

Response-abilities of care in more-than-human worlds

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This article rethinks the doctrines of responsibility and protection in international environmental law in light of notions of response-abilities and care in more-than-human worlds. Inspired by the intersecting strands of new materialist, relational and posthuman literatures, and informed by critiques of them by decolonial, indigenous and black scholars, the analysis works with onto-epistemologies of becoming that posit an inseparability of being, knowing and acting with(in) the Anthropocene/s. Through the notion of response-abilities of care, the article reconfigures how the destructive and the restorative relations between humans and nonhumans could be construed beyond a narrow understanding of state sovereignty, territorial jurisdiction, liberal human-centred notions of individuated agency and the strict causal nexus between victim and perpetrator. The analysis concludes by reflecting on how law could remain open to emergent, unfolding and contingent potentialities of entangled human-nonhuman relations, and questions law's capacity to recognize and respond to the agency and alterity of nonhumans. These configurations exceed the schema of responsibility and protection that organizes even international environmental law's most progressive theories and practices, such as granting 'rights to nature'.

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1 INTRODUCTION

Living in the 'Anthropocene' implies living in times when 'many conditions and processes on Earth are profoundly altered by human impact'.¹ Particular human activities have become

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¹ The formalization of the concept by the Anthropocene Working Group (AWG) still needs to be approved by the International Commission on Stratigraphy. AWG's findings, <<http://quaternary.stratigraphy.org/working-groups/anthropocene/>> accessed 7 November 2020.

a geophysical force capable of disrupting the relative ecological stability that has sustained life on Earth. Anthropogenic disruptions like global warming, and the current COVID-19 pandemic, are daunting examples of disastrous events caused by particular modes of living and inhabiting more-than-human worlds. In these unfolding human-caused disasters, CO₂ and SARS-CoV-2 act as powerful nonhuman agents, which, in turn, are disrupting the relative stability of political and legal orders. The entangled human-nonhuman agency at play in these intertwined phenomena displaces modernist views of human subjects separated from nonhuman objects. The reception of the ‘Anthropocene’ thesis in the humanities has therefore been described as a major ‘event’ that destabilizes modernist cuts between humans and nonhumans at work in social theory.²

Despite its wide deployment, the ‘Anthropocene’ is a controversial term, the definition, starting date and causes of which remain largely contested.³ What is at stake in those critiques is the problematic reassertion of universality through an *Anthropos*-cene that re-establishes a new form of ‘planetary humanism’ that risks erasing histories of violence and dispossession of the wretched of the modern world and disavows the multiple worlds inhabited with(in) ‘Anthropocenes’.⁴ This article therefore uses the semiotic construct of ‘Anthropocene/s’ to capture both the singularity implied by the ‘planetary condition’ associated with the ‘Anthropocene’ and the plurality of multiple ways of inhabiting, experiencing and engaging with(in) more-than-human worlds that unfold in ‘Anthropocenes’.⁵

² Cf. C Hamilton, C Bonneuil and F Gemenne (eds), *The Anthropocene and the Global Environmental Crisis: Rethinking Modernity in a New Epoch* (Routledge, 2015).

³ See eg N Clark and B Szerszynski, *Planetary Social Thought: The Anthropocene Challenge to the Social Sciences* (Polity, 2020); K Yusoff, *A Billion Black Anthropocenes or None* (The University of Minnesota Press, 2019); SL Lewis and MA Maslin, *The Human Planet: How We Created the Anthropocene* (Yale University Press, 2018); H Davis and Z Todd, ‘On the Importance of a Date, or, Decolonizing the Anthropocene’ (2017) 16:4 *An International Journal for Critical Geographies* 761.

⁴ For a compelling critique of the erasure of structurally dispossessed, dehumanized and desubjectivized indigenous, black, creole and other ‘inhumans’ associated with the ‘geologically white’ Anthropocene, see Yusoff supra (n 3); and Clark and Szerszynski supra (n 3) (especially Chapter 5: ‘Inhuman Modernity, Earthly Violence’) at 100–22.

⁵ My approach thereby aligns with, eg, J Amoureux and V Reddy, ‘Multiple Anthropocenes: Pluralizing Space–Time as a Response to “the Anthropocene”’ (2021) *Globalizations*. Clark and Szerszynski also convincingly

Against this backdrop, the article interrogates what it would mean for law and legal theory to recognize the entangled human-nonhuman agency that the Anthropocene/s foregrounds. My argument aligns with those strands of critique that think with and against the Anthropocene to revisit the presuppositions of Western modernity – a modernity grounded in an image of ‘nature’ as an object amenable to ‘human’ mastery and control.⁶ Both the human subject and the natural world produced by Western modern taxonomies are here questioned and suspended. To this end, the article engages with intersecting strands of new materialist and posthumanist literatures that view the human as relationally entangled with nonhumans,⁷ thereby giving rise to post- or in-human approaches to subjectivity in more-than-human worlds.⁸ While post- or in-human theories have come of age and transitioned from the critical

define ‘planetary social thought’ as a double interrogation regarding a ‘planetary multiplicity’ on the one hand – or how the Earth, through its dynamic processes, is continuously nudged into transformation by human and nonhuman forces – and ‘earthly multitudes’ on the other hand – or how the Earth is inhabited differently, with distinct modes of engaging, experiencing, knowing and imagining it. See Clark and Szerszynski *supra* (n 3). The plural use of ‘Anthropocenes’ also enables us to account for the different ‘-cenes’ that have been suggested, including the Plantationocene, the Capitalocene or the Chthulucene. See, eg, D Haraway, ‘Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin’ (2015) 6 *Environmental Humanities* 159.

⁶ On the modern nature/culture divide and the need to overcome it, see P Descola, *Par delà nature et culture* (Gallimard, 2005); B Latour, *We Have Never Been Modern* (Harvard University Press, 1993). The deployment of modern ‘mastery’ reached beyond the so-called ‘natural’ environment and had the ‘body’ and the ‘other’ as equally important sites of operation. See J Singh, *Unthinking Mastery: Dehumanism and Decolonial Entanglements* (Duke University Press, 2018).

⁷ The literature I draw upon focuses on process-orientated onto-epistemologies of becoming, where the human subject is relationally embedded in the materiality of the world. This perspective is shared among posthumanist approaches, new materialisms, actor-network theory, speculative realism and object-oriented ontology. See R Braidotti, *Posthuman Knowledge* (Polity, 2019); G Harman, *Object-Oriented Ontology: A New Theory of Everything* (Pelican Books, 2018); G Harman, *Towards Speculative Realism: Essays and Lectures* (Zero Books, 2010); D Coole and S Frost (eds), *New Materialisms: Ontology, Agency, and Politics* (Duke University Press, 2010); B Latour, *Reassembling the Social: An Introduction to Actor Network-Theory* (Oxford University Press, 2005).

⁸ Yusoff uses the category of the ‘inhuman’ to overcome the exclusively white subjectivity of the ‘human’ in modern thought and open up the possibility of a redescription of relations between multiple subjectivities. In her words: ‘[t]he Anthropocene is a project initiated and executed through anti-Blackness and inhuman subjective modes, and it cannot have any resolution through individuated liberal modes of subjectivity and subjugation’, Yusoff *supra* (n 3) at 63.

margins to become widely established across the humanities, they have tended to overlook, ignore or neglect antecedent decolonial critiques. As Zakiyyah Iman Jackson remarked, '[i]t has largely gone unnoticed by posthumanists that their queries into ontology often find their homologous (even anticipatory) appearance in decolonial philosophies that confront slavery and colonialism's inextricability from the Enlightenment humanism they are trying to displace'.⁹ The turn(s) to materiality, relationality and agency discussed throughout this article align, therefore, with decolonial and indigenous authors who view nonhuman agency in non-modernist terms,¹⁰ and with critical Black scholars who call for 'poetics of relation' as processes of being, moving and being moved with(in) a 'chaotic' world.¹¹ In doing so, the article acknowledges the critiques of new materialist and posthumanist ontologies voiced by scholars working within the fields of Native/Indigenous and Black studies, and thinks with their politics of refusal.¹²

⁹ ZI Jackson, 'Review: Animal: New Directions in the Theorization of Race and Posthumanism' (2013) 39:3 *Feminist Studies* 681. See also ZI Jackson, *Becoming Human: Matter and Meaning in an Antiracist World* (New York University Press, 2020).

¹⁰ See J Rosiek, J Snyder and S Pratt, 'The New Materialisms and Indigenous Theories of Non-Human Agency: Making the Case for Respectful Anti-Colonial Engagement' (2020) 26:3–4 *Qualitative Inquiry* 331; ID Vargas Roncancio, 'Conjuring Sentient Beings and Relations in the Law: Rights of Nature and a Comparative Praxis of Legal Cosmologies in Latin America', in K Anker et al. (eds), *From Environmental Law to Ecological Law* (Routledge, 2020) 119. I refrain, however, from speaking 'for indigenous peoples' or describing '[their] ecological imagination', in line with the call raised by some indigenous scholars. See Z Todd, 'Indigenizing the Anthropocene' in H Davis and E Turpin (eds), *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environments and Epistemologies* (Open Humanities Press, 2015) 244, at 251–2. I also do not romanticize indigenous ways of inhabiting that world nor call for 'becoming indigenous', as is increasingly observed in governing discourses relating to the Anthropocene. See D Chandler and J Reid, *Becoming Indigenous: Governing Imaginaries in the Anthropocene* (Rowman & Littlefield, 2019).

¹¹ See É Glissant, *Poetics of Relation* (University of Michigan Press, 1997). For contemporary scholars who, building on Glissant's poetics, suggest distinct subjectivities and collective modes of being, thinking and acting to thrive in an anti-black world, see F Moten's trilogy on *Consent Not to Be a Single Being*.

¹² Fundamental here is the erasure of racist anti-blackness that informs the 'human', and which is reproduced by expansive post-human approaches. See A Karera, 'Blackness and the Pitfalls of Anthropocene Ethics' (2019) 7:1 *Critical Philosophy of Race* 32; TL King, 'Humans Involved: Lurking in the Lines of Posthumanist Flight' (2017) 3:1 *Critical Ethnic Studies*, 162; ZI Jackson, 'Outer Worlds: The Persistence of Race in Movement "Beyond the Human"' (2015) 21:2/3 *GLQ: A Journal of Lesbian and Gay Studies* 215. See also TL King,

In evaluating legal dilemmas in light of these ‘onto-epistemological’ reconfigurations, the article diffracts the disciplinary commitments of international environmental law, thereby opening up new avenues of inquiry and critique.¹³ It does so by situating, unpacking and problematizing the international legal doctrine of state responsibility for environmental protection. More specifically, the article explores which understandings of *responsibility* and *protection* are available to international legal thinking, and what it would mean to align these concepts to notions of *response-ability* and *care* as articulated in new materialist, relational and posthumanist literatures. Fundamentally, it is the underlying logic of international environmental law that this article seeks to challenge, rather than offering reformist or doctrinal fixes to be incorporated into existing legal frameworks.

The article is divided in three parts. I first identify a set of onto-epistemological reconfigurations of human and nonhuman relations that overcome modernist legacies of a putative disconnection between humans and nonhumans. While the analysis focuses on insights drawn from new materialism, posthumanism and object-oriented ontology – strands of theory that also have clear divergences from each other – it also considers insights from biology on a ‘symbiotic view of life’, demanding ‘sym-poietic’ forms of thinking and acting. The second and third parts elaborate how the doctrinal legal notions of *responsibility* and *protection* expressed in international environmental law fit uncomfortably with the onto-epistemological reconfigurations explored in the first part. More specifically, the second part juxtaposes Haraway’s call to cultivate ‘response-ability’ as a form of collective knowing and doing and Barad’s agential realist form of ‘responsible intra-action’ with the ideal of responsibility in international environmental law – a normative trope restricted by conceptual

JNavarro and A Smith (eds), *Otherwise Worlds: Against Settler Colonialism and Anti-Blackness* (Duke University Press, 2020).

¹³ ‘Onto-epistemology’ refers to the ‘study of practices of knowing in being’ in line with Barad, for whom ‘[p]ractices of knowing and being are not isolable; they are mutually implicated’. Indeed, ‘we know because we are of the world. We are part of the world in its differential becoming. The separation of epistemology from ontology is a reverberation of a metaphysics that assumes an inherent difference between human and nonhuman, subject and object, mind and body, matter and discourse’. K Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter* (Duke University Press, 2007) at 185. A methodology of ‘diffraction’ is used to read insights from distinct fields or issues into one another and explore the tensions and insights that arise when they interfere with each other. See Karen Barad, ‘Diffracting Diffraction: Cutting Together-Apart’ (2014) 20:3 Parallax 168–87.

and material coordinates of state sovereignty, territorial jurisdiction and strict liability. I use the concept of ‘response-ability’ in singular to build on Haraway’s neologism and to refer to an ethical, political and juridical commitment that can materialize into different practices, modalities and expressions – distinct ‘response-abilities’. The third part of the article, in turn, explores how speculative ethics of care in more-than-human worlds, as advocated by Puig de la Bellacasa, could help rethink notions of environmental protection under international environmental law. The latter tend to be limited to the realm of the ‘human environment’, constrained by direct causality between the harm suffered and the remedy to be provided by the perpetrator, and tied to temporal, spatial and subjective criteria ill-suited to a ‘sympoietic’ view of life. Contraposing the doctrine of state *responsibility to protect* the(ir) environment with *response-abilities of care* in more-than-human worlds helps to reconstrue both the destructive and the restorative relations between humans and nonhumans.

2 BEING, ACTING AND THINKING WITH(IN) THE ANTHROPOCENE/S

The Anthropocene constitutes a profoundly disorienting ‘event’.¹⁴ In an attempt to prevent or fix it, international environmental lawyers tend to focus their attention on regulatory and institutional reforms in order to ‘continue to try and maintain the current Holocene-like state’.¹⁵ In traditional international environmental law, ‘nature’ has primarily been regulated as a source for wealth generation – as ‘natural resources’ – while the ‘natural environment’ has mainly been construed as a passive object of human protection and control.¹⁶ For example, the rules on deep-seabed mining deploy extractive qualifications of ‘nature’ as a ‘resource’ to be allocated and exploited in regulated ways.¹⁷ Today, the modernist belief in a

¹⁴ C Bonneuil and J-B Fressoz, *L’Événement Anthropocène: La Terre, l’histoire et nous* (Broché, 2016).

¹⁵ LJ Kotzé and RE Kim, ‘Earth System Law: The Juridical Dimensions of Earth System Governance’ (2019) 1 *Earth System Governance*, at 2 and 10.

¹⁶ U Natarajan and K Khoday, ‘Locating Nature: Making and Unmaking International Law’ (2014) 27 *Leiden Journal of International Law* 573, at 575. The inverted commas serve to acknowledge how ‘nature’ has been conceptualized in competing ways in environmental law, infused by a vision of settlement and development, a wilderness-seeking Romanticism, a utilitarian attitude trying to manage nature for human benefit and a twentieth-century ecological view. See J Purdy, *After Nature: A Politics for the Anthropocene* (Harvard University Press, 2015).

¹⁷ On this extractive perspective in international law, see I Feichtner and S Ranganathan (eds), ‘Symposium: International Law and Economic Exploitation in the Global Commons’ (2019) 30 *European Journal of*

controllable ‘natural environment’ persists to such an extent that prominent international environmental scholars continue to contemplate whether the ‘organization of the Anthropocene is in our hands’¹⁸ – a question itself imbued with enduring ideals of instrumentalist voluntarism oriented towards ‘environmental management in the Anthropocene’.¹⁹

These legal schemes and normative aspirations for regulated exploitation, control and managed protection of the environment are permeated with an image of human mastery over an inert ‘nature’, which is directly inherited from Enlightenment thinking.²⁰ The relative stability of the Holocene and the related conception that ‘nature’ is amenable to human comprehension and control are therefore part and parcel of international environmental law’s edifice.²¹ Living with(in) the Anthropocene/s, however, signals the ‘end of the modern world’ and its ideals of stability, predictability and control.²² Far from a natural world mastered by

International Law 541. For a historical account of this extractive relation to the Earth, see also PJ Usher, *Exterranean: Extraction in the Humanist Anthropocene* (Fordham University Press, 2019).

¹⁸ J Viñuales, ‘The Organization of the Anthropocene: In Our Hands?’ (2018) 1 Brill Research Perspectives in International Legal Theory and Practice 1.

¹⁹ See D Schlosberg, ‘Environmental Management in the Anthropocene’, in T Gabrielson et al. (eds), *The Oxford Handbook of Environmental Political Theory* (Oxford University Press, 2016) 193.

²⁰ Cf. N Wolloch, *History and Nature in the Enlightenment: Praise of the Mastery of Nature in Eighteenth-Century Historical Literature* (Routledge, 2016). Indeed, as modern international law is of European origins, its concept of sovereignty evolved in ways that mirror the Enlightenment understanding of ‘nature’. Natarajan and Khoday supra (n 16) at 586.

²¹ D Vidas et al., ‘International Law for the Anthropocene? Shifting Perspectives in Regulation of the Oceans, Environment and Genetic Resources’ (2015) 9 *Anthropocene* 1, at 4.

²² The ‘end of the world’ is a recurrent trope in critical Anthropocene studies to signify the end of the modernist split between humans and nonhumans and the mastery of the former over the latter. See AL Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton University Press, 2015); D Danowski and E Viveiros de Castro, *The Ends of the World* (Polity, 2016); D. Chandler, K. Grove and S. Wakefield, *Resilience in the Anthropocene: Governance and Politics at the End of the World* (Routledge, 2020). On the universalization of the experience of black and indigenous peoples when claiming that ‘the world’ (in singular) has ended, see S Fishel and L Wilcox, ‘Politics of the Living Dead: Race and Exceptionalism in the Apocalypse’ (2017) 45 *Millennium: Journal of International Studies* 340.

humans and their juridical tools,²³ the ‘defiant’,²⁴ ‘uncontrollable’²⁵ or ‘unconstructable’²⁶ ‘nature’ at play in social ordering calls for different ways of engaging with and relating to more-than-human worlds.²⁷

Against this backdrop, the literature portraying the Anthropocene/s as an onto-epistemological rupture with modernist Enlightenment thought puts forward a relational sensibility that repositions humans with(in) a ‘vibrant material world’.²⁸ In this ‘web of materiality’, all matter – living and non-living – is entangled.²⁹ While grounded in different inquiries, with distinct emphases and interventions, new materialist, relational and posthumanist theories share an analytical focus on the dynamism of matter and the entanglement of human and nonhuman, living and non-living entities. Far from constituting a homogeneous style of theory and practice – and at times covering incompatible trajectories – these strands of thought aim at a distinct understanding of ontology, epistemology, ethics and

²³ Latour speaks of ‘provincializing modernity’ as a European task *par excellence* and posits the ‘Globe’ – and hence ‘globalization’ and ‘global’ law – as paradigmatic colonial object and processes. B Latour, ‘*Onus Orbis Terrarum: About a Possible Shift in the Definition of Sovereignty*’ (2016) 44 *Millennium: Journal of International Studies* 305. See also S Ramaswamy, *Terrestrial Lessons: The Conquest of the World as Globe* (University of Chicago Press, 2017).

²⁴ Cf. C Hamilton, *Defiant Earth: The Fate of Humans in the Anthropocene* (Polity, 2017).

²⁵ Cf. H Rosa, *The Uncontrollability of the World* (Polity, 2020).

²⁶ Cf. F Neyrat, *The Unconstructable Earth: An Ecology of Separation* (Fordham University Press, 2018, trans. DS Burk).

²⁷ This entails a turn to aesthetics and affects. See D Matthews, ‘Law and Aesthetics in the Anthropocene: From the Rights of Nature to the Aesthesis of Obligations’ (2019) *Law, Culture and the Humanities* 1. Other examples include De Lucia’s attempt at rethinking the encounter between law and nature through an aesthetics of wonder. See V De Lucia, ‘Rethinking the Encounter Between Law and Nature in the Anthropocene: From Biopolitical Sovereignty to Wonder’ (2020) 31 *Law and Critique* 329.

²⁸ Cf. J Bennett, *Vibrant Matter: A Political Ecology of Things* (Duke University Press, 2010); S Vermeulen, ‘Materiality and the Ontological Turn in the Anthropocene: Establishing a Dialogue between Law, Anthropology and Eco-Philosophy’ in LJ Kotzé (ed), *Environmental Law and Governance for the Anthropocene* (Hart Publishing, 2017) 141.

²⁹ M Davies, *Law Unlimited: Materialism, Pluralism and Legal Theory* (Routledge, 2017) at 66.

politics to overcome anthropocentrism and discursive idealism.³⁰ They share an aspiration for practices of humility and care across species, acknowledging a mutual vulnerability that spans ‘the entire living order’ while also recognizing that not all inter- and intra-species vulnerabilities are the same, nor are they equally recognized or cared for.³¹ As Tsing puts it, this shared but differential precariousness entails a project of ‘collaborative survival’, since ‘[s]taying alive – for every species – requires livable collaborations’.³²

This sense of cross-species collaboration resonates with Margulis’ theory of ‘symploysis’, which she developed to define life-making and life-sustaining processes through the relating of ‘holobionts’ – or entities composed of a host and all other species living in or around it.³³ Barad’s neologism of ‘intra-action’ is useful here to understand the functioning of holobionts – and hence how life unfolds on Earth. Instead of traditional ‘interactions’, which assume separate individual agencies that precede each action, the concept of ‘intra-action’ signifies the mutual constitution of entangled human-nonhuman agencies.³⁴ The intra-activity of holobionts displaces metaphysics of individualism. In line with Barad’s agential realist account, (holobiotic) matter is here viewed as ‘a dynamic expression/articulation of the world in its intra-active becoming’.³⁵ Holobionts, in other words, are assemblages created and sustained by the entangled agencies of different species. Contemporary biologists are therefore advocating a ‘symbiotic view of life’ as a new

³⁰ Cf. CN Gamble, JS Hanan and T Nail, ‘What is New Materialism?’ (2019) 24:6 *Angelaki* 111; V Kirby, ‘Matter out of Place: “New Materialism” in Review’ in V Kirby (ed), *What If Culture was Nature all Along?* (Edinburgh University Press, 2017) 1–25. On the disavowal of race in new materialisms, see also supra (n 12).

³¹ AP Harris, ‘Vulnerability and Power in the Age of the Anthropocene’ (2014) 6 *Washington and Lee Journal on Energy, Climate and Environment* 98, at 126. On how vulnerability and care are shaped by relations of power, see also V Browne, J Danely and D Rosenow (eds), *Vulnerability and the Politics of Care: Transdisciplinary Dialogues* (Oxford University Press, 2021).

³² Tsing speaks of precarity as an ‘earthwide condition’ that enables us to appreciate the ‘patchy unpredictability’ that is the condition of our time. Tsing, supra (n 22) at 2, 4 and 5.

³³ L Margulis, *Symbiotic Planet: A New Look at Evolution* (Basic Books, 1998) at 35–7. See also M-C Petersmann, ‘Sympleiotic Thinking and Earth System Law: The Earth, its Subjects and the Law’ (2021) 7 *Earth System Governance*.

³⁴ Barad, supra (n 13) at 33.

³⁵ *ibid* at 392–3.

paradigm for biology, which establishes this symbiotic condition at the level of insular individuality itself, since animals and plants are composites of many species living, developing and evolving together.³⁶ As Gilbert, Sapp and Tauber evocatively put it: ‘[w]e are all lichens’.³⁷ Indeed, the Covid-19 pandemic brought to the fore how human bodies live with over 380 trillion viruses – some more disruptive than others – as part of a holobiont, and makes manifest how symbiotic continuities and multispecies dependencies are inescapable.³⁸ Such perspectives on human-nonhuman entanglements call for a relational onto-epistemology that captures the symbiotic nature of how life unfolds through co-constitutive agencies between species.³⁹ These cross-species alliances – and the contact zones triggered between traditionally distinct disciplines of ‘natural’ and ‘social’ sciences – not only question whether ‘we have ever been modern’, but question whether ‘we have ever been individuals’ as well⁴⁰ – two presuppositions at the heart of international environmental law.

Ontologically speaking, the condition of being is therefore itself a condition of living-with.⁴¹ As object-oriented philosopher Morton puts it, the nature of coexistence between

³⁶ SF Gilbert, J Sapp and AI Tauber, ‘A Symbiotic View of Life: We Have Never Been Individuals’ (2012) 87 *The Quarterly Review of Biology* 325. The documentary *Symbiotic Earth: How Lynn Margulis Rocked the Boat and Started a Scientific Revolution* (dir. John Feldman, 2017) offers a great visual account on a symbiotic view of life.

³⁷ Gilbert et al. supra (n 36) at 336. As composite organisms, ‘being lichens’ stresses the need to suspend a sense of insular individuality. On the blurring of sharp lines between species, see also J Dupré, ‘Metaphysics of Metamorphosis: The Swarming, Ever-Changing Character of the Living World Challenges our Deepest Assumptions about the Nature of Reality’ [2017], at <<https://aeon.co/essays/science-and-metaphysics-must-work-together-to-answer-lifes-deepest-questions>> accessed 7 February 2021.

³⁸ K Birrell and T Lindgren, ‘Anthropocenic Pandemic: Laws of Exposure & Encounter’ [2021] at <<https://criticallegalthinking.com/2021/01/04/anthropocenic-pandemic-laws-of-exposure-encounter>> accessed 24 February 2021. See also B Latour, *Où suis-je ? Leçons du confinement à l’usage des terrestres* (La Découverte, 2021) at 63–4.

³⁹ An observation already established by Kropotkin as early as 1902. See P Kropotkin, *Mutual Aid: A Factor of Evolution* (The Anarchist Library, 1902).

⁴⁰ Latour (n 6); and Gilbert et al. supra (n 36).

⁴¹ CA Jones, ‘Symbionics: A View of Present Conditions from a Place of Entanglement’ [2020] at <<https://brooklynrail.org/2020/07/criticspage/Symbionics-a-view-of-present-conditions-from-a-place-of-entanglement>> accessed 3 February 2021.

humans and nonhumans is symbiotic – the real, in other words, is defined by entities related in symbiosis, where it is ‘unclear which is the top symbiont ... who is the host, and who is the parasite’.⁴² What Morton calls the ‘symbiotic real’ is characterized by asymmetrical and non-total interconnections between entities across space and time. In light of this collective making of life and its limitless potentialities, a symbiotic view acknowledges the infinite possibilities of becoming that these encounters can generate.

Crucially, however, entanglement should not be mistaken for an absolute inseparability of all beings, nor an understanding that there are no differentiated power relations between humans and nonhumans. As Barad emphasizes, ‘agential separability’ implies both ‘differentiating and entangling’ without ‘producing (absolute) separation’.⁴³ Humans and nonhumans, in their intra-active becoming, continuously engage in emergent, dynamic and iterative ‘boundary-making practices that produce “objects” and “subjects” and other differences out of, and in terms of, a changing relationality’.⁴⁴ In these dynamics of intra-activity, questions of ‘space, time and matter are intimately connected’ and ‘entangled with questions of justice’.⁴⁵ As such, these onto-epistemological reconfigurations gesture towards a distinct practice of inquiry, one that ‘involves transformations not just of our ways of knowing but also of our ways of being, feeling, committing, and living in the world’.⁴⁶

As is argued in the next section, the ‘entangled relations of difference’⁴⁷ that are enacted through intra-actions entail asymmetrical power relations, with some actants bearing more ‘response-ability’ than others. The departure from presumptions of preexisting,

⁴² T Morton, *Humankind: Solidarity with Nonhuman People* (Verso, 2017) at 1.

⁴³ K Barad, ‘Quantum Entanglements and Hauntological Relations of Inheritance: Dis/continuities, SpaceTime Enfoldings, and Justice-to-Come’ (2010) 3 *Derrida Today* 240–68, at 265 (emphases omitted). See also section 3 below.

⁴⁴ Barad, *supra* (n 13), at 93. Note that from an object-oriented ontology (OOO) perspective, the claim that objects in a relation do not preexist it but emerge through it, is untenable. For OOO, (hyper)objects are never entirely deployed, and potential relations between (hyper)objects are always withdrawn or held in reserve. See Harman (2018), *supra* (n 7) at 53 and 258; and T Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (University of Minnesota Press, 2013).

⁴⁵ Barad, *supra* (n 13) at 236. Barad speaks of ‘spacetime-matter relations’.

⁴⁶ Rosiek et al. *supra* (n 10) 335–6.

⁴⁷ Barad, *supra* (n 13) at 236.

independent, closed off entities – units, relata, subjects, objects – and insistence that ‘relata do not preexist relations’ but emerge through specific intra-actions,⁴⁸ creates a rupture with onto-epistemologies of fixed and bounded systems – whether these are understood as ‘nature’ or ‘society’, ‘states’ or ‘individuals’, ‘humans’ or ‘nonhumans’. Such relational onto-epistemologies also entail a break from the schemes of anthropocentric agency and direct causality central to international environmental legal thought and practice.

Does international environmental law’s notion of state responsibility leave room for such collective forms of being, acting and becoming, while remaining sensitive to differential and asymmetrical response-abilities? Could this legal domain be opened up to onto-epistemologies of becoming that offer ‘a metaphysics grounded in connection, challenging delusions of separation’?⁴⁹ In the next section, I critically explore the doctrine of state responsibility for environmental protection. My juxtaposition of this doctrine with a notion of response-abilities of care in more-than-human worlds is not intended to propose a new norm to be incorporated in international environmental law’s extant framework, but to question the latter’s onto-epistemological premises and presuppositions.

3 FROM STATE RESPONSIBILITY TO INTRA-ACTIVE RESPONSE-ABILITIES

Under international law, a state is responsible for an internationally wrongful act, provided that the action or omission that led to the illegal act can be attributed to the state’s conduct or effective control.⁵⁰ These rules of state responsibility are difficult to apply to transboundary environmental harms, the spatial, temporal, subjective and causal ramifications of which are often impossible to fully comprehend.⁵¹ The attribution of such harms to individuated states is therefore particularly difficult to prove.⁵² Against this backdrop, a legal infrastructure has

⁴⁸ *ibid* at 139–40.

⁴⁹ K Wright, ‘Becoming-With’ (2014) 5 *Environmental Humanities* 277, at 278.

⁵⁰ International Law Commission, Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries in the *Yearbook of the International Law Commission*, 2001, Vol. II, Part Two, UN doc. A/CN.4/SER.A/2001/Add.1, Articles 1 and 2.

⁵¹ I follow Morton in defining environmental harms as ‘hyperobjects’ that are ‘massively distributed in time and space’ and therefore viscous, nonlocal, temporally undulated, phased and interobjective. Morton, *supra* (n 44).

⁵² See A Nollkaemper et al., ‘Guiding Principles on Shared Responsibility in International Law’ (2020) 31:1 *European Journal of International Law* 15.

been established to safeguard environmental protection through forms of preventive, institutional and managerial collaborations. A network of international cooperation provides, for example, for states to share information and best practices, to undertake early consultations on environmental risks and impact assessments, to immediately notify affected states of existing problems, to provide technological and financial support, or agree to set limitations on the use of certain pollutants in order to jointly reduce environmental impacts.⁵³ States must also monitor their activities and ensure that the latter do not cause environmental harms both within their territory and areas under their effective control, as well as in other states' territories. In the case of environmental harms, however, the question of attribution is inevitably challenging, and the conundrum it raises has been the object of extensive scrutiny and criticism on the part of international environmental legal scholars.⁵⁴ This problem of attribution of states' responsibility for environmental harms has increasingly been addressed in light of resulting human rights violations, as is exemplified by the 'rights turn' in climate litigation.⁵⁵

In recent scholarship, proposals have also been advanced to expand responsibility for internationally wrongful acts to private (transnational) corporations and to extend the jurisdictional scope beyond territorial boundaries. As Seck puts it, '[w]hile the "international community" has taken steps to negotiate and implement numerous global environmental treaties, these initiatives are premised on the idea of a bounded regulatory state that is able and willing to control corporate conduct effectively within its borders'.⁵⁶ Not only is territorial limitation problematic, but, as Seck notes, 'the invocation of extraterritoriality ...

⁵³ See Viñuales and Dupuy who characterize the 'conceptual matrix' of international environmental law as divided between 'prevention' and 'balancing' principles. JE Viñuales and P-M Dupuy, *International Environmental Law* (Cambridge University Press, 2017).

⁵⁴ See M Wewerinke-Singh, *State Responsibility, Climate Change and Human Rights Under International Law* (Hart, 2019).

⁵⁵ J Peel and HM Osofsky, 'A Rights Turn in Climate Change Litigation?' (2018) 7 *Transnational Environmental Law* 37. See also M-C Petersmann and C McKinnon, 'Is Climate Change a Human Rights Violation?' in M Hulme (ed), *Contemporary Climate Change Debates: A Student Primer* (Routledge, 2019) 160.

⁵⁶ SL Seck, 'Moving Beyond the E-word in the Anthropocene', in U Özsü et al. (eds), *The Extraterritoriality of Law: History, Theory, Politics* (Routledge, 2019) at 49.

risks undermining its objective, as it reinforces the myth of the bounded autonomous state while simultaneously endorsing the need to regulate across borders'.⁵⁷ My objective here is not to rehearse this critique of the attribution of wrongful acts based on a narrow understanding of state jurisdiction and territorial or effective control. Instead, I seek to build on Seck's argument against 'a vision of the territorially bounded sovereign state as an independent, autonomous being, which ... is not only unhelpful, but undermines the critical importance of building mutually supportive relationships that acknowledge the reality of our ecological interdependence'.⁵⁸ This dominant vision of the state reinforces a legal infrastructure wherein each state is imagined to be individually responsible for the protection of the(ir) environment in a predetermined, fixed and bounded spatial grid, and where the state interacts with other equally independent and autonomous states to this end. Indeed, the jurisdiction and responsibility of states is still embedded in a spatial imaginary circumscribed by cartographic coordinates of longitude and latitude, delimited by borders and internal sovereignty, and based on the norm of non-intervention in domestic affairs.⁵⁹

Such modernist state theorization fits uncomfortably with the spatiality and entangled materialities that are suggested as new taxonomies to make sense of the Anthropocene/s. The 'post-modern' theorization of territory has been considered equally problematic since it further marginalizes physical and material worlds by focusing on 'de-territorial' or 'supra-territorial' forms of globalization.⁶⁰ Both the rigid modernist understanding of fixed territorial boundaries and the tendency towards de-territorialized thinking in 'post-modern' legal theory are countered today by approaches aimed at *terrestrializing* the more-than-strategic and more-than-human dynamism of the Earth.⁶¹ This materialist turn in territorial theorizations

⁵⁷ *ibid* at 50.

⁵⁸ *ibid* at 58.

⁵⁹ N Rajkovic, 'The Visual Conquest of International Law: Brute Boundaries, the Map, and the Legacy of Cartogenesis' (2018) 31 *Leiden Journal of International Law* 267.

⁶⁰ See P Zumbansen et al. (eds), *Beyond Territoriality: Transnational Legal Authority in an Age of Globalization* (Martinus Nijhoff Publishers, 2012); D Bethlehem, 'The End of Geography: The Changing Nature of the International System and the Challenge to International Law' (2014) 25 *European Journal of International Law* 9.

⁶¹ M Usher, 'Territory *Incognita*' (2019) 44 *Progress in Human Geography* 1019, at 1024–32. See also B Latour, *Down to Earth: Politics in the New Climatic Regime* (Polity, 2018); as well as Part V on the 'Terrestrial'

addresses the non-static, vertical and volumetric qualities of terrestrial space, exploring new heights and depths from the atmosphere to the subterranean.⁶² It works with ‘ecological boundaries’ alongside biogeochemical cycles instead of with fixed ‘territorial boundaries’,⁶³ and suggests a distinct spatiality for geopolitics.⁶⁴ Such revitalized materialist insights highlight the limits of the juristic ideal of a static, fixed and predetermined definition of territorial jurisdiction on which the attribution of responsibility for wrongful acts rests. Under international (environmental) law, in sum, territorial boundaries tend to exist as a ‘pre-given political knowledge’, in relation to which ‘much of international lawyers’ work is to make note of boundaries and divide powers and issues between states in a similarly straightforward, either-or fashion’.⁶⁵

In addition to these concerns about extra/territorial jurisdiction and responsibility, and the inadequacy of a schematic centred upon bounded, independent and autonomous interacting states – modelled on an image of an independent, autonomous and liberal individual⁶⁶ – one must also account for the differential responsibilities of state actors. As has long been argued in the literature on environmental colonialism and global environmental justice, while developing countries have suffered an overwhelming burden of environmental

in Latour and Weibel, *supra* (n 35). For a fascinating visual expansion of traditional cartographies by taking into account materialist, relational and posthuman insights, see A Arènes, A Grégoire and F Aït-Touati, *Terra Forma: Manuel de Cartographies Potentielles* (Éditions B42, 2019).

⁶² Usher, *ibid* at 1035.

⁶³ On delineating ‘ecological boundaries’ along biogeochemical cycles, see P Szigeti, ‘A Sketch of Ecological Property: Toward a Law of Biogeochemical Cycles’ (2021) 51:1 Environmental Law 41.

⁶⁴ On geopolitics accustomed to the ‘critical zone’ (the Earth’s outer layer, crust or envelope – from vegetation canopy to the soil and groundwater – that supports and encloses all discovered life), see Latour, *supra* (n 61). For a visual grammar of the infinitely complex and interwoven geochemical cycles born in the critical zone, see also A Arènes, B Latour and J Gaillardet, ‘Giving Depth to the Surface: An Exercise in the Gaia-graphy of Critical Zones’ (2018) 5 The Anthropocene Review 120.

⁶⁵ P Szigeti, ‘In the Middle of Nowhere: The Futile Quest to Distinguish Territoriality from Extraterritoriality’ in Özsü et al., *supra* (n 56). For Szigeti, the arbitrariness of the extra/territorial division exposes the weakness of the traditional grounds for jurisdiction in international law, which calls for a reformulation of jurisdictional doctrine from the ground up. Szigeti advocates for ‘ecological boundaries’ along biogeochemical cycles. Szigeti, *supra* (n 63).

⁶⁶ Seck, *supra* (n 56), at 58.

harms whilst negligibly contributing to their causes – as is clearly evidenced by historical emissions of greenhouse gases – developed countries have suffered such effects to a lesser extent whilst bearing a higher degree of responsibility for their causes.⁶⁷ It is precisely to account for developing and developed states’ differential vulnerabilities to climate harms and for their unequal capability to respond to climate change effects, as well as to reflect differential historic responsibilities for climate harming emissions, that the principle of ‘common but differentiated responsibilities and respective capabilities’ (CBDRRC) was enshrined, for example, in the UN Framework Convention on Climate Change.⁶⁸ Yet, while the CBDRRC principle focuses on states’ responsibility for past harms by foregrounding historical emissions, concerns for more-than-human worlds must also account for future harms.⁶⁹ As Chakrabarty reminds us:

{quotation} Whether we blame climate change on those who are retrospectively guilty – that is, blame the West for their past performance – or those who are prospectively guilty (China has just surpassed the United States as the largest emitter of carbon dioxide, though not on a per capita basis) is a question that is tied no doubt to the histories of capitalism and modernization. But scientists’ discovery of the fact that human beings have in the process become a geological agent points to a shared catastrophe that we have all fallen into.⁷⁰ {/quotation}

⁶⁷ S Mason-Case and J Dehm, ‘Redressing Historical Responsibility for the Unjust Precarities of Climate Change in the Present’, in B Meyer and A Zahar (eds), *Debating Climate Law* (Cambridge University Press, 2021); C Gonzalez, ‘Global Justice in the Anthropocene’ in Kotzé, *supra* (n 28), at 219; S Caney, ‘Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens’ (2014) 22 *The Journal of Political Philosophy* 125; and A Agarwal and S Narain, *Global Warming in an Unequal World: A Case of Environmental Colonialism* (Centre for Science and Environment, 2003).

⁶⁸ UN Framework Convention on Climate Change (UNFCCC), A/RES/48/189 (20 January 1994), Articles 3–4.

⁶⁹ Important here is the need to account for postcolonial ‘modernized’ futures that developing states demand, in light of the injustices they historically suffered by bearing most of the effects of socio-ecological harms whilst contributing less to their causes. D Chakrabarty, ‘Planetary Crises and the Difficulty of Being Modern’ (2018) 46 *Millennium: Journal of International Studies* 259, at 272.

⁷⁰ D Chakrabarty, ‘The Climate of History: Four Theses’ (2009) 35 *Critical Inquiry* 197, at 218. For Chakrabarty, this ‘all’ relates to his concept of planetary subjects as ‘species beings’, which refers to ‘a figure of “continuity” that connects [humans] to other species and to processes we may consider planetary’, thereby

This concern over a ‘shared’ catastrophe,⁷¹ signals an additional conundrum regarding the attribution of responsibility for environmental harms over time, which demands a simultaneous accounting for multiple, complex and conflicting temporal regimes.⁷² The modern linear and progressive temporality inherent in cause-and-effect thinking that determines the attribution of responsibility under international environmental law is indeed insufficient. Many environmentally harmful effects suffered today are related to past activities or events with *longue durée* effects, which manifest in unforeseeable ways and surface at unpredictable times.⁷³ While the doctrine of inter-generational equity captures a sense of responsibility for environmental harms against future generations, it tends to express a temporal ideal of nearness that seeks to safeguard the rights of today’s generation’s children and grandchildren.⁷⁴ There is, however, a disjunction between this image of the near future

dissolving ‘the figure of the autonomous human subject who remains the mainstay of political [and legal] thought’. Chakrabarty *supra* (n 69) at 282.

⁷¹ I put ‘shared’ in inverted commas here to stress that what concerns us all concerns us differently. This ‘shared’ catastrophe is only a future threat for some whilst a long-experienced living condition for others. See Fishel and Wilcox, *supra* (n 22).

⁷² See Bonneuil’s essay on ‘regimes of planetarity’, who shows how the Anthropocene shakes our frameworks of temporality and the ‘modern’ and ‘presentist’ ‘regimes of historicity’, as characterized by François Hartog. C Bonneuil, ‘Der Historiker und der Planet: Planetaritätsregimes an der Schnittstelle von Welt-Ökologien, Ökologischen Reflexivitäten und Geo-Mächten’ in F Adloff et S Neckel (eds), *Gesellschaftstheorie im Anthropozän* (Campus, 2020) 55.

⁷³ By way of illustration, following the dumping of several hundreds of thousands of tons of chemical weapons following World War II these weapons are surfacing three-quarters of a century later in fishing nets and washing up on beaches, while continuing to poison the bottom of the deep seas, with everlasting consequences on oceans’ health. See A Neimanis, ‘Held in Suspense: Mustard Gas Legalities in the Gotland Deep’, in I Braverman and ER Johnson (eds), *Blue Legalities: The Life & Laws of the Seas* (Duke University Press, 2020) 45. The nonlocal, temporally undulated, phased and interobjective nature of such environmental harms are characteristics of ‘hyperobjects’. See Morton, *supra* (n 44).

⁷⁴ This bias towards temporal nearness is evidenced in the following quote by Knox, as former UN Special Rapporteur on human rights and the environment: ‘the line between future generations and today’s children shifts every time another baby arrives ... It is critical, therefore, that discussions of future generations take into account the rights of the children who are constantly arriving, or have already arrived, on this planet. *We do not need to look far to see the people whose future lives will be affected by our actions today. They are already here*’, 2018 Report on ‘Children’s Rights and the Environment’ (A/HRC/37/58), para 68 (emphases added).

and deep time concerns – a discrepancy also observable in climate litigation, where the articulation of future projections tends to be limited to a tangible expansion of the present or of a future close at hand.⁷⁵ In contrast, a deep time perspective ‘operates as the horizon of questions of meaning, self-understanding, and responsibility raised when ... we expand our historicity to a geological scale’.⁷⁶ Yet, thinking about responsibility at Earth magnitude should not detract from accounting for the historical responsibility of humans with ‘anthropological differences’.⁷⁷ Indeed, (deep time) future-oriented outlooks risk erasing the past, thereby sacrificing, overshadowing or forgetting the damned of the modern world.⁷⁸ Living with(in) the Anthropocene/s demands an account of the conflicting temporalities of historical reckonings, political decision frames and deep time concerns. A discrepancy between these temporal and spatial scales and those at work in international environmental law is evident. This discrepancy limits the legal intelligibility of the materialities and injustices of the Anthropocene/s.

Thinking with Haraway’s concept of ‘response-ability’ can provide inspiration for a reorientation of the trajectory of legal thought towards the kinds of relational onto-epistemologies introduced in the second section of this article. Indeed, an openness to continuously unfolding ‘times that remain at stake’ is well captured in Haraway’s call to

⁷⁵ In the *Urgenda* case, for example, the timeframe at stake oscillated between the present (‘by 2020’) and a future set ‘by 2050’, which casts the temporal span as a shadow of the present – or a ‘near’ and ‘foreseeable future’ as referred to by the court. *Urgenda Foundation v The Netherlands* [2015] Verdict, The Hague District Court C/09/456689/HA ZA 13-1396 (2015), para 38.

⁷⁶ D Wood, *Deep Time, Dark Times: On Being Geologically Human* (Fordham University Press, 2018), at 60–61.

⁷⁷ ‘Anthropological differences’ are here meant as naturalized differences that ‘have the capacity to *limit the right to have rights*’ and ‘*universally create[] a relationship of domination or exclusion*’, Balibar, ‘Ontological Difference, Anthropological Difference, and Equal Liberty’ (2020) 28:1 *European Journal of Philosophy* 3, at 6–7 (emphases in the original).

⁷⁸ For a compelling critique of suggestions to (re)make the future without unmaking the ontological constraints of the present and the past, see D Chandler in ‘Black Anthropocene’ (who invokes ‘the need to repair’ through denouncing and accounting for and with what has been disavowed in the making of modernity) and F Neyrat in ‘We the People Concerned with Time: Ecopolitics and Sovereignty in the Anthropocene’ (who urges us to care ‘for past generations, the sacrificed ones, the damned of the Anthropocene’), in *Working Papers, ‘Constitutionalizing in the Anthropocene’*, Workshop, Tilburg University, 2020 (on file with author).

cultivate ‘response-ability’ as a practice of ongoing collective knowing and doing, where the duty to respond to harms is inherently joined with the question of differentiated ability.⁷⁹ Haraway calls for responsible action in full recognition of specifically endowed abilities to respond to ‘shared’ yet differential afflictions.⁸⁰ Enacting ‘response-ability’ implies both an awareness that not all actants are equally responsible and able to respond to shared harms – a sensitivity also inherent to the principle of CBDRRC⁸¹ – and an acknowledgment of distributed agency between humans and nonhumans. Practices of ‘response-ability’, Haraway notes, help open passages for a praxis of care ‘in ongoing multispecies worlding’,⁸² without, however, reducing or minimizing differences in the destructive impact of actants.⁸³ As Haraway remarks: ‘[w]e are all responsible to and for shaping conditions for multispecies flourishing in the face of terrible histories, but not in the same ways. The differences matter – in ecologies, economies, species, lives’.⁸⁴ As a practice of ‘tentacular thinking and doing’,⁸⁵ ‘response-able’ state and non-state actors – human and nonhuman, corporate and other forms of techno-industrial agents – should be responsive to harms that know no absolutely fixed causal, subjective, spatial and temporal limits.

⁷⁹ D Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Duke University Press, 2016) at 55.

⁸⁰ How to (determine how to) *respond* is an equally important question – one that will not be unpacked in this article, however.

⁸¹ *Supra* (n 68). See also L Rajamani, ‘The Reach and Limits of the Principle of Common but Differentiated Responsibilities and Respective Capabilities in the Climate Change Regime’, in N Dubash (ed), *Handbook of Climate Change and India: Development, Politics and Governance* (Oxford University Press, 2011).

⁸² This aligns with Haraway’s observations on the Chthulucene. Whilst acknowledging the Euro-centred globalizing forces that shaped the Capitalocene, Haraway opts for the term ‘Chthulucene’ to define the world we live in: ‘unlike either the Anthropocene or the Capitalocene, the Chthulucene is made up of ongoing multispecies stories and practices of becoming-with in times that remain at stake, in precarious times, in which the world is not finished and the sky has not fallen – yet’, Haraway, *supra* (n 79), at 55.

⁸³ *ibid* at 105.

⁸⁴ *ibid* at 116. Haraway’s take resonates here with Braidotti’s ‘we-are-all-in-this-together-but-we-are-not-all-one-and-the-same’. Braidotti, *supra* (n 7) at 54.

⁸⁵ Haraway uses ‘tentacular’ as a metaphor to capture at the same time its Latin etymological roots of ‘to feel’ and ‘to try’, and plays with figurative symbols such as spiders or octopuses as examples of critters with ‘many-armed allies’ and ‘myriad tentacles’ that exist collaboratively through expansive nets and networks. Haraway, *supra* (n 79) at 30–31.

‘Response-ability’, in this sense, is embedded in what Haraway calls a process of ‘ongoingness’, where accountabilities are extensive and permanently unfinished.⁸⁶ What Haraway proposes here is an ecology inspired by a feminist ethic of ‘response-ability’ in which questions of species difference are always conjugated with attention to affect, entanglement, and rupture.⁸⁷

Haraway’s concepts of ‘response-ability’ and ‘ongoingness’ find resonance in Barad’s agential realist understanding of ‘intra-actions’ which, as mentioned earlier, express agential separability yet never produce absolute separation between ‘subjects’ and ‘objects’ of inquiry, knower and known.⁸⁸ With every new encounter, an entity intra-actively becomes other – it emerges anew from that intra-action. As such, humans and nonhumans come to matter and affect each other through their intra-active encounters. Agential separability accounts for the enduring patterns of differences, inclusions and exclusions in how the world unfolds and is configured, which produces divergent abilities to respond to such patterns. How humans differ among themselves and from other nonhumans, in other words, matters for the intra-active relations that compose them and which compose the world in its becoming.⁸⁹ It is in this important sense, Barad reminds us, that ‘[w]e are responsible for the world of which we are a part, not because it is an arbitrary construction of our choosing but because reality is sedimented out of particular practices that we have a role in shaping and through which we are shaped’.⁹⁰

For Barad, therefore, the agency of individual components cannot be isolated. Response-abilities for intra-actions take place *within* and *as part of* the world in its

⁸⁶ *ibid* at 132.

⁸⁷ *ibid* at 68.

⁸⁸ Barad’s ‘agential realism’ is a ‘new ontology, epistemology, and ethics, including a new understanding of the nature of scientific practices’, which ‘entails a rethinking of fundamental concepts ... including the notions of matter, discourse, causality, agency, power, identity, embodiment, objectivity, space, and time’. Barad, *supra* (n 13) at 25–6.

⁸⁹ As Barad repeatedly asserts, attending to such issues is ‘an integral part of questioning the constitution of the nature-culture dichotomy and the work it does: not only *that* it matters, but *how* it matters and *for whom*’. Barad, *supra* (n 13), at 87 (emphases in the original).

⁹⁰ *ibid* at 390. ‘Ethics’, Barad notes, ‘is therefore not about right response to a radically exterior/ized other, but about responsibility and accountability for the lively relationalities of becoming of which we are a part’, at 393.

differential becoming. As a mutual constitution of entangled human-nonhuman agencies, every intra-active relation enacts an onto-epistemology anew.⁹¹ The knowing/being binary is thereby dismantled and reconfigured with(in) each new intra-active relation.

This dismantling of binaries is well captured by what indigenous scholar Watts refers to as a theoretical understanding of the world through ‘Place-Thought’.⁹² This non-binary, relational onto-epistemology rejects the liberal humanist conception of the subject and problematizes any understanding of responsibility that ‘begins and ends with a willful subject who is destined to reap the consequences of his actions’.⁹³ A sense of intra-active ‘responsibility’ exceeds both individualism and holism – abstractions that dissolve through the continuous reconfigurations of subjects and objects in a world of perpetual becoming.⁹⁴ In line with a symbiotic view of life, fixed, permanent and predetermined categories of ‘human’ and ‘nonhuman’ are discarded, as any fixity would inhibit possibilities for the iterative reconfiguring of human-nonhuman formations, and the schemes of response-abilities emerging with(in) them.⁹⁵ As Barad puts it: ‘[r]esponsibility – the ability to respond to the other – cannot be restricted to human-human encounters when the very boundaries and

⁹¹ As Barad insists, this does ‘not merely mark the epistemological inseparability of observer and observed [but also marks] the *ontological* inseparability of agentially intra-acting components’, *ibid* at 33 (emphasis in the original).

⁹² ‘Place-Thought’ is based on the premise that land is alive and thinking, and that humans and nonhumans derive agency through the extensions of these thoughts. V Watts, ‘Indigenous Place-Thought and Agency amongst Humans and Non-humans (First Woman and Sky Woman go on a European World Tour!)’ (2013) 2:1 *Decolonization: Indigeneity, Education and Society* 20 at 21. See also CF Black, *The Land is the Source of the Law: A Dialogical Encounter with Indigenous Jurisprudence* (Routledge, 2011).

⁹³ Barad, *supra* (n 13), at 172.

⁹⁴ As Barad puts it: ‘[h]olding the category “human” (“nonhuman”) fixed (or at least presuming that one can) excludes an entire range of possibilities in advance, eliding important dimensions of the workings of agency’. Instead of frozen or fixed entities, Barad sees ‘an ongoing performance of the world in its differential dance of intelligibility and unintelligibility’, *ibid* at 178 and 149.

⁹⁵ Barad further notes: ‘it is a mistake to presume an a priori distinction between humans and nonhumans and foreclose the drawing of boundaries between the human and the nonhuman from critical analysis’, *ibid* at 216. Yet, this ‘is not to suggest that there really are no boundaries or that what is at stake is a postmodern celebration of the blurring of boundaries’, *ibid* at 380.

constitution of the “human” are continually being reconfigured and “our” role in these and other reconfigurings is precisely what “we” have to face’.⁹⁶

Crucially, however, while Barad’s agential realism and posthuman ethics of worlding focuses on an ‘understanding that we are not the only active beings’, this understanding ‘is never justification for deflecting that responsibility onto other entities’.⁹⁷ The agentic decentring and deformation of the ‘human’ does not deflect responsibility to ‘nonhumans’, but rethinks responsibility through the ‘more-than-human’. Recognizing nonhuman agency, Barad insists, does not reduce human accountability: ‘on the contrary, it means that accountability requires that much more attentiveness to existing power asymmetries’.⁹⁸ A redistribution of agency and accountability for response-abilities in more-than-human worlds, in sum, does not suspend or defer a reckoning with the disproportionately higher ‘response-ability’ of certain humans and their way of inhabiting and experiencing the Anthropocene/s at the expense of others.

While breaking from modernist modes of knowing and being, such onto-epistemologies do not remove exercises of human agency from scrutiny. The notion of intra-active ‘response-ability’ reconfigures understandings of subjectivity, agency and causality as well as the bounded temporal and spatial registers in which these are embedded. In contrast to the insulated agency of state or non-state entities – to which stable notions of responsibility can be tied – the onto-epistemological premises of intra-active response-abilities envisage an ongoing, continuously unfolding and open responsiveness to the entanglements of self and others where subjects, objects, matter, space and time are iteratively produced and performed in ‘a nonlinear enfolding of spacetime-mattering’.⁹⁹

Juxtaposing the doctrinal notion of state responsibility to protect the(ir) environment with intra-active response-abilities of multiple and differentiated agencies shows the limits of

⁹⁶ *ibid* at 392.

⁹⁷ *ibid* at 218 and 392.

⁹⁸ *ibid* at 219. See also the critiques of new materialists and posthumanists’ turn(s) to ‘more-than-human’ onto-epistemologies by decolonial, indigenous and black scholars, who caution against a flattening and disavowing of the historically enacted differences between human subjects along specific ‘colour lines’ that are perpetually reproduced in the political economy of capitalism, *supra* (n 12).

⁹⁹ Barad, *supra* (n 13), at 244 and 393–4.

the narrow conceptual understanding of human-nonhuman relations underpinning international environmental law. This understanding, I argue in the next section, informs an equally limited conception of *protection* of the human environment under international environmental law, which should be displaced by a notion of *care* in more-than-human worlds.

4 FROM ENVIRONMENTAL PROTECTION TO CARE IN MORE-THAN-HUMAN WORLDS

Under international law, concerns for environmental protection first emerged by focusing on the ‘human environment’, the protection of which would preserve and enhance ‘the condition of man, his physical, mental and social well-being, his dignity and his enjoyment of basic human rights’.¹⁰⁰ As the title of the 1972 Stockholm Conference on the Human Environment epitomizes, international law’s approach to environmental protection put human interests at the centre of environmental concerns.¹⁰¹ Narratives of environmental protection have since evolved towards more ecocentric,¹⁰² acentric,¹⁰³ or Earth-centric¹⁰⁴ visions to guide normative regulations, understood as serving the benefits of more-than-human worlds rich in biodiversity.¹⁰⁵ The recognition of ‘rights of nature’ across various jurisdictions is often mentioned as an emblematic example of the progressive ecological reorientation of

¹⁰⁰ UNGA A/RES/2398 (XXIII), Problems of the Human Environment (3 December 1968), preamble.

¹⁰¹ Stockholm Declaration on the Human Environment (16 June 1972) UN Doc.A/Conf.48/14/Rev.1 (1973) 11 ILM 1416 (1972).

¹⁰² Earth Jurisprudence and ecological law have been suggested as ‘ecocentric’ laws. See P Burdon, ‘The Earth Community and Ecological Jurisprudence’ (2013) 3:5 *Oñati Socio Legal Series* 815. See also Anker, *supra* (n 10).

¹⁰³ Critical Environmental Law has been suggested as ‘acentric’ law. See A Philippopoulos-Mihalopoulos, ‘Critical Environmental Law as Method in the Anthropocene’ in A Philippopoulos-Mihalopoulos and V Brooks (eds), *Research Methods in Environmental Law: A Handbook* (Edward Elgar, 2017) 131.

¹⁰⁴ Earth System Law has been suggested as ‘Earth-centric’ law. See Kotzé and Kim *supra* (n 15).

¹⁰⁵ On the evolution of ‘environmental protection’ narratives in international law, see M-C Petersmann, ‘Narcissus’ Reflection in the Lake: Untold Narratives in Environmental Law Beyond the Anthropocentric Frame’ (2018) 30:2 *Journal of Environmental Law* 235; and V de Lucia, ‘Beyond Anthropocentrism and Ecocentrism: A Biopolitical Reading of Environmental Law’ (2017) 8 *Journal of Environmental Law* 2.

environmental protection.¹⁰⁶ Protecting so-called ‘natural’ entities by granting them rights tends to be viewed as a way of overturning humans’ extractive approach to ‘natural resources’ and, by some, as a veritable ‘legal revolution that could save the world’, as stated by the current UN Special Rapporteur on human rights and the environment.¹⁰⁷ Yet, the extension of human rights to ‘natural’ entities might enhance their legal protection, but risks sacrificing their nonhuman agency and alterity by anthropomorphizing and moulding the protection of ‘natural entities’ into a human rights template.¹⁰⁸ This approach inhibits intra-active response-abilities based on non-binary, de-essentialized and ‘entangled relations of difference’.¹⁰⁹ Ultimately, the extension of liberal human rights to ‘nature’ hinges on a problematic human representation of the nonhuman.¹¹⁰ Even in international environmental law’s most ambitious protective schemes, in sum, nonhuman entities remain passive objects of human protection – an approach locked into a modernist idea of ‘nature’ as a mere site of masterful human intervention and control. To address these limits of environmental *protection*, I contend that a turn to *care* is key to the development of a praxis of response-abilities.

¹⁰⁶ See EL O’Donnell and J Talbot-Jones, ‘Creating Legal Rights for Rivers: Lessons from Australia, New Zealand, and India’ (2018) 23 *Ecology and Society* 7.

¹⁰⁷ Cf. DR Boyd, *The Rights of Nature: A Legal Revolution That Could Save the World* (ECW Press, 2017).

¹⁰⁸ Arguably, the original referent of human rights – the white modern subject – is normatively reinforced instead of transformed each time rights are expanded to previously ‘inhuman’ categories such as indigenous, black, brown or LGBTQI+ subordinated groups. See, eg, R Kapur, *Gender, Alterity and Human Rights: Freedom in a Fishbowl* (Edward Elgar, 2020).

¹⁰⁹ Barad, *supra* (n 13) at 236. On difference as a ‘right to opacity’ – a right not to be rendered transparent to modern subjects to fit into their cognitive schema and thereby dominate other modes of being based on essentialized Western ideals, see Glissant, *supra* n 11, at 189–94. For a wonderful essay along these lines applied to more-than-human relations, see also B Morizot, *Manières d’être vivant. Enquêtes sur la vie à travers nous* (Actes Sud, 2020).

¹¹⁰ How the nonhuman is here uplifted through protection granted by modern subjects is reminiscent of how the colonial enterprise was couched in benevolent language to civilize ‘inhuman’ savages. For an early debate along those lines, see the 1550 Valladolid controversy between Bartolomé de Las Casas and Juan Ginés de Sepúlveda, referred to in JW Moore and R Patel, *A History of the World in Seven Cheap Things: A Guide to Capitalism, Nature, and the Future of the Planet* (University of California Press, 2018) at 36–7.

Attempts to transpose ethics of care to environmental concerns in international law are not new.¹¹¹ Ethics of care emerged in the 1980s as part of feminist theories – informed by intersectional gender, class and race politics – in the context of care work, whether in institutional or domestic settings.¹¹² The initial focus on individual self-care and collective care for the other expanded towards a sense of ‘care for the world’: a ‘world as the array of material and immaterial conditions under which human beings live – both with one another and with a rich variety of nonhumans, organic and technological’.¹¹³ Theorized as an affective connective tissue between an inner self and an outer world, care constitutes ‘a feeling *with*, rather than a feeling *for*, others’.¹¹⁴ As such, care goes hand in hand with the relational onto-epistemologies put forward in this article and must therefore be distinguished from its metonyms of compassion or empathy.¹¹⁵ A relational disposition of care does not imply, to be clear, a symmetrical responsiveness, let alone a balanced reciprocity. Nonhumans might well not care about humans – the reverse being true as well – yet humans and nonhumans depend upon each other in their intra-active becoming. In this sense, practices of care allow us to envision what it means for beings embedded within more-than-human compositions to be, always intra-actively, thriving in entangled caring relations.

As such, care generates a different mode of engaging with more-than-human worlds by productively interrogating not only *who* and *what* to care about but also *how to (begin to)*

¹¹¹ See the 2000 Earth Charter Principle 1 on ‘Respect and Care for the Community of Life’ at <https://earthcharter.org/wp-content/uploads/2020/03/echarter_english.pdf?x79755> accessed 3 February 2021.

¹¹² See C Gilligan, *In A Different Voice* (Harvard University Press, 1982); J Tronto, *Moral Boundaries: A Political Argument for an Ethic of Care* (Routledge, 1994); V Held, *The Ethics of Care: Personal, Political, and Global* (Oxford University Press, 2005).

¹¹³ E Myers, *Worldly Ethics: Democratic Politics and Care for the World* (Duke University Press, 2013) at 17. See also Browne et al., *supra* (n 31).

¹¹⁴ HJK Hobart and T Kneese, ‘Radical Care Survival Strategies for Uncertain Times’ (2020) 38 *Social Text* 1, at 2 (emphases added).

¹¹⁵ On the differences between compassion and empathy (as emotions or values) and care (as activity or practice) and their legal receptivity, see J Herring, ‘Compassion, Ethics of Care and Legal Rights’ (2017) 13 *International Journal of Law in Context* 158. See also V Held, ‘Morality, Care and International Law’ (2011) 4 *Ethics and Global Politics* 173.

care about being-in-the-world.¹¹⁶ Unlike environmental protection schemes that regulate the use of products or activities through top-down, command-and-control management by identifiable centres of authority, an ethics of care is inherently open-ended and distributed. As Schrader puts it, ‘what or who counts as a subject of care cannot be delimited in advance’.¹¹⁷ Unlike the orthodox scheme of states’ responsibility for environmental protection, working with care is a process that is not merely normative and prescriptive, but requires responsiveness to harms for which there might not be a pre-given script. In line with Haraway’s ‘ongoingness’ and Barad’s ‘radically open future’, care breaks free from cause-and-effect thinking and from its linear and progressive spatio-temporality. In contrast to the rationalism of liberal subjects and modernist assumptions of linear progress, care demands a suspension of a given futurity and of the commanding of pre-established (re)actions towards it.¹¹⁸ The planning mentality of international environmental law – a mentality ill-suited for complex, unpredictable ‘worlds of becoming’¹¹⁹ – is here interrupted.

Puig de la Bellacasa’s turn to speculative care is particularly productive for making sense of this shift from environmental protection to care in more-than-human worlds. ‘Matters of care’, as she puts it, do not require a ‘translation into a fixed explanatory vision or a normative stance (moral or epistemological)’, but a speculative ethical commitment to ways of knowing and caring that ‘re-affect objectified worlds, restage things in ways that generate possibility for other ways of relating and living, connect things that were not supposed to be

¹¹⁶ As Nixon contemplated, reflecting on Aldo Leopold’s remark that ‘we can be ethical only towards what we can see’: ‘how are we to act ethically toward human and biotic communities that lie beyond our sensory ken? How do we both make slow violence visible yet also challenge the privileging of the visible?’, R Nixon, *Slow Violence and the Environmentalism of the Poor* (Harvard University Press, 2013) at 14–15.

¹¹⁷ A Schrader, ‘Abyssal Intimacies and Temporalities of Care: How (Not) to Care about Deformed Leaf Bugs in the Aftermath of Chernobyl’ (2015) 45 *Social Studies of Science* 665, at 671.

¹¹⁸ Indeed, ‘[i]ntra-actions always entail particular exclusions, and exclusions foreclose the possibility of determinism, providing the condition of an open future’. Barad, *supra* (n 13) at 177.

¹¹⁹ Cf. WE Connolly, *A World of Becoming* (Duke University Press, 2011), who advocates ‘a story of becoming linked to experimental intervention in a world that exceeds human powers of attunement, explanation, prediction, mastery or control’, at 10. Connolly’s political philosophy resonates with Chandler’s ‘hacking’ as an ontopolitical mode of governance in the Anthropocene. D Chandler, *Ontopolitics in the Anthropocene: An Introduction to Mapping, Sensing and Hacking* (Routledge, 2018) 141–86.

connecting across the bifurcation of consciousness'.¹²⁰ This speculative commitment to care opens up other possible worlds, politics and legalities. This approach resonates with a 'non-correlationist'¹²¹ understanding of human-world relations, inviting speculations about the world beyond immediate human experience and representation.¹²² While spatio-temporal, subject-object 'abyssal distances' can separate 'us' from certain harms, a speculative commitment enables care beyond situated, embodied experience.¹²³ It entails a sense of care for what can be temporally, spatially and subjectively distant and (dis)continuous, for

¹²⁰ M Puig de la Bellacasa, *Matters of Care: Speculative Ethics in More Than Human Worlds* (University of Minnesota Press, 2017) at 60 and 65.

¹²¹ What Meillassoux calls a (Kantian) correlationist thinking assumes that 'the correlation between thinking and being logically precedes any empirical statement about the world' and that one cannot, as a result, 'think that which cannot be associated with a relation-to-the-world'. Meillassoux uses the existence of 'arche-fossils' or 'fossil-matter' – namely 'matter indicating the existence of an ancestral reality or event that took place prior to life on Earth' – to show the possibility of 'thinking [scientifically] a world in which an event took place in a time and space that preceded any givenness [or being-world relation]'. Consequently, '[w]e are therefore obliged to break with the ontological requirement of the moderns, according to which to be is to be a correlate'. It is therefore possible to reconnect with a thought of the absolute: 'a Great Outdoor, not correlated to my thinking'. Q Meillassoux, *Après la finitude. Essai sur la nécessité de la contingence* (Seuil, 2006, rééd. augmentée en 2012, préface d'A Badiou), at 32, 37, 26, 42, 51 and 53 (translated by the author).

¹²² Once again, affinities with Barad's displacement of 'representation' in favour of 'diffraction' come to light here. Barad critiques reflexivity for being founded on representationalism, which takes for granted the idea that 'representations reflect (social or natural) reality', thereby 'holding the world at a distance'. By contrast, they call for diffraction as a 'performative rather than representationalist' methodological approach for 'reading insights through one another in attending to and responding to the details and specificities of relations of difference and how they matter'. See Barad, *supra* (n 13) at 87–88 and 71. I am not suggesting here that Barad's agential realist critique of 'representation' aligns with a speculative realist approach based on 'non-correlationism' – a claim that would be antithetical to Barad's concept of 'entanglement'. On these distinctions, see also G Harman, 'Agential and Speculative Realism: Remarks on Barad's Ontology' [2016] at <www.rhizomes.net/issue30/harman.html> accessed 27 February 2021.

¹²³ On 'abyssal distances', see Schrader, *supra* (n 117) at 683. This sense of 'abyssal intimacy' can then be understood, in Clark's terms (borrowing from Levinas), as 'a relation that enfolds within itself the condition of strangeness, the non-relation of unshared and incommunicable experience, even as it opens up the very possibility of being-together' – the formation of a bond. N Clark, 'Living Through the Tsunami: Vulnerability and Generosity on a Volatile Earth' (2007) 38 *Geoforum* 1127, at 1133.

‘insensible worlds’ that exceed immediate experiences and perceptions.¹²⁴ This means that response-abilities of care must be thought of ‘in terms of what matters and what is excluded from mattering’, or all other worlds or possible ‘otherwise’ that were not (yet) enacted.¹²⁵ As such, response-abilities of care resist the modernist drive of *being in charge* of environmental issues – by judging, predetermining and controlling *what, who* and *how* to protect the environment – and shifts towards *being involved* by remaining attentive to the unknown and open to the unknowable.¹²⁶ To return to Puig de la Bellacasa, it is about ‘becom[ing] “obliged” to care in actual practice and relational arrangements, in messy material constraints rather than through moral dispositions’.¹²⁷

This commitment to speculative care generates an ability to imagine other possible worlds, and acknowledges ‘fugitive’ and resistive socialities that disavow the modern world.¹²⁸ It takes us beyond the extant world of modernity and the subjectivities upon which it is grounded, to perform alternative ways of being, acting and thinking with(in) the Anthropocene/s. Against this backdrop, rethinking the legal doctrines of *responsibility* and *protection* through notions of *response-abilities* and *care* provides an opportunity to reconsider international environmental law and the world it enacts. Modes of legal theorizing responsive to such onto-epistemologies are already emerging. An expansion of our

¹²⁴ K Yusoff, ‘Insensible Worlds: Postrelational Ethics, Indeterminacy and the (k)Nots of Relating’ (2013) 31 *Environment and Planning D: Society and Space* 208.

¹²⁵ Barad, *supra* (n 13), at 220. Exclusions, for Barad, are constitutive of intra-active relations, which open possibilities whilst inevitably excluding others that would have been possible. On the importance of ethics of exclusion in Barad’s agential realism, see G Hollin et al., ‘(Dis)entangling Barad: Materialisms and Ethics’ (2017) 47:6 *Social Studies of Science: An International Review of Research in the Social Dimensions of Science and Technology* 918.

¹²⁶ Puig de la Bellacasa, *supra* (n 120) at 90–91.

¹²⁷ *ibid* at 204.

¹²⁸ The notion of ‘fugitive sociality’ – the ‘incalculably varied everyday enactments of the fugitive art of social life’ as an ongoing refusal of standards imposed from elsewhere – comes from S Harney and F Moten, *The Undercommons: Fugitive Planning & Black Study* (Minor Compositions, 2013) at 73. Judy speaks of *poiēsis-in-black* to refer to such performances of thinking-in-action and thinking-in-disorder that are not subjugated to but fugitive from ‘the universal history that would fix the fate of the self providentially, putting it in its proper place in the cosmic order of things’. RA Judy, *Sentient Flesh: Thinking in Disorder, Poiēsis in Black* (Duke University Press, 2020), at 423.

speculative sensorium of care in more-than-human worlds and the response-abilities that it entails would align, for example, with Matthews' call to reorient international law towards the concept of *obligation* – or the sense of feeling obliged – against the 'ever-expanding and diversifying "rights-talk"' in order to emphasize a 'being-in-community'.¹²⁹ As the etymological root of the word 'obligation' (*ligare*) suggests, obligations are ultimately concerned with 'binding beings'.¹³⁰ The emerging field of 'law for the Anthropocene'¹³¹ also testifies to an increasing interest in alternative onto-epistemologies for worlds-otherwise, in which 'we' would engage with, relate to and feel (legally) obligated towards more-than-human worlds in different, symbiotic ways.¹³² Adding to this field of literature that interrogates how legal thought and practice could operate with such ways of being, acting and knowing with(in) the Anthropocene/s, response-abilities of care in more-than-human worlds can help us think beyond the legal responsibility of states to protect the(ir) environment as given under international environmental law.

5 CONCLUSION

In this article, I have explored how the doctrinal notions of responsibility for and protection from environmental harms, as constituted under international environmental law, configure human-nonhuman relations in ways that reinforce modernist understandings that are ill-attuned to the realities that the Anthropocene/s foreground. I have refrained from deploying a reformist, regulatory and interventionist gaze that seeks to problem-solve particular environmental issues through command-and-control management or more ambitious international environmental norms. Instead, my contribution has been aimed at interrogating these prevalent practices and disciplinary commitments, which, I have argued, perpetuate a modernist mindset that views 'nature' as a site amenable to human intervention and control.

¹²⁹ See Matthews, *supra* (n 27); De Lucia, *supra* (n 27); or A Akhtar-Khavari, 'Restoration and Cooperation for Flourishing Socio-Ecological Landscapes' (2020) 11:1–2 *Transnational Legal Theory* 62, who draws on the concept of symbiosis to outline a novel cooperative restoration paradigm for environmental law.

¹³⁰ Matthews, *supra* (n 27) at 10. On the theoretical purchase of obligations and the 'ligatures of law', see also K McGee, 'For a Juridical Ecology of Ligatures', in B Latour, S Schaffer and P Gagliardi (eds), *A Book of the Body Politic: Connecting Biology, Politics and Social Theory* (Fondazione Giorgio Cini, 2020) 175.

¹³¹ A Grear, 'Legal Imaginaries and the Anthropocene: "Of" and "For"' (2020) 31 *Law and Critique* 351.

¹³² See the special issue curated by K Birrell and D Matthews, 'Re-storying Laws for the Anthropocene: Rights, Obligations and an Ethics of Encounter' (2020) 31 *Law and Critique* 233.

In the face of globally shared – yet unequally distributed – planetary predicaments, the driving impulse in international environmental law is to enhance and secure state responsibility for environmental protection. It is this mode of engagement that I have sought to diffract.

In doing so, my analysis has built on the literature that affirms the Anthropocene/s as a condition to live with(in), and which attempts to make sense of the ‘desedimentation’ of the modern world.¹³³ The argument took as an onto-epistemological default position a sense of being and living in modernist ruins, with(in) fragile, symbiotic and contingent more-than-human worlds. Adopting an affirmative perspective, I framed the Anthropocene/s as a generative event – an opportunity for ways of being, acting and living *beyond* or *besides* modernity.¹³⁴ Indeed, affirmative approaches are seen as liberating critical thought from the constraints of modernist and anthropocentric thinking by displacing the ‘arrogance of human-centred perspectives’ that focus on identifying possible ways out from supposedly temporal crises and thereby securing the ‘modern’ world before it is too late.¹³⁵ Scholars affirming the Anthropocene/s find something liberating in the realization that there is no escape from it, that it ‘cannot be secured, governed or engaged with in traditional ways’.¹³⁶ Perhaps counter-intuitively, Anthropocene/s are welcomed in celebratory terms, with the ruins of the world as it was conceived in modernity being embraced, rather than mourned. A generative sense of being and becoming with(in) more-than-human worlds invites us to value human

¹³³ See K Thiele, ‘Affirmation’, in M Bunz, BM Kaiser and K Thiele (eds), *Symptoms of the Planetary Condition: A Critical Vocabulary* (Meson Press, 2017) 25. ‘Desedimentation’ here refers to the de-essentializing of differences among humans and nonhumans and the critical reconfiguration of the hierarchies by which they are articulated in relation to one another. I borrow the concept from ND Chandler, *X – The Problem of the Negro as a Problem for Thought* (Fordham University Press, 2013), for whom ‘to desediment’ is to ‘make tremble by dislodging the layers of sedimentated premises that hold [the system] in place’, at 137.

¹³⁴ See the work on ‘paraontology’ as an escape from the fixity of racial ontology – *qua* modern ontology – that structures white supremacy and the world as such. ‘Paraontology’, then, is a mode of being that eschews the Western ontological demands of modern subject-world relations. See Chandler, *supra* (n 133) and Moten, *supra* (n 11).

¹³⁵ P Bargaés-Pedreny, ‘From Critique to Affirmation in International Relations’ (2019) 33 *Global Society* 1, at 7. See also D Chandler, ‘The Death of Hope? Affirmation in the Anthropocene’ (2019) 16:5 *Globalizations* 695.

¹³⁶ Chandler, *supra* (n 119) at 4.

(im)potentiality,¹³⁷ and unleashes an enhanced sense of humility, thereby opening up new forms of collective attachments and care.¹³⁸

For international environmental law/yers, this exercise can seem profoundly disorienting, as it challenges the logic of law itself and its telos of providing order, stability and predictability. As instantiated by the rules on state responsibility, individuated actors must intervene to ensure the well-being of their citizens against the effects of predetermined environmental harms, with particular spatio-temporal delimitations and specific subjects and objects of protection in sight. A circumscription both of the harms – their effects on predefined subjects and objects – and of the actors involved – states held accountable by legal subjects – scaffolds the doctrine of state responsibility for environmental protection. A ‘stable world’ divided into delimited sites of authority and control and locked within a linear spatio-temporality is thereby taken for granted. But what if we alter our gaze and attempt to care in disordered, unstable and unpredictable more-than-human worlds, not intelligible to modernist registers of thought and practice? Far from producing a sense of doom, moving beyond the world *qua* modernity and its governing responses opens up different ways of engaging, relating and feeling response-able with others.

Fundamentally, I have not advanced the notion of response-abilities of care in more-than-human worlds as a new legal norm that should be recognized in an international environmental treaty ratified by states. My intervention is not meant to apply at the surface of international environmental law but at the depth of it: by questioning the onto-

¹³⁷ For Colebrook, ‘[t]he fact that we forget our *impotentiality* – that we treat humans as factual beings with a normality that dictates action – has reached crisis point in modernity, especially as we increasingly suspend the *thought* of our fragility for the sake of ongoing efficiency’. C Colebrook, *Death of the Posthuman: Essays on Extinction Vol. I* (Open Humanities Press, 2014) at 13.

¹³⁸ L Head, *Hope and Grief in the Anthropocene: Re-conceptualising Human-Nature Relations* (Routledge, 2016) at 5–6. For Head, hope in the Anthropocene should be decoupled from the emotion of optimism about the world as we wish it to be. The affirmative dimension lies in the generative role of hope and grief as practice: ‘[i]f part of what we are grieving for, and what we must farewell, is our modern selves, it follows that a necessary intellectual and practical task is to imagine new kind of selves’, at 34. Note that while grief is individually experienced, mourning involves action and is carried out collectively both by human groups and by other animals. It is, as such, a ‘process of renewing and remaking relationships after loss, and re-starting the commitment to life and to community’. T van Dooren and D Bird Rose, ‘Keeping Faith with the Dead: Mourning and De-extinction’ (2017) 38:3 *Australian Zoologist* 375, at 376.

epistemological premises of extant international environmental laws that enact how states and non-state actors govern life on Earth and the human-nonhuman relations that constitute it. Thinking with response-abilities of care in more-than-human worlds can inspire a novel imagination and new sense of possible legal commitments. I side with Barad to justify this choice, since ‘[i]n an important sense, it matters to the world how the world comes to matter’.¹³⁹

¹³⁹ Barad, *supra* (n 13) at 380.