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SPECIAL ISSUE ARTICLE

ACADEMIC FREEDOM: CONCEPTUALISATIONS, CONTESTATIONS AND CONSTITUTIONAL CHALLENGES

The origin and contested meaning of freedom in the human right to science

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Abstract

This article traces how the 'freedom indispensable for scientific research' was introduced into the International Covenant on Economic, Social and Cultural Rights (ICESCR). The review of the drafting history covers ICESCR Article 15.3 and that of its precursor, Article 27 in the Universal Declaration of Human Rights (UDHR). It pays particular attention to arguments presented during negotiations over the UDHR (adopted in 1948), as well as over the ICESCR (adopted in 1966), and it reflects on observable norm entrepreneurship. Following the end of the Cold War, details on the right to science and the status of higher education personnel were further elaborated in soft law, notably in the form of two General Comments and two UNESCO Recommendations. These specifications and the earlier *travaux préparatoires* reveal a multifaceted and rich debate about science, development, dignity and freedom at the United Nations, including positions that span variations of a liberal science script as well as persistent illiberal contestations.

Keywords: academic freedom; human rights; liberal script; norm entrepreneur; right to science

Introduction

A great majority of United Nations (UN) member states, 171 out of 193, have ratified the International Covenant on Economic, Social and Cultural Rights (ICESCR) and thereby undertaken 'to respect the freedom indispensable for scientific research' (ICESCR Art 15.3). Despite an apparently broad international consensus, human rights scholarship has so far paid little attention to the 'right to science'[1] and the freedom of scientific research has remained only a side issue.[2] Similarly, the responsible United Nations treaty body, the

[1]M Mancisidor, 'The Dawning of a Right: Science and the Universal Declaration of Human Rights (1941–1948)' in H Porsdam and SP Mann (eds), *The Right to Science: Then and Now* (Cambridge: Cambridge University Press, 2022) 17–32.

[2]Much of the debate revolves around an inherent tension between the right to enjoy the benefits of scientific progress and its applications versus the protection of intellectual property rights. See, for example, L

Committee on Economic, Social and Cultural Rights (CESCR), has rarely commented on the right to science when reviewing state reports, and for most of its existence has essentially ignored the freedom provision under Article 15.3.[3] This lasted until 2020, when the CESCR finally addressed the provision's substantive scope in General Comment No. 25.[4] One reason for the long neglect may be that other freedoms – such as the freedom of thought and conscience, the freedom of expression, the freedom of association and the freedom of movement – were codified in the International Covenant on Civil and Political Rights (ICCPR). Freedoms were thus substantiated by a different UN treaty committee and, as a corollary, the freedom of science received little attention at the UN.

In light of the bifurcation of human rights law into two core treaties, the ICCPR and the ICESCR, it is peculiar that UN member states codified the freedom of scientific research in a treaty on economic, social and cultural rights. To understand how this came about, and how it was justified and contested, I review the drafting history of ICESCR Article 15.3 and that of its precursor, Article 27 of the Universal Declaration of Human Rights (UDHR). I argue that a Peruvian backbencher paved the way for this unlikely development during the negotiations on the Universal Declaration in 1948, aided by an earlier debate among state parties about the purpose of science. Although it may seem intuitive to call the delegate a norm entrepreneur, this would overstretch the concept. Instead, I highlight that the UN human rights system has afforded states – and, to a lesser extent, non-governmental actors as well – an institutional arena to debate various options for how the pursuit of science may be governed. The resulting science script remains mostly liberal but is subject to contestation. By 'script', following Börzel and Zürn, I mean 'descriptive and prescriptive knowledge about the organization of society'[5] or, in other words, a social and political order for – in this case – the search for knowledge.

In the post-World War II period, states debated, for the first time, the notion of science as a human right. In the nascent UN Commission on Human Rights, they exchanged arguments for and against a science script that would legitimate or even require governments to direct science toward the common good. Their debate occurred in parallel to the Nuremberg Doctors' Trial (1946–1947), in which medical experts were sentenced for their crimes in the Holocaust, and against the backdrop of the two atomic bombs of 1945, which had highlighted the potentially devastating impact of scientific discoveries. Having recognized that scientific progress bore risks and not only benefits for humanity, a majority of UN delegates nevertheless insisted in 1948 that science ought to be free from political constraint.

This liberal science script was revisited by a larger number of UN member states when the UN's core human rights treaties were negotiated during the 1950s and 1960s. The

Shaver, 'The Right to Science: Ensuring that Everyone Benefits from Scientific and Technological Progress' (2015) 4 *European Journal of Human* Rights 411. On the balancing of interests, see Y Donders, 'Balancing Interests: Limitations to the Right to Enjoy the Benefits of Scientific Progress and Its Applications' (2015) 4 *European Journal of Human Rights* 486.

[3]A few exceptions are cited in B Saul, *The International Covenant on Economic, Social and Cultural Rights: Cases, Materials, and Commentary* (New York: Oxford University Press, 2014) 1217. Saul also notes at 1148 that the committee mentioned academic freedom in 1999 in General Comment No. 13 on the right to education.

[4]UN CESCR (Committee on Economic, Social and Cultural Rights), 'General Comment No. 25 on Science and Economic, Social and Cultural Rights (Article 15 (1) (b), (2), (3), and (4) of the International Covenant on Economic, Social and Cultural Rights)' (2020), E/C.12/GC/25.

[5]T Börzel and M Zürn, 'Contestations of the Liberal Script: A Research Program' (2020), *SCRIPTS Working Paper* 1, 9, available at <https://www.scripts-berlin.eu/publications/working-paper-series/Working-Paper-No-1-2020/index.html>. Also see the introduction by K. Kovács and J. Spannagel to this special issue.

ICCPR and ICESCR were eventually signed in 1966 and entered into force ten years later. That the 'freedom indispensable for scientific research' was written into the ICESCR rather than into the ICCPR appears to have been the result of path dependency; it also suited the institutional interests of UNESCO (the United Nations Educational, Scientific and Cultural Organization), a specialized agency of the UN that interpreted science as a form of culture. Last but not least, this science script aligned with a larger liberal script that underpinned the UN's development of international human rights norms.[6] In the early 21st century, the liberal science script has come under similar pressure to the liberal script more broadly. This can be observed in the very UN institutions that were once pivotal arenas for states' collective codification of freedom as a core component of the right to science.

A keyword in the Universal Declaration

According to Cesare Romano, 'The hunt for the intellectual father(s) of the right to science is probably one of the most interesting puzzles for historians of international law'.[7] It appears that science was addressed at an early stage of the negotiations on the Universal Declaration of Human Rights, at the request of UNESCO,[8] which had an institutional interest in including not only education but also science and culture in the UN's landmark document. In 1947, UNESCO organized a survey among eminent scholars about various theoretical questions raised by the idea of universal human rights. 'Almost certainly the members of the Commission [on Human Rights] were aware of UNESCO's activity,' concludes William Schabas,[9] but the 'vague remarks' that were eventually sent by UNESCO to the Commission 'did not constitute a particularly useful contribution and they do not appear to have been taken seriously by the Commission'.[10] Having reviewed the deliberations between state representatives on the right to science, Richard P. Claude similarly notes that 'there is no reason to think the savants' views influenced the formulation of the Universal Declaration of Human Rights'.[11] The wording of UDHR article 27 was instead based on a very similar formulation included in an early draft of the American Declaration on the Rights and Duties of Man (also called the Bogotá Declaration); this declaration was the result of negotiations across the American continent and connected to the founding of the Organization of American States (OAS).

The OAS had tasked the Inter-American Juridical Committee with drafting the Bogotá Declaration, which was adopted a few months before the UDHR. The first draft produced by the committee included a right to science, and the UN reviewed this text when starting negotiations on the UDHR. The Bogotá Declaration's final wording on the right to science

[6]On components of the liberal script, see M Zürn and J Gerschweski, 'Sketching the Liberal Script: A Target of Contestations' (2021), *SCRIPTS Working Paper* 10, available at <https://www.scripts-berlin.eu/publications/working-paper-series/Working-Paper-No_-10-2021/SCRIPTS_Working_Paper_10_WEB.pdf>.

[7]CP Romano, 'The Origins of the Right to Science: The American Declaration on the Rights and Duties of Man' in H Porsdam and SP Mann (eds), *The Right to Science: Then and Now* (Cambridge: Cambridge University Press, 2022) 33.

[8]See Mancisidor (n 1) 21.

[9]WA Schabas, 'Looking Back: How the Founders Considered Science and Progress in their Relation to Human Rights' (2015) 4 *European Journal of Human Rights* 504.

[10]Ibid 510.

[11]RP Claude, *Science in the Service of Human Rights* (Philadelphia: University of Pennsylvania Press, 2002).

differs significantly from the initial proposal made by the OAS Inter-American Juridical Committee, yet the initial ideas 'came back into play during the drafting [of] the Universal Declaration'.[12] Drawing on the work of the Inter-American Juridical Committee, Chile introduced the idea of a right to share in the benefits of science during the first session of the Commission on Human Rights in January 1947.[13] In June of that same year, John P Humphrey, the secretariat director of the UN Commission on Human Rights – 'a Canadian professor of international law, a social democrat, and a workaholic'[14] who admired the work of the Inter-American Juridical Committee – circulated a consolidated draft of the Universal Declaration. This 'Humphrey draft' was tabled for discussion with UN member state representatives. The delegates made numerous revisions during subsequent debates in the Commission on Human Rights and in the General Assembly. Latin American countries, which held one-third of the votes in the UN's General Assembly at the time, viewed the Bogotá Declaration with some pride and 'tended to vote as a bloc on human rights matters … this proved important in the politics leading to the UDHR's provisions relating to science'.[15]

With regard to the development of the Bogotá Declaration, we know that the Brazilian legal scholar and politician Francisco Luís da Silva Campos chaired the meetings of the Inter-American Juridical Committee. Surprisingly, the same Campos was also the author of Brazil's Constitution of 1937, which marked the beginning of a dictatorial period in Brazil (Estado Novo, 1937–45). He was joined by six other men (indeed, only men) from Argentina, Chile, Cuba, Mexico, the United States, and Venezuela. Unlike Campos, most were not trained in law. The committee reviewed several earlier rights declarations,[16] but none featured a right to science.[17] While some national constitutions at the time already included provisions on the right to education and academic freedom,[18] only very few constitutional provisions matched the specific idea of a right to share in the benefits of science, as proposed in the Bogotá Declaration. William Schabas points out that Yugoslavia's constitution at the time contained a similar notion ('The State assists science and arts with a view to developing the people's culture and prosperity'), as did the Philippine constitution ('The state shall promote scientific research and invention').[19] That notwithstanding, prior state practice on the right to science was scarce. Most important for the subject of this article is a side remark in Cesare Romano's detailed study on the emergence of the right to science in the Bogotá Declaration, namely that 'nothing suggests that the Committee considered the right to freedom of expression and opinion to be particularly relevant for scientific inquiry and research'.[20] How, then, did that specifically appear in the UDHR?

[12]See Romano (n 7) 52.

[13]J Morsink, *The Universal Declaration of Human Rights: Origins, Drafting and Intent* (Philadelphia: University of Pennsylvania Press, 2009) 218.

[14]See Claude (n 11) 29.

[15]Ibid 30.

[16]The Declaration of International Rights of Men (Déclaration des droits internationaux de l'homme) of the International Law Institute (Institut de Droit International), dated 12 October 1929; the American Law Institute Statement of Essential Human Rights (1942–45); the Preliminary Report of the Commission to Study the Organization of Peace (1940); and the Declaration of Philadelphia of the International Labour Organization (1944).

[17]See Romano (n 7) 41.

[18]See J Spannagel's article in this special issue.

[19]See Schabas (n 9) 508.

[20]See Romano (n 7) 44.

Several scholars have reconstructed the drafting of the Universal Declaration,[21] and of Article 27 in particular.[22,23] The more detailed studies recognize the influence of the Bogotá Declaration and also point to the institutional role of UNESCO. However, these contributions do not shed much light on the freedom of science. Richard P Claude and Bernardo W Issel were possibly the first to note in 1998 that it was a Peruvian delegate who suggested that the word 'freely' be included in the formulation: 'Everyone has the right *freely* to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits'.[24] However, Claude and Issel do not dwell on the matter. A review of the *travaux préparatoires* reveals that UN delegates repeatedly discussed and changed the language of Article 27 during their negotiations, both in the Commission on Human Rights and in the larger Third Committee of the General Assembly. Richard P Claude speaks evocatively of 'multiple thunderbolts of high energy debate' and points out that:

> The thorniest concern was over whether scientists deserve special human rights considerations apart from other human beings. The Chinese representative evoked a vision of science seen in terms of a social enterprise as he led commission members beyond a tangled maze of debating points regarding the question of who has a right to enjoy the benefits of science.[25]

The Peruvian proposal to highlight the freedom of science, on the other hand, did not cause much debate among the negotiators. The proposal was put forward in the Third Committee of the General Assembly at a very late stage of the negotiations, on 20 November 1948 (the Universal Declaration was adopted three weeks later on 10 December 1948).[26] The little-known Peruvian delegate José Encinas argued that it was not enough for the Declaration to state that everyone has the right to participate in the 'cultural, artistic and scientific life of the community'. Instead, he said the UDHR should also state 'the right to do so in that complete freedom without which there could be no creation worthy of man'.[27] Encinas did not justify the idea of freedom in scientific discovery with instrumental arguments, such as an expected positive impact on scientific progress; he simply justified it by referencing the intrinsic value of human dignity. During his brief intervention in late November 1948, Encinas further mentioned that 'harmful pressures [on the freedom of creative thought] … were only too frequent in recent history',[28] and then the amendment was adopted by a vote of 38 to none (with two

[21]See Morsink (n 13).

[22]AR Chapman, 'Towards an Understanding of the Right to Enjoy the Benefits of Scientific Progress and Its Applications' (2009) 8 *Journal of Human Rights* 1; LB Shaver, 'The Right to Science and Culture' (2010) 1 *Wisconsin Law Review* 121; see also Schabas (n 9) and Mancisidor (n 1).

[23]T Smith, 'Understanding the Nature and Scope of the Right to Science through the Travaux Préparatoires of the Universal Declaration of Human Rights and the International Covenant on Economic, Social and Cultural Rights' (2020) 24(8) *The International Journal of Human Rights* 1156.

[24]RP Claude and BW Issel, 'Health, Medicine and Science in the Universal Declaration of Human Rights' (1998) 3(2) *Health and Human Rights* 126 (emphasis added).

[25]See Claude (n 11) 35. The Chinese representative was Peng Chun Chang (in Pinyin, Zhang Pengchun), recognized as one of the main drafters of the Universal Declaration of Human Rights.

[26]WA Schabas, *The Universal Declaration of Human Rights 3 Volume Hardback Set*: *The Travaux Préparatoires* (Cambridge: Cambridge University Press, 2013).

[27]See Morsink (n 13) 218.

[28]Ibid 218.

abstentions). This small and uneventful amendment proved consequential because it later paved the way for the codification of the 'freedom indispensable for scientific research' in ICESCR Article 15.3. It is worth exploring the circumstances of José Encinas' proposal and the impressively quick agreement among states parties in greater detail.

There is hardly any public information available about José Encinas. The UN Yearbook 1948–1949 lists him as an alternate for Ismael Bielich Flores,[29] a well-known Peruvian lawyer and politician who had served as minister of justice. For a brief period, Flores also held the position of acting foreign minister in place of Enrique García Sayán, who signed for Peru's participation in negotiations on the UDHR. García Sayán had to step down when a military coup occurred in Peru on 27 October 1948;[30] this was only a few weeks before José Encinas managed to insert his small edit into the Universal Declaration of Human Rights. We do not know whether Encinas acted on instruction from those higher up in the diplomatic echelon, but we must assume that there was a certain power vacuum in the immediate aftermath of the coup, which likely allowed his intervention in the name of freedom. When considering the limited information technology available at that time, as well as existing scholarship on the *travaux préparatoires*, it appears unlikely that time-sensitive consultations on specific formulations under negotiation were taking place between Peru's permanent mission to the UN and authorities in Lima; it is more likely that Encinas drew on his own reflections, which were possibly influenced by the recent coup in his country but likely also by his prior diplomatic service, including collaboration with Ismael Bielich Flores. We may assume that Encinas was well trained in the Peruvian Constitution of 1933. This constitution happens to be one of only a few constitutions in force at the time with a dedicated article on academic freedom (art. 80: 'El Estado garantiza la libertad de la cátedra').[31] While many questions remain regarding the motivations for Encinas' consequential suggestion, it is a striking intervention considering the repressive developments in his home country during the last stretch of negotiations on the Universal Declaration in 1948.

It seems beyond doubt that Encinas' intervention was principled in nature, and it is safe to assume that the right to science, as codified in the UDHR, would lack a reference to freedom had he not requested a revision of Article 27 shortly before the UDHR's adoption in 1948. This likely also applies to the successor Article 15.3 in the ICESCR. As such, Encinas may be considered an influential 'norm entrepreneur', defined by Cass R Sunstein as 'people interested in changing norms'[32] or by Risse and Sikkink as 'agents of normative change'.[33] On the other hand, I have no information that would indicate longer-term and organized engagement by Encinas, nor any indication that he acted in coordination with others on the right to science in particular.

[29]United Nations, *Yearbook of the United Nations 1948–1949* (New York: United Nations, 1949). Peru's Permanent Mission to the United Nations in New York was contacted for this article but did not provide further information on José Encinas' work.

[30]Intriguingly, his son Diego García-Sayán served as minister of justice during the democratic transition in Peru, and as minister of foreign affairs. In 2016, the UN appointed him as the special rapporteur on the independence of judges and lawyers; he previously served as a judge for the Inter-American Court of Human Rights.

[31]Republica del Peru, 'Diario de los Debates: CONSTITUCIÓN DE 1933' (no date), <https://www4.congreso.gob.pe/dgp/constitucion/constituciones/Constitucion-1933.pdf>.

[32]CR Sunstein, 'Social Norms and Social Roles' (1996) 96(4) *Columbia Law Review* 909.

[33]T Risse and K Sikkink, 'The Socialization of International Human Rights Norms into Domestic Practices: Introduction', in T Risse, SC Ropp, and K Sikkink (eds), *The Power of Human Rights: International Norms and Domestic Change* (New York: Cambridge University Press, 1999), 5.

During the early years of the UN's existence, prior to the communication revolution, staff members of permanent missions likely had much greater leeway to propose formulations than they have nowadays. Even if the individual agency of one Peruvian diplomat clearly had a lasting impact on the right to science, this was only the case because other state representatives were open – rather spontaneously – to his argument. Arguably, then, the UN General Assembly as a whole served as a norm entrepreneur when adopting the Universal Declaration of Human Rights. Some scholars have written about institutions as norm entrepreneurs,[34] yet I do not find this line of analysis entirely persuasive. Rather, I consider it important to acknowledge that the decisive actors in the UN's human rights system are member states with diverging interests and identities that seek to influence (with varying degrees of resolve) UN declarations and treaties in accordance with their preferences. Therefore, the General Assembly and also the Commission on Human Rights are more suitably thought of as institutional arenas for states' collaboration, not actors themselves. These institutional arenas allow states, and to a lesser extent non-state actors, to negotiate the codification of international norms, build consensus and seek compromises across diverging goals and interests.[35]

More important than the ideas put forward individually by Encinas, therefore, was the immediate and undisputed support that his proposal received in the Third Committee of the UN General Assembly. It is worth noting that the delegates had already negotiated the UDHR articles on the freedom of thought (art 18) and the freedom of expression (art 19), and during negotiations on the right to science (art 27), there had repeatedly been controversial debate about the purpose of science and also about potentially desirable limits of science. Indeed, during the early meetings on the Universal Declaration, UN delegates had already stressed that the 'barbarous acts which have outraged the conscience of mankind' were tied to misdirected science.[36] It was logical, then, that delegates debated how best to protect humanity from the destructive and even disastrous risks of scientific discoveries. In June 1948, Alexei Pavlov of the Soviet Union[37] proposed to the Commission on Human Rights that the advancement of science ought to be directed towards 'the progress of mankind, the cause of peace, and co-operation amongst people'.[38] This proposal was quickly defeated by vote in the Commission, but a more thorough debate later occurred in the same Third Committee of the General Assembly, where Encinas later tabled his amendment in late 1948. The June 1948 debate had dealt with a revised Soviet proposal, which included democracy as a goal of science. In response, several delegations, including Argentina, Australia, Belgium, Chile, France and the United Kingdom,

[34]M Finnemore speaks about international organizations as agents of social structural change in *National Interests in International Society* (Ithaca, NY: Cornell University Press, 1996) 25. See also MN Barnett and M Finnemore, *Rules for the World: International Organization in Global Politics* (Ithaca, NY: Cornell University Press, 2004). On international commissions as norm entrepreneurs, see D Madokoro, 'International Commissions as Norm Entrepreneurs: Creating the Normative Idea of the Responsibility to Protect' (2019) 45(1) *Review of International Studies* 100.

[35]For a discussion of how an international organization's structure, mandate and heterogeneous membership, among other things, influence norm entrepreneurship, see H Müller, A Below and S Wisotzki, 'Beyond the State: Nongovernmental Organizations, the European Union, and the United Nations' in H Müller and C Wunderlich (eds), *Norm Dynamics in Multilateral Arms Control: Interests, Conflicts, and Justice* (Athens, GA: University of Georgia Press, 2013) 325.

[36]Preamble of the Universal Declaration of Human Rights. UN General Assembly, 'Resolution 217 A (III)' (1948), A/RES/217 A (III). Also see Claude (n 11) 28.

[37]Nephew of the Russian scientist Ivan Pavlov, known for his experiments with dogs.

[38]UN Commission on Human Rights, 'Summary Record of the Seventieth Meeting' (1948), E/CN.4/SR.70.

expressed sympathy for the causes of peace and democracy, but they raised concern that the Soviet amendment might be misused to justify the control of science for political ends. Cuba stressed that 'science should remain entirely free and that the State should not interfere at any stage in scientific or literary creation'.[39] Venezuela expressed concern that such an article could justify the persecution of scientists for political reasons. Uruguay stressed that science could not serve an ideology. Saudi Arabia explained that it could take generations to determine whether a certain action had contributed to progress. Lebanon pointed out that the Soviet proposal confused the aims of science with its accidental results. And a Belgian representative noted that it was not for a human rights declaration to determine the purpose of science but, if it had to be done, then the purpose of science should be to search for truth.[40]

With the Cold War looming, Eleanor Roosevelt of the United States was undoubtedly the most important duellist for Alexei Pavlov. She cautioned that 'progress' and 'democracy' were abstract ideas for which there was no uniform interpretation. Matching the oratory skills of Pavlov, whose 'words rolled out of his black beard like a river' according to Roosevelt, she forcefully rejected the 'enslavement of science' for political goals and stated that the United States delegation would 'under no circumstances agree that science should be placed at the service of politics'.[41] A roll-call vote defeated the Soviet proposal by 25 to ten, with seven abstentions, as the Latin Americans voted in unison against the motion.[42] It is noteworthy that the same Pavlov expressed support for the freedom of science in a separate debate on the freedom of thought, conscience and religion:

> The USSR delegation placed particular emphasis on freedom of thought which it was necessary to sanction in order to promote the development of modern sciences and which took account of the existence of free-thinkers whose reasoning had led them to discard all old-fashioned beliefs and religious fanaticism. The times when scientists were condemned to be burnt at the stake were past, and science occupied a most important place in human life.[43]

Leaving such inconsistencies and early Cold War rivalry aside, a clear picture emerges: the drafters of the Universal Declaration of Human Rights thought in their majority that science should not be subordinated to political or economic goals. Whereas UDHR Article 26 on the right to education emphasized that education ought to strengthen 'respect for human rights and fundamental freedoms' as well as 'understanding, tolerance and friendship among all nations', the drafters consciously refrained from linking science to similar goals. The last-minute proposal by the Peruvian backbencher José Encinas to emphasize the freedom of artistic and scientific activity in UDHR Article 27 thus fell on well-prepared ground.

[39]UN General Assembly, 'Draft International Declaration of Human Rights. Cuba: Amendments to Articles 23 to 27 of the Draft Declaration (E/800)' (1948), A/C.3/261.

[40]See Schabas (n 9) 512.

[41]RP Claude, 'Scientist's Rights and the Human Right to the Benefits of Science' in AR Chapman and S Russell (eds), *Core Obligations: Building a Framework for Economic, Social and Cultural Rights* (Antwerp: Intersentia, 2002).

[42]See Claude (n 11) 33.

[43]UN General Assembly, 'Hundred and Twenty-Seventh Meeting. 51. Draft International Declaration of Human Rights' (1948), A/C.3/SR.127.

While scholarly views solicited by UNESCO on universal human rights had not had much impact on the formulations adopted in the UDHR (see above), some academics emphatically welcomed the Declaration after its adoption and pointed to several relevant articles for researchers. For example the Dutch-American astronomer Bart J Bok, who taught at Harvard, published a passionate piece in the *Bulletin of the Atomic Scientists*, titled 'Freedom of Science and the Universal Declaration of Human Rights'.[44] He argued that the freedom of science did not seem very acute prior to World War II because humanity 'still had to learn by experience how totalitarian states can restrict and pervert science'.[45] Bok further highlighted that Article 19 (freedom of expression) struck 'at the heart of what is meant by freedom of science', and that Article 27 was 'especially important to the scientist'.[46] Bok also offered his own thoughts on the various components that make up the freedom of science – for example, he stressed that the scientist 'should be able to talk freely about his research and he should have the right to publish freely the results of his own investigations'.[47] Bok's understanding of scientists' freedom was strikingly similar to later guidance documents published by the United Nations, such as UNESCO's Recommendation on the status of higher education teaching personnel (1997) and the CESCR's General Comment No 25 (2020).[48] He was not the only academic who advocated for the freedom of science at the time; advocates included members of the Society for the Freedom in Science, founded in 1940 by John R Baker, a lecturer in zoology at Oxford University.[49] It seems appropriate to call these scholars members of an epistemic community,[50] but as far as I can ascertain they did not engage in systematic norm entrepreneurship *vis-à-vis* the UN.

In sum, it appears that the insertion of the important word 'freely' into UDHR Article 27 was the result of individual agency by a diplomat who had the necessary access to the decisive institutional arena, who had been socialized under democracy and was apparently not constrained by – or possibly even worried about – the interests of his now-military government, and who intervened in an overall context in which liberal norms were agreeable to, and even dominant among, states with voting rights at the UN.

With the adoption of the Universal Declaration of Human Rights, the free pursuit of and participation in science became a universal, inalienable right affirmed by the UN. Moreover, the ground was now prepared for a further elaboration of the freedom of science in binding law.

The ICESCR and the right to science

Unsatisfied with the non-binding character of the Universal Declaration, several UN member states pushed forward in the 1950s and 1960s with the negotiation of binding

[44]BJ Bok, 'Freedom of Science and the Universal Declaration of Human Rights' (1949) 5(8–9) *Bulletin of the Atomic Scientists* 211.

[45]Ibid.

[46]Ibid.

[47]Ibid.

[48]UNESCO, *Recommendation Concerning the Status of Higher-Education Teaching Personnel* (Paris: UNESCO, 1997), <https://www.unesco.org/en/legal-affairs/recommendation-concerning-status-higher-education-teaching-personnel>.

[49]W McGucken, 'On Freedom and Planning in Science: The Society for Freedom in Science' (1978) 16(1) *Minerva* 42.

[50]PM Haas, 'Introduction: Epistemic Communities and International Policy Coordination' (1992) 46(1) *International Organization* 1.

treaties. A wave of autocratization in Latin America meant that hitherto very active and influential states no longer shaped human rights debates at the UN. The United States, France and the United Kingdom, often thought of as dominant powers in the formulation of international human rights, were also not particularly keen to develop binding human rights law under the auspices of the UN, or to affirm self-determination and outlaw discrimination for example. Recent research suggests that the post-colonial movement, and the leadership of countries such as Jamaica, Liberia, Ghana and the Philippines, had a stronger impact on the eventual negotiation of binding human rights treaties than previous scholarship on the making of human rights law recognized.[51] That is, the actor constellation during the negotiation of the ICCPR and the ICESCR respectively was different from that of the immediate post-World War II period. Cold War rivalry became a veritable obstacle for the human rights project at the United Nations, but it was not the only reason for the eventual bifurcation of the UDHR into two separate human rights treaties. Doctrinal concerns around the justiciable nature of rights eventually led to the formulation of a covenant on civil and political rights (including various freedoms but not the freedom of scientific research), and a separate covenant on economic, social and cultural rights (including the right to science).

UNESCO's institutional interest in codifying the human right to science as a cultural right remained unchanged. Science, in the understanding put forward by UNESCO representatives, is a specific form of cultural production,[52] on par with literary or artistic productions. During the drafting of the International Covenant on Economic, Social and Cultural Rights, UNESCO representatives submitted two proposals to the Commission on Human Rights. As had been the case with UNESCO's earlier contribution to the Universal Declaration, however, neither of the proposals (one succinct, the other more detailed) 'appears to have been considered in great depth by states'.[53] That notwithstanding, UNESCO representatives were allowed to participate in the UN member states' debates, and they highlighted that the freedom of science was a priority for the right to science. Following the precedent of the UDHR negotiations, and in line with UNESCO's approach to science, these issues were discussed in the context of negotiations on cultural rights. Accordingly, the right to science ended up in the UN covenant dealing with economic, social, and cultural rights (ICESCR).

The importance of the freedom of science, which had only entered UDHR Article 27 as a small keyword ('freely') at the eleventh hour in 1948, was now emphasized on several occasions during negotiations on the ICESCR. For example, UNESCO's René Maheu (a French citizen who later served as the organization's director-general) remarked in October 1957 that, 'since the very freedom of the human mind was involved … the Committee should … take care that that freedom was respected if it did not wish to destroy what it sought to protect'.[54] This justification for the freedom of science differs from that proposed by José Encinas during negotiations on the UDHR. While Encinas argued intrinsically on the basis of human dignity, Maheu argued instrumentally: without freedom, science could not flourish. He was not the only one to see the provision in this

[51]SLB Jensen, *The Making of International Human Rights: The 1960s, Decolonization, and the Reconstruction of Global Values* (Cambridge: Cambridge University Press, 2016).

[52]IL Christensen, '"Fostering a Love of Truth": Conceptions of Science in UNESCO's Early Years' in H Porsdam and SP Mann (eds), *The Right to Science: Then and Now* (Cambridge: Cambridge University Press, 2022) 76.

[53]See Smith (n 23) 1165.

[54]UN General Assembly, '796th Meeting' (1957), A/C.3/SR.796.

way. Among others, the Indian delegation emphasized that 'scientific and cultural progress was conceivable only in a climate of freedom'.[55] The Chinese delegation (then still the Republic of China, Taiwan) added with slightly more nuance: 'In the interests of humanity itself, scientists and scholars should receive no instructions from outside and should trust their consciences as their only guide. To restrict their activity would be to impede progress.'[56] These instrumental justifications for the freedom of science were provided amidst a debate on an amendment proposed by Czechoslovakia, which sought to place science in the service of peace and international cooperation.[57] As had occurred earlier with the Soviet proposal in relation to the right to science, the majority of states rejected the idea of placing science under political goals, however desirable these goals would sound. Instead, they argued for a liberal script that rejected political constraints and endorsed the freedom of science instead.

The ICESCR provision on the right to science, as eventually included in the treaty, is a significantly more expanded article than the formulation found in the UDHR. The notion of a right to science remained rather novel at the time and was still subject to refinement. It is unsurprising, then, that states had much to discuss before a consensus could be reached. Practical considerations regarding the eventual implementation of treaty commitments also influenced the debate on the freedom of science. While discussing the possibility of assigning science a political purpose, the Chinese delegation cautioned that 'States would find themselves in a peculiar position: they would either have to interfere with the cultural and scientific activities of individuals, which most of them were reluctant to, or run the risk of being charged with not carrying out the obligations they had assumed.'[58] The final agreement reached in 1966 on the right to science follows a liberal script and reads as follows:

Article 15

1. The States Parties to the present Covenant recognize the right of everyone:
   (a) To take part in cultural life;
   (b) To enjoy the benefits of scientific progress and its applications;
   (c) To benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.
2. The steps to be taken by the States Parties to the present Covenant to achieve the full realization of this right shall include those necessary for the conservation, the development and the diffusion of science and culture.
3. The States Parties to the present Covenant undertake to respect the freedom indispensable for scientific research and creative activity.
4. The States Parties to the present Covenant recognize the benefits to be derived from the encouragement and development of international contacts and co-operation in the scientific and cultural fields.

In line with the Universal Declaration, the right to science is presented here as a right of participation, and scientific activities are grouped together with cultural activities. The word 'everyone' should be read in conjunction with ICESCR Articles 2(2) and 3, which

[55]B Saul, *The International Covenant on Economic, Social and Cultural Rights*: *Travaux Préparatoires 1948–1966* (New York: Oxford University Press, 2016) 2106.
[56]Ibid 2107.
[57]Ibid 2101.
[58]Ibid 2107–08.

specify the equal right of everyone to the enjoyment of all rights in the covenant. That is, Article 15 is not limited to a special category of humans (academics, writers or artists) but rather extends the exercise of science and related benefits to all human beings. It also obligates states to conserve, develop and spread science. Intriguingly, a central question regarding Article 15.1(b), namely 'how the positive and negative effects of scientific research might be determined for the purposes of this right so that only those results conferring a benefit are implicated', was never discussed during states' negotiations on the ICESCR.[59] That said, the debate did touch upon the limits of a liberal science script that remained focused on individual (versus collective) rights. In this regard, India tried to distinguish science from culture, and insisted that scientific discoveries should benefit all nations, regardless of their level of development.[60] Pakistan, too, emphasized that 'much greater efforts should be made' to help countries where science had made little progress.[61] These interventions added a new argument compared with the UN debate on the right to science in the late 1940s.

The interventions made by India and Pakistan in 1957 relate to the ownership of scientific results and constitute a contestation within the liberal science script. Here, intellectual property rights are weighed against free access to information and knowledge. Note that the freedom to share scientific results, a core component of scientific freedom, also entails the freedom not to share results. An academic's decision to withhold information is equally covered by this freedom, and researchers' moral and material interest in their own scientific discoveries is expressly protected by ICESCR article 15.1 (c).[62] On the other hand, the decision to withhold information may become illegitimate where this decision leads to a severe negative impact on the human rights of others. An obligation to share scientific knowledge that is of immediate and significant benefit to others (such as a new vaccine, developed during a lethal global pandemic) remains within a liberal science script, since liberal scripts seek to balance conflicting rights, and the freedom of science itself is not absolute.[63]

During the 1950s, the most interesting debate with regard to the phrase 'freedom indispensable for scientific research' (ICESCR article 15.3) occurred around the word 'indispensable'. The back and forth on this point even involved the UN Secretary-General Trygve Lie, who made it known to the Commission on Human Rights in 1953 that he was critical of the term.[64] Instead, he suggested the formulation 'The States Parties to the Covenant undertake to respect freedom of scientific research and creative activity'.[65] If the term 'indispensable' was included, the article could be interpreted to mean that states only had an obligation to respect freedom to the extent that such freedom was strictly necessary for research. As with José Encinas, I hesitate to call Trygve Lie a norm entrepreneur on the

[59]See Smith (n 23) 1165.

[60]See Smith (n 23) 1165.

[61]See Saul (n 55) 2105.

[62]The reference in Article 15.1(c) to authors' moral and material interests is reminiscent of a formulation in the Bogotá Declaration, which led to much discussion and confusion at the UN, not least because of differences between common law and civil law countries. See A Plomer, 'IP Rights and Human Rights: What History Tells Us and Why It Matters' in H Porsdam and SP Mann (eds), *The Right to Science: Then and Now* (Cambridge: Cambridge University Press, 2022) 54.

[63]See Introduction to this special issue and M Kumm, 'Academic Freedom in Liberal Constitutional Democracies. Justifications, Limits, Tensions, and Contestations' (2024) SCRIPTS Working Paper No. 42, Berlin: Cluster of Excellence 2055 'Contestations of the Liberal Script (SCRIPTS)'.

[64]UN Commission on Human Rights, 'Memorandum by the Secretary General' (1953) E/CN.4/673.

[65]Ibid.

right to science, given that I am not aware of any sustained advocacy by him in this issue area. Lie was a labour politician and not particularly known for science policy; instead, and taking his training as a lawyer into account, it may well be the case that his intervention on the word 'indispensable' was chiefly motivated by a desire to avoid unclear language, and possibly had little to do with the specific issue at hand.[66] The Philippines agreed with Lie and reasoned more forcefully that the formulation might have a 'limiting or nullifying' effect because it would allow states to determine the degree of freedom that scientists needed.[67]

Curiously, it was a representative from the United Kingdom who eventually insisted on retaining the word 'indispensable' because this would allow states to apply necessary limitations to science, notably related to national security concerns, public order, and morality.[68] The *travaux préparatoires* on the ICESCR do not allow for a definitive conclusion regarding the liberal or illiberal motivation of the United Kingdom's position.[69] Depending on the specifics of national policy and law, a balancing of scientific freedom with national security concerns may well be a variation of the liberal science script,[70] yet such argumentation can easily be misused for illiberal purposes and then amount to a subordination of science to political interests. The insistence of the United Kingdom on the term 'indispensable' in ICESCR Article 15.3 is a good illustration that the line between liberal and illiberal contestations of the freedom of science can be blurry. A clear illiberal contestation would not seek to balance various freedoms, but seek to subordinate science to political or economic demands.[71] The intervention by the United Kingdom further highlights that states' willingness to accept legally-binding human rights obligations remained limited to norms that did not seriously compromise national interests.

The repression of academics with suspected communist leanings during the McCarthy era in the United States during the 1950s illustrates the intricacies of limiting the freedom of science on the basis of national security, public order and morality. Such limitations can become a slippery slope towards an illiberal science script. Two years after the ICESCR's signing (1966), this came to the fore as students and academics played a key role in the 1968 protests. Some state measures taken in liberal democracies at the time remain highly controversial to this day – for example, the so-called *Radikalenerlass* in Germany,[72] a decision taken in 1972 by the German chancellor together with the heads of state-level governments, whose aim was to prevent members of extremist organizations from becoming civil servants, notably teachers and university faculty. As a result of this decision, some

[66]For an analysis of norm entrepreneurship by the UN Secretary General, see I Johnstone, 'The Secretary-General as Norm Entrepreneur' in S Chesterman (ed), *Secretary or General? The UN Secretary-General in World Politics* (Cambridge: Cambridge University Press, 2007) 123.

[67]See Saul (n 55) 2107.

[68]Ibid 2125.

[69]Ibid.

[70]The Johannesburg Principles elucidate this: UN Commission on Human Rights, 'The Johannesburg Principles on National Security, Freedom of Expression and Access to Information' (1996) E/CN.4/1996/39, annex.

[71]See Introduction to this special issue, Figure 2.

[72]The German term is misleading because it was not actually a decree, it was merely a decision: Beschluss der Regierungen des Bundes und der Länder zur Überprüfung von Bewerbern für den Öffentlichen Dienst auf deren Verfassungstreue vom 28. Januar 1972 (Decision of the federal and state governments to perform a constitutional check on applicants for public service of 28 January 1972).

scholars were barred or dismissed from academic positions on the basis of political rather than academic reasons.[73]

While the freedom of science is not an absolute right, and in principle is subject to permissible limitations, those interested in promoting a liberal science script, which protects academics' freedom against state interference in particular, may find it regrettable that the final formulation in ICESCR Article 15.3 gives states the latitude to limit the freedom of science without specifying clear boundaries. In fact, the ICESCR already includes a provision on limitations in Article 4, stating that limitations of the rights in the covenant must be determined by law and 'be compatible with the nature of these rights and solely for the purpose of promoting the general welfare in a democratic society'.[74] The complexities of concretely defining what this means in the context of the right to science were repeatedly discussed in lively debates among UN delegates who drafted the UDHR and ICESCR, notably when reviewing amendments that sought to assign science a non-scientific purpose. In any event, the provision in ICESCR Article 4 makes the word 'indispensable' in Article 15.3 technically unnecessary. As such, the insertion of the term in Article 15.3 may be interpreted as a potentially illiberal ingredient in the ICESCR's codification of the human right to science that otherwise conforms with a liberal science script.

The clearest – though unsuccessful – intervention on behalf of an illiberal science script was that of the Soviet Union, aided in the 1950s by Czechoslovakia. In line with the Soviet Union's earlier position during the negotiations on the UDHR, they sought to mobilize UN member states around the idea that science should be subservient to the political goals of progress, cooperation and peace. As with the Universal Declaration, and despite a new actor constellation at the UN, states again rejected this proposal during negotiations on the ICESCR. Several years after the ICESCR's adoption, the Soviet Union finally succeeded by tabling a non-binding Declaration on the Use of Scientific Progress in 1975. Among other provisions, this declaration calls on states 'to prevent and preclude the utilization of scientific and technological achievements to the detriment of human rights and fundamental freedoms and the dignity of the human person'.[75] While this formulation may initially seem innocuous, possibly even desirable, it is important to note that the 1975 Declaration on the Use of Scientific Progress includes no formulation to avert the risk of an 'enslavement of science' for political ends, to use the formulation of Eleanor Roosevelt. Years later, in 1990, the Japanese diplomat and later UN High

[73]The German Constitutional Court ruled in 1975 that the *Radikalenerlass* was not in violation of basic rights enshrined in the Constitution. In 1993, however, the European Court of Human Rights ruled on an individual dismissal case, condemning Germany for having violated freedom of expression and freedom of association as enshrined in Articles 10 and 11 of the European Convention on Human Rights. See Deutscher Bundestag, 'Der sogenannte "Radikalenerlass" in der deutschen und europäischen Rechtsprechung: Sachstand' [The so-called 'radical decree' in German and European jurisprudence: Current status] (2017) WD 3-3000-125/17, <https://www.bundestag.de/resource/blob/526404/effe56fccef64bc4c32baaeb0c4ce495/wd-3-125-17-pdf-data.pdf>.

[74]International Covenant on Economic, Social and Cultural Rights (1966), UN General Assembly resolution 2200A (XXI), adopted 16 December, A/RES/2200(XXI), <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights>.

[75]Declaration on the Use of Scientific and Technological Progress in the Interests of Peace and for the Benefit of Mankind (1975), UN General Assembly resolution 3384 (XXX), adopted 10 November, A/RES/3384(XXX), <https://www.ohchr.org/en/instruments-mechanisms/instruments/declaration-use-scientific-and-technological-progress-interests>.

Commissioner for Refugees Sadako Ogata pointed out that the Soviet initiative had failed to refer to individual rights.[76] Despite this shortcoming, the 1975 Declaration was adopted by the General Assembly, as tabled by the Soviet Union, but with all countries in the Western bloc abstaining from the vote.[77]

To summarize, ICESCR Article 15.3 and its entry into force in 1976 was an important milestone for the international codification of a liberal science script, even if not all UN member states unequivocally supported the freedom of scientific research at the time.

Soft-law documents by CESCR and UNESCO

As the responsible treaty body, the UN Committee on Economic, Social and Cultural Rights (CESCR) has the mandate to review states' reports on the implementation of the ICESCR, to receive shadow reports from non-governmental organizations, to formulate recommendations in response to these reports and to issue general guidance notes on all signatory states' obligations under the treaty. These so-called general comments serve to specify the substantive scope of specific articles in the covenant. The committee first referred to the notion of 'academic freedom' in the context of its General Comment No. 13 on the right to education. This is notable because, first, the right to education in Article 13 does not mention freedom (unlike the right to science in Article 15) and, second, the term 'academic freedom' differs from previously established terminology in the debate on the right to science.[78]

As outlined above, the UDHR and ICESCR include references to the freedom of scientific research, and they both include freedom of expression, but neither the Declaration nor either of the two Covenants includes the term 'academic freedom'. Nevertheless, in 1999, the CESCR stated that it had formed the view, on the basis of a review of states' reports, that 'the right to education can only be enjoyed if accompanied by the academic freedom of staff and students'.[79] It focused its subsequent remarks on higher education specifically, since 'in the Committee's experience, staff and students in higher education are especially vulnerable to political and other pressures which undermine academic freedom'.[80] Based on analysis of empirical shortcomings in education systems around the world, the CESCR stipulated that members 'of the academic community, individually or collectively, are free to pursue, develop and transmit knowledge and ideas, through research, teaching, study, discussion, documentation, production, creation or writing'.[81] It also stressed that:

[76]S Ogata, 'United Nations Approaches to Human Rights and Scientific and Technological Development' in CG Weeramantry (ed), *Human Rights and Scientific and Technological Development: Studies on the Affirmative Use of Science and Technology for the Furtherance of Human Rights, Commissioned as a Special Project by the United Nations University, Following a Reference to the University by the United Nations Human Rights Commission* (Tokyo: United Nations University Press, 1990) 4.

[77]See Claude (n 11) 12.

[78]On academic freedom and the two UN human rights Covenants, see KD Beiter, T Karran and K Appiagyei-Atua, 'Yearning to Belong: Finding a "Home" for the Right to Academic Freedom in the UN Human Rights Covenants' (2016) 11 *Intercultural Human Rights Law Review* 107.

[79]UN CESCR (Committee on Economic, Social and Cultural Rights), 'General Comment No 13: The Right to Education (Article 13)' (1999), E/C.12/1999/10.

[80]Ibid 9.

[81]Ibid.

> Academic freedom includes the liberty of individuals to express freely opinions about the institution or system in which they work, to fulfil their functions without discrimination or fear of repression by the State or any other actor, to participate in professional or representative academic bodies, and to enjoy all the internationally recognized human rights applicable to other individuals in the same jurisdiction.[82]

Although the committee did not limit its remarks to academics as a professional group (note its reference to students), CESCR General Comment No. 13 appears to be influenced by statements on academic freedom that were formulated with a view to establishing professional rights (that is, rights of higher education personnel) rather than human rights held by everyone.[83] The 1997 UNESCO Recommendation Concerning the Status of Higher Education Teaching Personnel is the most important international document in this regard. It sets out norms to protect education workers in academic institutions, and includes several sentences on academic freedom that are identical to the language found in General Comment No 13. Two years after the 1997 UNESCO Recommendation, the CESCR thus opted for a somewhat creative interpretation of the right to education. In line with established human rights doctrine, the CESCR did not argue for unlimited academic freedom; it instead highlighted the 'duty to respect the academic freedom of others, to ensure the fair discussion of contrary views, and to treat all without discrimination on any of the prohibited grounds', thereby conforming with a liberal script'.[84]

The CESCR General Comment No 13 on the right to education was issued at a time that, in hindsight, appears to have been the peak of human rights standard-setting at the UN. While democratic countries were in triumph following the end of the Cold War, autocratic countries that had resisted regime transition were still too weak to block the expansion of fundamental freedoms via the UN's human rights system. This political context explains why the committee had the latitude to present a broad and liberal interpretation of ICESCR Article 13. The committee's members – human rights experts, often with a sustained and specific focus on economic, social and cultural rights – are well described as members of an epistemic community and also as norm entrepreneurs, who used their terms on the committee to further human rights law in line with their expertise and normative convictions. By introducing the term 'academic freedom', which had hitherto not been part of international human rights language, the committee members agreed on language that arguably also introduced some conceptual fuzziness into the debate since they failed to clarify whether and how 'academic freedom' under Article 13 related to the 'freedom of scientific research' in Article 15.

In 2020, more than 50 years after the ICESCR was signed, the same committee – now with different members – finally issued substantive guidance on the formulation contained in Article 15.3, with a General Comment that focuses on research rather than education. Subsequent to several consultation meetings and a call for written comments,

[82]Ibid.

[83]In this special issue, we understand 'freedom of science' as a broader concept than academic freedom; it protects any actor engaged in scientific endeavours, regardless of employment status in the academy. On the distinction, see also the Introduction to this special issue, Figure 1. 'Academic freedom' is not, however, restricted to activities within university buildings or professional publications; it also covers extra-mural speech related to the academic discipline of the speaker or more generally the system in which they work.

[84]See (n 79) 9.

the CESCR describes the substantive scope of 'the freedom indispensable for scientific research' as follows:

> This freedom includes, at least, the following dimensions: protection of researchers from undue influence on their independent judgment; their possibility to set up autonomous research institutions and to define the aims and objectives of the research and the methods to be adopted; the freedom of researchers to freely and openly question the ethical value of certain projects and the right to withdraw from those projects if their conscience so dictates; the freedom of researchers to cooperate with other researchers, both nationally and internationally; the sharing of scientific data and analysis with policymakers, and with the public, wherever possible.[85]

During the negotiations, several actors – including scholars with specialized knowledge of the issue area and non-governmental norm entrepreneurs with a longstanding advocacy history on academic freedom – tried to persuade the committee that the last two words, 'wherever possible', be deleted, making similar arguments to those found in the *traveaux préparatoires* regarding the term 'indispensable' (see above). These arguments were, however, met with opposition in the committee.[86] In this context, it is worth noting that although the committee members are formally independent experts appointed by the United Nations, in reality some committee members do not appear fully independent of their respective governments, and authoritarian governments are increasingly interested in shaping the committee's decisions by promoting the appointment of their own nationals, who are sometimes drawn from the diplomatic echelon.[87] Considering the geopolitical realities at the time of the General Comment's publication (2020), it is striking that the committee nevertheless managed to negotiate a consensus interpretation of Article 15.3 that meets, by and large, the criteria of a liberal science script. It appears that this consensus remained intact not least because independent human rights experts rather than state representatives make up the majority of the committee. Furthermore, the freedom of science was interpreted by the committee as a requirement for scientific progress – a notion that is also welcome in repressive states as long as science remains within acceptable political boundaries and benefits the economy. This instrumental line of argument is captured in the committee's own reasoning: 'In order to flourish and develop, science requires the robust protection of freedom of research.'[88] At the same time, the committee highlighted researchers' right to withdraw from specific projects on the basis of principled objection, which implies that concerns for human dignity in the conduct of science also influenced the committee's interpretation.

[85]See (n 4) 3–4.

[86]Personal observation by the author and correspondence with committee members. In 2018, I participated in a consultation meeting with the committee's rapporteur Mikel Mancisidor on General Comment No. 25, held in May at the German Institute for Human Rights, and later contributed written input as well.

[87]The Chinese committee member Shen Yongxiang, who serves on the CESCR at the time of writing, is a case in point. He worked as a Chinese diplomat for many years and held the title 'Special Representative for Human Rights' in the early 2000s. See K Kinzelbach, *The EU's Human Rights Dialogue with China: Quiet Diplomacy and its Limits* (London: Routledge, 2015), Chapter 5. One of his main tasks at the time was to participate in international human rights dialogues to diffuse concerns about human rights violations in China. For his term on the UN Committee on Economic, Social and Cultural Rights, the long-term diplomat turned into an 'independent expert', a professor at the China University of Political Science and Law, and vice president of the China Society for Human Rights Studies (a government-organized NGO or GONGO).

[88]See (n 4), para 13.

Regarding rights holders, the committee's aforementioned elaboration may be misread to mean that only professional academics, rather than all human beings, are entitled to enjoy the freedom indispensable for scientific research. However, the 2020 General Comment No. 25 explicitly refers to UDHR Article 27, noting that it recognizes the right of everyone to participate in scientific advancement. This also applies, the CESCR argues, to the right to science as codified in the ICESCR: 'Thus, doing science does not only concern scientific professionals but also includes "citizen science" (ordinary people doing science).'[89] At a time when science has come under pressure from anti-science movements and populist politicians, this interpretation may appear risky. To protect science against nonsense, professionally recognized academics ought to remain in control of defining what is and is not science. Yet, from a human rights perspective, it is perfectly coherent to acknowledge, protect and promote the scientific capability of any human being, not only those paid for their scientific work. And as long as citizen science conforms with disciplinary standards, it certainly has the potential to contribute to scientific advancement.

While recognizing that all human beings have, in theory, the potential to think and create in line with academic standards, most human beings enjoy the right to science by accessing the benefits of scientific advancement rather than through their active participation in scientific pursuits. Regarding the notion of 'scientific advancement', and against the backdrop of the lengthy negotiations during the *traveaux préparatoires*, the UN Committee on Economic, Social and Cultural Rights adopted a surprising observation into its General Comment No. 25:

> The Universal Declaration of Human Rights refers to 'scientific advancement' and the Covenant refers to 'scientific progress'; these expressions emphasize the capacity of science to contribute to the well-being of persons and humankind. Thus, the development of science in the service of peace and human rights should be prioritized by States over other uses.[90]

In reference to this recommendation, Tara Smith points out that the CESCR appears to have finally fallen for the Soviet proposal that science be assigned a political purpose, despite the fact that this proposal had been repeatedly and forcefully rejected by the majority of UN member states involved in deliberations on the UDHR and the ICESCR.[91] The call for prioritization cited above does leave room for basic science that is not application oriented, yet the very argument that states – rather than scientists – should prioritize what science focuses on opens up a slippery slope toward an illiberal science script in which governments guide (if not control) research. The committee's General Comment No. 25 thus includes liberal and illiberal ideas on science. In this context, it is interesting to note that Mikel Mancisidor, the CESCR rapporteur on General Comment No. 25 and its main author, remarked in a scholarly contribution on the right to science that 'The Soviet proposal seemed reasonable enough, certainly, except when considered under the perverse Cold War logic dominant at the time.'[92] With Smith, I am more

[89]See (n 4), para 10.

[90]See (n 4), para 6.

[91]T Smith, 'Scientific Purpose and Human Rights: Evaluating General Comment No 25 in Light of Major Discussions in the Travaux Préparatoires of the Universal Declaration of Human Rights and International Covenant on Economic, Social, and Cultural Rights' (2020) 38(3) *Nordic Journal of Human Rights* 221.

[92]See Mancisidor (n 1) 22–23.

sceptical, and would note with a view toward the protection of scientific freedom that the arguments of the drafters who criticized the Soviet proposal for attributing a non-scientific purpose to science 'remain as valid today as they did when first expressed in the 1940s, 1950s, and 1960s'.[93]

At the time of writing, it seems that the international consensus on a liberal science script, as negotiated in 1948 and reconfirmed in 1966, is becoming increasingly shaky. Another case in point is the revised UNESCO Recommendation on Science and Scientific Researchers, adopted in November 2017.[94] This recommendation and the subsequent development of reporting guidelines highlight researchers' responsibility towards society (a welcome argument per se) and, in the same vein, also introduce the restrictive argument that researchers ought to 'enjoy *the degree* of autonomy and intellectual and academic freedom *appropriate to their task*').[95] These formulations justify limitations of scientists' freedoms without clear boundaries, and they appear to move beyond the vaguer term 'indispensable' included in ICESCR article 15.3. This is particularly worrisome because ICESCR Articles 22 and 23 design a mechanism that allows specialized agencies, such as UNESCO, to give content to the rights covered in the covenant. UNESCO's Recommendation on Science is, in this sense, of direct relevance for states' treaty commitments.[96] In contrast to the CESCR, where human rights experts dominate decisions, UNESCO's recommendations are shaped by state representatives, making it easier for powerful repressive states to influence norm codification in line with their interests.[97]

While contestations of a liberal science script are by no means new in the context of UN debates, as has been shown in this article, the liberal consensus appears increasingly shaky today. Multilateral language on the right to science published by the CESCR and by UNESCO in the early twenty-first century risks undermining the liberal science script negotiated in the United Nations during the second half of the twentieth century.

Conclusion

Adding to the limited scholarship on the human right to science, I was interested in tracing when, by whom and how the notion of freedom was included into the right to science, and how this inclusion was justified or contested. The *travaux préparatoires* of the Universal Declaration of Human Rights and of the International Covenant on Economic Social and Cultural Rights reveal a multifaceted and rich debate about science,

[93]See Smith (n 91) 222.

[94]UNESCO, 'Recommendation on Science and Scientific Researchers' (2017), <http://portal.unesco.org/en/ev.php-URL_ID=49455&URL_DO=DO_TOPIC&URL_SECTION=201.html>.

[95]UNESCO, 'Focused Implementation: The 10 Key Areas of the UNESCO Recommendation on the Status of Scientific Researchers' (2017), para 7 (emphasis added), <https://unesdoc.unesco.org/ark:/48223/pf0000369170>.

[96]I thank one of the anonymous reviewers for bringing this to my attention.

[97]While working on this article in 2023, I consulted a UNESCO staff member about the actors who had pushed for this language during the negotiations on the 2017 Recommendation. Even though my interlocutor had direct insights into the negotiations, I unfortunately received a very evasive answer: 'state representatives'. Klaus D Beiter has critically analysed the UNESCO 2017 Recommendation; see K Beiter 'Where Have All the Scientific and Academic Freedoms Gone? And What is "Adequate for Science"? The Right to Enjoy the Benefits of Scientific Progress and Its Applications' (2019) 52(2) *Israel Law Review* 233.

development, dignity and freedom, as well as the spectre of scientific knowledge being put to barbarous use.

This debate was chiefly shaped by diplomats engaged in human rights norm codification rather than by (non-governmental) norm entrepreneurs with a systematic and sustained advocacy agenda specific to the issue area. State representatives from all around the world made thoughtful contributions on numerous occasions in the 1940s, 1950s and 1960s. The arguments exchanged during those decades continue to resonate today as the interpretation of the right to science continues to evolve. Arguments exchanged by state parties at the UN have included numerous variations of liberal and illiberal ideas on how the state ought to relate to science, but they ultimately coalesced into a liberal science script that seeks to balance conflicting rights while rejecting the subjugation of science under political goals.

ICESCR Article 15.3 on the 'freedom indispensable for scientific research' – adopted in 1966, in force since 1976, and endorsed by a large majority of UN member states – is the result of individual agency, path dependency, institutional context and diverging state interests; it also reflects a larger liberal script that shaped human rights negotiations in the United Nations at the time. To this day, the ICESCR remains the only comprehensive, internationally binding agreement on the right to participate in and benefit from science, and on the freedom of science from undue political constraint. In addition to this accomplishment, the egalitarian proposition of universal human rights facilitated a multilateral conversation under the auspices of the UN that highlighted the relevance of scientific freedom for everyone and not only for researchers with professional academic privileges. For those interested in defending the freedom of science, the ICESCR remains a powerful reference document – even as more recent UN documents that serve to specify the ICESCR indicate that the multilateral consensus on a liberal science script is under fire.

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