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ORIGINAL ARTICLE

INTERNATIONAL LEGAL THEORY

Conceptualizing legal change as 'norm-knitting' through the example of the environmental human right

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Abstract

Understanding law as a continuous process with circular and interacting phases of selection, construction, and reception makes it possible to account for the variety of actors and resources implicated in the process of incrementally changing a norm of international law. This process is visualized through an analogy to knitting. One can start the knitting project with one needle, but to actually construct anything, more than one needle is necessary: at least two actors need to collaborate and build upon each other's work. If those two actors neatly agree upon the pattern to be knitted, the resulting product may be uniform and dense, able to cover all situations it is intended for. However, it is not that easy to knit in exactly the same pace and pattern. The constructed law may not fit perfectly all situations it is intended for, because the different actors may have had different patterns in their head. Also, sometimes, the wool is held too tightly, and the net becomes too dense; sometimes the wool is held too loosely, and the net will have holes. With this visualization in mind, we can think of legal changes as continuously intermingling and building upon each other: international law is generally knitted with different colours of wool, each colour representing a different normative resource. Thus, 'norm knitting' provides for an analytical tool that makes it possible to demonstrate the variety in 'successful' change of a given norm in international law in response to specific challenges which the actors face.

Keywords: construction of norms; entanglement; human rights and environment; knitting; legal change

1. Introduction

International law is continuously changing and yet it is perceived of as providing the stability of a framework in which the international community acts. How is this process of continuous change happening in detail – and how does a continuously changing law provide stability? And is this change process always or even necessarily a universal one? Thinking of legal change as a process of knitting helps to answer those questions.

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To make sense of the link between stability and change in international law, it is useful to understand law as a continuous process with circular and interacting phases of selection, construction, and reception.[1] In the selection phase, actors select how to proceed about a possible norm change:[2] actors select where and how to place and present their norm change attempt in the hope that this will be taken up or selected by construction actors. In the construction phase, actors engage with the norm by rejecting, accepting or re-modelling it. In the reception phase, actors engage with the changed norm in a broader setting. They deal with its applicability.

It is important to highlight that in my understanding, there is not one selection, construction, and reception phase, but many small and often entangled phases. Much like knitting: (i) the needle selects where to put the thread through and how; (ii) depending on what the pre-existing stitches are, the effect of that one stitch varies;[3] (iii) the next stitch may receive the previous stitch in different ways, as well.[4]

While this micro-perspective visualizes well the circularity of the phases, we have those phases also in a broader scheme: (i) depending on how the needle engages what kind of thread, (ii) the broader construction varies, and (iii) depending on the larger outcome of that knitting project, its applicability in the reception phase may vary considerably – i.e., a sock has a different field of applicability than a blanket.

We can now think of this knitting process in terms of actors and resources implicated in the process of (incrementally) changing a norm of international law: the needles are different actors, and the threads different resources through which legal change can be achieved. Patterns are the different norm types, and colours vary depending on resources' origins in different fields of law. Depending on collaboration of the needles (actors), shape – the norm's form – and the conciseness of the norm (in knitting terms: the tension) vary.

Thus, in diverse and flexible, yet structured entanglements, norms are constructed. This captures processes of change with more nuance than the diverse approaches that have been relying on the idea of weaving: in the weaving process, threads always have to be straight and perpendicular to each other.[5] Knitting allows for much more flexibility in the construction phase. While a simple project may indeed be quite square in shape, decreasing or adding stitches (intentionally or un-intentionally) can lead to many variations in form. In the European context, for instance, the concept (pattern) of 'prior informed consent' has been transplanted quite directly from the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) into the European Court of

[1]See N. Krisch and E. Yildiz, 'Paths of International Law: A Frame', in N. Krisch and E. Yildiz (eds.), *The Many Paths of Change in International Law* (forthcoming). More specifically for the emergence of new human rights, von der Decken and Koch conceptualize three steps: idea, emergence, and full recognition. K. von der Decken and N. Koch, 'Recognition of New Human Rights', in A. von Arnauld, K. von der Decken and M. Susi (eds.), *The Cambridge Handbook of New Human Rights: Recognition, Novelty, Rhetoric* (2020), 7, at 8.

[2]I use the term 'norm' for generalized patterns of behaviour and I qualify a norm as legal when a certain degree of bindingness is reached. The way in which the qualification of a norm as a legal one is much more gradual and depending on circumstances than assumed by traditional positivist theories is elaborated in Sections 6 and 7.

[3]V. Haffenden and F. Patmore, *The Knitting Book* (2019), at 146–7. Haffendon and Patmore describe the two easiest stitches in the following three steps. For the right twist: '1. With yarn at the back of the right needle and in front of the left, knit the second stitch leaving the first and second stitches on the left needle. 2. Knit the first stitch on the left needle and drop both old stitches off the left needle at the same time. 3. Without the use of a cable needle, this creates a "one-over-one" two-stitch cable slanting to the right—a right twist'. For the left twist: '1. Insert the tip of the right needle behind the first stitch on the left needle and through the second stitch knit wise. Wrap the yarn around the right needle. 2. Pull the loop through the second stitch behind the first stitch. Be careful not to drop either the first or second stitches off the left needle yet. 3. Knit the first stitch on the left needle and drop both old stitches off the left needle. This creates a two-stitch cable slanting to the left—a left twist.'

[4]Ibid.

[5]See, for instance, A. Duval, 'Seamstress of Transnational Law: How the Court of Arbitration for Sport Weaves the Lex Sportiva', in N. Krisch (ed.), *Entangled Legalities Beyond the State* (2021), 260; T. Zartaloudis, *The Birth of Nomos* (2018), at 38–50.

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Human Rights (ECtHR) jurisprudence.[6] However, in terms of what is protected substantively, the European environmental human right varies depending on how closely it is entangled with the right to family or the right to life.[7]

Before diving deeper into the details of 'norm-knitting' and the norm change of the environmental human right (in Sections 3 to 9), in Section 2, I will provide some background on the theoretical resources my conceptualization draws on.

2. A knitted concept: Entangling theoretical scholarship

Much indebted to Michel Foucault's thought, this article sets out to produce a tool for analysing international legal change – thus, to provide for a conceptualization and not a theory. In Foucault's words: 'Since a theory assumes a prior objectification, it cannot be asserted as a basis for analytical work. But this analytical work cannot proceed without an ongoing conceptualization.'[8] Thus, in order to provide a tool for the analysis of legal change, I keep entangling – or rather knitting together – different strands of legal theory.

Similar to literature on norm-weaving, scholarship on systems of discourse looks much more at the interface between two, more-or-less, stable bodies of discourse.[9] For instance, Gunther Teubner provides a compelling account of how a norm changes when transplanted from one legal system into another.[10] However, in his theoretical frame the home and host system both remain fairly stable and bounded. In contrast, I argue that norm-change resembles much more a knitting process in the sense that the clear sewing together of two knitted norms is a rather rare occasion, while more often, the interaction between needles (actors) continues to produce an ongoing norm-knitting project with various possible forms and colours.

There is a growing literature using metaphors of 'network', 'weaving', and 'entangling' in order to analyse law and legal phenomena – in particular in relation to society.[11] Those accounts vary widely with regard to the question what it is exactly that is entangled, interwoven or networked.[12] Bruno Latour combines the notion of entanglement with his Actor-Network Theory and points in a similar direction as 'norm-knitting' – but the knitted 'net' is of quite a different conceptualization.[13] When describing 'strange entanglements' Latour's concern is 'Jurimorphs': he looks at the way in which a legal trajectory semiotically reconfigures the various entities and agents

[6]1998 Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) 2161 UNTS 447. See, in particular, *Taskin and others v. Turkey*, Judgment of 10 November 2004, [2005] ECtHR, at 99–100, 119.

[7]This will be elaborated in detail in Section 5.

[8]M. Foucault, 'The Subject and Power', (1982) 8 *Critical Inquiry* 777, at 778.

[9]See, e.g., Duval, *supra* note 5; P. F. Diehl et al., 'The Dynamics of International Law: The Interaction of Normative and Operating Systems', (2003) 57 *International Organization* 43; G. Teubner, 'Legal Irritants: Good Faith in British Law or How Unifying Law Ends Up in New Divergences', (1998) 61 *Modern Law Review* 11; J. Gillespie, 'Towards a Discursive Analysis of Legal Transfers into Developing East Asia', (2008) 40 *New York University Journal of International Law & Politics* 657.

[10]See Teubner, ibid., at 11.

[11]M. Goodale, 'Locating Rights, Envisioning Law Between the Global and the Local', in M. Goodale and S. E. Merry (eds.), *The Practice of Human Rights* (2007), 1; P. Dann and J. Eckert, 'Norm Creation beyond the State', in M. C. Foblets et al. (eds.), *The Oxford Handbook of Law and Anthropology* (2020), 809; J. Eckert and L. Knöpfel, 'Legal Responsibility in an Entangled World', (2020) 4 *Journal of Legal Anthropology* 1; N. Krisch, 'Entangled Legalities in the Postnational Space', (2022) 20 *International Journal of Constitutional Law* 476.

[12]For instance, in Krisch's account, legalities of different but diffuse origins are entangled while in Eckert's and Knöpfel's account the world economic order is the source of entanglement and law produces cuts of those entanglements. See Krisch, ibid., at 487; Eckert and Knöpfel, ibid., at 3.

[13]B. Latour, 'The Strange Entanglement of Jurimorphs', in K. McGee (ed.), *Latour and the Passage of Law* (2015), 331. In particular his conceptualization of extra-legal elements cannot be transferred directly to the international level. See ibid., at 337, for instance.

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at stake.[14] Conversely, 'norm-knitting' focuses on the way in which entanglements of norms change (without denying the non-static character of entities and agents). Albeit limiting the extent to which actors can be analysed, the norm-knitting conceptualization sheds light on a great variation in the way actors' collaboration produces linkages, entanglements, and changing norms.

In some ways, conceptualizations of entanglements prove useful in order to explain how the entanglement through knitting takes place.[15] After all, knitting is a structured way to entangle wool in order to produce a fabric. However, instead of situating entanglement between the separation and integration of bodies of norms,[16] the conceptualization of norm-knitting highlights separation, entanglement, and integration with regard to a norm-development that is an ongoing process. Norm-knitting requires continuous interaction of actors, and only comes to a standstill if the actors (needles) stop engaging or run out of resources (threads).

My conceptualization builds on ideas of norm-cycles, and the relevance of recursivity when thinking about international legal change.[17] It is important to highlight that norm-knitting relies on reiterations and entanglements of different phases of norm-construction, but this recursivity is not circular. The image of a life-cycle of a norm is misleading insofar as there is never a return to where the norm started from. Instead, international law continuously develops through interaction;[18] much like two needles have to interact in order to knit.

Scholarship describing international law as a continuous process allows for this idea of law that is not entirely stable and makes legal change an integral part of the picture. However, its proponents often hold on to surprisingly stable – and universal – values underpinning this process.[19] This can, in part, be explainable with different degrees of emphasis on national law,[20] which in my conceptualization is just one of many threads.

In a similar vein, in constructivist theories, the origin of norm-creation or norm-change is often considered in a more or less obscure society that is concerned with harmonious interpretation or norms.[21] Thinking in terms of norm-knitting allows us to investigate diversity in participation and background assumption in far greater detail – although the concern here is less with the analysis of society and more with the way in which international legal change comes about. According to Latour, we should understand constructivism as 'social', not in the sense of the social being as 'an ingredient, a material, a type of fabric'.[22] Instead, 'social' is 'the process through which anything, including matters of fact, has been built'.[23] In other words, the knitting, not the wool, accounts for the social element of norm-knitting. This has crucial implications for the use of 'norm' and 'law': depending on the way in

[14]K. McGee, 'On Devices and Logics of Legal Sense: Toward Socio-technical Legal Analysis', in *Latour and the Passage of Law* (2015), 61, at 64; Latour, ibid.

[15]See Krisch, *supra* note 5.

[16]N. Krisch, 'Framing Entangled Legalities beyond the State', in Krisch, ibid., at 6.

[17]M. Finnemore and K. Sikkink, 'International Norm Dynamics and Political Change', (1998) 52 *International Organization* 887; W. Sandholtz, 'Dynamics of International Norm Change: Rules against Wartime Plunder', (2008) 14 *European Journal of International Relations* 101; T. C. Halliday, 'Recursivity of Global Normmaking: A Sociolegal Agenda', (2009) 5 *Annual Review of Law and Social Science* 263; S. Liu and T. C. Halliday, 'Recursivity in Legal Change: Lawyers and Reforms of China's Criminal Procedure Law', (2009) 34 *Law & Social Inquiry* 911; J. Brunnée and S. J. Toope, 'International Law and the Practice of Legality: Stability and Change', (2018) 49 *Victoria University of Wellington Law Review* 429.

[18]See Brunnée and Toope, ibid., at 437.

[19]H. H. Koh, 'Is There a 'New' New Haven School of International Law?', 32 *Yale Journal of International Law* 559, at 567–8; Brunnée and Toope, ibid., at 435; S. J. Toope and J. Brunnée, *Legitimacy and Legality in International Law: An Interactional Account* (2010), at 26, 42–5.

[20]A. Roberts, *Is International Law International?* (2017), at xviii–xxi.

[21]B. Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (2005), at 8, 10–11; B. Latour, 'The Promises of Constructivism', in D. Idhe and E. Selinger (eds.), *Chasing Technology: Matrix of Materiality* (2003), 27, at 30–3. See, e.g., Brunnée and Toope, *supra* note 17, at 434, 444.

[22]See Latour (2003), ibid., at 28.

[23]Ibid., at 28.

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which a norm is knitted, it may qualify as law or not – not a rule of recognition but collaboration between actors and normative resources determines the degree of legality of a norm.

Thus, in line with Latour, I hold that there cannot be enough emphasis on the importance of the collaborative dimension of constructivism.[24] However, Latour's choice of metaphor – construction –[25] is of limited help for thinking about norm change. Relying on the construction metaphor allows to highlight that the builder and matter are linked,[26] while thinking in terms of knitting emphasizes additionally how different resources, patterns, and colours are elements that provide for much diversity in the way in which linkages come about. Latour highlights the existence of linkages and their impact on the way agents and entities in society 'are'.[27] The concept of norm-knitting allows for going beyond that and to investigate how (some of) those links take form – how legal change is 'knitted'.

The reader may by now notice that my conceptualization can be qualified as entangled in different fields – a knitted concept so to say. The use of a metaphor in order to investigate a legal phenomenon would position this argument in the law and humanities field. The use of a metaphor based on typically female handiwork as opposed to, for instance, construction – incidentally drawing our focus away from international law as crisis – would put it into the feminism box. However, this article aims at contributing to a question that has been approached by international relations scholars and sociologists as well. Thus, depending on the reader's standpoint, the argument may be boxed in the international relations, sociology, law and literature, and feminism fields – or maybe, and that would be my preference, just as an analytical tool for thinking about legal change.

I will develop my conceptualization of norm-knitting through the example of the norm-emergence of an environmental human right.[28] While I hold the conceptualization of norm-knitting to be applicable generally, in order to demonstrate its versatility in detail, I find it useful to exemplify the conceptualization relying on one specific example. The case of the environmental human right is a particularly fitting candidate: while the field of human rights law is already quite fragmented due to strong regional courts, environmental law is even more decentralized – thus, a panoply of actors, interests, and resources become entangled in the emergence of the environmental human right. At the same time, with climate change and pollution being a particularly looming risk with transnational character, and human rights being a very widespread language, the environmental human right is on the agenda of many actors – often with quite divergent interests and values.

Thus, drawing on the example of the environmental human right, I will detail the conceptualization of norm-knitting with view to needles as the actors producing norm change (Section 3), patterns as norm types (Section 4), tension as determining the conciseness of the norm (Section 5), wool as normative resources (Section 6), shape as the norm's form (Section 7), colours as the origins of normative resources (Section 8), and finally I will look at layers of knitted norms (Section 9).

Different elements of the conceptualization can be highlighted at different points of the norm-change. Chronologically and very broadly, the process is divided in three steps: (i) the norm emerging with the Stockholm Declaration providing a link between international environmental law and human rights; (ii) regional human rights knitting within their regional contexts, leading to the divergence of environmental human rights; and (iii) the Special Rapporteur (SR) on Human Rights and the Environment receiving the different regional approaches and attempting to initiate

[24]Ibid., at 29.
[25]Ibid., at 30–2.
[26]Ibid., at 31–2.
[27]See Latour, *supra* note 13, at 333.
[28]The different variations in which human rights and environment are entangled being the very topic of this argument, I will use 'environmental human right' as the term to cover all those variations.

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the construction of a more universal environmental human right – which has then recently been recognized by the United Nations General Assembly (UNGA).[29] Much of this development is driven by social movements continually pushing for the norm-development – in other words being the second, necessary needle.

3. Needles – actors

Perceiving of actors as needles highlights the co-operative dimension of legal change. One can start the knitting project with one needle, but to construct anything, more than one needle is necessary: at least two actors need to collaborate and build upon each other's work (see figures 1 and 2).

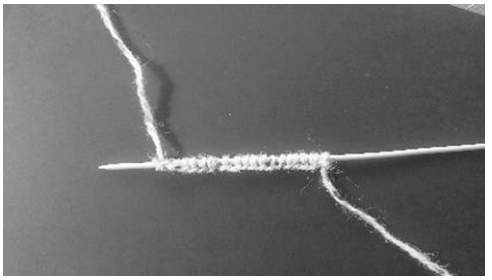

Figure 1. Casting on stitches[30]

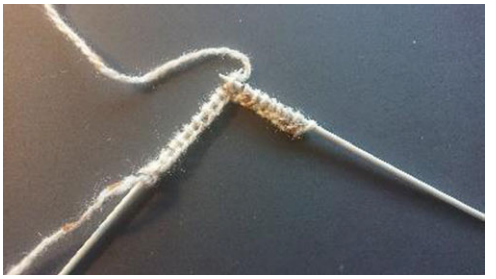

Figure 2. Knitting onto the first row[31]

In this perspective, it is the continuous collaboration, much more than crisis that drives the change in international law.[32] I understand this collaboration as an analogy to Michel Foucault's elaboration on the function of commentary, where he identifies the reciprocal necessity of original and commentary for each other.[33] A code is only a code when actors rely on it in order to direct behaviour. By relying on that code, actors do not exactly copy/paste the code, but comment on it. They construct a new stitch. Depending on the process, other stitches will be lined up at the side – commenting on the original text, or stitches will take up that commentary – that will lead to different knitting projects or norm constructions.

In fact, in domestic law, the two central needles (actors) would be quite clear: parliament and court. Depending on continental or Anglo-Saxon understanding, the roles may be inversed but they regularly are the basis or centre of legal change.[34] Conversely, in international law, the first two needles are not as clear. Depending on the issue area there may not even be a court, or the courts' competence may have a less central role.[35] Furthermore, the collaboration of states is seldom really comparable to the functioning of a parliament.[36]

[29]For a detailed chronological account of the legal change see D. Endres, 'Case Study 17: The Human Right to a "Good" Environment', in P. Martinez Esponda et al. (eds.), *The Paths of International Law. Case Studies* (2023), 552.

[30]See also Haffenden and Patmore, *supra* note 3, at 92.

[31]See also E. Knight, *Ultimate Knit Stitch Bible – 750 Knit, Purl, Cable, Lace and Colour Stitches* (2015), at 30.

[32]In that way this argument builds directly on Charlesworth's point that the discipline of international law focuses too much on crises as drivers of change. H. Charlesworth, 'International Law: A Discipline of Crisis', (2002) 65 *Modern Law Review* 377.

[33]M. Foucault, *L'ordre du discours – leçon inaugural au Collège de France prononcé le 2 décembre 1970* (1971), at 56–8; D. Hook, 'The 'Disorder of Discourse'', (2001) 97 *Theoria: A Journal of Social and Political Theory* 41, at 47–8.

[34]J. S. Martinez, 'Horizontal Structuring', in M. Rosenfeld and A. Sajó (eds.), *The Oxford Handbook on Comparative Constitutional Law* (2012), 548.

[35]P. M. Dupuy, *Droit International Public* (2018), at 620–4, 651–83.

[36]Ibid., at 199–206; M. N. Shaw, *International Law* (2017), at 928–30. In Shaw's contribution, the UNGA is regularly described as the UN's parliamentary body (at 928), although its decisions cannot bind the member states (at 929), i.e., its capacity to induce legal change is fundamentally different to a national parliament.

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If we look at the environmental human right, the Stockholm Declaration on Human Environment of 1972, in its first principle, endorses for the first time an explicit link between human rights and environmental law.[37] This norm is the result of actors, (i) setting up the Stockholm conference, (ii) actors appearing at the Stockholm conference, then (iii) one actor proposing a norm – here the United States of America a human right to a clean environment, (iv) actors supporting the proposition (here Non-Governmental Organizations (NGOs)) and opposing that proposition (here most states), and then (v) those actors finding a compromise formulation to be included in the final document.[38] In this classical description of how the environmental human right emerged, all states are assumed to be collaborating somewhat in the creation of this norm. However, it has also been argued that the Stockholm conference is actually the starting point for a divide between states of Global North and Global South.[39] In that sense, the lack of consideration for Global South countries led the Global North countries to create a norm that is much less fitting for the nations of the Global South.[40]

While the Stockholm Conference as the starting point for the norm emergence of an environmental human right is a classical description of international law-making, it is not necessarily the way in which a norm has to be started. Another way may be for an international organization to set out some guiding principles that are increasingly used as a reference point by other actors. If no other actor were to reference either those guiding principles or that conference outcome, we would not have much of a norm. For instance, the World Charter of Nature (1982) is a pretty document, that has, however, barely been taken up by other actors.[41] Put forward by the World Commission on Environment and Development Expert Legal Group,[42] a proposition for a 'fundamental right to an environment adequate for the health and well-being of all human beings' appeared on the UN agenda in 1987.[43] Its impact is, however, hard to pin down. Apart from the UNGA endorsing these draft articles, they seem not to have gained much attention.[44] In other words, these may be nicely cast on stitches that, however, have barely been the basis for a first row. It is here where it becomes interesting: seeing how different actors take up a norm and knit along.

4. Pattern – norm types

Knitting patterns vary widely. For the conceptualization of norm-knitting, this corresponds firstly to the different types of norms as in individual or group right or minority right. Secondly, it also corresponds to the different types of norms in substantial terms – in the example of the

[37]UNGA, United Nations Conference on the Human Environment (Stockholm Declaration), UN Doc. A/RES/2994 (15 December 1972), principle 1.

[38]See, for an overview, E. Brown Weiss, 'The Contribution of International Environmental Law to International Law: Past Achievements and Future Expectation – The Evolution of International Environmental Law', (2011) 54 *Japanese Yearbook of International Law* 1, at 4–10.

[39]K. Mickelson, 'The Stockholm Conference and the Creation of the South–North Divide in International Environmental Law and Policy', in S. Alam et al. (eds.), *International Environmental Law and the Global South* (2015), 109; Kotzé, in the same volume, disagrees however: K. L. J. Kotzé, 'Human Rights, the Environment, and the Global South', in ibid., at 172–3.

[40]The shape of the norm will be discussed in detail in Section 7.

[41]UNGA Res. 37/7, UN Doc. A/RES/37/7 (29 October 1982). See S. Atapattu, 'The Right to a Healthy Life or the Right to Die Polluted? The Emergence of a Human Right to a Healthy Environment Under International Law', (2002) 16 *Tulane Environmental Law Journal* 65, at 75–6.

[42]This Commission (UNWCED) was an independent body whose mandate included re-examining critical environmental and development issues and formulation of proposals to deal with them; proposing new international co-operation and raising awareness among individuals, organizations, and governments. UNWCED (1987) Report of the World Commission on Environment and Development – Our Common Future, Ann. 1.

[43]Expert Group on Environmental Law of the World Commission on Environment and Development, Environmental Protection and Sustainable Development: Legal Principles and Recommendations, 25; UNGA Res. 42/187, UN Doc. A/42/427 (11 December 1987).

[44]Atapattu, *supra* note 41, at 76.

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environmental human right, most prominently the right to life and the right to privacy. In terms of norm-knitting, if two actors (needles) neatly agree upon the pattern to be knitted, the resulting product may be uniform and dense, able to cover all situations it is intended for, and to leave holes for what it is intended not to cover (see figure 3).

Figure 3. Voluntary holes in a cardigan[45]

Figure 4. Involuntary hole due to a knitting mistake[46]

In the context of the environmental human right this is seldom the case. The neatest, nicely knitted pattern might be in the procedural branch of the right in the European context, where the concept (pattern) of 'prior informed consent' has been transplanted quite directly from the Aarhus Convention into the discourse around the European Convention on Human Rights (ECHR).[47] However, this remains quite the exception, because it is not that easy for several actors to knit in exactly the same pattern. The constructed law may not fit perfectly all situations it is intended for, since the different actors may have had different patterns in their head (see figure 4).

It is here where this conceptualization's divergence from other accounts on legal change may be most explicit. Jutta Brunnée and Stephen Toope, for instance, posit that criteria of legality constitute necessary common background-knowledge for practices of legality, and that 'stable practices of legality are required to maintain specific norms as law and that lack of congruence can erode the law or, by partaking in the practices that produce new normative understandings, shift the law'.[48] In contrast, I argue that divergence in background-knowledge, and divergence in background-assumptions about the type of the norm, about the pattern in which the norm should be further developed, leads to erosion only in extreme cases. In most cases, the knitted norm becomes a mix of different 'patterns', and less legible for the legal harmony and coherence desiring lawyer. In other words, in general, incongruent practices of legality do not lead to an erosion of the norm but to inconsistencies and messiness in the patterns of the knitted norm.

This becomes evident for the example of the environmental human right, where we have, first and foremost, diverging ideas about the right concept itself: Latin-American and African conceptualizations have a group right dimension, while European and United Nations bodies rely on the perspective of individual rights. Furthermore, there is also considerable divergence on which substantial human right provides the basis for the introduction of environmental considerations. Thus, in the following subsections, I will flesh out how different conceptualizations of rights serve as knitting patterns for environmental human rights, and how those different patterns lead to divergence in the conceptualizations of the environmental human right. I will start with contrasting the more

[45]Knitted by Christl Endres, photo by Hermann Endres. See also Knight, *supra* note 31, at 468, for an example of extended openwork stitches producing a more complex version of voluntary holes.

[46]See also 'Unwanted Holes in Knitting – Five Reasons Why They Appear, How to Avoid Them and How to Fix Them, Mistake 2', *10 Rows A Day*, available at www.10rowsaday.com/unwanted-holes; 'Mysterious Holes and Extra Stitches', *Knit with Haenni*, 29 October 2019, available at knitwithhenni.com/2019/10/29/mysterious-holes/.

[47]See Aarhus Convention, *supra* note 6; see, in particular, *Taskin and others v. Turkey*, *supra* note 6, at 99–100, 119.

[48]See Brunnée and Toope, *supra* note 17, at 438.

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abstract conceptualizations of (i) group rights; (ii) individual rights, and (iii) minority rights and I will conclude the section with (iv) a contrast of the substantial norms on which the environmental human right is based – the right to water, the right to life or the right to privacy – and lay out how those differences lead to environmental human rights being knitted in disparate patterns.

4.1 Group rights

The Inter-American Court of Human Rights (IACtHR) has reviewed a considerable number of cases with concerns related to the protection of the environment. The court found the basis for the introduction of such concerns in the right to property (Article 21 Inter-American Convention on Human Rights (IACHR)), in particular when linked to the rights of indigenous communities. Most importantly, the court held in 2001, in the *Awas Tigni* v. *Nicaragua* case, that logging concessions awarded by Nicaragua to private investors in an area claimed by a tribal community constituted a violation of the petitioners' property rights.[49] The Court's considerations inserted a group right pattern into the conceptualization of property rights as protected by the IACHR.

More succinctly, the African Charter on Humans' and Peoples Rights (1981) provides in Article 24 for a specific group dimension regarding environmental concerns:

> All people shall have the right to a general satisfactory environment favourable to their development ... all peoples shall freely dispose of their wealth and natural resources. This right be exercised in the exclusive interest of the people. In no case shall a people be deprived of it.[50]

In 1996, two NGOs, the Social and Economic Rights Action Centre (based in Nigeria) and the Centre for Economic and Social Rights (based in New York) lodged a complaint regarding the violation of a number of human rights of the Ogoni people, as a result of environmental degradation and health problems caused by activities of the Nigerian National Petroleum Company and the Shell Petroleum Development Corporation. Six years later, the African Commission issued its landmark decision in the *Ogoniland* case, considering the environmental devastation caused by the oil extraction industry in Nigeria, holding that Articles 16 (right to health) and 24 (right to satisfactory environment) of the Banjul Charter 'recognise the importance of a clean and safe environment that is closely linked to economic and social rights in so far as the environment affects the quality of life and safety of the individual'.[51] In a way, the Convention's group right pattern took in a stitch from the individual right pattern.

4.2 Individual rights

In the jurisprudence of the European Court of Human Rights it is the right to life (Article 2 ECHR) and the right to private and family life (Article 8 ECHR) that provide for the link to environmental concerns – as individual rights. The specific facts of *Lopez Ostra* v. *Spain* (1994) carved out the surprising candidate Article 8 ECHR as an entry door for environmental concerns: A high concentration of tanneries, all belonging to one corporation, were malfunctioning and continued to pollute the environment to a degree that the health of residents was possibly endangered.[52] The court held that:

[49] *Mayagna (Sumo) Awas Tingni Community v. Nicaragua, Mayagna (Sumo) Awas Tingni Community v. Nicaragua*, Judgment of 31 August 2001, IACHR Series C No 79.

[50] 1981 African Charter on Humans' and Peoples Rights (Banjul Charter), OAU Doc. CAB/LEG/67/3 rev. 5, 21 I.L.M. 58, Art. 24.

[51] *Social and Economic Rights Action Centre v. Nigeria*, African Commission on Peoples and Human Rights, Case No. ACHPRH/Comm/A044/1, OAU Doc. CAB/LEG/67/3rev5 (13–27 October 2001), at 51.

[52] *Lopez Ostra v. Spain*, Judgment of 9 December 1994, [1994] ECtHR (Ser. A303-C).

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> regard must be had to the fair balance that has to be struck between the competing interests of the individual and of the community as a whole, and in any case the State enjoys a certain margin of appreciation. Furthermore, even in relation to the positive obligations flowing from the first paragraph of Article 8 [ECHR], in striking the required balance the aims mentioned in the second paragraph may be of a certain relevance.[53]

Ideally, the perspective of all three continents would be somehow reflected in the UN bodies' norm-knitting, but it is hard to pin that down (up until the most recent developments). Rather, there are different knitting projects, and the UN's, unsurprisingly, fits the European and North American continents best.

The Covenants (International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic Social and Cultural Rights (ICESCR)) do not provide for a specific human right linked to environmental concerns. However, from the 1990s onwards, the Covenants' Committees interpreted several norms in 'a green light'. In particular, in relation to minority protections, some jurisprudence linking human rights and environmental concerns was developed. Drawing on different existing norms, the ICCPR committee's jurisprudence on the one side and the ICESCR committee's General Comment 15 (2002), on the other side[54] endow the emerging environmental right with features of all the 'generations' of human rights. More precisely, minority rights, the right to water, the right to life, and the right to privacy have been taken up (to different degrees) for the knitting of an international environmental human right.

4.3 Minority rights

With respect to minority rights, in 1989, the UN Sub-Commission on Prevention of Discrimination and Protection of Minorities named Fatma Zohra Ksentini as Special Rapporteur on Human Rights and the Environment.[55] In her final report, in 1994, she finds a right to a healthy and flourishing environment evolving, and provides a Draft Declaration of Principles on Human Rights and the Environment.[56] The impact of this report is not exactly clear. The facts of the key case of the ICCPR Committee on the *Länsmann* case would have lent themselves perfectly to taking the SR's findings into account. While the final report was published (only) two months before the *Länsmann* decision, the SR's interim reports would have been publicly available for the decision-makers.[57] Thus, through the lens of

[53]Ibid., at 51 (emphasis added).

[54]UN Committee on Economic, Social and Cultural Rights, *General Comment no. 15* (2002), The right to water (Arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights), UN Doc. E/C.12/2002/11 (20 January 2003). This General Comment recognizes a state obligation to ensure adequate and accessible supply of water for drinking, sanitation and nutrition, based on Arts. 11 and 12 of the ICESCR.

[55]UN Sub-Commission on Prevention of Discrimination and Protection of Minorities, Decision 1989/108 on Human Rights and the Environment (31 August 1989), in Rapporteur Ribot Hatano, Report of the Sub-Commission on Prevention of Discrimination and Protection of Minorities on its 41st session, Geneva, 7 August – 1 September 1989, UN Doc. E/CN.4/Sub.2/1989/58, E/CN.4/1990/2 (13 November 1989), at 71.

[56]UN ECOSOC, Commission on Human Rights, Sub-Commission on Prevention of Discrimination and Protection of Minorities, Review of Further Developments in Fields with which the Sub-Commission has be concerned, Human Rights and the Environment, Final Report prepared by Special Rapporteur Fatma Zohra Ksentini), UN Doc. E/CN.4/Sub.2/1994/9 (6 July 1994).

[57]UN ECOSOC, Commission on Human Rights, Sub-Commission on Prevention of Discrimination and Protection of Minorities, Review, Human Rights and the Environment: Preliminary Report/prepared by Fatma Zohra Ksentini, Special Rapporteur, pursuant to Sub-Commission resolutions 1990/7 and 1990/27 UN Doc. E/CN.4/Sub.2/1991/8 (2 August 1991); Human Rights and the Environment: Progress Report/prepared by Fatma Zohra Ksentini, Special Rapporteur, in accordance with Sub-Commission resolution 1991/24 UN Doc. E/CN.4/Sub.2/1992/7 (2 July 1992); Human Rights and the Environment: Progress Report/prepared by Fatma Zohra Ksentini, Special Rapporteur, in accordance with Sub-Commission Resolution 1991/24 UN Doc. E/CN.4/Sub.2/1992/7/Add.1 (14 August 1992); Human

norm-knitting, one can see that not taking-up the report made the ongoing knitting project a different one, and decreased the relevance of the SR's findings for the creation of an environmental human right.

While the ICCPR Committee included some environmental considerations into its rulings in the *EHP* v. *Canada* case (1982),[58] and the *Ominayak and Lubicon Lake Band* v. *Canada* case (1990),[59] the landmark case is *Länsmann and Others* v. *Finland* (1994), finding no violation of Article 27 ICCPR because Finland had taken adequate measures to minimize the impact of stone quarrying activities on reindeer herding in the traditional lands of the Sami people.[60] It is noteworthy that – contrary to the regional developments in the Americas and Africa – the committee continues to rely on the perspective of 'individual rights' of minority members. In line with the *Länsmann* case, in *Apriana Mahuika and Others* v. *New Zealand* (2000), the ICCPR committee balanced indigenous rights to fishing resources with governmental efforts to conserve these resources, and held that government actions neither interfered with the rights of the Maori people to self-determination under Article 1 ICCPR nor were in violation of Article 27 ICCPR.[61] In short, the norm-pattern of individual rights, predominant in the countries of the Global North, is considered to be the universal one.

Thus, in the perspective of the image of a knitting pattern, it is interesting to note how the pattern of indigenous rights is crucial, and interpretation pushes the boundaries of the right towards the protection of environment – but not in the direction of a group right dimension as we find in the African or Inter-American development. In other words, the pattern fits well for the European context, but the needs of other geographical regions may fall more easily through the holes. Given that the Inter-American and the African conceptualizations diverge considerably from the European and UN ones, it remains questionable to what extent that pattern fits for all parts of the world in the same way.

4.4 Right to water, right to life or right to privacy

The finding of diverse knitting patterns can be further nuanced by zooming in on specific rights that structure the pattern according to which the norm is knitted. Those specific rights have increasingly diversified the knitting projects for environmental human rights.

From the 2000s on, the right to water and the right to life were interpreted in a 'green light'. Similar attempts regarding the right to privacy have not been successful so far.[62] As for the right to water, the ICESCR Committee recognizes in its General Comment 15 (2002) a state obligation to ensure adequate and accessible supply of water for drinking, sanitation and nutrition, based on

Rights and the Environment: 2nd Progress Report/prepared by Fatma Zohra Ksentini, Special Rapporteur) UN Doc. E/CN.4/Sub.2/1993/7(26 July 1993).

[58]ICCPR Committee, *EHP (on behalf of Port Hope Environmental Group and Present and future citizens of Port Hope, Ontario, Canada) v. Canada*, Admissibility, Communication No 67/1980, UN Doc. CCPR/C/17/D/67/1980 (27 October 1982). Assessing the question whether the storage of radioactive waste threatens the right to life of present and future generations.

[59]ICCPR Committee, *Chief Bernard Ominayak and Lubicon Lake Band v. Canada*, (26 March 1990) CCPR/C/38/D/167/1984, UN Human Rights Committee (HRC). Regarding indigenous rights and indigenous communities' access to natural resources, the committee assessed whether the provincial government of Alberta had deprived the complainants of their means of subsistence and their right of self-determination by granting leases for oil and gas exploration.

[60]ICCPR Committee, *Länsman and others v. Finland*, Merits, Communication No 511/1992, UN Doc. CCPR/C/52/D/511/1992 (26 October 1994).

[61]ICCPR Committee, *Mahuika and 18 other individuals belonging to the Maori People of New Zealand v. New Zealand*, Merits, Communication No 547/1993, UN Doc. CCPR/C/70/D/547/1993, (27 October 2000).

[62]See *Brun v. France*, Admissibility, Communication No. 1453/2006, ICCPR Committee, UN Doc. CCPR/C/88/D/1453/2006 (18 October 2006).

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Articles 11 and 12 of the ICESCR.[63] In 2010, through Resolution 64/292, the UNGA explicitly recognized the human right to water and sanitation and acknowledged that clean drinking water and sanitation are essential to the realization of all human rights.[64]

Regarding the right to life, in 1996, the ICCPR committee dismissed a complaint about French nuclear tests in the South Pacific, alleged to interfere, *inter alia*, with the right to life.[65] However, in its General Comment 36 on the right to life (2019) the ICCPR Committee emphasizes environmental degradation as both an enabler of threats and a direct threat to the right to life.[66] Most recently, in *Portillo Cáceres* v. *Paraguay* (2019) and *Teitiota* v. *New Zealand* (2020) the ICCPR Committee explicitly recognized the connection between the right to life and environmental protection.[67]

The right to privacy was the basis for considerations of an environmental human right in *Brun* v. *France* (2006), when the ICCPR considered the question whether the use of genetically modified crops violates the right of the complainants to live in a healthy environment. In addition to the right to life, the complaint was based on the argument that Brun had acted out of necessity to protect the environment and health from the impacts of the open-field trials of genetically modified organisms, and that the legitimacy of his actions should have been recognized by local courts. Their failure to do so was considered to have breached his rights of privacy under Article 17 ICCPR. However, the court found no violation of either right.[68] Unlike in the ECHR context, this norm pattern was not seen fit for the construction of an environmental human right. In other words, while the broad pattern of individualistic human rights conceptualizations also determines the UN's norm-knitting, divergence occurs on the level of the specific norms serving as knitting patterns.

Indicative of the regional and international processes of norm change being different knitting projects is also the varying denomination of the human right to a 'clean', 'healthy', 'sustainable', … right to environment. In the European context, the environmental human right is predominantly linked to the qualifier 'healthy',[69] while the Arab Charter on Human Rights codifies a right to a safe environment,[70] and the appointment of the UN Special Rapporteur on Human Rights and the Environment has been directly linked to the ensuring of environmental sustainability.[71] It is, however, important to keep in mind that the knitting on the domestic level does not necessarily follow the regional pattern. For instance, the constitution of Mali provides for

[63]UN Committee on Economic, Social and Cultural Rights, General Comment No. 15 (2002), The Right to Water (Arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights), UN Doc. E/C.12/2002/11 (20 January 2003).

[64]See, for a detailed analysis of the norm emergence of the right to water, N. Reiners, 'Despite or Because of Contestation? How Water Became a Human Right', (2021) 43 *Human Rights Quarterly* 329.

[65]*Mrs. Vaihere Bordes and Mr. John Temeharo v. France*, Communication No. 645/1995, UN ICCPR Committee, UN Doc. CCPR/C/57/D/645/1995 (22 July 1996).

[66]UN HRC, General Comment No. 36, Article 6: Right to Live, UN Doc. CCPR/C/GC/36 (3 September 2019).

[67]ICCPR Committee, Views adopted by the Committee under Article 5 (4) of the Optional Protocol, concerning communication No. 2751/2016, UN Doc. CCPR/C/126/D/2751/2016 (20 September 2019); *Ioane Teitiota v. New Zealand*, UN Doc. CCPR/C/127/D/2728/2016 (7 January 2020). For an overview and analysis see G. Le Moli, 'The Human Rights Committee, Environmental Protection and the Right to Life', (2020) 69 *International and Comparative Law Quarterly* 735.

[68]*Brun v. France*, Admissibility, Communication No. 1453/2006, ICCPR Committee, UN Doc. CCPR/C/88/D/1453/2006 (18 October 2006).

[69]See, for instance, Council of Europe, Parliamentary Assembly, *Recommendation on Drafting an AP on an Additonal Protocol to the European Convention on Human Rights Concerning the Right to a Healthy Environment*, Rec. 1885, 30 September 2009, available at pace.coe.int/files/17777/pdf; Council of Europe, Environnement et droits de l'homme: vers un droit à un environnement sain?, 20 February 2020, available at coe.int/fr/web/portal/-/environment-and-human-rights-towards-a-right-to-a-healthy-environment-; Déclaration finale par la Présidence géorgienne du Comité des Ministres, Protection de l'environnement et droits de l'homme, Conférence de haut niveau organisée par la Présidence géorgienne du Comité des Ministres Strasbourg, 27 February 2020, available at coe.int/fr/web/human-rights-rule-of-law/final-declaration-by-the-presidency-of-the-committee-of-ministers.

[70]Council of the League of Arab States, Arab Charter on Human Rights, Res. 5437 (15 September 1994), Art. 38.

[71]UN HRC, Resolution 19/10 Human Rights and the Environment, UN Doc. A/HRC/RES/19/10 (12 April 2012).

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a right to a healthy environment, while the constitution of Malawi links the environmental human right to the right to development.[72]

5. Tension – loose and tight norms

It is not easy to knit at the same pace – with the correct tension of the wool. Sometimes, the wool is held too tightly, and the net becomes too dense; sometimes the wool is held too loosely, and the fabric will have holes. Indeed, there are techniques for open weave that resemble more nets than fabrics – it is here where the difference of this conceptualization to that of networks becomes most evident: it is not the direct relation between the actors, but the way in which they engage, collaborate, and entangle the resources that determines the norm created.

Regarding the knitting metaphor, it is important to highlight that wide stitches can be unintentional or intentional (see figures 5 and 6).

Figure 5. Intentionally loose and tight stitches[73]

Figure 6. Too loose and too tight stitches due to knitting mistake[74]

In the knitting of human rights more generally, intentionally loose stitches are quite a regular occurrence. For instance, states are reluctant to address the responsibility of multinationals, in particular with respect to direct human rights obligations. This reluctance leads to a loosely knitted norm when it comes to the applicability of human rights obligations to those non-state actors. This is particularly striking with the right to environment where most of the big environmental disasters have been caused by multinational corporations. For instance, the Bhopal disaster or the Deepwater Horizon incidents were followed by decade-long lawsuits that did not exactly result in the affirmation of an environmental human right.[75]

[72]Constitution of the Republic of Mali 1992 (promulgated by Decree No 92-073 on 25 February 1992), Art. 15, states 'Every person has the right to a healthy environment. The protection and defense of the environment and the promotion of the quality of life are a duty for all and the state.' Constitution of the Republic of Malawi 1994 (enacted by the Republic of Malawi (Constitution) Act, 1994 (No 20 of 1994)), Section 13(d), states 'The State shall actively promote the welfare and development of the people of Malawi by progressively adopting and implementing policies and legislation aimed at achieving the following goals ... To manage the environment responsibly in order to – (i) prevent the degradation of the environment; (ii) provide a healthy living and working environment for the people of Malawi; (iii) accord full recognition to the rights of future generations by means of environmental protection and sustainable development of natural resources; and (iv) conserve and enhance the biological diversity of Malawi.'

[73]Photo by baza178. See also Knight, *supra* note 31, at 471, for a more complex example of intentionally tight and loose stitches, the ridged eyelet stitch.

[74]See also 'Knitting Tension', *Purls & Pixels*, 10 December 2014, available at purlsandpixels.com/knitting-tension.

[75]See, for instance, Amnesty International, 'Clouds of Injustice: Bhopal Disaster 20 years on', 2004; S. Deva, 'Bhopal: The Saga Continues 31 years on', in J. Nolan and D. Baumann-Pauly (eds.), *Business and Human Rights – From Principles to Practice* (2016), 49; T. J. Schoenbaum, 'Liability for Damages in Oil Spill Accidents: Evaluating the USA and International Law Regimes in the Light of Deepwater Horizon', (2012) 24 *Journal of Environmental Law* 395.

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In the discourse criticizing the environmental human right, the vagueness of the norm is at the forefront of arguments.[76] Günther Handl, for instance, has repeatedly argued that any environmental human right lacks the degree of certainty of the normative status necessary, and hence it can only be considered as a human right in the stage of possible emergence.[77]

The ECtHR of course, has been criticized for the opposite, too: for being too limited in its reliance on the right to family as the basis for an environmental human right, and for then minimalizing the environmental dimension in the balancing of interests.[78] In other words, the ECtHR has been accused of knitting its environmental human rights norm too tightly.

On the international level, the UN Human Rights Committee's General Comment 36 provides for a particularly loose and thereby general construction:

> The duty to protect life also implies that State parties should take appropriate measures to address the general conditions in society that may give rise to direct threats to life or prevent individuals from enjoying their right to life with dignity. These general conditions may include ... degradation of the environment.[79]

'General conditions' in itself can cover everything and nothing – and that 'may' include the degradation of environment. So, a specific circumstance can fall through holes already as not being considered a 'general condition' and if that is not the case, the conditional form allows for a second hole, for a certain activity not to be covered by the norm creation of the UN Human Rights Committee.

6. Wool – resources

Resources for legal change vary widely from conventions over formal judgments and informal statements to individual, local activism. Not every resource is available for every actor. If we understand the actors as needles, and resources as wool, the crucial observation is that one needs the appropriate needle for the available wool or vice versa (see figures 7 and 8). A special rapporteur trying to pronounce an ECHR judgment may be a funny sight but will have quite a different effect on norm change than the ECtHR pronouncing that judgment.

In order to visualize the different resources, we can think of them as different materials: international law is generally knitted with different kinds of wool, each material representing one resource for change.[80] Roughly, there can be (i) law-making, mostly nationally, in particular when states insert an environmental fundamental right into their constitution; but similarly (ii) internationally through convention-making; (iii) international organizations' action, for instance the production of guidelines, handbooks or reports; (iv) international courts' action, i.e., judgments and decisions; and (v) academics' or non-governmental organizations' activity, like the creation of analyses, reports or targeted activism.

Depending on who and what is involved, the final product may be patchy or one material may be predominant. With regard to the environmental human right we can see a knitting together of

[76]See, for an overview of the critique, D. R. Boyd, 'Catalyst for Change', in J. H. Knox and R. Pejan (eds.), *The Human Right to a Healthy Environment* (2018), 17, at 25.

[77]G. Handl, 'Human Rights and Protection of the Environment: A Mildly Revisionist View', in C. Trinidade (ed.), *Human Rights and Environmental Protection* (1992), 117; G. Handl, 'The Human Right to a Clean Environment and Rights of Nature: Between Advocacy and Reality', in von Arnauld, von der Decken and Susi, *supra* note 1, at 139–40, 145; see also L. E. Rodriguez-Rivera, 'Is the Human Right to Environment Recognized under International Law? It Depends on the Source', (2001) 12 *Colorado Journal of International Environmental Law and Policy* 1, at 10.

[78]See, however, K. Morrow, 'The ECHR, Environment-Based Human Rights Claims and the Search for Standards', in D. L. Shelton et al. (eds.), *Environmental Rights: The Development of Standards* (2019), 41, at 56.

[79]UN HRC, General Comment 36 on Article 6 Right to Life, UN Doc. CCPR/C/GC/36 (2 September 2019), at 26.

[80]See Krisch and Yildiz, *supra* note 1.

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Figure 7. Small needle and thin thread[81]

Figure 8. Contrast big needle versus small needle[82]

the right to family and the environmental concerns highly dominated by the ECHR.[83] Interestingly, years before the ECtHR came up with its construction of an environmental human right, the Indian Supreme Court had followed the same road, when reading the right to a clean environment into Article 21 of the Indian Constitution which establishes that 'no one shall be deprived of his life or personal liberty except according to procedure established by law'.[84] If the ECtHR was aware of norm developments in that part of the world, it does not state it.[85] In other words, that piece of wool, the extra-European national law, was not used for the ECtHR's norm knitting.

If we look at the resources used in the Inter-American legal system, the norm is knitted with a higher diversity of material: Already with the San Salvador Protocol, the Court, from early on, had a solid resource. Then, an advisory opinion provided a good first pattern according to which subsequent court decisions could knit along. Furthermore, the jurisprudence on indigenous rights allowed for the introduction of environmental concerns with a group dimension.

As pointed out in Section 4.1, the IACtHR has produced an interesting body of case law addressing the protection of the environment, including a group right pattern.[86] In that process, the IACtHR drew on an interesting combination of resources (wool).

In 2017, on the request of Colombia, the IACtHR issued an Advisory Opinion on the environment and human rights.[87] Colombia had presented the request in relation to environmental concerns regarding the construction of major infrastructure projects in the Caribbean. The request was limited to concerns in the context of the 1984 Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention). However, the Court exercised its discretion and reformulated the request

[81]Althea Crome, Handicraft Café, available at www.flickr.com/photos/handicraftcafe/3028587370. See for more information on microknitting: www.altheacrome.com/.

[82]See also C. Suggit, 'Meet the Woman Who's Made the Worlds Largest Knitting Needles', *Guinness World Records*, 19 September 2018, available at www.guinnessworldrecords.com/news/2018/9/video-meet-the-woman-whos-made-the-worlds-largest-knitting-needles-541067/.

[83]U. Beyerlin and T. Marauhn, *International Environmental Law* (2011), at 399; F. Francioni, 'International Human Rights in an Environmental Horizon', (2010) 21 *European Journal of International Law* 41, at 48–51.

[84]Supreme Court of India, *Francis Coralie Mullin v. The Administrator, Union Territory of Delhi*, AIR 1981 SC 746, at 749–750; Supreme Court of India, *Subash Kumar v. State of Bihar*, AI 1991 SC 420 (9 January 1991); see also P. Leelakrishnan, *Law and Environment* (1992), at 144–52; Kotzé, *supra* note 39.

[85]This is, of course, no surprise, given that the ECtHR's perspective is famously quite insular.

[86]1969 American Convention on Human Rights 'Pact of San Jose', 1144 UNTS 123; *Mayagna (Sumo) Awas Tingni Community v. Nicaragua, Mayagna (Sumo) Awas Tingni Community v Nicaragua*, Judgment of 31 August 2001, IACtHR Series C No 79.

[87]IACtHR, *Advisory Opinion OC-23/17 of November 15*, 2017 Requested by the Republic of Colombia.

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to cover the 'general environmental obligations arising out of the obligations to respect and ensure human rights', 'and in relation to the rights to life and personal integrity in particular'.[88] Thus, drawing on resources – wool – beyond the Convention, the IACtHR distilled and detailed sets of obligations from the right to life and personal integrity in the context of environmental protection. It distinguished obligations of prevention, obligations of co-operation, the precautionary principle, and procedural obligations.

More recently, in February 2020, the IACtHR ruled in *Indigenous Communities Members of the Lhaka Honhat Association* v. *Argentina* – for the first time in a contentious case – on the rights to a healthy environment, indigenous community property, cultural identity, food, and water based on Article 26 of the ACHR (progressive development of economic, social, and cultural rights). The Court found Argentina in violation of these rights of the Lhaka Honhat indigenous groups and ordered measures including actions for access to adequate food and water, for the recovery of forest resources, and to maintain indigenous culture.[89]

This demonstrates also how shape, needle, and wool ought to fit: Since 1988, the Protocol of San Salvador provides, in Article 11, that 'everyone shall have the right to live in a healthy environment and to have access to basic public services'.[90] However, the only way to ensure implementation of this right is via annual reports.[91] For this reason, most norm development took place later – based on the Convention, via the individual complaint mechanism.[92] Yet, Article 11 of the San Salvador Protocol served as a transplanted pattern – as an element for the jurisprudential development of the environmental human right.[93]

In sum, the Inter-American human rights system has been particularly active in the construction of an environmental human right. Note the role of indigenous rights in the creation of the right to a healthy environment as a particularity of this pathway: since the 1970s, with the modern indigenous rights movement gaining momentum, especially drawing on the International Labour Organization (ILO) Convention of 1989 and various UN related activities, the Inter-American human rights system proved to be highly responsive to concerns of indigenous peoples.[94] Its focus was thereby on the central demand of the indigenous human rights movement: the protection of indigenous peoples' rights over traditional lands and natural resources.[95]

In contrast to the regional human rights courts' jurisprudence, the Sustainable Development Goals (SDGs) are of a quite different 'thread' quality. As the name already indicates, the 'goals' are of inherently progressive character, a quality that would categorize a human right as only (possibly) emerging. And yet, entangling the two types of resources benefits the norm-knitting envisaged through the SDGs as much as the environmental human rights knitting project.[96] On the one side, the SDGs 'seek to realize the human rights of all' and claim to be 'grounded in the Universal Declaration of Human Rights [and] international human rights treaties'.[97] On the

[88]Ibid., at 35, 38.

[89]*Indigenous communities of the lhaka honhat (our land) Association v. Argentina*, Judgment of 6 February 2020, IACtHR Series C No. 400.

[90]1988 Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Protocol of San Salvador), 16 November 1999, A-52.

[91]M. Fitzmaurice, 'A Human Right to a Clean Environment: A Reappraisal', in G. Ziccardi Capaldo (ed.), *The Global Community Yearbook of International Law and Jurisprudence 2015* (2016), 219, at 222.

[92]Ibid., at 223.

[93]See, for instance, *Indigenous communities of the lhaka honhat (our land) Association v. Argentina*, Judgment of 6 February 2020, IACtHR Series C No. 400, at 205.

[94]See Beyerlin and Marauhn, *supra* note 83, at 396–8.

[95]S. J. Anaya and R. A. Williams Jr., 'The Protection of Indigenous Peoples' Rights over Lands and Natural Resources under the Inter-American Human Rights System', (2001) 14 *Harvard Human Rights Journal* 33, at 35–6.

[96]L. M. Collins, 'Sustainable Development Goals and Human Rights: Challenges and Opportunities', in D. French and L. J. Kotzé (eds.), *Sustainable Development Goals* (2018), 66, at 70–2.

[97]UNGA, Transforming Our World: the 2030 Agenda for Sustainable Development, UN Doc. A/RES/70/1 (21 October 2015), at 10.

other side, SDG targets may provide for precision in the interpretation of an environmental human right.[98]

For instance, Target 14.5 is very specific in requiring: 'By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information.'[99] While this brings precision into the broad human rights formulations, at the same time, the 2022 SDG Progress Report cannot confirm that the target has been reached.[100] Such 'breach' is of different character than the disrespect of a right – and arguably this goes beyond the distinction between protect, respect and remedy elements versus the frame of progressive realization of a target. In contrast to individual constitutional rights, which are designed to protect a certain scope around individual humans (or exceptionally groups), targets or goals are of a different quality in the sense that they define a point towards which a society or a group of society should strive (which in this case is also not environmental protection *per se* but sustainable development).[101] Thus, the SDGs are another resource for knitting the norm of an environmental human right.

So, from the perspective of norm-knitting, we can see how the entanglement of qualitatively different threads may produce a more stable product. Much like merino wool, a wool with fantastic breathing qualities, cooling in warm and warming in cold temperatures,[102] but also tearing quite quickly, by itself – the SDGs are quite comfortable: signing up to them feels good, is adaptable to different circumstances, but if an actual incident occurs, the SDGs by themselves may be of limited use. Their fabric tears quite quickly. However, much as merino wool combined with more stable wool is marginally less comfortable, but also does not tear that quickly,[103] the SDGs entangled in the human rights discourse on the environment make the environmental human right a much more reliable one. Intermingling different kinds of resources (wool) increases the norm's stability.

As a consequence, qualifying a norm as law or not becomes much more a question of degree, process, and circumstance than traditional, positivist theories assume. The question is not only which actors engage in which kind of process, it is also what kind of resources are combined and how they are selected and used.

Advocates of an environmental human right have been criticized for redefining the evidence of what constitutes 'acceptance and recognition' of the right.[104] This assumes the definite and fixed categories that constitute 'threads' to knit human rights. When Handl criticizes Rodriguez-Rivera for not taking the 'will of the people' seriously by citing soft law instruments,[105] he disregards that the traditional resources of 'the will of the people' were possibly even more inconsiderate of large parts of the world's population. In other words, the quality of resources or threads must not be considered stable over time. However, Handl is correct in criticizing the kind of resources that are considered by advocates of an environmental human right. The whole SR process does not engage with any shortcoming of any of the sources. For instance, when enumerating the existence

[98]See Collins, *supra* note 96.

[99]UN Department of Economic and Social Affairs, Sustainable Developments, Transforming Our World: the 2030 Agenda for Sustainable Development (2015), available at sdgs.un.org/2030agenda.

[100]UN, The Sustainable Development Goals Report 2022, available at unstats.un.org/sdgs/report/2022/, at 54.

[101]See along similar lines, but regarding land rights, N. Shawki, 'Norms and Normative Change in World Politics: An Analysis of Land Rights and the Sustainable Development Goals', (2016) 28 *Global Change, Peace & Security* 249, at 255–6.

[102]D. Rama Rao and V. B. Gupta, 'Thermal Characteristics of Wool Fibers', (1992) 31 *Journal of Macromolecular Science* 149.

[103]See K. Cubley, 'Merino Blends: Taking Advantage of Fiber Characteristics', *Interweave*, 14 February 2019, available at www.interweave.com/article/knitting/merino-blends-fiber-characteristics/.

[104]See, for instance, Handl (2020), *supra* note 77.

[105]Ibid.

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of national environmental human rights, the actual implementation or non-implementation of often very broadly defined norms is not considered.

This is, indeed, a common strategy in norm-making that is often side-lined. Sometimes, norm-change becomes possible because the conflicting resources are not taken up. Such practice becomes particularly obvious when we do not look at fragments of international law or politics as distinct fields or systems but consider actors (needles) engaging in diverse knitting projects – sometimes within one field and sometimes drawing on resources from different fields.

7. Shape – norm's form

The process is, of course, further complicated when more needles are introduced, even if maybe not necessary, or if there are fewer needles available than needed. Then, for instance, one cannot knit a sock (since the usual way to knit socks implicates more than two needles),[106] but one must knit a blanket which can also cover feet but will never work as well as socks (see figures 9 and 10). It is indeed easier to knit small squares and sew them together than to engage in knitting techniques for shapes other than squares.[107]

Figure 9. Sock knitting[108]

Figure 10. Knitted blanket[109]

So, it may not be possible to actually make the convention intended because too many actors are unwilling or un-interested or unable to participate. In that case, a guidance or report endorsed by the actor most interested in the legal change may be issued. For instance, in his reports, the Special Rapporteur on Human Rights and Environment knits together all sorts of sources that advance support for a human right to a healthy environment and does not take up the resources that contest such right. Consequently, the resulting norm remains disconnected from those 'realities'.

This knitting enterprise is actually quite artistic and deserves a closer look: the SR proceeds in three steps:

1. Mapping report: provides for the available wool;
2. Framework principles: entangles the existing resources;
3. Best practices: provides a pattern that could be used in order to start the 'universal' knitting project.

[106]Photo by Elena Grishina. See also Chau, *supra* note 106, at 77.
[107]Photo by Barry Eastwood. See also T. Malcolm, *Vogue Knitting – Beginner Basics on the Go* (2003), at 91–2.
[108]L. Chau, *Teach Yourself Visually Sock Knitting* (2008), at 46.
[109]See Haffenden and Patmore, *supra* note 3, at 126–7.

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In 2021, this process resulted in the United Nations General Assembly (UNGA) taking that project up and starting such a 'universal knitting project' when recognizing an environmental human right in its Resolution 48.[110]

7.1 Mapping report: Identifying the available wool

In 2014, the SR, John Knox, presented a mapping report to the HRC, identifying three branches of environmental human rights:[111]

1. *Procedural obligations* of states to assess environmental impacts on human rights and to make environmental information public, to facilitate participation in decision-making, and to provide access to remedies for harm;
2. *Substantive obligations* of states to adopt legal and institutional frameworks which protect against environmental harm that interferes with the enjoyment of human rights, including harm caused by private actors;
3. *Non-discrimination* and other obligations of states relating to the protection of members of groups in vulnerable situations, including women, children and indigenous peoples.

Those branches were the available resources or, in our metaphor, wool.[112] Interestingly, the SR draws on statements from very diverse sources (from universal periodic review statements relating to other SRs' reports to Conference of the Parties' decisions), and 'encourages States to accept these statements as evidence of actual or emerging international law'.[113] Regarding the substantive element, the report finds that: 'States have obligations to protect against environmental harm that interferes with the enjoyment of human rights',[114] and proceeds to hold that. Although the contours of the specific environmental obligations are still evolving, some of their principal characteristics have become clear. In particular, states have obligations:

(a) to adopt and implement legal frameworks to protect against environmental harm that may infringe on enjoyment of human rights; and
(b) to regulate private actors to protect against such environmental harm.[115]

This document evidences the coming together of diverse regional strands: the Environmental Impact Assessment for instance travelled from the Espoo Convention to the ECHR jurisprudence, while group rights and in particular indigenous rights gained much momentum in the Inter-American human rights system. In the development of the following two key documents of the SR, those strands seem to become a little more intermingled.

7.2 Framework Principles: Entangling existing resources

With the Report of 2018, the SR John Knox, proposed 16 framework principles in order 'to facilitate implementation of the human rights obligations relating to the enjoyment of a safe,

[110]UNGA, Human Rights Council, The Human Right to a Safe, Clean, Healthy and Sustainable Environment, UN Doc. A/HRC/48/L.23/Rev.1 (5 October 2021), at 1–2.
[111]See J. H. Knox, Mapping Report, UN Doc. A/HRC/25/53 (30 December 2013).
[112]Wool as the normative resource has been elaborated in more detail in Section 6.
[113]See Knox, *supra* note 111, at 27.
[114]Ibid., at 44.
[115]Ibid., at 46.

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clean, healthy and sustainable environment'.[116] While the principles barely reference existing case law, they are supposed to be based on the mapping report. The report claims to look 'forward to the next steps in the evolving relationship between human rights and the environment',[117] but at the same time emphasizes that the framework principles 'do not create new obligations'.[118] In other words, existing resources are said to be entangled in order to create the basis for a new norm.

7.3 Best practices: Providing for universal knitting pattern

In 2015, John Knox already presented a report with more than 100 good practices to the HRC,[119] and published a searchable data-base.[120] In 2019, without referencing the practice report of his predecessor, SR David Boyd presented a report with best practices to the HRC. This document is highlighted on the SR website as a key document, along with the framework principles of John Knox.[121] In order to establish best practices, SR David Boyd relies extensively on state practice establishing authority. Based on a survey conducted in co-operation with the Vance Center for International Justice,[122] the SR identifies 156 out of 193 UN member states legally committed to respecting some sort of environmental human right.[123]

Thus, similar to the first SR's reports that were not taken up in the *Länsmann* case, a viable source is not explicitly taken up. However, we have several needles implicated: the SRs and the Vance Centre for International Justice. In contrast, the states are not actors (needles) but provide for the previous stitches on which the Best Practices can build. Conversely, if we consider states as needles, and see customary international law as being created from the bottom up, some of the constitutional law developments on the national level can be considered to have crystallized into customary international law.[124]

The SRs' document provides procedural and substantive elements that are recommended in order to respect the human right to a healthy environment. Procedural elements are (i) access to environmental information; (ii) public participation in environmental decision-making; and (iii) access to justice.[125] Substantive elements concern: (i) clean air; (ii) safe climate; (iii) healthy and sustainably produced food; (iv) access to safe water and adequate sanitation; (v) non-toxic environments in which to live, work and play; and (vi) healthy ecosystems and biodiversity.[126] This is a list of many quite separate normative developments.

Much like international environmental law (IEL) more generally, the procedural branch is very clear and concise while the substantive elements lend themselves easily to criticism of being rather aspirational, programmatic and that the addressed issues are already covered by other, codified rights.[127] This may however summarize quite well the state of norm-emergence of an

[116]J. H. Knox, Framework Principles, UN Doc. A/HRC/37/59 (24 January 2018), at 7.

[117]Ibid., at 1.

[118]Ibid., at 8.

[119]J. H. Knox, Compilation of Good Practices, UN Doc. A/HRC/28/61 (3 February 2015).

[120]Environmental Rights Database, available at www.environmentalrightsdatabase.org/.

[121]See the website of the Special Rapporteur on Human Rights and the Environment, available at ohchr.org/en/Issues/environment/SRenvironment/Pages/SRenvironmentIndex.aspx.

[122]D. R. Boyd, Right to a Healthy Environment: Good Practices, UN Doc. A/HRC/43/53 (30 December 2019), at 10.

[123]Ibid., at 13.

[124]See R. M. Bratspies, 'Reasoning Up', in Knox and Pejan, *supra* note 76, at 122. For a general account of bottom up norm creation see Dann and Eckert, *supra* note 11, at 813–15.

[125]See Boyd, *supra* note 122, at 14–37.

[126]Ibid., at 38–112.

[127]See, for instance, G. Handl, 'The Human Right to a Clean Environment and Rights of Nature: Between Advocacy and Reality', in von Arnauld, von der Decken and Susi, *supra* note 1, at 146–7; D. R. Boyd, 'Catalyst for Change', in Knox and Pejan, *supra* note 76, at 25.

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environmental human right: while the concise procedural elements from IEL have been integrated into the human rights system with considerable success, the substantive scope of the right remains fairly malleable and contextual.

As the final document is basically authored by only one actor here, what we get is more a tying together of different knitted pieces, in the hope that the next round of engagement will knit it all together. In the UN-perspective/vocabulary, the idea would be to provide a starting point for the knitting of one more universal environmental HR.

7.4 Having a clean, healthy, and sustainable environment as a human right

Arguably, the Human Rights Council, in 2021, recognizing a safe, clean, healthy, and sustainable environment as a human right, attempted to start this universal norm-knitting project.[128] In the resolution, the Human Rights Council builds particularly on the foundation of:

> ... the rights to life, to the enjoyment of the highest attainable standard of physical and mental health, to an adequate standard of living, to adequate food, to housing, to safe drinking water and sanitation and to participation in cultural life, for present and future generations.[129]

In that sense, the resolution claims to be building on all the previously used patterns that linked human rights and the protection of environment.

What makes this knitting project particularly interesting is that the mapping report does not engage much with the question of why so many states have a national proclamation of an environmental human right. In fact, in 1970, Yugoslavia was the only state codifying such a right – and the Stockholm and Rio declarations provided for resources that were then knitted into the national level.[130] In other words, the national sphere used the international sphere as an argument for change, and the international sphere used the national sphere as an argument for change: actors knitted a Möbius strip – a non-orientable surface.[131]

8. Colours – origins

Wool is not only different in material; it is also different in colour. This image can capture where the resources for the norm knitting come from. We can, for instance, think of the human rights dimensions as purple and the environment dimensions as green threads. Depending on the pattern and knitting capacity of the actors/needles, the pattern of the norm, the entanglement of the colours, will be a different one (see figures 11 and 12).

[128]UNGA, Human Rights Council, The Human Right to a Safe, Clean, Healthy and Sustainable Environment, UN Doc. A/HRC/48/L.23/Rev.1 (5 October 2021), at 1–2.

[129]Ibid.

[130]See Kotzé, *supra* note 39.

[131]See Haffenden and Patmore, *supra* note 3, at 187; see also D. Isaksen and A. Petrofsky, *Möbius Knitting*, in BRIDGES Mathematical Connections in Art, Music, and Science, (1999), 67. Here the conceptualization of norm-knitting emphasizes most clearly how recursivity is crucial for legal change. See also T. Halliday, 'Recursivity of Global Normmaking', (2009) 5(1) *Annual Review of Law and Social Science* 263.

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Figure 11. Multicolour pattern[132]

Figure 12. Entrelac knitting[133]

In the example of the environmental human right, one can find the increasing use of environmental law language in human rights bodies' writing: 'prior informed consent', 'environmental impact assessment', 'biodiversity' or 'framework-approach' are elements that prove to be substantial in the knitting of the human rights norm on environment.

A particularity of the ECtHR is its explicit introduction of 'prior informed consent', borrowed from such environmental treaties as the Aarhus Convention (1998) and the Espoo Convention (1991).[134] Interestingly, the ECtHR in *Taskin and others* v. *Turkey* referred to the principles enshrined in the Aarhus Convention, although at that time, Turkey was not party to said Convention.[135] In fact, the court uses constitutional provisions,[136] environmental law,[137] administrative law, environmental impact assessment, and the law of obligations in order to construct an environmental dimension of Article 8 ECHR.[138] Pulled out of their original context, and entangled with the right to family, those elements are a fundamental resource for the knitting of a multicoloured norm.

This kind of norm change has been conceptualized as 'norm transplant' by Teubner.[139] Within the logic of systems theory, he demonstrates how the introduction of norms from one system into another system produces in the host system irritation that may result in a legal change of system and norm.[140] However, to think of international human rights law or international environmental law as distinct legal systems does not catch the ongoing and dynamic process. As Rodriguez Rivera

[132]Knitting by Christl Endres, photo by Hermann Endres. See, for a complex stitch entangling different colours, the example of four-colour tweet knitting: E. Von Zandt, *The Ultimate Sourcebook of Knitting and Crotchet Stitches – Over 900 Great Stitches Detailed for Needlecrafters of Every Level* (2003), at 84.

[133]Photo by Taste it. See also Haffenden and Patmore, *supra* note 3, at 174–5.

[134]See Aarhus Convention, *supra* note 6; 1991 Espoo Convention on Environmental Impact Assessment in a Transboundary Context, 1989 UNTS 309; see, in particular, *Taskin and others v. Turkey*, *supra* note 6.

[135]J. E. Viñuales and S. Chuffart, 'From the Other Shore: Economic, Social and Cultural Rights from an International Environmental Law Perspective', in E. Reidel et al. (eds.), *Contemporary Challenges in the Realization of Economic, Social and Cultural Right* (2014), 286, at 306.

[136]*Taskin and others v. Turkey*, *supra* note 6, at 90: referring to Art. 56 of the Turkish Constitution which provides for a 'right to live in a healthy, balanced environment'.

[137]Ibid., at 91, 92: referring to the Environment Act.

[138]See Morrow, *supra* note 78.

[139]See Teubner, *supra* note 9.

[140]Ibid.

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aptly points out, the question whether there is an environmental human right or not may be answered differently, depending on the sources and perspectives one relies on.[141] This multitude of actors and their participation in the legal change is difficult to capture with system theory's images of core and periphery. In contrast, thinking of legal change in terms of knitting provides an insightful picture: threads of different origins are continuously entangled and thereby construct a norm in between human rights and environmental law.

On the international level, we can see a similar entanglement of human rights and environmental law language in the SR's 2018 Report where John Knox proposed 16 framework principles in order 'to facilitate implementation of the human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment'.[142] In this document it is particularly striking how IEL terminology dominates those principles. Already the form is drawing on a practice well established in environmental law: to brush out the broad principles first and then regulate the details in annexes or protocols.[143] In substance, out of the 16 principles, five explicitly integrate IEL language into the human rights discourse. Principles 7 and 9 require public access to environmental information, and public participation in decision-making as particularly set forward in the Aarhus Convention;[144] Principle 8 demands an environmental impact assessment as set out in the Espoo Convention;[145] Principles 11 and 12 look at environmental standard setting;[146] and Principle 13 is concerned with transboundary harm, a principle that travelled from the 1941 *Trail Smelter Case*,[147] to the Rio Declaration in Principle 2,[148] to Article 3 of the ILC Draft Articles on Prevention of Transboundary Harm from Hazardous Activities,[149] to the 2001 Espoo Convention on Environmental Impact Assessment in a Transboundary Context.[150] Furthermore, Principle 15 takes on the indigenous rights dimension, and Principle 16 takes the sustainable development perspective on board.

Similar to the ECtHR's knitting, the SR also intertwines the environmental law's impact assessment with a human right dimension. For instance, Framework Principle 8 states:

> To avoid undertaking or authorizing actions with environmental impacts that interfere with the full enjoyment of human rights, States should require the prior assessment of the possible environmental impacts of proposed projects and policies, including their potential effects on the enjoyment of human rights.[151]

In this paragraph, the basis, the first line of normative stitches, is environmental law, environmental impact assessment being a fundamental element of international environmental

[141]See Rodriguez-Rivera, *supra* note 77.

[142]See Knox, *supra* note 116, at 7.

[143]See Beyerlin and Marauhn, *supra* note 83, at 269–73.

[144]See Aarhus Convention, *supra* note 6; see, for the broader concept of environmental democracy, Beyerlin and Marauhn, *supra* note 83, at 234–9; J. Ebbesson, Public Participation in Environmental Matters', in *Max Planck Encyclopedias of International Law* (2009), 351.

[145]See Espoo Convention, *supra* note 134; for the concept of Environmental Impact Assessment in general see Beyerlin and Marauhn, ibid., at 230–4.

[146]Beyerlin and Marauhn, ibid., at 302–8; K. H. Engel, 'State Environmental Standard-Setting: Is There a Race and Is It to the Bottom', (1997) 48 *Hastings Law Journal* 271; S. Goulden et al., 'Implications of Standards in Setting Environmental Policy', (2019) 98 *Environmental Science & Policy* 39; K. Harrison, 'Ideas and Environmental Standard-Setting: A Comparative Study of Regulation of the Pulp and Paper Industry', (2002) 15 *Governance* 65.

[147]*Trail Smelter Case (USA v. Canada)*, 16 April 1938 and 11 March 1941, UN Reports of International Arbitral Awards, Vol. III, 1905–1982.

[148]UNGA, 1992 Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26 (vol. I) (12 August 1992).

[149]ILC Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities 2001, Official Records of the General Assembly, Fifty-sixth Session, Supplement No. 10, UN Doc. A/56/10 (2001).

[150]See Beyerlin and Marauhn, *supra* note 83, at 39–46.

[151]See Knox, *supra* note 116, at 11.

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law. Into that, a thread of human rights is knitted: 'environmental impact' is expanded to explicitly include 'potential effects on the enjoyment of human rights'.[152] The process identified here in the specific context is embedded in a macro-level process. As Tarek F Massarani, Margo Tatgenhorst Drakos, and Joanna Pajkowska point out, the (emerging) Human Rights Impact Assessment builds on and draws from the Environmental Impact Assessment's normative foundation.[153]

While I do think that in this example we have an increasing entanglement of those two colours, one can also think of what has been called green-washing by others: instead of substantial greening of existing human rights norms, the existing knitting project is re-coloured (see figure 13). Consequently, the shape and pattern would have been determined by actors who did not have environmental concerns in mind when knitting their own projects.

This would be closer to the perspective of criticism of the environmental human right as being too anthropocentric, for instance. Such criticism highlights that human rights put the human at

Figure 13. Different colours through batik instead of knitting[154]

the centre – by necessity, since they are rights of humans. Opposing such focus on the human, those critics argue in favour of a right of nature.[155] In their perspective then, a norm knitted for humans is re-coloured in order to look like a norm for nature, and therefore maybe pretty but utterly unfitting.

9. Layers

Finally, the knitting projects do not need to be necessarily tied together as one piece. A foot will be warm despite a hole in the sock if covered by a blanket, for instance. So, different projects of norm-processes may be layered one onto the other (see figure 14). If the regional human right is a very loosely knitted blanket, that may not be overly problematic when the national rights system provides for warm socks.

[152]Ibid., at 11.

[153]T. F. Massarani et al., 'Extracting Corporate Responsibilty: Towards a Human Rights Impact Assessment', (2007) 40 *Cornell International Law Journal* 135.

[154]Photo by Victoria Yurkova. See also: H. Kundiun, *DIY Tie-Dye: Step-by-Step Instructions for Creating Cool, Colorful Clothing and Accessories - 35 Easy Projects for Everyone!* (2021), at 97.

[155]See for a summary of the argument in favour of a right of environment: Rodriguez-Rivera, *supra* note 77, at 13–15.

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Figure 14. Layers of knitted patches[156]

In that sense, a very loosely knitted norm on human rights and environment offers the possibility for different continuations: either the net is knitted more tightly in a second round, or another project, more enrooted in international environmental law or domestic law, for instance, adds another layer to the norm. The UNGA recognizing an environmental human right constitutes such a new round of making the net more stable: building on the SRs, the UNGA Resolution recognizes '[t]he human right to a safe, clean, healthy and sustainable environment'.[157] Through this endorsement, the UNGA layers an additional thread onto the knitting project of the SR, giving it more stability. However, as no substantial precisions are introduced, the net does not become more concise or tight through this step.

Distinguishing layers of norms from a patchwork approach then also nuances the positionality of needles (actors). In order to provide complementary cover, norms do not need to be stitched together. However, one needle stitching together many existing knitting projects that used to be piled onto the same situation without co-ordination, with relatively little work produce a fairly efficient patchwork blanket. To actually create a specific norm that fits, for instance, like a sock, this stitching together is a far less promising solution. Then, an imperfect sock, covered by a blanket, i.e., layers instead of stitching together, may provide better protection.

What this metaphor highlights is how not only vertically stacking and entangling layers on top of each other is an important element of norm-change, but that also and most importantly, horizontally, those layers remain themselves implicated in continuous norm change. In fact, entanglement between layers may be less important for the way in which a norm changes and the way in which the layer is entangled or knitted may be crucial.

In terms of the environmental human right, this means that a broad norm – a patchwork blanket – produced on the UN level can work well as complementary cover, but clear and concise norm formulations (socks and gloves for instance) remain the better protection for specific situations in which human rights and environment are threatened.

10. Conclusion

Thinking about legal change in terms of norm knitting provides for new nuances of norm change with respect to legal pluralism: we can have diverse resources for norm-making entangled or several norm-making processes layered on top of each other. In any case, intention and co-ordination of the actors (needles) is fundamental for the outcome of the norm-change.

Unsurprisingly, the constructed norms are seldom perfect, and even more seldom do they entirely achieve what they were intended for. For instance, the UN bodies may be quite successful in knitting a new human right to a healthy environment. The blanket may, however, be knit so

[156]'Beginners Guide', *Knit with Henni*, 6 June 2020, available at www.knitwithhenni.com/category/beginners-guide/.

[157]UNGA, Res. 48, The Human Right to a Safe, Clean, Healthy and Sustainable Environment, UN Doc. A/HRC/48/L.23/Rev.1 (5 October 2021).

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widely that the actual human rights issues will never be caught in what is more a net than a blanket. Nevertheless, the process of change continues, and actors continuously keep knitting on the project of international law.

Thinking through the concept of norm-knitting sheds new light on the analysis of change in international law: firstly, it puts the dynamic of stability and change into a new perspective. Continuously entangling new resources with existing norms provides as much stability as it provides change. In other words, thinking of legal change in terms of norm knitting provides for the idea of a norm continuously evolving and yet being somewhat stable. For instance, the UNGA Resolution 49 recognizing an environmental human right strengthens and thereby changes the knitting project of the SR.

Secondly, by necessity, the knitting actors are quite close to the latest developments – and may perceive the success of change differently than those that ought to be covered by the knitted norm – but may not have been much involved in the discussions on pattern and form. This explains then the extreme variation in the evaluation of the successful materialization of an environmental human right: arguments vary from assertions that it clearly exists to assertions that it clearly does not exist: someone who needs warm hands may not appreciate the knitted sock as much as someone with cold feet. In other words, depending on where actors consider the need for an environmental human right, they may assess the knitting project as more or less successful.

Thirdly, the image of norm-knitting takes our focus away from international law as a law of crisis and draws our attention to the collaborative element of (international) law-making. Indeed, looking at different patterns and the loose or tight knitting highlights the everyday practice of international law as the major resource for incrementally changing international law.

Fourthly, thinking of different resources for the legal change provides possibilities for nuanced analysis of plurality of implicated normative resources. Instead of being constrained to images of hard and soft law, different normative qualities can be accounted for.

Fifthly, thinking of the norm's form and possibilities of layering different projects allows for a delicate picture of 'successful' norm change in terms of the norm's form and its function. If the protection of a specific kind of situation from harm is the aim, a broad and loosely knitted norm is not too helpful. That same loose and broad norm can, however, be a good second layer on top of more precise but maybe incomplete norms. Ultimately, this broad norm's use as secondary layer then begs the question of whether more discussion on the pattern, or more precision in the knitting could have made it a useful single layer.

In a way, this article itself is somewhat knitted: While the example of the environmental human right proved useful to flesh out crucial features of the conceptualization of norm-knitting, thinking about the environmental human right in terms of norm knitting pulls elements into the light that usually lurk in the shadows. At the same time, using the example of the environmental human right does not limit the conceptualization of norm knitting to the field of human rights or environment law.

Indeed, norm knitting can be a tool to analyse any legal change in general. It may highlight how the human right to religious freedom is basically only knitted based on the pattern of Western enlightenment, forcing actors (needles) from around the world to restrain themselves to tiny twists to some knots or to refuse that knitting project altogether and to start their own. Regarding investment arbitration, norm-knitting as an analytical tool may reveal a fabric quite tightly knit in terms of the pattern if considered as the focus on the protection of property of foreign investors, but at the same time, we can see how the norm knitting produces very diffuse shapes as the bilateral investment treaties and tribunals are very much constrained in terms of geographical and topical relevance. Looking at norm knitting in international humanitarian law reveals how divergent norms are produced as humanitarian and military (epistemic) communities rely on different resources – for instance, humanitarian lawyers preferring human rights law and

academic resources, while military lawyers prefer military manuals, which ultimately will be forced to remain entangled, even without agreement on the pattern. At the same time, if the pattern of military necessity dominated, military lawyers will qualify as successful legal change what humanitarian lawyers will qualify as failure.[158]

In sum, the concept of 'norm knitting' provides an innovative analytical tool that makes it possible to demonstrate the variety in 'successful' change of a given norm in international law in response to specific challenges the actors face.

[158]See on this D. Endres, 'Whose International Law is Changing', in Krisch and Yildiz, *supra* note 1.

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