even programmable. In terms of accountability, international humanitarian law is, of course, addressed to humans and the obligation to comply with IHL does not shift to the machine. Even weapons integrating automated or autonomous technologies in targeting were used to apply force without prior human assessment, there would still have to be a human in command who bears the responsibility.

States parties at the CCW converge on the stance that humans need to remain in control over the use of force. We can therefore expect some form of human control to be retained. But what actually matters, as the analysis of air defence systems shows, is the quality of that control and whether it is, indeed, meaningful. There are two potential scenarios for how the dynamic relationship between the international legal order and the international normative order may evolve here. First, operational, hidden processes vis-à-vis human control may come to change, over time, how certain core provisions of IHL are understood; or, second, such operational processes may continue to run parallel to legal standards. In this second scenario, IHL and the international legal order it represents would technically remain intact, but is *de facto* undercut by evolving understandings in the international normative order and therefore loses in importance.

106 Gregor Noll, 'War by Algorithm' in: Gregor Noll and Daniel Steuer, *War and Algorithm* (London: Rowman & Littlefield 2019) 75-104.

107 Heyns (n. 96), 8.

108 Eric Talbot Jensen, 'The Human Nature of International Humanitarian Law', ICRC Humanitarian Law & Policy (blog), 23 August 2018, <https://blogs.icrc.org/law-and-policy/2018/08/23/human-nature-international-humanitarian-law/>.

IV. Conclusion

I posited that a growing mismatch between the legal and normative orders on the use-of-force manifests in an increasing lack of clarity about which practices, broadly defined as patterned actions in social context that shape understandings of appropriateness, are permitted and which are prohibited. I have also investigated the extent to which deliberative and non-deliberative practices in relation to targeted killing and human control over the use of force are technologically mediated. Such dynamics highlight the significance of technological practices in constituting normative substance on the use of force as well as the multiplicity of practices we need to account for when tracking the relationship between norms and law.

I want to conclude with drawing attention to three potential consequences associated with the increasing number of contested areas in use-of-force law. Rather than summarising my insights, I want to take the arguments presented here further by reflecting more broadly on their significance for the relationship between the international legal and normative orders. First, legal scholars have reached widely different doctrine-based understandings based on significantly different and ambiguous practices performed by states. As Marxsen highlights, under such circumstances, legal-doctrinal analysis does not and cannot offer firm answers as to the direction in which international law on the use-of-force is changing.[109] Such doctrinal uncertainty therefore increases the elasticity of international law in highly indeterminate circumstances.

Second, over the course of the performance of many such indeterminate practices, a series of contested areas in international law on the use of force has emerged. While practices such as targeted killing connect to some established, legally-institutionalised understandings of appropriateness, such practices also attempt to coin new understandings of often functional appropriateness and normality that are currently outside the spectrum of the normative order, thereby creating contested areas.

Third, the larger-scale consequence of such practices may be a normalisation of states' recourse to force in international relations. This kind of development could eventually lead to a more permissive environment for using force because state practices expand the range of justifications for resorting to force in the context of elastic areas of international law. Of course, as Hurd reminds us, that law is already permissive to the application of violence and its permissiveness 'has expanded since 1945 under the influ-

109 Christian Marxsen, 'A Note on Indeterminacy of the Law on Self-Defence Against Non-State Actors', HJIL 77 (2017), 91-93 (92).

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ence of state practice'.[110] In such a context, new (functionally) normative understandings of when and what kind of use-of-force is appropriate are emerging as performed by individual states but can diffuse to a macro level.

Practices vis-a-vis international law are striking an uneasy balance here. On the one hand, the range of accepted interpretations of legal norms cannot remain static in order for law to remain relevant.[111] Further, as critical norm scholarship has long highlighted, norms are 'meaning in use'[112] and thereby by their very nature ambiguous and polysemous.[113] On the other hand, this dynamic creates potentially risky situations where 'the established norms and rules of international law are preserved formally, but filled with a radically different meaning'.[114] As Brehm succinctly argues, 'evolving security practices challenge the categories and disrupt the human-machine configurations around which the legal regulation of force is articulated. This generates controversies and uncertainties about the applicability and meaning of existing norms, thus diminishing existing law's capacity to serve as a guidepost.'[115]

110 Hurd (n. 7), 1.

111 Kammerhofer (n. 62).

112 Wiener (n. 51).

113 Thomas Linsenmaier, Dennis R. Schmidt and Kilian Spandler, 'On the Meaning(s) or Norms: Ambiguity and Global Governance in a Post-Hegemonic World', Rev. Int'l Stud. 47 (2021), 508-527.

114 Krasmann (n. 2), 674.

115 Maya Brehm, 'Defending the Boundary: Constraints and Requirements on the Use of Autonomous Weapons Systems under International Humanitarian and Human Rights Law', Academy Briefing 9 (2017), 71.