

Daniel H. Joyner. *Interpreting the Nuclear Non-Proliferation Treaty*. Oxford: Oxford University Press, 2011. Pp. xiv + 184. £50. ISBN: 9780199227358.

The 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT), which was extended indefinitely in 1995, provides a comprehensive legal structure of rights and obligations designed to protect mankind from nuclear aggression and accidental extinction. Yet its implementation takes place in a political environment of uncertainties and controversies. The still existing universality gap,¹ an apparent implementation gap (Iran), and the absence of effective measures towards general and complete nuclear disarmament – which are to be seen against the background of the global challenge that non-state actors are getting access to weapons of mass destruction – call for urgent and effective measures to increase implementation of the NPT and ensure compliance with its rules. Any of these measures at first requires an interpretation of the Treaty.

Interpreting the Nuclear Non-Proliferation Treaty does not provide an article-by-article commentary to the NPT, a task that Daniel Joyner undertook in the first chapter of his previous book, *International Law and the Proliferation of Weapons of Mass Destruction*, and that has meanwhile been supplemented by the Final Document of the most recent NPT Review Conference.² The present book is rather a monograph on important principles and rules of the Treaty including its three pillars: peaceful use of nuclear energy (Preamble, paragraphs 4–7, and Articles IV–V); nuclear disarmament (Preamble, paragraphs 8–12, and Article VI); and non-proliferation of nuclear weapons (Preamble, paragraphs 1–3, and Articles I–III). The author convincingly claims the equal relevance of these pillars on the basis of the textual context and the negotiating history and he critically evaluates their perception by important states parties over time. His book is ‘thesis-driven’, in that it undertakes to reveal ‘distorted and unsustainable

¹ Israel, India, and Pakistan are not parties; the Democratic People’s Republic of Korea has withdrawn from the Treaty, but was requested by the Security Council to retract its announcement of withdrawal and abandon all nuclear weapons and existing nuclear programmes in a complete, verifiable, and irreversible manner.

² D.H. Joyner, *International Law and the Proliferation of Weapons of Mass Destruction* (2009), at 3–76; 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. Final Document (NPT/CONF. 2010/50), i, at 2–19.

policy positions, particularly among Western, nuclear-weapon-possessing states'. It is the policy of these states to request non-nuclear-weapon states

- to source nuclear material exclusively from a multilateral fuel bank or multinational enrichment centre;
- to accede to the IAEA Additional Protocol; and
- to comply with an IAEA Comprehensive Safeguards Agreement

as conditions for supply of nuclear material. The author argues that these requests have no foundation in the Treaty and 'unlawfully prejudiced the legitimate legal interests of non-nuclear weapon states'.

Well aware of the challenges implied in such endeavour, the author bases his arguments on both a clear exposition of the subject matter, i.e., the physical phenomenon of nuclear fission, and a diligent application of relevant rules of treaty interpretation. He emphasizes the dual-use nature of nuclear materials and technologies by referring to enrichment processes for uranium which are the same for peacefully used U-235 and weapons-grade U-239, in the latter case only performed repeatedly and for a longer duration. But he also argues that processes for producing plutonium to achieve a weapons grade concentration of P-239, the 'primary core material for modern, sophisticated nuclear weapons due to its greater energy-producing capabilities per unit of mass as compared to uranium' were 'relatively easily detectable', an argument which might be held to limit security concerns with uranium enrichment, if the latter were really no longer important for nuclear warheads. It may be open for debate whether this conclusion applies to all situations: in 1945 plutonium was used for the Nagasaki bomb, but the Hiroshima bomb consisted of U-235 combined with conventional explosives. Surprisingly, the first Chinese test explosion in 1964 was also not plutonium based, but conducted with U-235. The test explosion near Novaya Zemlya in 1961, the world's biggest nuclear explosion in history, was based on uranium and heavy isotopes of hydrogen. Uranium enrichment as such remains critical in many respects, and this is all the more true for future weapon developments which may be based on a separation of isotopes by laser excitation. While the rough technological summary given by the author appears helpful, as it shows the need for further differentiation between complex technological processes, their relevance for treaty interpretation remains to be further elaborated before viable conclusions can be drawn beyond that offered by the author, namely that plutonium, because of the high production costs and the relative ease in detection, is of lesser concern than is uranium.

Evaluating the pre-NPT history from the famous first General Assembly Resolution (24 January 1946) to the Baruch Plan, from President Eisenhower's Atom for Peace message (8 December 1953) to the Irish proposals in the General Assembly (1958, 1961), and from the diplomatic history of the NPT to its final adoption in summer 1968, the author convincingly concludes that the NPT 'would never have come into being if the principles of peaceful use and disarmament had not been included along with the principle of non-proliferation'. Thus the Treaty's three pillars are shown as being equally important for its conclusion and effectiveness. The book engages in a 'holistic exercise' of interpretation pursuant to the customary rules codified in Article 31 of the Vienna Convention on the Law of Treaties, as it elaborates on the interdependence of the three pillars of the NPT as part of its context, object, and purpose. In taking a critical look at statements made by nuclear weapon states, the author underlines that the NPT is 'fundamentally addressed to regulate nuclear energy in its full dual-use nature and range of applications and is not exclusively or even primarily addressed to regulating only nuclear weapons'. Indeed, the NPT, which is explained by the author not as a 'lawmaking treaty', such as the 1949 Genocide Convention or the 1982 Law of the Sea Convention, but as 'a contract treaty essentially codifying a *quid pro quo* between two categories of states parties', cannot be

correctly interpreted by relying on just one of its three pillars and neglecting the other ones. This explanation appears helpful to understanding the history of the NPT and its content. It should, however, be considered that the challenge of nuclear proliferation, either by non-parties to the Treaty or by parties exploiting its loopholes, cannot be met solely within contractual mechanisms.

Focusing on US statements on the NPT in the decade between 1998 and 2008, the author criticizes as ‘misinterpretations’ statements that the non-proliferation pillar had been given higher importance than the peaceful use and disarmament pillars; that the right to develop research, production, and use of nuclear energy for peaceful purposes as an inalienable right was subjected to conditions; and that the scope and meaning of Article VI on nuclear disarmament were reduced to good-faith efforts toward arms control negotiations, i.e., a mere obligation of conduct rather than an ‘obligation to achieve a precise result’, as stated in the ICJ’s 1996 Advisory Opinion.³ This criticism does not fully evaluate the circumstances under which such statements have been made. Conference contributions which are in themselves part of a *quid pro quo* cannot in all event be taken as describing legal positions of states, and extraordinary security challenges may explain some extreme political positions taken. Nonetheless the arguments advanced by the author in his effort to develop sound and objective treaty interpretations are convincing in their results. While policies stressing the importance of controllable fuel banks or enrichment centres and IAEA safeguards mentioned above – policies that after all have been backed by the Security Council⁴ – may be explained and justified as countermeasures, this does not mean that cooperative means of NPT implementation would not be more effective. In this context the author expresses high expectations with respect to new policies developed by President Obama to seek peace and security in a world without nuclear weapons and strengthen the NPT as a basis for cooperation, policies which are well documented in the Annex to the volume and which, indeed, are of high relevance. Comparable studies on recent developments in Russia, China, India, and other nuclear weapons states still remain to be undertaken since all nuclear weapon states must be taken on board to implement such policies.

Mohamed I. Shaker, in his Foreword to Joyner’s book, has called it an inescapable companion to his own seminal study of the Treaty.⁵ A witness from more recent years, Mohamed ElBaradei, confirms many of Joyner’s legal results from an insider’s perspective into international practice.⁶ It is time now to revive international cooperation to increase consensus on NPT interpretation, foster its implementation in all its aspects, and effectively ensure respect for its rules.⁷ Joyner’s book is an excellent contribution to any such endeavour.

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³ *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion of 8 July 1996, [1996] ICJ Rep 226, at paras 99, 102.

⁴ SC Res. 1887 (2009), at paras 11–16.

⁵ M.I. Shaker, *The Nuclear Nonproliferation Treaty: Origin and Implementation 1959–1979*, three vols (1980).

⁶ M. ElBaradei, *The Age of Deception. Nuclear Diplomacy in Treacherous Times* (2011).

⁷ See International Law Association, Work Plan for the Committee on Nuclear Weapons, Non-Proliferation & Contemporary International Law, available at: www.ila-hq.org/en/committees/index.cfm/cid/1025.