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ARTICLE

Bending the Arc of Law: Positivism Meets Climate Change's Intergenerational Challenge

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Abstract
Catalyzed by the surge in climate litigation worldwide, this article examines the tension between the moral imperatives of intergenerational justice and the operational constraints of positivist legal frameworks. It hypothesizes that while positivist doctrine prima facie challenges judicial application of intergenerational justice principles, reconciliation is possible through contextually attuned adjudication and evolved conceptions of legal principles for the Anthropocene. The article explores three key litigation strategies: dynamic interpretation of existing rights, application of constitutional future generations clauses, and procedural mechanisms for representing future interests. Building on European climate judgments, it analyzes how these approaches strain positivist tenets and animate separation-of-powers objections. The article argues that addressing interpretive and foundational challenges posed by climate change requires both doctrinal innovation and theoretical reconstruction. It shows how contextual constitutionalism can help courts to acknowledge intergenerational duties while preserving legal determinacy, and explores how positivism might evolve to accommodate multigenerational climate governance. Situating leading cases within debates between positivism and non-positivist theories, the article offers a roadmap for developing a framework of legal validity suited to the era-defining challenge of climate change.

Keywords: Intergenerational justice; Climate litigation; Legal positivism; Judicial interpretation; Future generations; Constitutional adjudication

1. Introduction

The climate crisis exposes a fundamental tension in contemporary legal systems between the moral imperatives of intergenerational justice[1] and the operational constraints of positivist legal frameworks. This article examines how courts navigate this tension, focusing specifically on the challenge of operationalizing

[1] On future generations discourse see, e.g., K. Sulyok, 'Transforming the Rule of Law in Environmental and Climate Litigation: Prohibiting the Arbitrary Treatment of Future Generations' (2024) 13(3) *Transnational Environmental Law*, pp. 475–501, at 475.

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intergenerational climate obligations within legal systems grounded in positivist traditions. Through the analysis of climate litigation, the article identifies three key strategies that courts employ in response to this tension: (i) dynamic interpretation of existing positive rights, (ii) application of constitutional future generations clauses, and (iii) development of procedural mechanisms for representing future interests. Rather than treating these as discrete techniques, the article demonstrates how they reflect a broader judicial effort to evolve positivist methodologies in response to the temporal demands of climate change.

This examination reveals two distinct but interrelated challenges. The first is interpretive: how to read existing legal materials (constitutional provisions, human rights guarantees, procedural rules) in ways that capture intergenerational obligations while respecting positivist constraints on judicial reasoning. The second is foundational: whether the reality of climate change requires a more fundamental reconceptualization of positivism's premises about legal validity and the nature of law itself. The article argues that addressing these challenges requires both careful doctrinal work and deeper theoretical reconstruction. On the doctrinal level, it shows how techniques of contextual constitutionalism can help courts to acknowledge intergenerational duties while maintaining positivist commitments to legal determinacy. At the theoretical level, it explores how positivism might evolve to better accommodate the multigenerational character of climate governance without losing its essential features as a theory of law.

2. Theoretical Framework: Positivism, Intergenerational Justice, and the Anthropocene

Intergenerational justice, in essence, holds that each generation has an obligation to establish and maintain ecological and socio-economic conditions that enable both the flourishing of and autonomy for future generations to determine and pursue their own conception of justice.[2] Legal positivism, by contrast, insists on the strict separation of law and morality, with valid legal norms grounded in social facts rather than moral reasons.[3]

The tension between these two principles becomes particularly pronounced in the context of climate change litigation. While the mere presence of references to intergenerational justice in positive legal sources (such as constitutions and statutes) may not pose a direct challenge to legal positivism, how courts interpret and apply these principles in the context of climate change litigation could strain the positivist conception of law as a system of rules grounded solely in social facts. The normative vagueness of concepts such as intergenerational justice and sustainable development

[2] E. Brown Weiss, *In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity* (Transnational, 1989); J.C. Tremmel, 'Establishing Intergenerational Justice in National Constitutions', in J.C. Tremmel (ed.), *Handbook of Intergenerational Justice* (Edward Elgar, 2006), pp. 187–214; see also S. Riley, 'Law, Practical Reason, and Future Generations' (2024) 6 *Jus Cogens*, pp. 123–40.

[3] H.L.A. Hart et al. (eds), *The Concept of Law* (Oxford University Press, 3rd edn, 2012); J. Gardner, 'Legal Positivism: 5½ Myths' (2001) 46(1) *American Journal of Jurisprudence*, pp. 199–227, at 199–200.

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leaves considerable room for moral reasoning in judicial interpretation,[4] which can lead to a perception that courts are engaging in a form of policymaking.[5] Cases such as *Urgenda*,[6] *Neubauer*,[7] and *KlimaSeniorinnen*[8] illustrate the tension. In those cases there were binding domestic climate laws with specified targets, but the courts deemed such targets insufficient to protect future generations.[9]

This article hypothesizes that judges can give effect to intergenerational rights and obligations by employing morally sensitive interpretive techniques within the positivist frame,[10] and that positivism itself must evolve to recognize the inextricable link between long-term ecological sustainability and the rule of law. The analysis aims to extend the recent work of Sulyok[11] by situating judicial approaches to intergenerational climate obligations within the deeper jurisprudential debate between positivism and non-positivist theories, and by evaluating the prospects for the adaptation of positivism to the unique socio-ecological demands of the climate crisis.

In fact, contemporary positivist theories have already challenged the rigid dichotomy between law and morality, recognizing that moral principles can play a legitimate role in legal reasoning, particularly in hard cases where positive law is ambiguous or incomplete.[12] Inclusive legal positivists argue that moral considerations can be incorporated into the law through conventional legal sources,[13] opening the possibility for principles of intergenerational justice to be given legal effect through their recognition in positive legal instruments.[14]

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4 See, e.g., B.C. Cheong, 'Climate Volatility, Foundational Freedoms, and the Environment Act 2021: The Transformative Potential of the Principle of Legality' (2024) 45(2) *Statute Law Review*, article hmae038; C. Warnock & B.J. Preston, 'Climate Change, Fundamental Rights, and Statutory Interpretation' (2023) 35(1) *Journal of Environmental Law*, pp. 47–64.

5 J. Waldron, 'Judges as Moral Reasoners' (2009) 7(1) *International Journal of Constitutional Law*, pp. 2–24; J. Dunoff & M.A. Pollack, 'International Judicial Performances and the Performance of International Courts', in T. Squatrito et al. (eds), *The Performance of International Courts and Tribunals* (Cambridge University Press, 2018), pp. 261–87.

6 *The State of the Netherlands* v. *Stichting Urgenda*, Judgment, 20 Dec. 2019, ECLI:NL:HR:2019:2007.

7 *Neubauer et al.* v. *Germany*, Bundesverfassungsgericht (BVerfG) [German Federal Constitutional Court], Case Nos BvR 2656/18/1, BvR 78/20/1, BvR 96/20/1, BvR 288/20, 24 Mar. 2021.

8 *Verein KlimaSeniorinnen Schweiz and Others* v. *Switzerland*, European Court of Human Rights (ECtHR), Appl. No. 53600/20, Judgment, 9 Apr. 2024.

9 *Urgenda*, n. 6 above; *Neubauer*, n. 7 above; *KlimaSeniorinnen*, n. 8 above, para. 436. See also R. Carnwath, 'Judges and the Common Laws of the Environment: At Home and Abroad' (2014) 26(2) *Journal of Environmental Law*, pp. 177–87.

10 See, e.g., L. Davies & L. Henderson, 'Judging Without Railings: An Ethic of Responsible Judicial Decision-Making for Future Generations' (2023) 26(1) *Legal Ethics*, pp. 25–45.

11 Sulyok, n. 1 above.

12 See, e.g., W. Waluchow, 'The Origins of Inclusive Legal Positivism', in T. Spaak & P. Mindus (eds), *The Cambridge Companion to Legal Positivism* (Cambridge University Press, 2021), pp. 487–511; W. Waluchow, *Inclusive Legal Positivism* (Oxford University Press, 1994).

13 See, e.g., W. Waluchow (1994), ibid.; W. Waluchow, 'The Many Faces of Legal Positivism' (1998) 48(3) *The University of Toronto Law Journal*, pp. 387–449.

14 See, e.g., D. Bertram, '"For You Will (Still) Be Here Tomorrow": The Many Lives of Intergenerational Equity' (2023) 12(1) *Transnational Environmental Law*, pp. 121–49.

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However, this approach faces difficulties when the social thesis is applied to interpretation and application.[15] Inclusive legal positivists must presuppose the existence of objective moral truths to avoid collapsing into legal realism,[16] an assumption that becomes problematic when extended to the inherently value-laden realm of legal interpretation. Exclusive legal positivists, who insist that the content of law must be determined solely by reference to social facts,[17] by contrast, face the challenge of accounting for the ubiquity of moral reasoning in judicial decision making without undermining the separation of powers doctrine.[18]

It is important to note that intergenerational justice has secured mentions in positive international law sources, where it is commonly referred to as 'intergenerational equity' – the legal embodiment of the broader moral principle of intergenerational justice. The foundational expression of intergenerational equity in international environmental law can be traced to Principle 2 of the 1972 Stockholm Declaration, which emphasizes the need to 'safeguard' the environment for 'the benefit of present and future generations'.[19] This language is echoed in the Preamble to the 1992 Rio Declaration,[20] and the principle is further instantiated in the United Nations Framework Convention on Climate Change (UNFCCC),[21] the Convention on Biological Diversity (CBD),[22] the United Nations Educational, Scientific and Cultural Organization (UNESCO) Declaration on the Responsibilities of the Present Generations Towards Future Generations,[23] and in soft-law documents such as the UNESCO Universal Declaration on Bioethics and Human Rights.[24] While these provisions fall short of crystallizing a clear positive obligation,[25] International Court of Justice (ICJ) Judge Weeramantry, in his separate opinion in the *Gabčíkovo-Nagymaros* case, suggested that intergenerational equity is an important and rapidly

[15] T. Spaak, 'The Scope of Legal Positivism: Validity or Interpretation?', in Spaak & Mindus (eds), n. 12 above, pp. 443–64, at 446.

[16] Ibid.

[17] A. Marmor, 'Exclusive Legal Positivism', in J.L Coleman, K. Einar Himma & S.J. Shapiro (eds), *The Oxford Handbook of Jurisprudence and Philosophy of Law* (Oxford University Press, 2004), pp. 104–24; J. Raz, *The Authority of Law* (Oxford University Press, 2009).

[18] Spaak, n. 15 above, p. 453.

[19] Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration), adopted by the UN Conference on Environment and Development, Stockholm (Sweden), 5–16 June 1972, UN Doc. A/CONF.48/14/Rev. 1, Principle 2, available at: http://www.un-documents.net/aconf48-14r1.pdf.

[20] Rio Declaration on Environment and Development (Rio Declaration), adopted by the UN Conference on Environment and Development, Rio de Janeiro (Brazil), 3–14 June 1992, UN Doc. A/CONF.151/26/Rev.1, Annex I, Preamble, available at: https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf.

[21] New York, NY (US), 9 May 1992, in force 21 Mar. 1994, Art. 3(1), available at: https://unfccc.int.

[22] Rio de Janeiro (Brazil), 5 June 1992, in force 29 Dec. 1993, Preamble, available at: http://www.cbd.int/convention.

[23] Paris (France), 12 Nov. 1997, Arts 1, 4, 5, available at: https://unesdoc.unesco.org/ark:/48223/pf0000110220.page=75.

[24] Paris (France), 19 Oct. 2005, Art. 16, available at: https://unesdoc.unesco.org/ark:/48223/pf0000142825.page=80.

[25] E. Brown Weiss, 'In Fairness to Future Generations and Sustainable Development' (1992) 8(1) *American University International Law Review*, pp. 19–26.

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developing principle of contemporary international law,[26] maintaining that it forms part of the '*sine qua non* for numerous human rights such as the right to health and the right to life itself'.[27] While the repetition of intergenerational equity obligations in the climate regime, from the UNFCCC through to the Paris Agreement,[28] signals the enduring relevance of the principle at the interstate level, its legal status remains primarily aspirational.[29] This accretion of references in binding and non-binding sources belies a simplistic positivist dismissal and points to an emerging – if still inchoate – customary recognition of intergenerational responsibilities in international environmental law.[30]

The Anthropocene poses significant challenges for both legal positivism and the concept of intergenerational justice.[31] In relation to the latter, the scale and severity of ecological disruption strain our ability to meaningfully safeguard the interests of future generations,[32] potentially necessitating a reconceptualization of intergenerational justice as a matter of survival and resilience rather than just fairness and distribution.[33] Furthermore, the Anthropocene challenges fundamental assumptions of traditional legal positivism, such as the separation of law and morality and the conception of law as a system of rules enacted by sovereign authorities. The Anthropocene's planetary-scale environmental changes transcend sovereign borders and create moral imperatives that cannot be adequately addressed through state-based lawmaking alone, thus complicating positivism's core tenets of legal sovereignty and the law–morality divide.[34] It may require a rethinking of legal doctrines and a move towards a more holistic and ecologically grounded understanding of law as a tool for governing human–environment relations and promoting long-term sustainability.[35]

[26] *Gabčíkovo-Nagymaros Project (Hungary* v. *Slovakia)*, Separate Opinion of Vice-President Weeramantry, *ICJ Reports* (1997), pp. 88–119, para. 107.

[27] Ibid., para. 91.

[28] Paris (France), 12 Dec. 2015, in force 4 Nov. 2016, Art. 2(2), available at: https://unfccc.int/sites/default/files/english_paris_agreement.pdf.

[29] See Bertram, n. 14 above, p. 128; U. Will & C. Manger-Nestler, 'Fairness, Equity, and Justice in the Paris Agreement: Terms and Operationalization of Differentiation' (2021) 34(2) *Leiden Journal of International Law*, pp. 397–420.

[30] See, e.g., P.M. Dupuy, G. Le Moli & J.E. Viñuales, 'Customary International Law and the Environment' (2018) *C-EENRG Working Papers 2018-2*; M. Lavrik, 'Customary Norms, General Principles of International Environmental Law, and Assisted Migration as a Tool for Biodiversity Adaptation to Climate Change' (2022) 4 *Jus Cogens*, pp. 99–129.

[31] For a discussion of Anthropocene and legal positivism see, e.g., J.E. Viñuales, *The Organisation of the Anthropocene In Our Hands* (Brill, 2018), pp. 1–81, at 19–22; J. Gilbert, 'Creating Synergies between International Law and Rights of Nature' (2023) 12(3) *Transnational Environmental Law*, pp. 671–92, at 691; J. Jaria-Manzano, 'Law in the Anthropocene', in J. Jaria-Manzano & S. Borràs (eds), *Research Handbook on Global Climate Constitutionalism* (Edward Elgar, 2019), pp. 31–49.

[32] A. Grear, 'Deconstructing Anthropos: A Critical Legal Reflection on "Anthropocentric" Law and Anthropocene "Humanity"' (2015) 26 *Law Critique*, pp. 225–49.

[33] L. Kotzé, 'Rethinking Global Environmental Law and Governance in the Anthropocene' (2014) 32(2) *Journal of Energy and Natural Resources Law*, pp. 121–56, at 135.

[34] Ibid., pp. 135–7.

[35] Ibid., pp. 144–50; see also J.G. Laitos & L.J. Wolongevicz, 'Why Environmental Laws Fail' (2014) 39(1) *William and Mary Environmental Law and Policy Review*, pp. 1–51.

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While the Anthropocene could potentially serve as a normative framework for legal theory, this idea requires further elaboration and defence. One approach is to consider how Anthropocene challenges – the fundamental problems arising from humanity becoming the dominant force shaping Earth's systems – call for a reconsideration of the foundations of legal theory and practice.[36] This could involve drawing on insights from legal pluralism, environmental constitutionalism, and Earth system governance to integrate legal, ecological, and ethical considerations in novel ways.[37] At the same time, it is important to recognize the value of the commitment of legal positivism to the rule of law, formal equality, and democratic accountability. Any attempt to reconceptualize law for the Anthropocene must grapple with the tension between the need for adaptability in the face of ecological challenges and the need for stability and procedural fairness that are essential for the legitimacy of legal systems.[38]

The tensions identified within both inclusive and exclusive legal positivism highlight the need to re-examine the social thesis in the light of the interpretive and applicative dimensions of legal practice.[39] Waluchow argues that the social thesis is compatible with incorporating moral principles into law, provided such incorporation is grounded in social facts.[40] However, this does not resolve the problem of moral objectivity that arises when judges interpret and apply these principles in concrete cases. Shapiro's planning theory of law offers a potential way forward by situating the social thesis within a broader account of legal institutions as mechanisms for managing moral disagreement and uncertainty over time.[41] Nonetheless, reconciling the positivist commitment to the primacy of social facts with the ineliminable role of moral reasoning in legal interpretation and application remains a central task for contemporary positivist theory.[42]

The primacy given to legal positivism in this article reflects a pragmatic recognition of its current prominence and an attempt to work within its framework to address the challenges posed by climate change and intergenerational justice. However, if positivism's core tenets require radical reinterpretation to accommodate Anthropocene realities, its viability as a legal theory may need to be questioned. This theoretical conundrum sets the stage for examining how the positivism–intergenerational justice tension manifests in climate change litigation and how courts

[36] See, e.g., J. Jaria-Manzano, 'The Shattered Realm: Reshaping Law and Lawyers in the Anthropocene' (2024) 54(4–5) *Environmental Policy and Law*, pp. 1–11, at 10; L. Kotzé, 'A Global Environmental Constitution for the Anthropocene?' (2019) 8(1) *Transnational Environmental Law*, pp. 11–33.

[37] F. Biermann et al., 'Navigating the Anthropocene: Improving Earth System Governance' (2012) 335(6074) *Science*, pp. 1306–7, at 1306; Kotzé, n. 36 above, p. 30.

[38] A.E. Camacho, 'In the Anthropocene: Adaptive Law, Ecological Health, and Biotechnologies' (2023) 15(1) *Law, Innovation and Technology*, pp. 280–312.

[39] Spaak, n. 15 above, pp. 446–53.

[40] Waluchow, n. 13 above; see also D. Plunkett, 'Robust Normativity, Morality, and Legal Positivism', in D. Plunkett, S.J. Shapiro & K. Toh (eds), *Dimensions of Normativity: New Essays on Metaethics and Jurisprudence* (Oxford University Press, 2019), pp. 105–36, at 106–7.

[41] S.J. Shapiro, *Legality* (Harvard University Press, 2011); see also D. Plunkett, 'The Planning Theory of Law II: The Nature of Legal Norms' (2013) 8(2) *Philosophy Compass*, pp. 159–69.

[42] See, e.g., T. Snijders, 'Virtuous Judges, Politicisation, and Decision-Making in the Judicialized Legal Landscape' (2023) 26(1) *Legal Ethics*, pp. 46–73.

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navigate this tension through various interpretive strategies. By situating these judicial developments within the context of Anthropocene realities, we can begin to map out a new, ecologically informed perspective on the sources of legal authority and the role of law in responding to the climate crisis.

3. The Emergence of Climate Protection Rights: Setting the Stage for Intergenerational Claims

The tension between intergenerational justice and positivist frameworks was first manifested in judicial recognition of climate protection rights. Before examining specific judicial methodologies for operationalizing intergenerational justice, it is crucial to understand how courts initially grappled with climate change through rights-based adjudication. This foundation reveals both the potential and limitations of traditional legal frameworks in addressing intergenerational concerns. This section thus traces the development of climate protection rights across international, regional, and domestic legal orders, demonstrating how the early attempts of courts to reconcile climate science with existing rights guarantees exposed the challenges that positivist understandings of legal validity would face in subsequent intergenerational justice cases.

In a landmark 2021 resolution, the United Nations Human Rights Council explicitly acknowledged that the adverse effects of climate change have a range of 'implications, both direct and indirect, for the effective enjoyment of human rights'.[43] Regionally, the European Convention on Human Rights (ECHR)[44] has been at the forefront of articulating a human rights obligation on states to undertake climate mitigation. In its 2019 *Urgenda* ruling, the Supreme Court of the Netherlands affirmed that Articles 2 and 8 ECHR required the Dutch government to reduce greenhouse gas (GHG) emissions by at least 25% by 2020 compared to 1990 levels.[45] Subsequently, in its 2024 decision in *KlimaSeniorinnen*, the European Court of Human Rights (ECtHR) further clarified that Article 8 ECHR encompasses a right to 'effective protection by the State authorities from serious adverse effects of climate change on life, health, well-being and quality of life'.[46]

Domestically, courts in several jurisdictions have similarly located a right to climate protection within their constitutional orders. In 2023, in the United States (US), the Montana First Judicial District Court ruled in *Held* v. *State of Montana* that the state constitution's guarantees of a 'clean and healthful environment' and the '[r]ights of pursuing life's basic necessities' were violated by Montana's 'unconstitutionally degraded and depleted' climate and environment.[47] This decision was affirmed by the

[43] Resolution on the Human Right to a Clean, Healthy and Sustainable Environment, adopted by the UN Human Rights Council, 8 Oct. 2021, UN Doc. A/ Doc A/HRC/RES/48/13, p. 2, available at: https://docs.un.org/en/A/HRC/RES/48/13.

[44] Rome (Italy), 4 Nov. 1950, in force 3 Sept. 1953, available at: http://www.echr.coe.int/Documents/Convention_ENG.pdf.

[45] *Urgenda*, n. 6 above.

[46] *KlimaSeniorinnen*, n. 8 above, para. 519.

[47] *Held* v. *Montana*, Montana First Judicial District Court, Lewis and Clark County, 14 Aug. 2023, Cause No. CDV-2020-307; see also E.C. Ferguson, '*Held* v *State of Montana*: A Constitutional Rights Turn in Climate Change Litigation' (2024) 36(3) *Journal of Environmental Law*, pp. 453–60.

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Montana Supreme Court in December 2024, which held that the constitutional guarantee includes a right to a stable climate system.[48] Similarly, in the 2018 *Future Generations* v. *Ministry of the Environment* decision, the Colombian Supreme Court declared that 'fundamental rights to water, to breathe pure air, and the right to enjoy a healthy environment' are 'fundamental rights'.[49] In 2015, a Pakistani court likewise held in the *Leghari* case that 'only by devising and implementing appropriate adaptation measures will it be possible to ensure water, food and energy security for the country as well as to minimize the impact of natural disasters on human life, health and property'.[50] In 2022, the Brazilian Supreme Court recognized that 'the constitutional right to a healthy environment' encompasses 'the country's duty to comply with internationally assumed rights and commitments'.[51]

The growing body of climate change jurisprudence across jurisdictions suggests an emerging transnational recognition of the existential threat posed by climate change to fundamental rights. Courts are increasingly interpreting open-textured rights provisions to encompass types of intergenerational harm caused by GHG emissions. This preliminary jurisprudential trend, however, strains the insistence of classical legal positivism on a strict division between law and morality[52] – a tension that becomes more acute as courts develop scientific methodologies for operationalizing intergenerational justice, as examined in the next section.[53]

4. Intergenerational Justice in Climate Litigation: Judicial Methodologies and Reasoning

This section examines how intergenerational justice is being operationalized in climate change litigation. Bertram identifies three main 'legal strategies' that courts have used in this respect: (i) exploiting the intergenerational potential of certain classes of rights, such as cultural rights, environmental rights, and children's rights; (ii) extending general citizenship rights, like the rights to life and health, to cover future harm; and (iii) interpreting intergenerational justice as a structural principle guiding state decision making more broadly.[54] He arrives at these strategies inductively, through a comparative analysis of recent climate cases from various jurisdictions.[55]

[48] *Held* v. *Montana*, Supreme Court of the State of Montana, 18 Dec. 2024, DA 23-0575, para. 73.

[49] *Andrea Lozano Barragán et al.* v. *Presidencia de la República et al.*, Corte Suprema de Justicia [Supreme Court of Justice], 5 Apr. 2018, STC4360-2018 (*Future Generations* v. *Ministry of the Environment & Others*), English translation, p. 13.

[50] *Ashgar Leghari* v. *Federation of Pakistan*, Lahore High Court Green Bench, W.P. No. 25501/2015, Orders of 4 Sept. and 14 Sept. 2015 (*Leghari*), p. 6; see also E. Barritt & B. Sediti, 'The Symbolic Value of *Leghari* v *Federation of Pakistan*: Climate Change Adjudication in the Global South' (2019) 30(2) *King's Law Journal*, pp. 203–10.

[51] *PSB et al.* v. *Brazil (on Climate Fund)*, Federal Supreme Court of Brazil, Decision 1 July 2022, English translation, para. 36.

[52] M. Kramer, *Where Law and Morality Meet* (Oxford University Press, 2009), pp. 223–46, at 223–4.

[53] L. Burgers, 'Should Judges Make Climate Change Law' (2020) 9(1) *Transnational Environmental Law*, pp. 55–75, at 55, 72.

[54] Bertram, n. 14 above, pp. 139–43.

[55] Ibid., pp. 130–1 (explaining the methodology of compiling an illustrative sample of recent intergenerational climate cases from different jurisdictions for comparative analysis).

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Building on Bertram's inductive typology, the three categories employed in this article – dynamic interpretation of positive rights, application of constitutional future generations clauses, and procedural innovations for representing posterity's interests – were derived deductively by applying a conceptual model of the tensions between legal positivism and intergenerational justice. This model starts from the premise that the positivist conception of law as a system of source-based, content-independent norms sits uneasily with the inherently value-laden, purpose-oriented character of intergenerational rights and duties. The forward-looking, distributive implications of intergenerational justice exceed the traditional boundaries of positivist legal reasoning, with its emphasis on pedigree, ordinary meaning, and clear rules.

This jurisprudential tension and dynamism are manifest at three main sites. Firstly, the principled extension of existing positive rights to encompass future harm and interests, whether through purposive interpretation or proportionality analysis, pushes against positivism's focus on the 'ordinary meaning' of legal texts and the separability of law and morality (dynamic interpretation). Secondly, the open-textured, aspirational language of constitutional posterity provisions requires courts to draw on extralegal considerations and engage in moral reasoning to determine concrete state obligations (application of future generations clauses). Finally, the development of novel procedural mechanisms for representing future interests, such as expanded standing rules and dedicated ombudspersons, challenges the positivist understanding of legal subjects as formally recognized rights holders (procedural innovations).

These three categories thus represent key pressure points where the adjudication of intergenerational climate claims is straining and reconstructing the positivist framework 'from within'. They were developed through a process of deductive reasoning informed by a theoretical model of the core tensions between positivism and intergenerational justice, and then refined and substantiated through comparative analysis of illustrative cases and scholarly literature. In this sense, the approach combines elements of Bertram's inductive strategy with a more explicitly theoretical and deductive logic.

While there is overlap between Bertram's strategies and these three categories, the latter are oriented towards isolating specific jurisprudential challenges and doctrinal evolution rather than providing a general overview of litigation trends. By focusing on the way in which judicial approaches to intergenerational justice are transforming the positivist architecture of legal systems in real time, this article aims to contribute a more theoretically ambitious and integrated perspective to the scholarly conversation.[56] Each category is explored in depth, using case examples and conceptual analysis to illuminate the ongoing dialectic between the demands of intergenerational climate justice and the constraints of the positivist paradigm.

[56] Ibid., pp. 123, 149 (calling for 'international lawyers to take a fresh look at the history, content, and direction of the principle' of intergenerational equity and to 'uncover weaknesses and holes in the international legal fabric, shift perspectives, and regenerate the discourse'); L. Slobodian, 'Defending the Future: Intergenerational Equity in Climate Litigation' (2020) 32 *Georgetown Environmental Law Review*, pp. 569–89; P. Minnerop, 'The "Advance Interference-Like Effect" of Climate Targets: Fundamental Rights, Intergenerational Equity and the German Federal Constitutional Court' (2022) 34(1) *Journal of Environmental Law*, pp. 135–62; Sulyok, n. 1 above.

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4.1. Dynamic Interpretation of Positive Rights

One approach that courts have employed to operationalize intergenerational justice is the dynamic interpretation of existing positive rights, particularly the rights to life and private and family life enshrined in the ECHR. This was the methodology embraced in *Urgenda*, which held that, by pursuing inadequate mitigation targets, the Dutch government was violating Articles 2 and 8 ECHR with regard to 'both current and future generations'.[57]

At first glance, this seems like an impeccably positivist mode of reasoning, deriving future protective duties from the 'hard law' of the Convention through accepted canons of treaty interpretation. As Sulyok observes, 'the success of future generations lawsuits depends, at least in part, on whether plaintiffs manage to find the appropriate doctrine to expand the contours of state obligations that is most in line with domestic legal traditions'.[58] It allows judges to channel moral considerations through a distinctly legal medium, without overtly relying on free-standing philosophical arguments.

However, on closer examination, this approach involves something more than a mechanical application of determinate positive rules. Rather, it depends on the evolving view of human rights as a social institution and how this can encompass the interests of future generations by establishing general principles that are not limited to discrete issues, and by promoting intergenerational justice through the application of international human rights standards.[59] The Court's reading of the right to life as requiring the state to mitigate future climate risks seems to presuppose a moral right of future generations to an environment capable of sustaining human life – a principle extraneous to the text itself.[60]

This is not to suggest that the *Urgenda* judgment was wrongly decided or exceeded the bounds of permissible interpretation. The point is rather that even when framed in positivistic terms, the adjudication of intergenerational climate obligations requires a value-laden, 'evolutive' mode of legal reasoning that strains the fact/value distinction and the primacy of the 'ordinary meaning' of positive norms. The law is not just out there waiting to be found by courts but is actively constructed by judges through their interpretative practices informed by background moral and political presuppositions.[61]

The *KlimaSeniorinnen* judgment further developed this approach.[62] The core argument centred on Switzerland's failure to mitigate climate change adequately, thus

[57] *Urgenda*, n. 6 above, paras 5.6.2, 5.7.1–9.

[58] Sulyok, n. 1 above, p. 499.

[59] S. Wheatley, 'Interpreting the ECHR in Light of the Increasingly High Standards Being Required by Human Rights: Insights from Social Ontology' (2024) 24(1) *Human Rights Law Review*, article ngad031, at 12–3.

[60] *Urgenda*, n. 6 above, paras 4.89, 5.6.1–2, 5.9.2. See also B. Mayer, '*The State of the Netherlands* v. *Urgenda Foundation*: Ruling of the Court of Appeal of The Hague (9 October 2018)' (2019) 8(1) *Transnational Environmental Law*, pp. 167–92, at 176–7.

[61] For a summary of judicial lawmaking through interpretation see L. Burgers, 'Justitia, the People's Power and Mother Earth' (Ph.D. thesis, University of Amsterdam (The Netherlands), 11 Nov. 2020), pp. 53–7, available at: https://dare.uva.nl/search?identifier=0e6437b7-399d-483a-9fc1-b18ca926fdb5.

[62] *KlimaSeniorinnen*, n. 8 above.

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violating the state's positive obligations under Articles 2 and 8 ECHR. While Article 8 ECHR was originally conceived to protect present rights holders, the ECtHR significantly expanded its interpretation[63] to accommodate future-oriented harm. By recognizing that Article 8 encompasses 'sufficiently severe risks of future effects' beyond immediate physical impacts,[64] the ECtHR strained traditional positivist understandings of rights as protecting definite, present interests.[65] This interpretation acknowledged the inherently intergenerational nature of climate impacts, pushing the boundaries of what positive rights can protect.

The treatment by the ECtHR of Article 2 ECHR further exemplifies this tension. While positivist doctrine typically requires concrete and immediate threats to rights,[66] the Court's discussion of 'foreseeable existential threats' necessarily engaged with more speculative, future harm. Its rejection of the 'drop in the ocean'[67] defence and embrace of 'partial responsibility'[68] shows how protecting future generations requires departing from strict causation requirements central to positivist rights frameworks.[69]

The application of the 'living instrument' doctrine[70] by the ECtHR reveals both the possibilities and limits of reconciling intergenerational justice with positive rights. While this evolutive approach allowed the Court to read future protective duties into present rights, it raises fundamental questions about how far positive rights can be stretched to accommodate intergenerational interests without losing their positivist character. The ECtHR attempted to bridge this gap by grounding its interpretation in current scientific evidence,[71] thus maintaining some connection with empirically verifiable facts while protecting future interests.[72]

The dissenting opinion crystallizes this core tension,[73] arguing that such expansive interpretation exceeds the positivist boundaries of judicial authority. Yet the majority's insistence that the ECHR protection must not become 'theoretical and illusory' suggests that meaningful protection of future generations may require reconceptualizing how we understand positive rights themselves.[74]

Ultimately, the Court's approach to intergenerational justice, as reflected in its interpretation of Article 8, suggests a broadened temporal scope for ECHR protection in the context of climate change, incorporating a forward-looking, intergenerational perspective into states' positive obligations.

In contrast, the *Duarte Agostinho*[75] decision reveals specific challenges in applying positive rights to protect future generations. While the ECtHR showed willingness to

[63] Ibid., para. 519.
[64] Ibid., para. 435.
[65] Ibid., para. 519.
[66] Ibid., paras 509–13.
[67] Ibid., para. 444.
[68] Ibid., para. 315.
[69] Ibid., paras 543, 550.
[70] Ibid., para. 434.
[71] Ibid., para. 434.
[72] Ibid., para. 280.
[73] Ibid., dissenting opinion of Judge Eicke, paras 2–15.
[74] *KlimaSeniorinnen*, n. 8 above, para. 455.
[75] *Duarte Agostinho and Others* v. *Portugal and 32 Others*, ECtHR, Appl. No. 39371/20, 9 Apr. 2024.

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consider long-term climate impacts on youth applicants, its interpretation remains bounded by territoriality and subsidiarity principles that make it difficult to account fully for the transtemporal and cross-border nature of intergenerational harm. The Court's refusal to extend extraterritorial jurisdiction in *Duarte Agostinho*, despite acknowledging the unique and existential nature of climate change,[76] demonstrates that there are boundaries to how far positive rights can be dynamically interpreted.[77] The Court explicitly rejected arguments for a new test of jurisdiction based on control over ECHR interests or the source of harm, emphasizing that such an expansion would lack foreseeability and potentially transform the ECHR into a global climate treaty.[78] This reluctance to dramatically reinterpret jurisdictional scope highlights that dynamic interpretation has limits, particularly when it risks fundamentally altering the nature and reach of the ECHR.[79] It suggests that while courts may be willing to evolve their interpretation of rights to some degree, they remain anchored to core legal principles and are wary of interpretations that could lead to unforeseeable or overly expansive applications of human rights law.

This dynamic interpretation approach has been evident in other jurisdictions. In *Held* v. *Montana*, the Montana First Judicial District Court interpreted the state constitution as intending 'to adopt the strongest preventative and anticipatory constitutional environmental provisions possible to protect Montana's air, water and lands for present and future generations'.[80] Beyond these cases, courts in other parts of the world have also grappled with the positivism–intergenerational justice tension in the context of climate change litigation. For example, in *Future Generations* v. *Ministry of Environment et al.*, the Colombian Supreme Court recognized the Amazon rainforest as a 'subject of rights' and ordered the government to take immediate action to curb deforestation and climate change, based on a combination of constitutional, international, and Indigenous law principles.[81] Similarly, in the Pakistani case of *Leghari* v. *Federation of Pakistan*, the Lahore High Court found that the government's failure to implement its climate change policies violated the fundamental rights of Pakistani citizens, including the right to life and the right to human dignity.[82] The Court grounded its decision in part on the doctrine of 'public trust', holding that the government has a fiduciary duty to protect the country's natural resources for the benefit of present and future generations.[83] In *Notre Affaire à Tous and Others* v. *France*,[84] the Paris Administrative Court interpreted constitutional environmental rights dynamically to impose specific climate obligations on the French state.

[76] Ibid., para. 152.
[77] Note the wording of Art. 1 ECHR, which specifies the rule on jurisdiction.
[78] *Duarte Agostinho*, n. 75 above, para. 208.
[79] Ibid., para. 106.
[80] *Held* v. *Montana*, n. 47 above, para. 289.
[81] *Future Generations*, n. 49 above, paras 6, 6.5, 7, 14.
[82] *Leghari*, n. 50 above, pp. 10–1, 24.
[83] Ibid; see also Barritt & Sediti, n. 50 above.
[84] *Notre Affaire à Tous and Others* v. *France*, Administrative Court of Paris (France), Decision, 3 Feb. 2021, pp. 4, 27, unofficial English translation available at: http://climatecasechart.com/non-us-case/notre-affaire-a-tous-and-others-v-france.

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Although *Milieudefensie* v. *Shell* focused primarily on contemporary corporate obligations, its treatment of long-term climate impacts illustrates key tensions between intergenerational justice and positivist rights frameworks. While the Dutch District Court's ambitious 2030 target implicitly acknowledged future generations' interests,[85] the more restrained approach of the Court of Appeal highlights the challenges of grounding long-term obligations in traditional tort law doctrines.[86] The Court of Appeal acknowledged that Shell's duty of care extended to future climate harm[87] but struggled to translate this into specific reduction targets without explicit legislative guidance.[88] This hesitation to impose concrete intergenerational obligations through dynamic interpretation of existing private law principles – even while recognizing their theoretical basis – exemplifies how positivist commitments to legal certainty can constrain judicial protection of future interests. Nevertheless, by affirming that corporate climate duties encompass prospective types of harm and suggesting that evolving scientific evidence[89] could justify more specific future-oriented obligations,[90] the judgment creates openings for more robust intergenerational protection as the legal framework develops.[91]

While dynamic interpretation offers courts a textually grounded strategy for vindicating intergenerational justice, it inescapably involves a degree of moral evaluation that sits uneasily with the insistence of strict positivism on content-independent, source-based validity criteria.

4.2. Application of Constitutional Future Generations Clauses

A second strategy for operationalizing intergenerational justice relies on positive constitutional provisions that explicitly reference the interests of future generations. This approach was employed by the German Constitutional Court in *Neubauer*, which invalidated parts of the German Federal Climate Change Act based on Article 20a of the Basic Law, which obligates the state to protect the natural

[85] *Milieudefensie* v. *Royal Dutch Shell*, District Court of the Hague (DC), 26 May 2021, ECLI:NL:RBDHA:2021:5337, English translation ECLI:NL:RBDHA:2021:5339, available at: https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBDHA:2021:5339. For analysis of the judgment see B. Mayer, 'The Duty of Care of Fossil-Fuel Producers for Climate Change Mitigation: *Milieudefensie* v. *Royal Dutch Shell*, District Court of The Hague (The Netherlands)' (2022) 11(2) *Transnational Environmental Law*, pp. 407–18; L. Burgers, 'Response: An Apology Leading to Dystopia; Or, Why Fuelling Climate Change Is Tortious' (2022) 11(2) *Transnational Environmental Law*, pp. 419–31; and B. Mayer, 'Judicial Interpretation of Tort Law in *Milieudefensie* v. *Shell*: A Rejoinder' (2022) 11(2) *Transnational Environmental Law*, pp. 433–6.

[86] *Milieudefensie* v. *Royal Dutch Shell*, Court of Appeal of the Hague (CA), 12 Nov. 2024, ECLI:NL:GHDHA:2024:2099, English translation ECLI:NL:GHDHA:2024:2100, available at: https://uitspraken.rechtspraak.nl/details?id=ECLI:NL:GHDHA:2024:2100.

[87] Ibid., paras 7.2, 7.53–7, 7.72.

[88] Ibid., para. 7.111.

[89] Ibid., paras 7.83–7.91.

[90] Ibid., para. 7.96.

[91] See also B.C. Cheong, 'Theoretical Framework for Transformative Corporate Intergenerational Equity' (2025) *Journal of Environmental Law*, article eqae033, pp. 28–9.

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foundations of life 'in responsibility toward future generations'.[92] At first glance, this approach seems to squarely address the positivist objection: the vindication of intergenerational justice is expressly mandated by the constitutional text itself, apparently eliminating the need for judicial interpolation of extralegal moral principles. As Sulyok notes, the Court's reasoning centred on the 'intertemporal dimension' of the constitutional guarantee rather than on open-ended philosophical considerations.[93]

However, even this textualist strategy involves a significant amount of constructive moral reasoning in applying broad constitutional language to concrete cases. The reference in Article 20a to 'future generations' leaves many questions unanswered about the precise content and limits of the state's responsibilities. As Lawrence observes, such future generations clauses are often framed in symbolic, open-textured terms that inevitably require value-laden judicial choices when operationalized in specific policy contexts.[94]

The *Neubauer* decision offers a compelling example of a court giving tangible legal effect to constitutional posterity protection. Drawing on the Article 20a express mandate as well as an implicit intertemporal dimension of fundamental rights, the Court fashioned a novel 'advance interference' doctrine.[95] This holding recognized that current legislative decisions on emissions create foreseeable and largely irreversible limitations on the ability of future generations to exercise their basic liberties, particularly freedom.[96] Assessing the constitutional validity of the Climate Change Act's provisions thus necessitated an intertemporal proportionality analysis: did the law's allocation of the remaining carbon budget across generations comport with principles of intergenerational equity and justice?[97]

Crucially, the Court's judgment did not rely solely on abstract values or philosophical speculation. Rather, it integrated cutting-edge scientific evidence from reports by the Intergovernmental Panel on Climate Change (IPCC)[98] on the irreversible effects of carbon dioxide (CO_2) emissions and the finite remaining carbon budget.[99] This demonstrates how the application of constitutional future generations clauses in climate litigation can and must be informed by a rigorous, contextual assessment of the best available empirical knowledge. The result in *Neubauer* was a situated, judicially enforceable constitutional standard for evaluating the intertemporal distribution of climate mitigation burdens across generations.

[92] *Neubauer*, n. 7 above, para. 198.
[93] Sulyok, n. 1 above, pp. 484–5, 488.
[94] P. Lawrence, 'International Law Must Respond to the Reality of Future Generations: A Reply to Stephen Humphreys' (2023) 34(3) *European Journal of International Law*, pp. 669–82, at 672–3; see also D. Vermassen, D. Caluwaerts & S. Erzeel, 'Speaking for the Voiceless? Representative Claims-Making on Behalf of Future Generations in Belgium' (2023) 76(3) *Parliamentary Affairs*, pp. 579–99.
[95] *Neubauer*, n. 7 above, para. 183. See also Minnerop, n. 56 above.
[96] *Neubauer*, n. 7 above, para. 117.
[97] Ibid., para. 192.
[98] IPCC (Core Writing Team, H. Lee & J. Romero (eds)), *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC, 2023).
[99] *Neubauer*, n. 7 above, para. 16.

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Nonetheless, while grounded in the express text of Article 20a, the Court's 'advance interference' doctrine and intertemporal proportionality test inescapably drew on consequentialist arguments and background theories of intergenerational fairness extraneous to the positive law itself.[100] The result was an expansive, intergenerationally attuned reading of the constitutional order, straining the insistence of classical positivism on content-independent reasoning.[101]

As Wewerinke-Singh and Ramsay note, the specific textual anchor of constitutional posterity protections might seem to obviate positivist objections to judicial reliance on extralegal considerations altogether.[102] Yet, as the authors perceptively argue, the inherent indeterminacy of such provisions inevitably requires courts to make substantive value judgments when determining their implications for complex policy choices with intertemporal impacts.[103] Even as courts strive to ground future-regarding obligations in terms of positive constitutional law, the sheer scale and longevity of climate disruption places immense pressure on traditional positivist interpretive methods.

This dynamic is not unique to the German context. Other constitutional systems have also grappled with the positivism–intergenerational justice tension through the medium of explicit textual protection for posterity. In the US, the Pennsylvania Supreme Court, for instance, interpreted the state constitution's Environmental Rights Amendment – which refers to 'generations yet to come' – as imposing a public trust duty on the state to conserve natural resources for both present and future Pennsylvanians.[104] Legislation like the Well-being of Future Generations (Wales) Act 2015 further illustrates how even statutory provisions not framed in classical rights terms can be construed dynamically to advance intergenerational justice through mechanisms of sustainable development governance.[105]

While constitutional clauses invoking future generations offer courts a firmer positive footing for vindicating intergenerational justice than the dynamic interpretation of general rights, they do not avoid the need for morally inflected, purposive reasoning in determining what such provisions require in concrete cases.

4.3. Standing and Procedural Mechanisms for Future Generations

The concept of 'representation' in climate litigation encompasses both institutional representation of future generations and the procedural issue of standing to bring

[100] G.A. Ribeiro, 'Between a Rock and a Hard Place: Constitutional Theory and Intergenerational Equity', in R. Arnold & T. Fickentscher (eds), *The Responsibility of a Constitution for the Future* (Springer, 2024), pp. 3–22; see also P.A.A. Alvarado & D. Rivas-Ramírez, 'A Milestone in Environmental and Future Generations' Rights Protection: Recent Legal Developments before the Colombian Supreme Court' (2018) 30(3) *Journal of Environmental Law*, pp. 519–26, at 522.

[101] M. Wewerinke-Singh & A.S.F. Ramsay, 'Echoes Through Time: Transforming Climate Litigation Narratives on Future Generations' (2024) 13(3) *Transnational Environmental Law*, pp. 547–68, at 558.

[102] Ibid.

[103] Ibid.

[104] *Robinson Township* v. *Commonwealth*, 83 A.3d 901 (Pa. 2013), p. 10, available at: https://delawarelaw.widener.edu/files/resources/robinsontwp2013editedmay1.pdf.

[105] E. Stokes & C. Smyth, 'Hope-Bearing Legislation? The Well-being of Future Generations (Wales) Act 2015' (2024) 13(3) *Transnational Environmental Law*, pp. 569–87, at 570–1, 580.

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claims on their behalf. Cases such as *Juliana* v. *United States*[106] and *La Rose* v. *Her Majesty the Queen*[107] have seen minors bringing climate claims ostensibly on behalf of future generations. While children, as members of the youngest living generation, are often seen as proximate representatives for posterity, this raises complex questions about the extent to which they can and should represent the interests of the unborn.[108] As Nolan highlights, the lack of precise definitions of 'future generations' under constitutional and international human rights law hampers litigation,[109] with courts inconsistently including[110] or excluding[111] living children from this category.

The ECtHR in *KlimaSeniorinnen* acknowledged the 'representational disadvantage' of future generations.[112] This recognition underscores the need for carefully designed procedural mechanisms to ensure adequate representation of future interests,[113] while also highlighting the unique position of children as both rights holders in their own capacity and potential proxies for posterity.[114]

Scholars such as Lawrence and Köhler have proposed the development of a dedicated 'representative for future generations' to intervene in climate cases as a third party or *amicus curiae*.[115] This approach has several positivist-friendly features. It does not require judges to directly apply philosophical precepts but simply ensures that future interests are 'seen and heard' through procedurally proper channels.[116] The representative would participate on a par with other litigants, advocating within the terms of applicable positive law. Moreover, enabling formal representation could bolster the democratic legitimacy of climate judgments, assuaging concerns about counter-majoritarian judicial policymaking.[117]

[106] *Juliana* v. *United States*, 947 F.3d 1159 (9th Cir. 2020).

[107] *La Rose* v. *Her Majesty the Queen*, Federal Court of Canada, 2020 FC 1008.

[108] See, e.g., M. Wewerinke-Singh & Z. Nay, 'Climate Change as a Children's Rights Crisis: Procedural Obstacles in International Rights-Based Climate Litigation', in P. Czech et al. (eds), *European Yearbook on Human Rights 2022* (Intersentia, 2022), pp. 647–76; S. Bogojević, 'Human Rights of Minors and Future Generations: Global Trends and EU Environmental Law Particularities' (2020) 29(2) *Review of European, Comparative & International Environmental Law*, pp. 191–200.

[109] A. Nolan, 'Children and Future Generations Rights before the Courts: The Vexed Question of Definitions' (2024) 13(3) *Transnational Environmental Law*, pp. 522–46, at 523.

[110] *Do-Hyun Kim and 18 Teenagers (Members of Youth 4 Climate Action)* v. *National Assembly of the Republic of Korea and President of the Republic of Korea*, Constitutional Court of the Republic of Korea, pending case filed on 13 Mar. 2020; *Six Youths* v. *Minister of Environment and Others*, 14th Federal Civil Court of São Paulo, Ação Popular n° 5008035-37.2021.4.03.6100, 28 May 2021 (cited in Nolan, n. 109 above, pp. 523–4).

[111] *Neubauer*, n. 7 above (cited in Nolan, n. 109 above, p. 527).

[112] *KlimaSeniorinnen*, n. 8 above, paras 411–3.

[113] Wewerinke-Singh & Ramsay, n. 101 above, p. 567.

[114] A. Daly, 'Intergenerational Rights are Children's Rights: Upholding the Right to a Healthy Environment through the UNCRC' (2023) 41(3) *Netherlands Quarterly of Human Rights*, pp. 132–54.

[115] P. Lawrence & L. Köhler, 'Representation of Future Generations through International Climate Litigation: A Normative Framework' (2018) 60 *German Yearbook of International Law*, pp. 639–66, at 655–6.

[116] Ibid., p. 650.

[117] M. Düwell, G. Bos & N. van Steenbergen (eds), *Towards the Ethics of a Green Future: The Theory and Practice of Human Rights for Future People* (Routledge, 2018); C. Eckes, 'Tackling the Climate Crisis with Counter-Majoritarian Instruments: Judges between Political Paralysis, Science, and International Law' (2021) 6(3) *European Papers*, pp. 1307–24, at 1307.

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KlimaSeniorinnen exemplifies this approach. The ECtHR significantly broadened standing for associations in climate litigation,[118] granting the applicant association *locus standi* despite finding that the individual applicants lacked victim status under Articles 2 and 8 ECHR.[119] This association's standing was justified based on its representational capacity for a vulnerable group affected by climate change, even without each individual member meeting the stringent victim threshold. The Court explicitly considered the 'interests of the proper administration of justice' in this innovation.[120] Nonetheless, predicating legal standing on a 'capacity to be affected' is not easily justified on purely positivist grounds, which typically limit procedural rights to institutionally recognized legal persons.[121]

Similarly, in *Milieudefensie* v. *Shell*, the Hague Court of Appeal accepted Milieudefensie's standing to bring action on behalf of 'current and future generations of Dutch residents', finding their interests sufficiently similar and suitable for collective representation.[122] This suggests a relatively expansive approach to intergenerational standing, at least where the asserted types of future harm are geographically and temporally proximate.

Collaboration with Indigenous storytelling approaches also emerges as promising for representing intergenerational interests by surfacing complex entanglements across time and space. In *Held* v. *Montana*, emphasizing ancestral environmental knowledge established a critical continuum between past, present, and future.[123] *Youth Verdict*[124] in Australia and *Rights of Indigenous People*[125] in the US further situated climate harm within histories of colonial dispossession, challenging disjunctive Western temporality.

Ultimately, the emergence of bespoke future representative procedures would represent a significant evolution of positivist standing principles. While not necessarily incompatible with positivism, such innovations presuppose a shifting understanding of the constitutional subject shaped by background moral considerations of intergenerational justice. They are more comfortably justified on an understanding of law as an intergenerationally just normative order than as a purely conventional one.[126]

In sum, while judges have ingeniously employed positivist techniques to vindicate future interests – from dynamic interpretation to textualist application to procedural innovation – each approach requires an element of moral evaluation and construction in determining the demands of intergenerational justice. Positivism's insistence on grounding legal validity purely on social facts and content-independent reasoning

[118] *KlimaSeniorinnen*, n. 8 above, paras 489–503.
[119] Ibid., paras 523–6.
[120] Ibid., para. 523.
[121] Sulyok, n. 1 above, pp. 495–6.
[122] *Milieudefensie* (CA), n. 86 above, para. 6.4.
[123] *Held* v. *Montana*, n. 47 above.
[124] *Waratah Coal Pty Ltd* v. *Youth Verdict Ltd & Others (No 6)*, Land Court of Queensland, [2022] QLC 21.
[125] *Rights of Indigenous People in Addressing Climate-Forced Displacement*, USA 16/2020 (2020).
[126] J. Bell, 'The Resurgence of Standing in Judicial Review' (2024) 44(2) *Oxford Journal of Legal Studies*, pp. 313–41, at 331–2.

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chafes against the irreducibly evaluative and purpose-oriented character of intergenerational adjudication. This jurisprudential tension is not merely a theoretical puzzle but matters greatly for the real-world efficacy and legitimacy of climate litigation.

5. Paths to Reconciliation: Contextual Constitutionalism and Reformed Positivism

The foregoing analysis has surfaced the latent tensions between the morally laden demands of intergenerational climate justice and the source-based, content-independent orientation of legal positivism as they emerge in judicial practice. This section proposes two complementary paths for reconciling these competing imperatives at the theoretical level: situated contextual constitutionalism and an expansive reinterpretation of positivism's foundations for the Anthropocene epoch. The aim is not to articulate a wholesale new theory of law, but rather to show how the established resources of public law reasoning can be marshalled dynamically to give tangible effect to intergenerational justice in a climate-altered world, while still preserving the overarching architecture of the positivist legal order.

5.1. Contextualist Constitutionalism

The first route is an embracing of what might be termed situated contextual constitutionalism in climate cases. This approach – resonant with the contextual-evolutive reasoning displayed in *Urgenda*, *Neubauer*, and *KlimaSeniorinnen* – recognizes that judicial adherence to positive law is compatible with – indeed, often requires – dynamic moral evaluation in applying abstract rights and principles to novel situations.[127] Contrary to conservative positivist caricatures of rampant judicial legislation, such constitutionalism involves reasoned elaboration of underlying legal-normative commitments rather than untethered philosophical improvisation.[128]

Crucially, this acknowledges that positive law does not interpret itself. Open-textured constitutional clauses and statutory rights invariably require situated judgments about how their settled yet indeterminate normative content applies to the 'hard case' at hand.[129] The relevant interpretive baseline is thus not a fictional 'original public meaning' shorn of contemporary understandings and assessments, but an evolving sense of a provision's moral purpose and practical implications as glossed by subsequent jurisprudence, societal values, and real-world demands.[130] Legal meaning is always syncretic and iterative.

[127] See generally D.A. Strauss, *The Living Constitution* (Oxford University Press, 2010); N.W. Barber, *The Constitutional State* (Oxford University Press, 2010).

[128] See, e.g., A. Kavanagh, 'The Idea of a Living Constitution' (2003) 16(1) *Canadian Journal of Law & Jurisprudence*, pp. 55–89, at 61–7.

[129] See, e.g., L.H. Bloom Jr, *Do Great Cases Make Bad Law?* (Oxford University Press, 2014), pp. 391–416; R. Dworkin, 'Hard Cases' (1975) 88(6) *Harvard Law Review*, pp. 1057–109.

[130] See, e.g., R.H. Fallon Jr., 'The Chimerical Concept of Original Public Meaning' (2021) 107(7) *Virginia Law Review*, pp. 1421–98.

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Accordingly, this view rejects the notion that judicial development of climate-related obligations grounded in constitutional references to 'future generations' or 'sustainability' is inherently not positivist. While abstractly worded, these provisions nevertheless constitute genuine positive norms that are democratically validated – principles of intergenerational fairness hardwired into the DNA of the constitution.[131] They form part of the *corpus juris* and hence the conventionally recognized sources with which judges must engage. The key positivist constraint is that the resulting interpretive judgments be justified as a good faith application of the antecedent provisions through the prism of contextual purposive and precedential construction, not as free-standing philosophical riffs.

This approach also stresses that conventional meanings are not static. While the *Urgenda* reading of the ECHR as encompassing intergenerational climate rights may not track the specific intentions of its 1950s-era drafters, that reading can be justified legally as an evolutive application attuned to emergent societal understandings of the relevant dangers, values, and state responsibilities.[132] Here, judicial consideration of non-binding factors such as climate science and comparative constitutional trends operates not to displace the governing positive law but to better elucidate how its existing guarantees map onto a radically shifting global ecological reality and epistemic framework for understanding climate change.[133] Intergenerational justice serves as a guiding substantive value to be realized through positivist techniques.

In *KlimaSeniorinnen*, the articulation by the ECtHR of the specific positive obligations on states to undertake substantial and progressive GHG emissions reductions with a view to reaching net neutrality within the next three decades is an illustration of how courts are beginning to concretize the demands of intergenerational climate justice in legally operative terms.[134] This demonstrates how dynamic interpretation is giving tangible content to abstract environmental rights and duties.

This model thus strikes a middle ground between slavish formalism and expansive moralizing. It allows judges to conscientiously honour their positivist commitments while still utilizing all available tools of interpretation and legal reasoning to give tangible effect to the constitutional principle of intergenerational justice in a climate-altered world.[135] If done properly, grounded in the internal resources of particular constitutional orders, such dynamic interpretation need not represent an illegitimate usurpation of legislative power. It becomes, in Dworkin's terms, the 'best reading' of the requirements of positive law in unprecedented circumstances.[136]

[131] A. Alemanno, 'Protecting Future People's Future: How to Operationalise Present People's Unfulfilled Promises to Future Generations' (2023) 14 *European Journal of Risk Regulation*, pp. 641–55, at 648–9.

[132] *Urgenda*, n. 6 above, paras 5.2.1–5.5.3.

[133] See, e.g., J. de Augustinis, 'Judicial Approaches to Science and the Procedural Legitimacy of Climate Rulings: Comparative Insights from the Netherlands and Germany' (2024) 29(3–6) *European Law Journal*, pp. 378–92.

[134] *KlimaSeniorinnen*, n. 8 above, paras 548–50.

[135] Sulyok, n. 1 above, p. 499.

[136] See M.W. McConnell, 'The Importance of Humility in Judicial Review: A Comment on Ronald Dworkin's Moral Reading of the Constitution' (1997) 65(4) *Fordham Law Review*, pp. 1269–93, at 1270; see also R. Dworkin, *Law's Empire* (Harvard University Press, 1986), pp. 62, 338.

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Importantly, this contextualist approach provides a durable foundation for the continued development of a situated jurisprudence of intergenerational climate justice over time. Because it anchors future generations' claims in established positive norms and interpretive methods, their vindication appears more as a realization than a betrayal of the existing constitutional scheme. Each judgment thus incrementally clarifies and solidifies the legal status of posterity within a cumulative body of conventional doctrine, rendering the next case less of a democratic leap than a juridical extrapolation.[137] The *Neubauer* decision, for example, builds on the prior interpretive work of *Urgenda* to further concretize the justiciable content of intergenerational rights and state climate duties. Subsequent cases are likely to refine this line of precedent.

This points towards the broader public pedagogic function of climate jurisprudence. By translating abstract notions of intergenerational justice and trusteeship into tangible configurations of constitutional rights and responsibility, judgments like *Urgenda*, *Neubauer*, and *KlimaSeniorinnen* do not just decide individual cases but they crystallize for present-day citizens their role in a multigenerational legal continuum, encompassing past, present, and future generations.[138] They mirror back and reinforce evolving societal convictions about the proper role of government vis-à-vis long-term environmental threats – a dynamic that, recursively, makes it easier for future courts to take those convictions as legitimate interpretive lodestars. In this way, contextualist climate constitutionalism is not just democratically tolerable but democracy-enhancing.[139] As Burgers argues, Habermas's concept of 'discursive process of legislation' is key to understanding how the legitimacy of law is achieved through societal consensus.[140] Courts can achieve legitimacy by building on societal consensus for climate action, and courts can change the legal framework to incorporate climate considerations.[141]

Of course, hard questions remain about the limits of this approach: the line between responsible value-infused interpretation and untethered moral philosophy will not always be bright. The spectre of subjective judicial policymaking will continue to lurk, but the important point is that this is a productive tension, already endemic to much legal reasoning, which reflects the simultaneous fidelity of constitutional judging to inherited authority and contemporary exigency. Situated climate constitutionalism, which is the interpretation of constitutional principles in the light of specific climate

[137] See generally T. Steinkamp, 'Intergenerational Justice as a Lever to Impact Climate Policies: Lessons from the Complainants' Perspective on Germany's 2021 Climate Constitutional Ruling' (2023) 14(4) *European Journal of Risk Regulation*, pp. 731–46; M.C. Segger, 'Intergenerational Justice in the Paris Agreement on Climate Change', in M.C. Segger, M. Szabó & A.R. Harrington (eds), *Intergenerational Justice in Sustainable Development Treaty Implementation: Advancing Future Generations Rights through National Institutions* (Cambridge University Press, 2021), pp. 731–53.

[138] See, e.g., Bertram, n. 14 above.

[139] See, e.g., L.K. Weis, 'Environmental Constitutionalism: Aspiration or Transformation?' (2018) 16(3) *International Journal of Constitutional Law*, pp. 836–70.

[140] J. Habermas, *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy* (John Wiley & Sons, 2015) (cited in Burgers, n. 53 above, p. 61).

[141] Burgers, n. 53 above, p. 72.

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change contexts and challenges, simply adapts this traditional function to the inescapable empirical conditions of the Anthropocene, characterized by human-induced climate change and its long-term impact.[142]

5.2. Reforming Positivism for Intergenerational Climate Justice

The climate crisis poses a profound challenge to the foundational assumptions of legal positivism. At its core, positivism holds that the validity of law derives solely from social facts – that a norm's legal status is determined by its pedigree or social source, rather than its moral merit.[143] In the Anthropocene, however, the very social facts upon which law's conventional foundations rest are undergoing seismic shifts. Accelerating ecological disruption and the ever-clearer scientific reality of intergenerational climate threat[144] are transforming shared understandings of 'presumptive' social practices and altering the empirical conditions for law's existence as a distinct normative order.[145] These developments strain the fact/value distinction central to positivist thought. Judicial pronouncements that 'climate change threatens human rights'[146] or that 'climate protection is a human rights issue'[147] register an emergent entanglement of the normative and the natural, of the respective domains of law and morality. While such statements may appear to some as flights into 'moralizing politics',[148] it is arguable that they represent a jurisprudential awakening to the eroding boundary between social facts and moral facts in a climate-disrupted world. What was once taken as an empirically stable, ethically neutral substratum for constructing legal orders – the continuity of socio-ecological conditions across human generations – can no longer be presupposed.[149]

This blurring of fact and value calls into question the core positivist tenet that the normative force of law rests on purely conventional foundations, on an autonomous domain of social facts insulated from moral evaluation.[150] As the formerly stable 'natural' background for law's social construction itself becomes an object of urgent

[142] See, e.g., N.S. Ghaleigh, J. Setzer & A. Welikala, 'The Complexities of Comparative Climate Constitutionalism' (2022) 34(3) *Journal of Environmental Law*, pp. 517–28.

[143] G.J. Postema, *A Treatise of Legal Philosophy and General Jurisprudence* (Springer, 2011), pp. 483–545; E. Atiq & J. Matthews, 'The Uncertain Foundations of Public Law Theory' (2022) 31 *Cornell Journal of Law and Public Policy*, pp. 389–450, at 402–11; M.H. Kramer, 'Requirements, Reasons, and Raz: Legal Positivism and Legal Duties' (1999) 109(2) *Ethics*, pp. 375–407.

[144] W. Steffen et al., 'The Anthropocene: Conceptual and Historical Perspectives' (2011) 369(1938) *Philosophical Transactions of the Royal Society A*, pp. 842–67, at 843.

[145] L.J. Kotzé, 'Earth System Law for the Anthropocene' (2019) 11(23) *Sustainability*, article 6796; E. Fisher, E. Scotford & E. Barritt, 'The Legally Disruptive Nature of Climate Change' (2017) 80(2) *The Modern Law Review*, pp. 173–201, at 177–9.

[146] *Urgenda*, n. 6, para. 4.89.

[147] *Neubauer*, n. 7, para. 148.

[148] J. Waldron, 'Judges as Moral Reasoners' (2009) 7(1) *International Journal of Constitutional Law*, pp. 2–24.

[149] S. Burch et al., 'New Directions in Earth System Governance Research' (2019) 1 *Earth System Governance*, article 100006.

[150] Spaak, n. 15 above, pp. 461–2; H.L.A. Hart, 'Positivism and the Separation of Law and Morals' (1958) 71(4) *Harvard Law Review*, pp. 593–629, at 598.

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normative concern, positivism confronts the limits of its Holocene-bound premises.[151] The once solid ground of social facticity upon which law was thought to rest is revealed as a far more turbulent and ethically charged terrain. Faced with this reality, a legally and ecologically adequate positivism for the Anthropocene must evolve. It must find ways to incorporate the hybrid natural-social character of climate change into its account of law's social-empirical bases without relinquishing its defining commitments to the 'separation thesis' and the grounding of legal validity in conventionality rather than morality.[152] This is no easy task, as the fact/value boundary that has long structured positivist thought is deeply entrenched,[153] but it is a necessary one if positivism is to remain a vital legal theory in an age of planetary upheaval.

Nowhere is this challenge more acute than in the context of intergenerational climate litigation, where courts are increasingly imposing far-reaching, future-oriented obligations on governments. From a classical positivist standpoint, such judgments pose a stark threat to the separation of powers and the ideal of law as a system of socially derived rules insulated from moral and political considerations.[154] By appealing to extralegal concepts like intergenerational justice to compel state action, courts are seen as subverting the prerogatives of elected legislatures and engaging in a form of undue judicial legislation.[155]

However, there are also potent arguments for why courts have an indispensable role to play in vindicating the interests of posterity and holding governments accountable for their climate commitments. The failure of political branches to undertake adequate mitigation measures, advocates contend, represents a structural failure of electoral democracy in the face of an intergenerational threat.[156] The counter-majoritarian position of courts equips them to correct for this 'presentist' bias and ensure that the legal system remains responsive to the long-term impacts of climate disruption.[157]

Ultimately, resolving this tension will require a fundamental rethinking of positivism's premises. The proliferation of scientific evidence and legal norms addressing climate change challenges the notion that it is a purely political issue

[151] On the Holocene see J.S. Dryzek & J. Pickering, *The Politics of the Anthropocene* (Oxford University Press, 2018), pp. 20–33; K.F. Smith et al., 'Global Rise in Human Infectious Disease Outbreaks' (2014) 11(101) *Journal of The Royal Society Interface*, article 20140950.

[152] For an account of interactional international law see J. Brunnée & S.J. Toope, 'Interactional International Law: An Introduction' (2011) 3(2) *International Theory*, pp. 307–18; L. Green, 'Positivism and the Inseparability of Law and Morals' (2008) 83(4) *New York University Law Review*, pp. 1035–58, at 1038–41.

[153] Kotzé, n. 145 above.

[154] S. Behrendt, 'Facing the Future: Conceiving Legal Obligations Towards Future Generations' (2024) 12 *Politics and Governance*, article 7839.

[155] Burgers, n. 53 above, pp. 57–8; L. Beckman & F. Uggla, 'An Ombudsman for Future Generations: Legitimate and Effective?', in I. González-Ricoy & A. Gosseries (eds), *Institutions for Future Generations* (Oxford University Press, 2016), pp. 117–34.

[156] J. Jahn, 'Domestic Courts as Guarantors of International Climate Cooperation: Insights from the German Constitutional Court's Climate Decision' (2023) 21(3) *International Journal of Constitutional Law*, pp. 859–83.

[157] G. Ganguly, J. Setzer & V. Heyvaert, 'If at First You Don't Succeed: Suing Corporations for Climate Change' (2018) 38 *Oxford Journal of Legal Studies*, pp. 841–68, at 864–67; Eckes, n. 117 above.

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beyond judicial oversight.[158] At the same time, any viable theory of legitimate intergenerational adjudication must articulate principled limits on judicial lawmaking power.[159]

What is needed is an adapted positivism that acknowledges law's embeddedness in a shifting socio-ecological substrate while preserving its formal features as a normative order. Such an approach would recognize intergenerational climate obligations as a contextualized interpretation of pre-existing legal commitments in the light of evolving material realities and societal values.[160] Its democratic legitimacy would flow from judges' ability to articulate compelling public justifications that resonate with shared understandings of the responsibilities of law across time.[161]

On this view, climate litigation cases are best understood as provisional attempts to reconcile existing doctrinal structures with the exigencies of an intergenerationally threatened world. By striving to represent posterity's interests through established procedural and interpretive norms, courts are not subverting positivism but renovating it for the climate-altered present – holding law accountable to its own premises under unprecedented conditions. The result is an adapted separation of powers for the Anthropocene: one that does not just balance institutional prerogatives in the present but sustains their long-term vitality for an uncertain future.

One promising path forward is to reconceive the rule of recognition – the master conventional norm that determines law's validity criteria – as responsive to the shifting empirical conditions and shared normative understandings of a climate-changed world.[162] On this view, the social facts that ground legal validity are not fixed and ahistorical, but contingently evolving in the light of the mutually constitutive relationship between law and its material-ecological context.[163] Just as the modern rule of recognition came to internalize norms of popular sovereignty and individual rights in response to changing social-political conditions,[164] so too a postmodern rule of recognition must internalize norms of long-term ecological sustainability and intergenerational justice in response to a drastically non-analogue climate future. This is an ambitious theoretical task, and much work remains to flesh out a suitably 'naturalized' positivist framework capable of meeting the Anthropocene's conceptual and ethical challenges. However, the urgency is clear: as the background conditions for legal-political ordering become increasingly unstable, positivism must adapt or risk obsolescence. A theory of law premised on a static view of social facts untouched by disruptive socio-ecological change cannot for long maintain its explanatory and normative power.[165] Crucially, however, embracing the hybrid facticity of the

[158] *Urgenda*, n. 6 above, para. 5.6.2.
[159] D. Bodansky, 'The Role of the International Court of Justice in Addressing Climate Change: Some Preliminary Reflections' (2017) 49 *Arizona State Law Journal*, pp. 689–712, at 704.
[160] Burgers, n. 53 above, pp. 74–75.
[161] Ibid.
[162] Atiq & Matthews, n. 143 above, pp. 402–11; Kramer, n. 143 above.
[163] N. Walker, 'Populism and Constitutional Tension' (2019) 17(2) *International Journal of Constitutional Law*, pp. 515–35.
[164] Ibid.
[165] Cheong, n. 4 above; Warnock & Preston, n. 4 above.

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Anthropocene need not entail abandoning the core insight of positivism: that law is ultimately a human construction, not a metaphysical given. What it requires is a more reflexive and empirically attuned positivism, one that recognizes the deep entanglement of social facts and natural facts in a rapidly changing world.[166] The task is not to jettison the fact/value distinction, but to re-imagine it for an age in which the formerly stable 'natural' background conditions for law's existence can no longer be taken for granted.

In this light, decisions such as *Urgenda*, *Neubauer*, and *KlimaSeniorinnen* are not rogue judicial violations of the positivist faith, but pioneering attempts to work out the legal-normative implications of the Anthropocene's altered empirical terrain.[167] By bringing long-term ecological impacts within the ambit of constitutional reasoning, by adapting rights and duties to the material realities of climate disruption, these courts are engaging in a situated, dynamic positivism fit for an age of tipping points and intergenerational threat.[168] They are, in effect, interpreting the interpretive practices of their legal orders in the light of the mutually constitutive relationship between law and the Earth systems upon which all human societies ultimately depend.[169] This is a jurisprudential project still in its infancy, and courts alone cannot see it to fruition. Realizing a fully postmodern positivism that is ecologically responsive will require a whole-of-society effort, in which legislative, executive, and citizen energies combine to remake the social facticity of the legal order from the ground up.[170] However, the anticipatory orientation,[171] analogical flexibility, and practical imperative to resolve future-redounding disputes render courts a privileged site for this reconstructive work.[172] In a very real sense, climate litigation represents a materialization of the logics of Earth system governance within the heart of the positive legal order.

[166] J. Dickson, 'Is the Rule of Recognition Really a Conventional Rule?' (2007) 27(3) *Oxford Journal of Legal Studies*, pp. 373–402; B.Z. Tamanaha, *A Realistic Theory of Law* (Cambridge University Press, 2017); Cheong, n. 4 above.

[167] Minnerop, n. 56 above; D. Priel, 'The Place of Legitimacy in Legal Theory' (2011) 57(1) *McGill Law Journal*, pp. 1–35, at 20–3.

[168] Cheong, n. 4 above; Warnock & Preston, n. 4 above.

[169] D. Patterson, 'Theoretical Disagreement, Legal Positivism, and Interpretation' (2018) 31(3) *Ratio Juris*, pp. 260–75.

[170] C. Okereke, 'Equity and Justice in Polycentric Climate Governance', in A. Jordan et al. (eds), *Governing Climate Change: Polycentricity in Action?* (Cambridge University Press, 2018), pp. 320–37; for an account of the challenges of evaluating environmental legislation see E. Scotford, 'Legislation and the Stress of Environmental Problems' (2021) 74 *Current Legal Problems*, pp. 299–327, at 312–16.

[171] Burch et al., n. 149 above; M. Milkoreit et al., 'Governance for Earth System Tipping Points: A Research Agenda' (2024) 21 *Earth System Governance*, article 100216; F. Biermann et al., 'Earth System Governance: A Research Framework' (2010) 10(4) *International Environmental Agreements: Politics, Law and Economics*, pp. 277–98, at 279–80.

[172] R. McMenamin, 'Advisory Opinion on Obligations of States in respect of Climate Change: Potential Contribution of Human Rights Bodies' (2023) 13 *Climate Law*, pp. 213–23; J. Peel & H.M. Osofsky, 'A Rights Turn in Climate Change Litigation?' (2018) 7(1) *Transnational Environmental Law*, pp. 37–67; V.C. Jackson, 'Comparative Constitutional Law, Legal Realism, and Empirical Legal Science' (2016) 96(6) *Boston University Law Review*, pp. 1359–74, at 1370–4; N.J. Brown & J.G. Waller, 'Constitutional Courts and Political Uncertainty: Constitutional Ruptures and the Rule of Judges' (2016) 14(4) *International Journal of Constitutional Law*, pp. 817–50, at 819–21.

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Whether this emergent 'Anthropocene jurisprudence' can spur a wider transformation of legal-political thought and practice is an open question. The forces of inertia and vested interests are formidable, and the temptation to revert to a pale imitation of 20th-century 'business as usual' positivism in the face of disorienting change is strong, but if the analysis here is correct, such a reversion would be a grave mistake. In a world where social facts and natural facts are inextricably entangled, where the background conditions for law's existence are themselves the subject of existential threat, a positivism unresponsive to context is no positivism at all. It is a formalist evasion of law's dependence on a rapidly shifting empirical terrain.[173] The urgent task is thus to make good on positivism's pragmatic promise – its commitment to law as a social tool for solving real-world problems – by re-grounding legal validity in the complex, dynamic materiality of the Anthropocene.[174] This is not a betrayal of the core tenets of positivism, but their realization under radically non-ideal conditions. Only by embracing the hybridity of social and natural facts can positivism construct legal orders responsive to the accelerating feedback loops between human systems and Earth systems. In an era of existential climatic threat, this may be the only way to salvage the positivist project – and the rule of law itself – for a world in profound transition.

6. Conclusion

The emergence of climate change litigation as a global phenomenon has thrown into sharp relief the tensions and limitations of traditional legal paradigms in the face of unprecedented ecological and intergenerational challenges. In particular, the principle of intergenerational justice, which holds that present generations have an obligation to preserve a liveable planet for future generations, has posed a fundamental challenge to the positivist conception of law as a system of rules grounded solely on social facts. As this article has shown, courts have struggled to reconcile the competing demands of legal certainty and predictability, on the one hand, and the urgent need for transformative climate action, on the other. While some courts have taken tentative steps towards incorporating principles of intergenerational justice into existing legal doctrines and frameworks, others have been more reluctant to venture beyond the traditional bounds of positivist legal reasoning.[175]

At the same time, the Anthropocene context of rapid and pervasive ecological change has called into question the very foundations of legal positivism, and the ways in which law can and should evolve to meet the challenges of a new geological era. As the climate crisis deepens and the window for effective action narrows, there is an increasingly urgent need for legal systems to develop new tools and approaches that

[173] Priel, n. 167 above, pp. 20–3; see, e.g., Green, n. 152 above, pp. 1038–41.

[174] On contextual constitutionalism see D.S. Law (ed.), *Constitutionalism in Context* (Cambridge University Press, 2022).

[175] For a helpful summary of the case law see M. Wewerinke-Singh, A. Garg & S. Agarwalla, 'In Defence of Future Generations: A Reply to Stephen Humphreys' (2023) 34(3) *European Journal of International Law*, pp. 651–68.

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can grapple with the intergenerational and ecological dimensions of justice. This article has argued that although the advent of the climate crisis strains conventional distinctions between legal positivism and natural law, an integrated public law doctrine that encompasses intergenerational responsibilities remains both possible and necessary. Informed by insights of contextual constitutionalism and reconfigured for positivism's internal development, such a framework would preserve the overarching architecture of the positive legal order while realigning its orienting fact/value machinery to the intergenerational conditions of the Anthropocene.

It is important, however, to acknowledge the need for caution in overly romanticizing the progressive potential of climate litigation. As Kulamadayil observes, diagnosing judicial decisions as unqualified 'progress' in the fight against climate change can inadvertently invite a premature sense of satisfaction that inhibits further transformative change.[176] Moreover, focusing disproportionately on the role of courts risks obscuring the ongoing responsibilities of other governance actors.[177] Kulamadayil's analysis helpfully situates European climate judgments within a broader 'judicial field' shaped by complex socio-political forces and inter-court alignments.[178] This suggests that the decisions may be reflecting as much as challenging the climate policy trajectories of national governments, even as they give those trajectories tangible legal form. Maintaining a critical scholarly perspective on climate jurisprudence is thus vital for resisting the siren song of 'progress narratives' and sustaining the impetus for further legal-institutional transformation.[179]

Yet the intergenerational reinterpretation of positive legal constructs has had significant, if measured, transformative effects. As courts engage in this process, they gradually reshape the legal landscape to better accommodate long-term environmental concerns and the interests of future generations. This dynamic interpretation, as Sulyok astutely observes, has the potential to lead to an 'intergenerationally sensitive reinterpretation' of fundamental legal principles, including the rule of law itself.[180] Such a reinterpretation does not merely adjust existing legal doctrines; it fundamentally alters how we conceptualize legal obligations and rights across time. The *Urgenda*, *Neubauer*, and *KlimaSeniorinnen* courts draw on the established rights structures of their respective constitutional systems rather than philosophical first principles, while nevertheless infusing those structures with amplified intergenerational meaning. They work through case-specific holdings, precedents, and analogical moves, to give near-term operation to still-rarefied conceptions of long-term harm and obligation.

In this way, the situational approach outlined here portends a progressive reorientation of the entire positive legal order towards long-range sustainment. The dislocating nature of Anthropocene disruption and the remedial dead spots of the

[176] L. Kulamadayil, 'Between Activism and Complacency: International Law Perspectives on European Climate Litigation' (2021) 10(5) *European Society of International Law Reflections*, pp. 1–7, at 1.
[177] Ibid., p. 2.
[178] Ibid., p. 3.
[179] Ibid., pp. 3–4.
[180] Sulyok, n. 1 above, pp. 477–8.

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traditional branches position courts to lead the transition. Removed a step from the temporal and material entanglements of frontline governance, courts enjoy a unique capacity to imagine the law for a new age in real time.[181] The situated intergenerational justice judgments radiating out are thus best read not as rogue jurisprudential transgressions but as early assay-interventions adapting the interpretive and normative bases of legal authority to a materially shifting world. Ultimately, the challenge of reconciling legal positivism and intergenerational justice in the age of climate change is not merely an academic or theoretical exercise, but a profoundly practical and urgent one. The fate of countless future generations depends on our ability to develop legal systems and institutions that are both effective and legitimate, and that can steer us towards a more just and sustainable future. It is a daunting task from which we cannot afford to shirk.

As the eminent legal philosopher Ronald Dworkin once remarked, '[l]aw's attitude is constructive: it aims, in the interpretive spirit, to lay principle over practice to show the best route to a better future, keeping the right faith with the past'.[182] In the context of the Anthropocene, this constructive attitude must be coupled with a deep sense of humility and responsibility in order to build a new vision of law that is adequate for the scale and complexity of the challenges we face. The judgments in *Urgenda*, *Neubauer*, *KlimaSeniorinnen* and related cases are striving in contextually sensitive ways to 'salvage' a positivist legal order increasingly out of sync with material realities.[183] They are finding space within positive law itself to make good on its ecological blind spots and time lags. This is legal positivism as transfigured to an age of environmental emergency: a public law of multigenerational responsibilities for a world on the brink.

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[181] On the proposal for an international environmental court see, e.g., A.M. Solntsev, 'The International Environmental Court: A Necessary Institution for Sustainable Planetary Governance in the Anthropocene', in M. Lim (ed.), *Charting Environmental Law Futures in the Anthropocene* (Springer, 2019), pp. 129–38.

[182] Dworkin, n. 136 above, p. 413.

[183] S. Hall, 'The Persistent Spectre: Natural Law, International Order and the Limits of Legal Positivism' (2001) 12(2) *European Journal of International Law*, pp. 269–307, at 306.

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