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BOOK REVIEW

Nuclear Weapons under International Law

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What are we really looking for in a new text on nuclear weapons?

To some extent, it can rightly be said that all the key issues have been canvassed at some length in the (almost) two decades since the International Court of Justice (ICJ) handed down its Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons* (Nuclear Weapons Advisory Opinion).[1] There have, however, been significant changes in the context against which these issues must be considered. Particularly notable are scientific advances, which have deepened our understanding of the humanitarian effects of nuclear weapons (as highlighted at the recent conferences held on the subject), and technological advances, which have focused the legal debate on weapons of the "low-yield" or "tactical" variety.

A number of authors have provided valuable contemporary analysis which incorporates, and even focuses on, these changes.[2] Still, there remains much to be said for the availability of an up-to-date "one-stop shop" for discussion not only of the traditional core questions, but also of those which have received less extensive attention from legal scholars. *Nuclear Weapons under International Law* provides precisely this. In addition, it acts as a timely reminder that the existence of large stockpiles of nuclear weapons demands not resignation, but rather continued reflection, debate, and ultimately action.

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While it is impossible to do justice to every chapter in the space available, the following pages offer some insights into the book's six substantive parts – each of which addresses one of the broad areas of law and policy engaged by nuclear weapons – before ending with some concluding thoughts on the final part.

Part I, "Nuclear Weapons and *Jus ad Bellum*", provides a thorough overview of the three key issues arising under *jus ad bellum*: the compliance of any use of nuclear weapons with the requirements of necessity and proportionality; the compliance of any threat of use with those same requirements; and the implications of the Nuclear Weapons Advisory Opinion for the doctrine of the strict separation of *jus ad bellum* and *jus in bello*.

Nobuo Hayashi's chapter on necessity and proportionality manages to be both detailed and succinct. In particular, his concise summary of the disputed issues relating to each criterion[3] serves to highlight just how little is really agreed – even as a matter of principle – where tricky issues of *ad bellum* compliance are at stake. The scope for debate is still greater when it comes to applying these principles to the use of nuclear weapons. Hayashi helpfully identifies three alternative interpretations of the ICJ's (in)famous *non-liquet*:[4] in essence, that an "extreme circumstance of self-defence" (i) may render the destructive force of nuclear weapons necessary and proportionate; (ii) will invariably render it so; or (iii) may render necessity and proportionality inapplicable.[5]

Hayashi endorses the third option; while some may find themselves unpersuaded, the reader's ability to form a view on the matter is testimony to his engaging presentation of the issues. His conclusion – that the prospects of the general rules of *jus ad bellum* "comprehensively outlawing" the use of nuclear weapons are "distinctly limited"[6] – is mirrored in many subsequent chapters. However, the further statement that "attempting to nail the square peg in the form of weapon-specific considerations into the round hole in the form of function-driven *jus ad bellum* only complicates the latter" is perhaps a little pessimistic. After all, a conclusion that there are no reasonably foreseeable circumstances in which a particular weapon could be used in compliance with international law is a strong argument in favour of a comprehensive ban.

1 ICJ, *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 8 July 1996, *ICJ Reports 1996* (Nuclear Weapons Advisory Opinion).

2 See, e.g., Dakota Rudesill, "Regulating Tactical Nuclear Weapons", *Georgetown Law Journal*, Vol. 102, 2013; Charles Moxley, John Burroughs and Jonathan Granoff, "Nuclear Weapons and Compliance with International Humanitarian Law and the Nuclear Non-Proliferation Treaty", *Fordham International Law Journal*, Vol. 34, No. 4, 2011; Charles Moxley, "The Unlawfulness of the Use or Threat of Use of Nuclear Weapons", *ILSA Journal of International and Comparative Law*, Vol. 8, 2002; Susan Breau, "Low-Yield Tactical Nuclear Weapons and the Rule of Distinction", *Flinders Law Journal*, Vol. 15, No. 2, 2013; Robert Chatham, "Tactical Nuclear Weapons", *The Reporter*, Vol. 37, No. 2, 2010.

3 *Nuclear Weapons under International Law*, pp. 17–24.

4 Namely, that it could not "conclude definitively" whether the use of nuclear weapons would be unlawful "in an extreme circumstance of self-defence, in which the very survival of the State would be at stake." Nuclear Weapons Advisory Opinion, above note 1, para. 105(2)(E).

5 *Nuclear Weapons under International Law*, pp. 28–29.

6 *Ibid.*, p. 30.

Hayashi's following chapter on threats under *jus ad bellum* is a welcome contribution to an apparently scant literature, on a subject to which the ICJ devoted little attention in its Nuclear Weapons Advisory Opinion. One of the most interesting aspects of the discussion concerns the relationship between the concepts of "possession", "deterrence" and "threat" – along with the extent to which credibility is relevant to the existence and/or lawfulness of the latter.[7] Helpfully, Hayashi proposes his own definition of a "threat" in international law: a communicated intention to use force against another, combined with apprehension of that intent.[8] This proposal should act as a stimulus for further debate, both on the definition itself (as a matter of *lex ferenda* or *lex lata*) and, as Hayashi points out, on its application in the context of "nuclear umbrella" arrangements. On the former front, one option might be to incorporate a "subjective-objective" test of reasonableness, with a view to rendering the definition easier to apply in the absence of reliable contemporaneous information regarding States' intention and understanding.[9] As to the broader issue of the lawfulness of (properly identified) "threats" to use nuclear weapons, Hayashi's discussion of alternatives to the "Brownlie formula"[10] – though regrettably brief[11] – canvasses the interesting possibility that the proportionality of a threat should be independently assessed, such that the kind and degree of force threatened must be proportionate to that required to repel the attack which the threatener seeks to deter.

Finally, Jasmine Moussa's chapter on the separation of *jus ad bellum* and *jus in bello* provides a persuasive summary of the legal arguments in favour of this doctrine – so persuasive, in fact, that readers may be left wondering if there really is a strong contrary case to be made. The overarching question that readers may be left with is an academic one: namely, how the doctrine (and hence the arguments for and against it) fits into the general framework of international law. Should we be considering it as a potential customary norm, or as the consistent conclusion of a series of exercises in treaty interpretation? On a more practical level, the only issue not explored in the chapter (beyond a brief reference to Article 25 of the Draft Articles on State Responsibility[12]) is whether there might be an exception to the doctrine of strict separation in "an extreme circumstance of self-defence" – something that may perhaps be addressed in future contributions on the subject.

7 Hayashi accurately points out the remarkable unhelpfulness of the ICJ's apparent conflation of a "threat" with an "unlawful threat": *ibid.*, pp. 39–40, 51.
8 *Ibid.*, p. 51.
9 The classic example would run along the lines of "an act or statement of State A which could reasonably, given the circumstances, be interpreted as communicating an intention to use force against State B". Consideration could then be given to whether this should simply raise the presumption of a "threat", which could be rebutted by evidence either that this was not State A's intention or that State B did not understand it to be so. Also relevant here would be Hayashi's discussion of the relationship between effectiveness and credibility: see pp. 54–55.
10 Essentially that, if using force is unlawful, a threat to use it must be equally unlawful.
11 *Nuclear Weapons under International Law*, pp. 42–46, 55–56.
12 *Ibid.*, pp. 85–86.

Part II, "Nuclear Weapons and International Law", also covers all the key issues that readers may hope to explore: compliance with the rules on the conduct of hostilities; compliance with the "unnecessary suffering" rule; and the use of nuclear weapons by way of belligerent reprisal.

Stuart Casey-Maslen's chapter on the conduct of hostilities echoes a theme mentioned briefly above: namely, the extent to which one's assessment of the lawfulness of the use of nuclear weapons turns on one's position on more general legal issues, in this case relating to the underlying rules of international humanitarian law (IHL). Perhaps the clearest example is one not discussed in detail by Casey-Maslen: namely, the extent to which one considers that the "reverberating effects" of an attack – and hence, for example, the long-term health effects of nuclear fallout – must be taken into account in assessing its proportionality. The chapter also introduces a second theme, which recurs throughout the text: the extent to which this assessment further depends on technical issues relating to the characteristics and effects of "low-yield" or "tactical" nuclear weapons. The critical question is whether there are certain scenarios in which the effects of these weapons could be controlled in the manner required by IHL, such that their use would comply with the prohibition on indiscriminate attacks – an attack on an isolated deep-sea submarine being a classic example. In the absence of detailed technical analysis, Casey-Maslen rightly goes no further than to conclude that compliance might be possible in such "specific and highly improbable" scenarios.[13] Technical issues are also at the heart of the debate as to whether, in most or all of these situations, a conventional weapon could achieve the same military objective with less civilian harm, rendering the attacker obligated by the rule of precautions to discount the nuclear alternative.[14] Interestingly, Casey-Maslen's conclusion on the issue – that, given the "unique" characteristics of nuclear weapons, "in many instances this threshold would not be met"[15] – is at odds with that of some other commentators.[16] This is a divide that scientists, rather than lawyers, may need to resolve.

Simon O'Connor's chapter on the prohibition on weapons of a nature to cause superfluous injury or unnecessary suffering (referred to here as the "unnecessary suffering rule" for brevity) constitutes a valuable addition to the relatively sparse existing literature. One of the most important points to make is that, as O'Connor notes partway through the chapter, the rule takes the debate on nuclear weapons a step further than the rules on the conduct of hostilities by focusing on combatants rather than civilians. Thus, it tackles head-on the "isolated submarine" scenario with which readers were confronted in the previous chapter.[17] O'Connor offers no firm conclusion as to whether nuclear

13 *Ibid.*, p. 126.
14 *Ibid.*, pp. 122–123.
15 *Ibid.*, p. 123.
16 See, e.g., D. Rudesill, above note 2.
17 O'Connor gives the alternate example of the bombing of a military installation in a desert area: *Nuclear Weapons under International Law*, p. 146.

weapons violate the unnecessary suffering rule *per se*, focusing instead on the proposition that the requirement to choose an alternative weapon where the suffering caused would "arguably" be excessive leaves little scope for the use of nuclear weapons.[18] However, the significance of this conclusion depends on how likely it is that a conventional weapon could achieve the same military objective – leaving readers with a variant of the technical debate identified above.[19]

Another question the chapter leaves open is whether the unnecessary suffering rule would still have a role to play if no conventional weapon could achieve the desired objective. On one view of the literature reviewed by O'Connor, the idea that "necessity" is evaluated by reference to what is needed to achieve a given military objective suggests that, if only a nuclear weapon would suffice to achieve the relevant military objective, any suffering it caused would be "necessary" even if it did not serve a separate or additional military purpose.[20] On another view, a secondary comparison would be required between the necessity of achieving the relevant military objective and the degree of suffering entailed in doing so. This may be a question for further exploration in future literature.

Gro Nystuen's chapter on threats of use under IHL works valiantly to identify plausible arguments as to why a mere threat, without more, might engage (let alone violate) the relevant rules. At no point, however, are readers likely to find any of them especially persuasive: so comprehensive are Nystuen's rejoinders that one might be forgiven for wondering whether the formulation of the ICJ's *non-liquet* as it relates to threats of use owes as much to unfortunate drafting as to anything else.

Concluding this part, Casey-Maslen's chapter on reprisals sets out the relevant principles clearly and comprehensibly, and demonstrates the extreme unlikelihood of a nuclear weapon ever being used in compliance with them. Readers are left with the impression that the scope for the lawful use of nuclear weapons under IHL is narrow to the point of incredibility – a point developed further in other contributions to this issue of the *Review*.[21]

Part III, "International Criminal Law", deals with the application of general rules to the specific issue of nuclear weapons. However, it is in this part more than the others that readers may occasionally feel there are too few considerations specific to nuclear weapons to render extended discussion especially profitable. To take one example, in relation to Casey-Maslen's very able discussion of the potential use of nuclear weapons in the commission of genocide, it seemed that the question

18 *Ibid.*, p. 141.

19 If so – and this is perhaps a useful link to draw – the attacker would arguably be required to select any conventional weapon likely to cause either less civilian harm or less suffering to combatants, leaving the scope for the use of nuclear weapons narrow indeed.

20 *Nuclear Weapons under International Law*, p. 146.

21 See Louis Maresca and Eleanor Mitchell, "The Human Costs and Legal Consequences of Nuclear Weapons under International Humanitarian Law", in this issue of the *Review*. See also Jakob Kellenberger, "Bringing the Era of Nuclear Weapons to an End", statement, 20 April 2010; and Peter Maurer, "Nuclear Weapons: Ending a Threat to Humanity", speech, 18 February 2015, both available in the "Reports and Documents" section of this issue of the *Review*.

posed might have been shortly answered: nuclear weapons can be used to commit genocide just as any weapon can. That said, the chapter also contains several very interesting weapon-specific insights – for example, in the context of crimes against humanity, Casey-Maslen suggests that the destruction caused by a single nuclear weapon may be sufficient to satisfy at least half of the requirement of a "widespread and systematic attack" against the civilian population.[22] Similarly, the chapter offers an intriguing analysis of the possibility that liability for "aiding and abetting" might arise in relation to the supply of component parts for nuclear weapons subsequently used in the commission of international crimes.[23]

To this, Annie Golden Bersagel's chapter on the Rome Statute of the International Criminal Court (ICC) adds a useful history of nuclear weapons under the Statute, alongside a very interesting discussion of the tension between three key provisions: Article 8(2)(b)(xx), which effectively limits the ICC's jurisdiction over inherently indiscriminate weapons and weapons of a nature to cause superfluous injury or unnecessary suffering to cases where the weapon in question is "subject to a comprehensive prohibition" and is included in an annex to the Statute; Article 10, which provides that the Statute should not be interpreted as "limiting or prejudicing" existing or developing rules of law for other purposes; and Article 21, which designates IHL as a subsidiary source of law. Golden Bersagel walks readers carefully through each provision and concludes that, taken together, they "cannot preclude either a progressive or a regressive development of customary international law"; as a result, continued vigilance is required in order to prevent the latter.[24]

Part IV, "International Environmental Law", provides an excellent introduction to a set of issues that is often subsumed within general discussions of IHL. Erik V. Koppe's chapter on the use of nuclear weapons under the environment-related laws of armed conflict in many ways extends the discussion in Part II. His conclusion that Additional Protocol I to the Geneva Conventions (AP I) applies to the use of nuclear weapons as it does to any weapon is persuasive;[25] by contrast, his argument that the declarations on the subject made by France and the United Kingdom constitute reservations which are incompatible with the nature and purpose of the treaty may prove somewhat more controversial.[26] As to the consequences of applying AP I, Koppe concisely identifies the further constraints that the relevant provisions – and, of course, the applicable rules of customary international law – place on the use of nuclear weapons, including (for example) the obligation to take all feasible precautions to avoid or minimize incidental environmental damage. The chapter therefore consolidates the conclusion drawn in Part II regarding the extremely limited scope for the use of nuclear weapons in accordance with IHL.

22 *Nuclear Weapons under International Law*, p. 204.
23 *Ibid.*, pp. 215–220.
24 *Ibid.*, p. 240.
25 *Ibid.*, pp. 254–256.
26 *Ibid.*, pp. 356–357.

The following chapter on environmental approaches to nuclear weapons, by Martina Kunz and Jorge E. Vinuales, provides an interesting counterpoint, focusing both on the application of environmental treaties during armed conflict and on the potential regulation of nuclear weapons outside an armed conflict scenario. As to the former, readers may be eager to see some more specific examples of the types of rules that, if they continued to apply during armed conflict, might regulate the use of nuclear weapons above and beyond the general rules of IHL. As to the latter, it is certainly – as Kunz and Vinuales suggest – worthwhile to consider how environmental law might regulate potential nuclear spills or accidents even absent actual or threatened use.

Don Mackay's chapter on nuclear testing under international law rounds out Part IV, and provides an excellent introduction for those who are new to the subject. Of particular interest is Mackay's conclusion that we are in practice very close to a universal prohibition on nuclear testing, despite frustratingly slow progress on the Comprehensive Nuclear-Test-Ban Treaty.[27] Readers may also be interested to hear more on the author's passing reference to a possible customary norm against atmospheric testing,[28] and on the links (if any) between restrictions on testing and the maintenance and modernization of existing stockpiles.

The first two chapters of Part V, "International Disarmament Law", on nuclear weapons-free zones, are both accessible and instructive. Marco Roscini's contribution offers what reads as a very sensible set of proposals regarding the desirable contents of an agreement for a nuclear weapons-free zone in the Middle East – proposals which, it is to be hoped, will feed into more detailed discussions on the subject. The chapter also provides a clear, if somewhat dispiriting, overview of the obstacles to reaching such an agreement. Cecilia Hellestveit and Daniel Mekonnen then make a forceful general case for the utility of nuclear weapons-free zones in improving global security and enhancing efforts toward disarmament.

The focus of Part V then shifts to the Non-Proliferation Treaty (NPT). The conclusion of Gro Nystuen and Torbjorn Graff Hugo's chapter – namely, that the NPT has been effective in minimizing nuclear proliferation but remains "unimpressive" as a norm reflecting the unacceptability of the use of nuclear weapons[29] – is well-supported and persuasive. Daniel H. Joyner's more specific chapter on Article VI of the NPT – requiring States Parties to "pursue negotiations in good faith on … nuclear disarmament, and on a treaty of general and complete disarmament under strict and effective international control" – clearly illustrates the divergent interpretations of the provision and the resulting tensions between States Parties. His own position on the issue is perhaps a little ambiguous as far as the current *lex lata* is concerned: he refers to an "evolving understanding" that Article VI of the NPT imports a positive obligation to move toward disarmament, but just one paragraph later references the same obligation

27 *Ibid.*, p. 305.
28 *Ibid.*, pp. 316–317.
29 *Ibid.*, p. 396.

as though its existence were not in doubt.[30] On either view, however, his larger thesis – that nuclear weapons States are presently failing to comply with Article VI[31] – is firm, and will cause many readers to reflect on the kind of action one would expect to see in order to effect a return to compliance.

This picture of inaction on disarmament contrasts starkly with Casey-Maslen's chapter on nuclear terrorism, which describes the fairly impressive progress that has been made in limiting non-State actors' capacity to access the materials required to develop nuclear weapons of their own.

Part VI, "International Human Rights Law", focuses on the lawfulness of the use of nuclear weapons under a number of different human rights instruments. Louise Doswald-Beck's overview chapter clearly identifies the rights most likely to be affected, and discusses a number of them in some detail. The discussion of the right to life is particularly interesting in that, although conventional wisdom suggests that the scope and content of this right largely depend on whether the context is one of armed conflict, the jurisprudence of (at least) the UN Human Rights Committee and the European Court of Human Rights might suggest a somewhat different approach.[32] While the latter is unsurprising given the more detailed phrasing of the underlying instrument, it would be valuable to hear further thoughts on how the jurisprudence of the Human Rights Committee squares (or fails to square) with the conventional approach. Also notable is Doswald-Beck's suggestion that any use of nuclear weapons would be likely to constitute inhumane treatment of the immediate victims,[33] as if accepted it could be determinative of their lawfulness. The extent to which these issues warrant further debate is confirmed by the contrast between Doswald-Beck's bold conclusion that "any use of nuclear weapons will result in human rights violations"[34] and Casey-Maslen's more tentative statement that violations would be "highly likely".[35]

Part VI is rounded out by Casey-Maslen's excellent chapter on the right to remedy and reparation, which expands on the point – also made by Doswald-Beck in the conclusion of her chapter – that individual remedies for human rights violations are often far easier to obtain than remedies for violations of (for example) IHL.

Finally, Part VII provides a concise and thoughtful summary of the preceding contributions, concluding that while "use of nuclear weapons in most instances would be outlawed" in international law, "a clear-cut and comprehensive prohibition … is still missing".[36]

In considering the text as a whole, a few key themes stand out. The first is how singularly ambiguous, and hence unhelpful, the ICJ's *non-liquet* has proven:

30 *Ibid.*, p. 417.
31 *Ibid.*, p. 414.
32 *Ibid.*, pp. 444–449.
33 *Ibid.*, pp. 452–454.
34 *Ibid.*, p. 459.
35 *Ibid.*, p. 461.
36 *Ibid.*, p. 486.

nearly two decades after the Nuclear Weapons Advisory Opinion was handed down, long passages must still be devoted to its possible meanings, with no possibility of consensus in sight. Secondly, the book confirms that the remaining areas of uncertainty relate, to a large extent, to more general debates about the interpretation of the underlying legal rules, and to technical debates relating to the characteristics and effects of nuclear weapons. In the context of a legal text, it is to be expected that more attention is devoted to the former than to the latter; however, readers may feel that the next thing they will need is a more comprehensive and detailed primer on the relevant technical and military issues.

The third, related theme is just how narrow the scope of the debate around lawful use has become. The scenarios contemplated are increasingly specific and (in some cases) far-fetched, and one could be forgiven for concluding that future unlawful use is overwhelmingly more likely than future lawful use. Finally, the text consistently confirms that this is an issue crying out for further action by the international community. The more our understanding of the relevant issues grows, the more difficult to defend the present deadlock appears, from a legal standpoint as well as a moral one. For readers wishing both to broaden and to deepen their knowledge in this area, *Nuclear Weapons under International Law* provides an engaging and valuable resource.