CLIMATE CHANGE AND THE CONSTITUTION: THE CASE FOR THE ECOLOGICAL LIMITATION

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In this article, I explore the doctrinal argument for establishing a new implication in Australian constitutional law. The 'ecological limitation' is a proposed constitutional implication restraining some forms of Commonwealth or state legislative and executive action worsening climate change. The argument for its derivation is based on the premise that such action poses a threat to the long-term structural integrity, if not existence, of the Australian constitutional system. When domestic government action threatens this system, even in a partial or incremental manner, the High Court may derive implications from the Commonwealth Constitution *to restrain such action. This is the reasoning underpinning the Court's establishment of implied limitations such as the* Melbourne Corporation *and political communication limitations. In order to help assess the doctrinal merits of the ecological limitation, I examine a hypothetical matter centring on whether Queensland government approval of a coal mine being pursued by Adani Mining Pty Ltd breaches this limitation.*

I INTRODUCTION

The *Constitution* is an intergenerational compact establishing a constitutional system 'intended to endure for centuries'.[1] Runaway climate change, however, poses a threat to the long-term durability of this system. 'Runaway climate change' describes the phenomenon predicted to occur if greenhouse gas emissions surpass a certain level.[2] Once surpassed, global temperature is expected to effectively rise of its own volition as a myriad of changes in the Earth's climate system detrimental

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1 *Theophanous v Herald & Weekly Times Ltd* (1994) 182 CLR 104, 196 (McHugh J) ('*Theophanous*'). For discussion on the connection between constitutions and the future generations they serve, see Karen Schultz, 'Future Citizens or Intergenerational Aliens? Limits of Australian Constitutional Citizenship' (2012) 21(1) *Griffith Law Review* 36; Richard P Hiskes, *The Human Right to a Green Future: Environmental Rights and Intergenerational Justice* (Cambridge University Press, 2009) 126–33.

2 Haydn Washington and John Cook, *Climate Change Denial: Heads in the Sand* (Earthscan, 2011) 30–1. As discussed below in Part IV, a global temperature of 2°C above pre-industrial levels ('2°C') is broadly held to demarcate when the risk of generating runaway climate change substantially increases.

to humankind are generated.[3] In Australia, runaway climate change is predicted to compromise food and water security;[4] exacerbate health problems;[5] increase security threats as severe climate impacts fuel international conflicts;[6] submerge coastal areas as sea-levels rise;[7] and increase extreme weather events such as heatwaves and floods.[8] While the future effects of runaway climate change cannot be known with certainty, climate experts fear that these overlapping pressures may ultimately result in nothing short of societal collapse in Australia and beyond.[9] Runaway climate change, therefore, has the potential to significantly damage, if not completely destroy, the Australian constitutional system, along with a range of other areas of human (and non-human) life.[10]

Despite the danger runaway climate change poses, Australian governments continue to take legislative and executive action that contributes to bringing about this existential threat. Indeed, Australia is ranked as one of the worst performing nations on climate change in the world.[11] This low ranking is due to a range of factors including Australian governments' insufficient laws and policies regarding emissions reduction, renewable energy and the phasing out of coal.[12] While climate change is the product of a complex web of fossil fuel projects and human activities

3 Ibid.

4 Lesley Hughes et al, Climate Council, *Feeding a Hungry Nation: Climate Change, Food and Farming in Australia* (Report, 2015); Will Steffen et al, Climate Council, *Deluge and Drought: Australia's Water Security in a Changing Climate* (Report, 2018) ('*Deluge*'); Mark Howden, Serena Schroeter and Steven Crimp, 'Agriculture in an Even More Sunburnt Country' in Peter Christoff (ed), *Four Degrees of Global Warming: Australia in a Hot World* (Routledge, 2013) 101, 105–15; Ben Saul et al, *Climate Change and Australia: Warming to the Global Challenge* (Federation Press, 2012) 44–6.

5 Australian Academy of Science, *Climate Change Challenges to Health: Risks and Opportunities* (Report, 2015); Anthony J McMichael, 'Health Impacts in Australia in a Four Degree World' in Peter Christoff (ed), *Four Degrees of Global Warming: Australia in a Hot World* (Routledge, 2013) 155; Saul et al (n 4) 48–9.

6 Chris Barrie et al, Climate Council, *Be Prepared: Climate Change, Security and Australia's Defence Force* (Report, 2015); Peter Christoff and Robyn Eckersley, 'No Island Is an Island: Security in a Four Degree World' in Peter Christoff (ed), *Four Degrees of Global Warming: Australia in a Hot World* (Routledge, 2013) 190; Saul et al (n 4) ch 6.

7 Department of Climate Change (Cth), *Climate Change Risks to Australia's Coast: A First Pass National Assessment* (Report, 2009); Will Steffen, John Hunter and Lesley Hughes, Climate Council, *Counting the Costs: Climate Change and Coastal Flooding* (Report, 2014).

8 Karl Braganza et al, 'Changes in Extreme Weather' in Peter Christoff (ed), *Four Degrees of Global Warming: Australia in a Hot World* (Routledge, 2013) 33; Steffen et al, *Deluge* (n 4); Saul et al (n 4) 40–3.

9 See below Part IV.

10 Ibid.

11 Australia ranks 54 out of 61 nations (including the European Union as a whole) in the Climate Change Performance Index: Jan Burck et al, Germanwatch, NewClimate Institute and Climate Action Network, *Climate Change Performance Index: Results 2021* (Report, December 2020) 7. Note that the three top positions are left blank on the ranking as '[n]o country is doing enough to prevent dangerous climate change': at 7.

12 Ibid 15. This is not to suggest that the implication I am proposing, the ecological limitation, would be capable of restraining legislative and executive action in all of these areas.

and no one nation's contributions are determinative, Australian governments' greenhouse gas contributions are not insignificant. Climate change is a 'death by a thousand cuts' problem and all substantial 'cuts' must be taken seriously.[13] This is especially the case considering the dangerous position in which humankind has been placed after decades of climate inaction. While the level of greenhouse gas emissions into the atmosphere that must be observed to avoid generating runaway climate change is not known with precision (and the Earth's complex climate system is not expected to react to emission increases in a steady linear fashion), some climate experts fear that this level has already been breached.[14] Australian government action worsening climate change at this fragile moment has a heightened significance.

Thus, by contributing to bringing about runaway climate change, this government action contributes to bringing about a serious threat to the Australian constitutional system. When government action poses a threat to this constitutional system, political means (such as parliamentary scrutiny or public debate) might be relied upon to confront this action. The existence of such a threat, however, may also provide the grounds for deriving an implied limitation from the *Constitution* to restrain such action. The *Melbourne Corporation v Commonwealth* doctrine or principle ('*Melbourne Corporation* limitation'), for example, is an implied limitation restraining the Commonwealth from passing laws that unduly burden the states' autonomy.[15] The High Court derived it to help protect the federal foundations of this constitutional system. Another example is the implied freedom of political communication ('political communication limitation'), an implied limitation restraining the Commonwealth and states from taking legislative and executive action that unduly burdens people's freedom of communication about government and political matters.[16] The High Court derived it to help protect the democratic foundations of this constitutional system.[17]

In this article, I propose that a doctrinal argument can be made for establishing an implied limitation restraining Commonwealth and state legislative and executive action that unduly burdens Australia's habitability. This is to help protect the ecological foundations of the Australian constitutional system.[18] I refer to this

13 Jacqueline Peel, 'Issues in Climate Change Litigation' (2011) 5(1) *Carbon and Climate Law Review* 15, 17–18.

14 The Stockholm Resilience Centre, for example, asserts that the 'planetary boundary', which effectively marks when the risk of triggering runaway climate change substantially increases, has already been breached: Johan Rockström et al, 'Planetary Boundaries: Exploring the Safe Operating Space for Humanity' (2009) 14(2) *Ecology and Society* 32; Will Steffen et al, 'Planetary Boundaries: Guiding Human Development on a Changing Planet' (2015) 347(6223) *Science* 1259855-1 ('Planetary Boundaries').

15 (1947) 74 CLR 31, 60 (Latham CJ), 66 (Rich J), 75 (Starke J), 81–2 (Dixon J) ('*Melbourne Corporation*').

16 *Lange v Australian Broadcasting Corporati*on (1997) 189 CLR 520, 567 (Brennan CJ, Dawson, Toohey, Gaudron, McHugh, Gummow and Kirby JJ) ('*Lange*').

17 See below Part II.

18 This is not to suggest that the Australian constitutional system's federal and democratic foundations are entirely distinct from these ecological foundations. Principles such as federalism,

proposed implication as the 'ecological limitation'.[19] Its establishment is premised on the fact that the Australian constitutional system and Australian ecosystem are not separate entities. The former interconnects with, exists within, and is dependent upon, the latter.[20] Activity that significantly damages the Australian ecosystem has the capacity to damage the constitutional system situated within it. In order to make a doctrinal argument for establishing the ecological limitation, I adhere to the High Court's approach to deriving implications articulated in *Lange v Australian Broadcasting Corporation* ('*Lange*') — the 'text and structure' approach.[21] I also draw on similarities between this proposed limitation and established implications, paying particular attention to other implied limitations targeted at preserving the structural integrity of the Australian constitutional system ('implied structural limitations') such as the *Melbourne Corporation* and political communication limitations discussed above.

In Australian constitutional law, profound social or global changes have often formed the backdrop for deriving new implications. This is due to the fact that new circumstances have the capacity to shed light on dimensions of constitutional law that may not have been previously considered nor plainly evident from a reading of the *Constitution*'s words.[22] The era of big (centralised) government during and after World War II, for instance, formed the backdrop for establishing the *Melbourne Corporation* limitation.[23] In *Melbourne Corporation*, the High Court was compelled to consider what implied protection might exist to preserve the states' autonomy in the face of unprecedented expansions of Commonwealth power.[24] The unique threat posed by communism during the Cold War, for another example, formed the backdrop for establishing the nationhood power (or at least the postulate to it).[25] Matters from this era raised the question of whether some implied constitutional power may allow the Commonwealth to tackle threats to the nation that may not fit neatly within other expressed constitutional mechanisms for

representative democracy and separation of powers require certain ecological conditions to be in place for their practical operation. See below Part III; Constantine Avgoustinos, 'Climate Change and the Australian Constitution: The Case for the Ecological Limitation' (PhD Thesis, University of New South Wales, 2020) ch 4(III).

19 For a detailed formulation of the ecological limitation, see below Part V.

20 Nicole Graham, 'Owning the Earth' in Peter Burdon (ed), *Exploring Wild Law: The Philosophy of Earth Jurisprudence* (Wakefield Press, 2011) 259, 259.

21 *Lange* (n 16) 566–7 (Brennan CJ, Dawson, Toohey, Gaudron, McHugh, Gummow and Kirby JJ), citing *McGinty v Western Australia* (1996) 186 CLR 140, 168 (Brennan CJ), 182–3 (Dawson J), 231 (McHugh J), 284–5 (Gummow J). See below Part II.

22 *Theophanous* (n 1) 143–4 (Brennan J), 197 (McHugh J), quoting *New South Wales v Commonwealth* (1990) 169 CLR 482, 511 (Deane J); *Victoria v Commonwealth* (1971) 122 CLR 353, 396–7 (Windeyer J); Jeremy Kirk, 'Constitutional Interpretation and a Theory of Evolutionary Originalism' (1999) 27(3) *Federal Law Review* 323, 332–3.

23 Fiona Wheeler, 'The Latham Court: Law, War and Politics' in Rosalind Dixon and George Williams (eds), *The High Court, the Constitution and Australian Politics* (Cambridge University Press, 2015) 159, 166–7, 169.

24 *Melbourne Corporation* (n 15).

25 Nicholas Aroney et al, *The Constitution of the Commonwealth of Australia: History, Principle and Interpretation* (Cambridge University Press, 2015) 196–8.

protection such as the defence power.[26] Profound social and global changes similarly form the backdrop for the ecological limitation. The unprecedented emerging threat of runaway climate change serves as the catalyst for considering the establishment of this proposed implication.

While the ecological limitation is partially inspired by the ways in which constitutional implications have emerged at critical junctures in Australia's (constitutional law) history, I also draw inspiration from the climate litigation movement underway across the globe. Constitutional law figures substantially in this developing movement. In *Urgenda Foundation v Netherlands*, the Hague District Court drew on the Dutch government's environmental protection obligations in constitutional law to help establish a governmental duty of care to its citizens to strengthen its greenhouse gas emission reduction commitments.[27] In *Leghari v Federation of Pakistan*, the High Court of Lahore held that the Pakistani government's failure to implement its climate policies violated citizens' constitutional rights to life, human dignity, property and information.[28] At the time of writing, the plaintiffs in *Juliana v United States* are in the process of arguing that the public trust doctrine has an implied place in the *United States Constitution* that would effectively restrict the Federal government's ability to worsen climate change.[29]

Thus, a trend can be detected in the field of constitutional law. People across the globe have been seeking answers from their courts on what is implied or expressed within their respective constitutions that may be of assistance in combatting climate change.[30] Such an inquiry is yet to be made in an Australian court regarding Australia's *Constitution*. This article considers the potential for making such an inquiry domestically, at least with regard to the question of what may be implied in the *Constitution* for the sake of preserving the *Constitution* itself.

This article is structured as follows. In Part II, I outline the High Court's approach to establishing constitutional implications, the 'text and structure' approach. I apply this approach in Part III to make the basic doctrinal argument for establishing the ecological limitation. In the remainder of this article, I tease out this argument, detail how the limitation may be formulated and explore the objections that it might attract. This begins in Part IV, where I discuss how implied structural limitations are generally formulated to accommodate the partial ways in which government action may compromise the structural integrity of the Australian constitutional system. This permits the ecological limitation to be formulated in a manner that

26 *Constitution* s 51(vi); *Burns v Ransley* (1949) 79 CLR 101, 109–10 (Latham CJ), 116 (Dixon J); *R v Sharkey* (1949) 79 CLR 121, 135 (Latham CJ), 148 (Dixon J); *Australian Communist Party v Commonwealth* (1951) 83 CLR 1, 187–8 (Dixon J), 259–60 (Fullagar J).

27 Rechtbank Den Haag [Hague District Court], C/09/456689/HA ZA 13-1396, 24 June 2015 [4.74].

28 (Lahore High Court, WP No 25501/2015, 4 September 2015) [8] (Shah J).

29 947 F 3d 1159, 1165 (Hurwitz J for Murguia J) (9th Cir, 2020).

30 For discussion on other climate litigation matters involving constitutional law, see United Nations Environment Programme, *The Status of Climate Change Litigation: A Global Review* (Report, May 2017); Avgoustinos (n 18) 25–33.

restrains certain forms of government action worsening climate change despite them not being capable of singlehandedly destroying this constitutional system. The limitation would also likely be formulated to incorporate the concept of proportionality, as I examine in Part V. This is in order to take into account the countervailing benefits of government action causing environmental damage. In Part VI, I address concerns that the ecological limitation invites judges to engage in political decision-making incongruent with their constitutional role. I, then, address concerns that deriving this limitation is incompatible with the intentions of the framers of the *Constitution* as well as the Court's treatment of prior threats to the nation in Part VII. Overall, my conclusion is that a plausible argument can be made for deriving the ecological limitation despite such objections.

At certain junctures in this article, I also examine a hypothetical ecological limitation matter. This matter centres on whether government approval of an actual proposed coal mine to be built in the Galilee Basin by Adani Mining Pty Ltd ('Carmichael mine') would be in breach of the ecological limitation.[31]

31 While various Queensland and Commonwealth executive approvals are required to build this mine, for the sake of convenience, I will focus the discussion on the three mining leases — 70441 (Carmichael), 70505 (Carmichael East) and 70506 (Carmichael North) — granted by the Queensland Minister for Natural Resources and Mines (now referred to as the 'Minister for Natural Resources, Mines and Energy') made under s 271A of the *Mineral Resources Act 1989* (Qld). The other main executive approvals required by (and granted to) Adani are environmental authority under the *Environmental Protection Act 1994* (Qld) and approval under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth): 'Carmichael Coal ("Adani") Mine Cases in Queensland Courts', *Environmental Law Australia* (Web Page) <envlaw.com.au/carmichael-coal-mine-case>. Precedent involving other constitutional limitations, such as the political communication limitation, suggests that the executive action (namely, the mining lease approvals) be the subject of this case study rather than the legislative action (namely, s 271A): *Wotton v Queensland* (2012) 246 CLR 1, 9–10 [10] (French CJ, Gummow, Hayne, Crennan and Bell JJ) ('*Wotton*'), quoting *Miller v TCN Channel Nine Pty Ltd* (1986) 161 CLR 556, 613–14 (Brennan J), *Wilcox Mofflin Ltd v New South Wales* (1952) 85 CLR 488, 522 (Dixon, McTiernan and Fullagar JJ) and *Inglis v Moore [No 2]* (1979) 46 FLR 470, 476 (St John and Brennan JJ). *Chief of Defence Force v Gaynor* (2017) 246 FCR 298, 315–7 [69]–[80] (Perram, Mortimer and Gleeson JJ); *Comcare v Banerji* (2019) 267 CLR 373, 421–3 [96]–[99] (Gageler J), 458–9 [207]–[211] (Edelman J); Justice Pamela Tate, 'The Federal and State Courts on Constitutional Law: The 2017 Term' (Conference Paper, Constitutional Law Conference, 23 February 2018) 6–9; James Stellios, '*Marbury v Madison*: Constitutional Limitations and Statutory Discretions' (2016) 42(3) *Australian Bar Review* 324. The High Court asserts that one should examine an executive discretionary decision's compatibility with a constitutional limitation, rather than the legislative provision it is made under, where this provision takes a certain form: *Wotton* (n 31) 14 [22]–[23] (French CJ, Gummow, Hayne, Crennan and Bell JJ); Stellios (n 31) 335–40. That form is a provision with such broad language that whether it breaches the limitation or not will only become apparent based on *how* it is applied by the executive officer or body in question: *Wotton* (n 31) 14 [22]–[23] (French CJ, Gummow, Hayne, Crennan and Bell JJ); Stellios (n 31) 335–40. Section 271A of the *Mineral Resources Act 1989* (Qld) is such a provision. This section is written in general terms, essentially stating that the Minister may grant or reject a mining lease application after considering certain criteria and obtaining certain consent from the landowner and Governor in Council. Such mining leases are not restricted to coal. They may be granted under this section for an array of mining ventures, such as gold and silver mining. Thus, its use in approving the Carmichael mine may breach the ecological limitation. Its use in approving other mines that are not fossil fuel related (or otherwise place a significant burden on Australia's habitability) would not. For more detailed discussion on how constitutional limitations apply to such executive action (and the application of this precedent with regard to this case study), see Avgoustinos (n 18) 193–6.

I draw on this case study to illustrate the practical operation of this limitation where relevant.[32]

II THE 'TEXT AND STRUCTURE' APPROACH

Implications play a vital role in detailing how the Australian constitutional system operates and is to be maintained. As Dixon J explains, a prohibition on implications 'would defeat the intention of any instrument, but of all instruments a written constitution seems the last to which it could be applied'.[33] This is because written constitutions must be 'expressed in general propositions wide enough to be capable of flexible application to changing circumstances'.[34] In *Lange*, the High Court establishes that implications must be drawn from the 'text and structure' of the *Constitution*.[35] This generally requires one to begin with the ideas conveyed directly, or explicitly, by the *Constitution*'s words and take logical steps from there to arrive at the implication — the ideas conveyed indirectly, or implicitly.[36] Implied structural limitations, in particular, can only be established if they are deemed 'logically or practically necessary' to preserve the integrity of the *Constitution*'s 'structure'.[37] This 'structure' encapsulates the foundational systems that shape the Australian constitutional system (such as the electoral system, parliamentary system, and judicial system) as well as the principles animating these systems (such as federalism, separation of powers, and representative democracy).[38]

Consider the political communication limitation for example. The rationale for deriving this implication can be summarised essentially as follows: while the *Constitution* includes no mention of 'free speech' or similar concepts, various provisions (such as ss 7 and 24 stipulating that members of Commonwealth Parliament be 'directly chosen by the people' and s 128 establishing a referenda process for altering the *Constitution*) indicate that the Australian constitutional system is a system of representative democracy.[39] Such a system can only be

32 I discuss this Carmichael mine case study in more detail in Avgoustinos (n 18) ch 6.

33 *West v Commissioner of Taxation (NSW)* (1937) 56 CLR 657, 681.

34 *Australian National Airways Pty Ltd v Commonwealth* (1945) 71 CLR 29, 81 (Dixon J).

35 *Lange* (n 16) 566–7 (Brennan CJ, Dawson, Toohey, Gaudron, McHugh, Gummow and Kirby JJ).

36 See Avgoustinos (n 18) 41–6.

37 *Australian Capital Television Pty Ltd v Commonwealth* (1992) 177 CLR 106, 135 (Mason CJ) ('*ACTV*').

38 The *Constitution*'s 'structure' may also refer to the ordering of the *Constitution*'s chapters and provisions in some contexts: Jeremy Kirk, 'Constitutional Implications (I): Nature, Legitimacy, Classification, Examples' (2000) 24(3) *Melbourne University Law Review* 645, 664 ('Implications I'). This understanding of 'structure' is not relevant for the purposes of this article.

39 *Lange* (n 16) 557–9 (Brennan CJ, Dawson, Toohey, Gaudron, McHugh, Gummow and Kirby JJ). As Jeremy Kirk notes, the precise provisions that justify the political communication limitation's establishment are 'a little unclear': Jeremy Kirk 'Constitutional Implications (II): Doctrines of Equality and Democracy' (2001) 25(1) *Melbourne University Law Review* 24, 49 ('Implications II'). Further, the political communication limitation is sometimes held in the case law to be grounded in the concepts of 'representative democracy', 'representative government' and/or 'responsible government'. The first two of these terms seem broadly interchangeable: Jeremy Kirk, 'Administrative Justice and the Australian Constitution' in Robin Creyke and John

maintained if some standard of freedom of communication about government and political matters is upheld in Australian society. Establishing a judicially enforced implied limitation on government action that breaches this standard, therefore, is 'necessary'. This limitation is the political communication limitation. As can be seen, several logical steps can be taken from the ideas conveyed directly by the *Constitution*'s words to arrive at the idea conveyed indirectly by them — the implication.

Reference to the *Constitution*'s 'text and structure' alone, however, has limited ability to conclusively explain whether a proposed implication may be derived and how it is to be formulated. A substantial amount of judicial discretion exists when determining the ideas that may be gleaned from the *Constitution*'s 'text', the content of the systems and principles that form the *Constitution*'s 'structure' and what is 'necessary' to protect that 'structure'.[40] Jeffrey Goldsworthy, for instance, questions whether establishing the judicially enforced political communication limitation was truly 'necessary' considering, among other issues, the fact that 'Australia had an effective representative democracy for nearly a century' without it.[41] Adrienne Stone, for another example, highlights the judicial choice evident in the Court's formulation of this implication.[42] Judges gained little to no guidance from the wording of the *Constitution*'s provisions on how to model this implied freedom to 'determine which burdens on political communication are permissible and which are not'.[43] The Court's choice of a flexible proportionality approach (over a more rigid approach, employed in the United States, involving a series of standards tailored to different categories of political communication) was largely a value judgment.[44]

Thus, the *Constitution*'s 'text and structure' provides broad, but often indeterminate, guidance for assessing the doctrinal merits of a proposed implication. In order to assess the doctrinal merits of the ecological limitation,

McMillan (eds), *Administrative Justice: The Core and the Fringe* (Australian Institute of Administrative Law, 2000) 78, 99–101. 'Responsible government' is sometimes framed as a component of 'representative democracy' or 'representative government': see, eg, *Nationwide News Pty Ltd v Wills* (1992) 177 CLR 1, 71 n 25 (Deane and Toohey JJ) ('*Nationwide News*'). For the sake of convenience, I use the term 'representative democracy' (and it should be considered to include 'responsible government' where appropriate).

40 Avgoustinos (n 18) 83–8.

41 Jeffrey Goldsworthy, 'Constitutional Implications and Freedom of Political Speech: A Reply to Stephen Donaghue' (1997) 23(2) *Monash University Law Review* 362, 372.

42 Adrienne Stone, 'The Limits of Constitutional Text and Structure: Standards of Review and the Freedom of Political Communication' (1999) 23(3) *Melbourne University Law Review* 668; Adrienne Stone, 'The Limits of Constitutional Text and Structure Revisited' (2005) 28(3) *University of New South Wales Law Journal* 842 ('Revisited').

43 Stone, 'Revisited' (n 42) 844.

44 In *Coleman v Power* (2004) 220 CLR 1 ('*Coleman*'), McHugh J addresses and effectively rejects Stone's critique of the 'text and structure' approach with regard to this formulation of the test for the political communication limitation: at 46–53 [83]–[100]. For Stone's response (where she retains her position), see Stone, 'Revisited' (n 42) 845–7. For further discussion on the proportionality component of the political communication limitation, see below Part V.

therefore, I follow the tenets of the 'text and structure' approach as far as is possible and supplement them by drawing comparisons between this proposed implication and established implications. The latter are ostensibly derived from the *Constitution*'s 'text and structure' themselves, meaning that they offer insights on the aspects of a proposed implication that are considered acceptable and unacceptable by the Court. I begin this assessment in the next Part by outlining the basic argument for deriving the ecological limitation from this 'text and structure', before considering the issues and concerns that this argument might present.

III THE ESSENTIAL ARGUMENT FOR THE ECOLOGICAL LIMITATION

The argument for deriving this limitation starts with a prosaic observation. Namely, the *Constitution*'s 'text' makes clear that the Australian constitutional system requires humans. They make up the 'electors', 'judges', 'senators' and others that run, and are served by, the Australian constitutional system.[45] The *Constitution*'s 'text' also makes clear that this constitutional system is not floating free from the physical realm but operates within a specific ecological site. This site is essentially the continent of Australia.[46] This is evident in various provisions: the 'Commonwealth of Australia' is formed from the relevant 'colonies' situated across the Australian continent 'including the northern territory of South Australia';[47] the 'seat of Government of the Commonwealth' must be placed 'not less than one hundred miles from Sydney';[48] and so forth. Thus, combining these two observations, the *Constitution* stipulates that humans must carry out their constitutional roles within the specific ecological site of Australia.

It logically follows that damage to this site's habitability has the potential to damage the structural integrity, if not existence, of this constitutional system.[49] To

45 *Constitution* ss 8–9, 72.

46 The parameters of the physical site within which the Australian constitutional system operates is subject to change if, for example, a new state joins the Commonwealth of Australia: *Constitution* ss 121–4. Further, the *Constitution* has some extraterritorial reach but is generally considered confined by territorial borders defined in Australian constitutional law and international law: *Jumbunna Coal Mine NL v Victorian Coal Miners' Association* (1908) 6 CLR 309, 363–4 (O'Connor J); Ivan Shearer, 'Jurisdiction' in Sam Blay, Ryszard Piotrowicz and Martin Tsamenyi (eds), *Public International Law: An Australian Perspective* (Oxford University Press, 2nd ed, 2005) 154, 155, 159–62; Anne Twomey, 'Geographical Externality and Extraterritoriality: XYZ v Commonwealth' (2006) 17(4) *Public Law Review* 256, 258–63.

47 *Constitution* ss 3, 6.

48 Ibid s 125.

49 In this article, I use the term 'habitability' to refer to a site's ability to provide the basic ecological conditions for humans to survive and thrive such as those that bear food, water, air and shelter. 'Australia's habitability', therefore, refers to the ability of the site of Australia to provide such conditions. 'Habitability' is a term with different meanings in different contexts: CS Cockell et al, 'Habitability: A Review' (2016) 16(1) *Astrobiology* 89, 89; Eugene P Odum, *Fundamentals of Ecology* (WB Saunders, 3rd ed, 1971) 234. I do not use the term 'habitability' in the binary sense that a physical site can either support the existence of human life or it cannot. Here, the term is used in a manner that recognises degrees of habitability. Human life may be able to continue on the earth's surface in various states and the term 'habitability' encapsulates all of them, from the bountiful to the scant and everything in between. If a physical space is made

begin, humans cannot carry out their constitutional roles in Australia, as the *Constitution* requires, if this site is rendered completely inhospitable to human life. This would effectively end this constitutional system. Something less than total obliteration of Australia's habitability, therefore, has the capacity to significantly undermine humans' ability to carry out their constitutional roles and the structural integrity of the Australian constitutional system with it. The precise standard of habitability that must be maintained in Australia for the structural integrity of this system to be upheld is debatable. This will be explored in more detail in Part IV. The fact that some standard of habitability must be maintained for the *Constitution* and its 'structure' to be upheld, however, remains undeniable.

Government action violating this standard, therefore, can be understood as a threat to the *Constitution* and its 'structure'. As discussed in Part II, this is grounds for deeming it 'logically or practically necessary' to restrain such action by establishing an implied structural limitation.[50] This would be the ecological limitation. The limitation, if established, would likely extend to both Commonwealth and state government action. This is because both levels of government have jurisdiction over environmental matters (albeit, in differing ways) and, thus, hold the potential to damage the Australian ecosystem and constitutional system within it.[51] In terms of branches of government, the ecological limitation would likely apply to legislative and executive action for similar reasons. Namely, both forms of government power hold the potential to cause significant environmental (and, thus, constitutional) destruction.[52]

This outlines the essential argument for deriving the ecological limitation from the *Constitution*'s 'text and structure'. That is, restraining Commonwealth and state legislative and executive action burdening Australia's habitability may be considered 'necessary' to preserve the structural integrity of the Australian constitutional system. Similar to how it was deemed 'necessary' to establish an implied limitation to preserve some standard of political communication among the Australian population for the sake of maintaining this integrity, it may be deemed 'necessary' to derive an implied limitation to preserve some standard of

uninhabitable that means that even the bare minimum physical conditions needed for life to continue have been extinguished: see Avgoustinos (n 18) 124–6.

50 See above n 37 and accompanying text.

51 For discussion on the division of governance on environmental matters between the Commonwealth and States, see Peter Johnston, 'The Constitution and the Environment' in HP Lee and Peter Gerangelos (eds), *Constitutional Advancement in a Frozen Continent: Essays in Honour of George Winterton* (Federation Press, 2009) 79, 81–98; DE Fisher, *Australian Environmental Law: Norms, Principles and Rules* (Lawbook, 3rd ed, 2014) 101–21.

52 An argument can be made that judicial action may also cause such damage and, therefore, should also be restrained by the ecological limitation. Adrienne Stone makes a similar argument with regard to the political communication limitation, claiming it should extend to certain judicial action (at least, judicial action regulating the common law relations between individuals such as the common law action of defamation): Adrienne Stone, 'Rights, Personal Rights and Freedoms: The Nature of the Freedom of Political Communication' (2001) 25(2) *Melbourne University Law Review* 374, 406–14. For the sake of prudence, I will assume that the High Court would not be willing to extend the ecological limitation to judicial action as it continues not to similarly extend the political communication limitation.

habitability within Australia for this population. The discussion thus far only draws the argument for establishing the ecological limitation in broad strokes. In the next Part, I build upon this argument by drawing into my analysis the practical reality of how Australian government action worsening climate change operates.

IV THE INCREMENTAL NATURE OF GOVERNMENT ACTION WORSENING CLIMATE CHANGE

As noted in Part I, Australian government action cannot singlehandedly generate runaway climate change. Government approval of a coal mine and its associated greenhouse gas emissions, for example, can only contribute to bringing about this existential threat and any consequential damage to the Australian constitutional system. The High Court's approach to deriving and formulating implied structural limitations, however, accommodates the incremental or partial manner in which government action may threaten this system. To start with, recall that the necessity test is framed in terms of preserving 'the *integrity* of [the *Constitution*'s] structure'.[53] This means that government action does not need to destroy (that is, completely demolish) the constitutional system's structural foundations in order for it to trigger the establishment of an implied structural limitation. The fact that such action compromises (that is, partially but substantially weakens) these foundations is sufficient.

This informs the Court's framing of particular implied structural limitations. The *Melbourne Corporation* limitation, for instance, is framed as prohibiting a Commonwealth law that '*restricts* or *burdens* one or more of the States in the exercise of their constitutional powers'.[54] The political communication limitation is framed as prohibiting legislative or executive action that operates to 'effectively *burden* freedom of communication about government or political matters' and is not 'reasonably appropriate and adapted to serve a legitimate' objective.[55] These phrasings denote that something substantially less than complete demolition of the constitutional system's structural foundations can breach implied structural limitations.

The specific application of such limitations in case law makes this clear. No government action, which has been held in breach of an implied structural limitation by the High Court, has come close to destroying these structural foundations. Each may be classed as contributions to their undermining. For the purposes of the voting access limitation, for example, the Court held that a causal link exists between government action disqualifying prisoners serving any length sentence from voting in federal elections (as opposed to those serving sentences of three or more years) and the compromising of the representative democracy

53 *ACTV* (n 37) 135 (Mason CJ) (emphasis added).

54 *Austin v Commonwealth* (2003) 215 CLR 185, 258 [143] (Gaudron, Gummow and Hayne JJ) (emphasis added) ('*Austin*').

55 *Lange* (n 16) 567 (Brennan CJ, Dawson, Toohey, Gaudron, McHugh, Gummow and Kirby JJ) (emphasis added). See below Part V.

element of the *Constitution*'s 'structure'.[56] To take another example, for the purposes of the *Melbourne Corporation* limitation, the Court held that a causal link exists between a superannuation tax on state judges and the compromising of the concept of federalism forming part of the *Constitution*'s 'structure'.[57] These are relatively small incursions on the representative democratic and federalist structural foundations of the *Constitution* respectively. They are causally linked to the tarnishing of these foundations but far from capable of significantly upending them.

Thus, the fact that government action burdening Australia's habitability is unlikely to singlehandedly destroy the Australian constitutional system is not necessarily a barrier to establishing the proposed ecological limitation. The fact that such action may be causally linked to compromising the structural integrity of this system appears to suffice. Of course, establishing this causal link depends on the specific details of the matter at hand. In order to briefly illustrate what this causal link might look like in practice, consider the following hypothetical ecological limitation matter regarding the Carmichael mine.

A *The Carmichael Mine Case Study*

Queensland government approval of the Carmichael mine permits the construction of one of the biggest coal mines in the world, expected to produce 2.3 billion tonnes of coal over its 60 year lifespan.[58] An argument can be made that this approval may be causally linked to compromising the structural integrity of the Australian constitutional system and, thus, potentially in breach of the proposed ecological

56 *Roach v Electoral Commissioner* (2007) 233 CLR 162, 187 [48] (Gummow, Kirby and Crennan JJ) ('*Roach*').

57 *Austin* (n 54) 207 [6] (Gleeson CJ), 246 [115] (Gaudron, Gummow and Hayne JJ), 277 [211] (McHugh J).

58 Cameron Amos and Tom Swann, 'Carmichael in Context: Quantifying Australia's Threat to Climate Action' (Discussion Paper, Australia Institute, November 2015) i; *Adani Mining Pty Ltd v Land Services of Coast and Country Inc* [2015] QLC 48, [2] (MacDonald P) ('*Adani Mining*'). For discussion on the Queensland and Commonwealth government approvals, see above n 31 and accompanying text. At the time of writing, the precise size of the planned mine is a matter of contention. In November 2018, Adani announced that it would pursue a smaller mine that would produce 27.5 million tonnes of coal per year at peak capacity (as opposed to 60 million tonnes per year as it initially announced in 2010 and the above figures are based on): Michael Slezak, 'Adani Says a Scaled-Down Version of Its Carmichael Coal Mine Will Go Ahead; Environmentalists Express Scepticism', *ABC News* (online, 29 November 2018) <abc.net.au/news/2018-11-29/adani-carmichael-coal-mine-go-ahead-plans-to-self-fund/10567848>; Samantha Hepburn, 'Adani's New Mini Version of Its Mega Mine Still Faces Some Big Hurdles', *The Conversation* (online, 3 December 2018) <theconversation.com/adanis-new-mini-version-of-its-mega-mine-still-faces-some-big-hurdles-108038>; Amos and Swann (n 58) i. Adani, however, has refused to commit to the size of the mine 'and is still pursuing final approvals based on plans for' the larger-scale mine as originally planned: Ben Smee, 'Adani Refuses to Commit to Size of "Scaled-Down" Carmichael Coalmine', *The Guardian* (online, 7 May 2019) <theguardian.com/environment/2019/may/07/adani-refuses-to-commit-to-size-of-scaled-down-carmichael-coalmine>. For the purposes of this article, I will base my analysis on the larger-scale mine. This is not only because this is the scale of the mine that might still be constructed. It is also because the subject of this case study is Queensland's governmental approval and this is the scale of the mine that forms the basis of this approval.

limitation.[59] This is essentially because the greenhouse gas emissions from the mine significantly contribute to generating runaway climate change, which appears likely to profoundly disrupt this constitutional system in the long term.

Establishing this causal link begins as follows. The risk of generating runaway climate change is expected to substantially increase once global temperature surpasses 2°C above pre-industrial levels ('2°C').[60] Little room exists within the 'carbon budget', however, before 2°C is breached.[61] For a 50% chance of remaining under 2°C, only 38% of global fossil fuel reserves may be burned.[62] For Australia specifically, this ostensibly requires approximately 90% of its coal reserves to remain in the ground and not be burned.[63] This has critical ramifications for the Carmichael mine. Will Steffen, a climate expert from Australia's Climate Council, concludes, based on these findings, that '[t]ackling climate change effectively means that existing coal mines [in Australia] will need to be retired before they are exploited fully and new mines [such as the Carmichael mine] cannot be built'.[64] In this manner, government approval of the Carmichael mine significantly contributes to breaching 2°C and, thus, unleashing runaway climate change.[65]

59 As discussed below in Part V, breaching the ecological limitation would likely require more than the satisfying of this causal link. One would also have to take into account the countervailing benefits of the government action in question, employing proportionality analysis.

60 Kevin Anderson and Alice Bows, 'Reframing the Climate Change Challenge in Light of Post-2000 Emission Trends' (2008) 366(1882) *Philosophical Transactions of the Royal Society A* 3863, 3863. For discussion on the emergence of this broadly held view, see Christopher Shaw, *The Two Degrees Dangerous Limit for Climate Change: Public Understanding and Decision Making* (Routledge, 2016). For discussion on why I am using 2°C for the purposes of this case study (rather than 1.5°C, which many experts view as a more accurate marker for when runaway climate change is generated) and whether any singular marker can or should be identified in the first place, see Avgoustinos (n 18) 203–6.

61 The carbon budget represents the maximum amount of carbon from human sources that can be emitted before the planet reaches 2°C: Will Steffen, Climate Council, *Unburnable Carbon: Why We Need to Leave Fossil Fuels in the Ground* (Report, 2015) 12–15 ('*Unburnable*').

62 Ibid 19–20. The total amount of fossil fuels in reserve (that is, the amount of coal, oil and gas that 'are economically and technologically viable to exploit now': at 18) would amount to the release of 2,900 GT of carbon if all burned: at 19. If we were to consider all resources (that is, the total number of fossil fuels known to exist, whether it is viable to access them or not) burned, that would release 11,000 GT of carbon. Of this amount, only 10% could be burned to stay within the globe's carbon budget: at 19. For further discussion, see Christophe McGlade and Paul Ekins, 'The Geographical Distribution of Fossil Fuels Unused when Limiting Global Warming to 2°C' (2015) 517(7533) *Nature* 187.

63 Steffen, *Unburnable* (n 61) 27. This calculation of Australia's portion of the carbon budget, drawn largely from McGlade and Ekins' (n 62) analysis, is based primarily on the physical reality of where remaining fossil fuel reserves are geographically located across the globe. Value judgments are still involved in making this calculation, however, with regard to economic and technological factors: McGlade and Ekins (n 62); Steffen, *Unburnable* (n 61) 27–8.

64 Will Steffen, Climate Council, G*alilee Basin: Unburnable Coal* (Report, 2015) 4.

65 This also seems in line with recent Australian climate litigation cases. Judges and parties in such matters tend to accept that a causal link can be drawn between a particular fossil fuel venture (namely, a coal mine or coal-fired power station) and the detrimental impacts of climate change despite the former only ever being a relatively small contributing factor to bringing about such impacts: Justice Brian J Preston, 'Mapping Climate Change Litigation' (2018) 92(10) *Australian*

This unleashing of runaway climate change is irreversible.[66] Humans are expected to essentially lose control over the Earth's climate system once 2°C is surpassed and global temperature effectively rises of its own volition over subsequent centuries.[67] The relevant causal link could perhaps be drawn on this basis alone. That is, the life-supporting capacities of Australia relies on the health and stability of the Earth's climate system. Effectively forfeiting control of this system means effectively forfeiting control of something vital to maintaining the Australian constitutional system, this being Australia's habitability. By helping bring about this irreversible loss of control of something fundamental to the operation of this constitutional system, government approval of this mine may be viewed as causally linked to the compromising of the structural integrity of this system.

While this may suffice to establish the requisite causal link, the argument is compounded by (or an alternative argument can be made based on) the fact that the Australian ecosystem is expected to progressively deteriorate once control is lost. Global temperature may only stabilise some 6°C to 10°C higher than today if 2°C is surpassed according to Haydn Washington and John Cook.[68] Let us consider a 'mere' 4°C rise above pre-industrial levels. This is where the planet is heading in the nearer-term future with Patrick Brown and Ken Caldeira concluding that 4°C has a 93% chance of being reached by 2100 if emissions proceed in a business-as-usual manner.[69]

4°C — and all of the overlapping challenges it poses regarding Australia's food and water security, health threats, sea level rises and national security — appears calamitous for the Australian constitutional system.[70] Ross Garnaut, the economics professor and author of *The Garnaut Climate Change Review: Final Report* commissioned by Commonwealth, state and territory governments in April 2007, states:

> [W]hen we compare the most likely physical and biophysical effects of 4°C warming … including shocks of magnitudes that have in the past turned out to be unmanageable for modern human social, economic and political systems … planning for adaptation

Law Journal 774, 784; Justine Bell-James and Sean Ryan, 'Climate Change Litigation in Queensland: A Case Study in Incrementalism' (2016) 33(6) *Environmental and Planning Law Journal* 515, 532. This includes parties supporting the fossil fuel venture in question: *Xstrata Coal Queensland Pty Ltd v Friends of the Earth — Brisbane Co-Op Ltd* [2012] QLC 13, [567] (MacDonald P). Indeed, Adani opted to concede that such a causal link exists with regard to the Carmichael mine: *Adani Mining* (n 58) [429] (MacDonald P); Bell-James and Ryan (n 65) 532.

66 Washington and Cook (n 2) 30–1.

67 Ibid.

68 Ibid 30.

69 Patrick T Brown and Ken Caldeira, 'Greater Future Global Warming Inferred from Earth's Recent Energy Budget' (2017) 552(7683) *Nature* 45, 47.

70 See above nn 3–9 and accompanying text.

> to a Four Degree World *within established state structures* seems an indulgence of fantasy.[71]

Climate expert Kevin Anderson asserts that a 'widespread view' among climate experts is that 4°C is 'incompatible with any reasonable characterisation of an organised, equitable and civilised global community' and is beyond what 'many people think we can reasonably adapt to'.[72] The World Bank states that 'given that uncertainty remains about the full nature and scale of impacts, there is also no certainty that adaptation to a 4°C world is possible'.[73] Climate scientist John Schellnhuber is attributed as having bluntly stated at a 2013 conference in Australia that 'the difference between two and 4°C is human civilization'.[74]

Thus, by significantly contributing to breaching 2°C, government approval of the Carmichael mine not only appears to help bring about the eternal forfeiting of a vital component of this constitutional system (that is, Australia's habitability). It also invites perpetually deepening damage to this ecosystem within which the constitutional system sits. The requisite causal link between this government approval and the compromising of the structural integrity of this constitutional system can potentially be made on one or both of these grounds.

This argument is not infallible. Elsewhere, I explore this case study in more detail and examine various objections that might be raised to drawing this causal link with regard to the Carmichael mine (as well as responses to such objections).[75] Here, I only wish to broadly outline what such a causal link might look like in an ecological limitation matter, not offer firm conclusions on whether the specific causal link in this case study may be born out.[76]

Nevertheless, one prominent objection is worth briefly addressing. A counterargument could be made that uncertainty exists regarding how the Australian constitutional system will transform post-2°C. It is perhaps possible that this system will remain substantially intact in the centuries that follow, despite the expected damage climate change will impose on Australia. This objection holds little weight if one accepts that the forfeiting of control over Australia's habitability

71 Ross Garnaut, 'Compounding Social and Economic Impacts: The Limits to Adaptation' in Peter Christoff (ed), *Four Degrees of Global Warming: Australia in a Hot World* (Routledge, 2013) 141, 142 (emphasis added); Ross Garnaut, *The Garnaut Climate Change Review: Final Report* (Cambridge University Press, 2008).

72 Kevin Anderson, 'Climate Change Going Beyond Dangerous: Brutal Numbers and Tenuous Hope' (2012) 61(1) *Development Dialogue* 16, 29.

73 Hans Joachim Schellnhuber et al, World Bank, *Turn Down the Heat: Why a 4°C Warmer World Must Be Avoided* (Report, November 2012) xviii.

74 George Marshall, *Don't Even Think About It: Why Our Brains Are Wired to Ignore Climate Change* (Bloomsbury, 2014) 241.

75 Avgoustinos (n 18) 201–21.

76 Such conclusions are difficult to draw regardless of space restrictions. This is partially because the question of whether this causal link is established in any given case would be considered a constitutional fact (if the ecological limitation were to form part of Australian constitutional law). The High Court has been unclear on the means by which constitutional facts can be established before it and the standard of proof it expects: see ibid 215.

is sufficient to satisfy the requisite causal link on its own. It holds more weight if the additional or alternative ground discussed above is required — namely, evidence that, after 2°C is breached, the Australian ecosystem will ultimately deteriorate to the point where the structural integrity of this constitutional system may be deemed compromised. If this hypothetical case regarding the Carmichael mine was to occur in reality, climate experts or political scientists may be sought to give their views on what might happen to Australia's legal and political system post-2°C. Their ability to do so is stifled due to the inescapable fact that the medium to long-term future of this constitutional system is simply too hard to predict with precision.[77]

This objection loses potency, however, on closer inspection. To start with, the development of Australian constitutional law would be at a standstill if judges only acted upon events that are certain. Judges are often required to make predictions of future occurrences in this, and other, areas of law.[78] Indeed, United States constitutional law scholar Adrian Vermeule argues that the entire project of 'constitutional rulemaking is best understood as a means to regulate and manage political risks'.[79] This involves assessing the potential future events and flow-on effects that may be triggered by government activity. The fact that the High Court views it as necessary to consider the needs of future generations when interpreting the *Constitution*, in itself, means that some measure of uncertainty is expected when making predictions regarding those needs.[80]

Further, with regard to implied structural limitations specifically, a significant level of uncertainty is unavoidable in their application. Foundational elements that make up the *Constitution*'s 'structure' — federalism, representative democracy and other fundamental principles — are abstract concepts with contested meanings.[81] This means that applying implied structural limitations essentially requires one to determine whether government action has qualitatively weakened or undermined such abstract concepts, or will do so in the future. This cannot be done with much precision. The Court has held a range of government actions in breach of the political communication limitation, for instance, such as a Commonwealth law restricting types of political advertising and a Tasmanian law restricting where one may protest.[82] The assertion that such government action has done, or will do, partial but tangible damage to the operation of representative democracy in the

77 For discussion on the literature exploring the relationship between Australian constitutional law and the environment, see ibid 16–24.

78 *Thomas v Mowbray* (2007) 233 CLR 307, 344 [70] (Gummow and Crennan JJ), 447–8 [406] (Hayne J) ('*Thomas*'). In *Thomas* (n 78), for example, the Court had to predict a specific kind of future event and its cause: the likelihood of an individual committing (or assisting in committing) an act of terrorism for the sake of determining whether a control order should be made with regard to them.

79 Adrian Vermeule, *The Constitution of Risk* (Cambridge University Press, 2014) 1.

80 See above n 1 and accompanying text.

81 See Avgoustinos (n 18) 104–16.

82 *ACTV* (n 37) (political advertising); *Brown v Tasmania* (2017) 261 CLR 328 ('*Brown*') (protest).

Australian constitutional system is, to a substantial degree, speculative. This suggests that at least some generosity exists in the level of precision required to determine if the government action in an ecological limitation matter will similarly damage the *Constitution*'s 'structure'.

One might be tempted to suggest that the protection of this constitutional system in the future is best left to the future when more is known. This, however, is incongruent with the physical realities of climate change where a delay exists between cause and effect. Decisions regarding greenhouse gas emissions must be made now, while global temperature is still below 2°C, if runaway climate change is to be averted. If one wants to avoid profound climate disruptions in 2100, for instance, one does not have the luxury of waiting to do so in 2100. This means that decisions need to be made regarding the Carmichael mine and similar projects on the information currently available, imperfect as it may be.[83]

The physical realities of climate change also mean that one does not need to pinpoint the global temperature or moment in which the *Constitution*'s 'structure' may be deemed compromised. All that one needs to consider is whether, once 2°C is breached, this progressive burdening of Australia's habitability will likely stop of its own volition before this compromising occurs. Recall from the discussion above that adaptation to 4°C in Australia 'within established state structures seems an indulgence of fantasy' according to Garnaut.[84] As Washington and Cook state, the global temperature might not stabilise until 6°C to 10°C.[85] It appears unlikely that the progressive burdening of Australia's habitability will stop of its own volition before this system's structural integrity is compromised, if not destroyed.

Thus, the High Court formulates implied structural limitations in a way that recognises the partial manner in which government action may damage the Australian constitutional system. This allows for the ecological limitation to be similarly formulated. This suits the incremental nature in which climate change is produced by a host of different actors and fossil fuel ventures, the Carmichael mine being one example. In the next Part, I delve deeper into how doctrine facilitates the formulation of the ecological limitation in a manner aligned with the practical realities of climate change. This involves addressing the fact that government action causing environmental damage typically provides countervailing benefits to the Australian community. As will be seen below, formulating the ecological limitation to take this into account would likely draw on the concept of proportionality.

83 In this situation, neither the judiciary nor the political branches can claim to have more particular insights on the question of what the Australian constitutional system might look like in a post-2°C future. This suggests that no sufficient argument exists for deference to be paid to the government's position on this specific question. For further discussion on the potential place of deference in ecological limitation matters (and where calls for deference may hold more validity), see below Part VI(B); Avgoustinos (n 18) 167–70.

84 See above n 70 and accompanying text.

85 See above n 67 and accompanying text.

V THE COUNTERVAILING BENEFITS OF GOVERNMENT ACTION WORSENING CLIMATE CHANGE

The proposed ecological limitation would be classed as an implied structural limitation established to protect a constitutional guarantee, alongside the political communication and voting access limitations.[86] These are limitations that protect the *Constitution*'s 'structure' by restraining government action infringing upon a constitutionally entrenched or 'guaranteed' right or freedom of the Australian people. The political communication limitation, for example, has not been established to preserve a freedom of communication about government and political matters because of its intrinsic value for human flourishing or other such reasons. It has been established, and only operates to the extent needed, to maintain the structural integrity of this constitutional system. The proposed ecological limitation operates similarly. As discussed in Part III, it 'guarantees' that the Australian people have some standard of habitability preserved for the sake of maintaining the structural integrity of this constitutional system. Any additional protection such limitations provide to individuals for their own personal benefit is a 'happy coincidence'.[87]

The High Court ostensibly requires proportionality analysis to be included in the formulation and application of implied structural limitations (and other limitations) protecting constitutional guarantees.[88] Generally speaking, proportionality is a conceptual framework demanding that judges weigh competing beneficial and detrimental impacts of a party's action to determine its legality.[89] In diverse areas of law in Australia and elsewhere, this framework has traditionally been employed in matters involving rights and freedoms protection.[90] This is because protecting

86 Sir Anthony Mason, 'The Use of Proportionality in Australian Constitutional Law' (2016) 27(2) *Public Law Review* 109, 115. The voting access limitation was established in *Roach* (n 56) and *Rowe v Electoral Commissioner* (2010) 243 CLR 1.

87 George Williams and David Hume, *Human Rights under the Australian Constitution* (Oxford University Press, 2nd ed, 2013) 114.

88 In *Falzon v Minister for Immigration and Border Protection* (2018) 262 CLR 333, for example, Kiefel CJ, Bell, Keane and Edelman JJ assert that '[p]roportionality analysis is applied to constitutionally guaranteed freedoms': at 344 [31]. See also *Cunliffe v Commonwealth* (1994) 182 CLR 272, 300 (Mason CJ), 356 (Dawson J) ('*Cunliffe*'); Justice Susan Kiefel, 'Proportionality: A Rule of Reason' (2012) 23(2) *Public Law Review* 85, 89. The (non-implied structural) limitations protecting constitutional guarantees that are formulated via proportionality are ss 92 (the interstate trade limitation) and 116 (religious freedom limitation) of the *Constitution*. Jeremy Kirk notes that judges' employment of the tenets of proportionality when applying the latter limitation has not always been plainly referred to as such, but has often been implicit: Jeremy Kirk, 'Constitutional Guarantees, Characterisation and the Concept of Proportionality' (1997) 21(1) *Melbourne University Law Review* 1, 11–12 ('Guarantees').

89 Kirk, 'Guarantees' (n 88) 3–5; Kiefel (n 88) 85.

90 Aharon Barak, *Proportionality: Constitutional Rights and Their Limitations* (Cambridge University Press, 2012) 3; Grant Huscroft, Bradley W Miller and Grégoire Webber, 'Introduction' in Grant Huscroft, Bradley W Miller and Grégoire Webber (eds), *Proportionality and the Rule of Law: Rights, Justification, Reasoning* (Cambridge University Press, 2014) 1, 3. Prussian courts initially developed and implemented proportionality to determine whether police powers were being used excessively against individuals in the absence of other sufficient means of rights and freedoms protection: Moshe Cohen-Eliya and Iddo Porat, *Proportionality and*

rights and freedoms often conflict with other objectives that one might wish to pursue.[91] They also often conflict with each other.[92] This means that a myriad of variables may need to be considered when determining whether action encroaching on a right or freedom is justifiable in any given case.

Australian government action might encroach on people's freedom of communication about government and political matters, for example, in a range of ways (such as restraining what journalists publish and where activists protest) for a range of reasons (such as protecting people's privacy and ensuring public safety).[93] Each of these reasons have their own level of significance and place their own unique burdens on the freedom. In order to determine the constitutionality of such action, limitations protecting such rights and freedoms (in this instance, the political communication limitation) must be formulated in a manner that allows the Court to take such complex variables into account. Proportionality is a conceptual tool tailored for such a task.[94] It provides a flexible framework for weighing these variables and assessing whether encroaching on the right or freedom in question is excessive or disproportionate on a case-by-case basis. As Justice Susan Kiefel concludes, writing extra-judicially, if a limitation protecting constitutional guarantees is to be viewed as conditional, '[p]roportionality is the obvious candidate' to formulate the limitation.[95]

Proportionality would similarly appear to be the 'obvious candidate' for formulating the ecological limitation. Not only does it seem mandated by the Court given its position of employing proportionality when formulating implied structural limitations protecting constitutional guarantees generally, it is also fit for purpose. If Australia's habitability could be destroyed in an instant with the press of a button, there would be no constitutional (nor ethical) justification for an Australian government pressing that button. In reality, however, government action generally undermines Australia's habitability in a partial manner and does so to fulfil some valuable objective in the Australian public's interest. Proportionality offers a doctrinally established flexible framework for taking into account the specific countervailing benefits of such action one case at a time.

Constitutional Culture (Cambridge University Press, 2013) 26, 32. Proportionality eventually spread to numerous jurisdictions across the globe for assessing the validity of government encroachments on constitutional guarantees and people's rights and freedoms in non-constitutional areas of law: Barak (n 90) 181–210.

91 Kirk, 'Guarantees' (n 88) 9; Cohen-Eliya and Porat (n 88) 2.

92 Kirk, 'Guarantees' (n 88) 9; Cohen-Eliya and Porat (n 88) 2.

93 See, eg, *Nationwide News* (n 39) (journalism); *Levy v Victoria* (1997) 189 CLR 579 (protests and public safety); *Monis v The Queen* (2013) 249 CLR 92 (privacy).

94 While this is the tool that the Court prefers when formulating limitations protecting constitutional guarantees, it is not the only possible tool. As discussed in Part II, for example, the Court considered an alternative framework for formulating the political communication limitation employed in United States constitutional law.

95 Kiefel (n 88) 89.

In order to offer a sense of how the ecological limitation may be formulated via proportionality, I draw on the political communication limitation's formulation for guidance.[96] This proposed limitation may take the following form:

1. Does the impugned Commonwealth or State legislative or executive action burden Australia's habitability in a manner that may be causally linked to compromising the structural integrity of the Australian constitutional system?

   If 'no', then the ecological limitation is not breached. If 'yes', then proceed to the next question.

2. Is the action being taken to achieve a legitimate objective?

   If 'no', then the ecological limitation is breached. If 'yes', then proceed to the next question.

3. Is the action reasonably appropriate and adapted for a legitimate objective?

   If 'no', then the ecological limitation is breached. If 'yes', then the ecological limitation has not been breached.

In order to demonstrate how this ecological limitation test might operate in practice, recall the Carmichael mine case study above. Again, I discuss this hypothetical matter in more detail elsewhere, but briefly outline the contours of proportionality analysis in an ecological limitation matter here.[97] The first stage of this test involves assessing whether a causal link exists between government approval of the Carmichael mine and compromising the structural integrity of the Australian constitutional system. This assessment has been carried out in Part IV.

The second stage requires identifying the 'legitimate objective' achieved by this government approval. This objective is primarily economic. The mine's particular benefits, according to the Coordinator-General of Queensland, include job creation, revenue raising and infrastructure improvements in the local area.[98] This objective would likely be accepted due to the High Court's broad definition of a 'legitimate' objective in the context of other constitutional limitations framed via

96 This formulation of the political communication limitation primarily stems from *Lange* (n 16), *Coleman* (n 44) and *McCloy v New South Wales* (2015) 257 CLR 178 ('*McCloy*').

97 Avgoustinos (n 18) ch 6.

98 Barry Broe, Department of State Development, Infrastructure and Planning (Qld), *Carmichael Coal Mine and Rail Project: Coordinator-General's Evaluation Report on the Environmental Impact Statement* (Report, 7 May 2014) 348. Note that some of the projections of the economic outcomes in this report are contentious and subject to change since the release of the report: ibid 222.

proportionality.[99] With regard to s 92, for example, an objective is assumed to be 'legitimate' as long as it is not simply to protect intrastate trade for the sake of it.[100] This broad definition of a 'legitimate' objective seems to be, at least in part, out of deference to the political branches — if Parliament or the executive think the objective is legitimate, it is not for a court to second-guess it.[101] This suggests that an objective would be deemed 'legitimate' with regard to the ecological limitation so long as it does not set out to damage Australia's habitability for its own sake.

The third stage essentially involves assessing whether the economic benefits of the Carmichael mine justify its ecological burdens. In recent political communication limitation matters, a majority of the High Court has embraced a 'structured proportionality' approach when carrying out such proportionality assessment.[102] If this were to be adopted with regard to the ecological limitation, this means that the Court would begin by considering the 'suitability' of government approval of the Carmichael mine. This involves assessing whether a rational connection exists between this approval and its economic objectives. Such a connection appears to exist in this instance.

The next step requires considering the 'necessity' of this government approval — do sufficient alternatives exist to achieve the same economic benefits without the same burdens on Australia's habitability? A plausible, though by no means incontestable, argument may be made that such alternatives do exist. This is, in part, due to the fact that the economic bona fides of the mine appear to be lacking for a range of reasons, including fears that the mine will become a stranded asset due to shifts in the market and the potential for its economic costs to overwhelm its benefits.[103] If the Court accepts such evidence challenging the economic case for the mine, the availability of 'obvious and compelling' alternatives to raise revenue, create jobs and so forth might not be too difficult to demonstrate.[104] The

99 See, eg, *Castlemaine Tooheys Ltd v South Australia* (1990) 169 CLR 436, 473 (Mason CJ, Brennan, Deane, Dawson and Toohey JJ) ('*Castlemaine*'); *McCloy* (n 96) 194 [2(B)] (French CJ, Kiefel, Bell and Keane JJ); *Brown* (n 82) 363–4 [102]–[104] (Kiefel CJ, Bell and Keane JJ).

100 *Betfair Pty Ltd v Western Australia* (2008) 234 CLR 418, 446 (DMJ Bennett QC) (during argument) ('*Betfair*'), citing *Sportodds Systems Pty Ltd v New South Wales* (2003) 133 FCR 63, 76 [29] (Branson, Hely and Selway JJ). In *Castlemaine* (n 99), for instance, the *Beverage Container Act 1975* (SA) placed a commercial disadvantage on the sale of non-refillable beer bottles. The High Court accepted that the objective of this law was not to boost the intrastate trade of South Australian brewers (which did not use such bottles unlike some out-of-state competitors) but to protect the environment. It was, therefore, deemed 'legitimate': at 472–3 (Mason CJ, Brennan, Deane, Dawson and Toohey JJ).

101 Kristen Walker, 'Justice Hayne and the Implied Freedom of Political Communication' (2015) 26(4) *Public Law Review* 292, 296; Samuel J Murray, 'The Public Interest, Representative Government and the "Legitimate Ends" of Restricting Political Speech' (2017) 43(1) *Monash University Law Review* 1, 20; *Castlemaine* (n 99) 473 (Mason CJ, Brennan, Deane, Dawson and Toohey JJ).

102 *McCloy* (n 96) 195 [3] (French CJ, Kiefel, Bell and Keane JJ); *Clubb v Edwards* (2019) 267 CLR 171, 335–45 [472]–[501] (Edelman J). See Avgoustinos (n 18) 155–8.

103 Will Steffen et al, Climate Council, *Risky Business: Health, Climate and Economic Risks of the Carmichael Coalmine* (Report, 2017) 15–17. See Avgoustinos (n 18) 224–7.

104 *McCloy* (n 96) 195 [2(B)] (French CJ, Kiefel, Bell and Keane JJ).

economic benefits the government seeks may be attained if the resources allocated by government for the Carmichael mine, such as $1 billion in infrastructure subsidies, were utilised elsewhere.[105]

The final step in 'structured proportionality' analysis involves consideration of whether an adequate balance exists between the importance of the objective served by the action and the extent of the burden on Australia's habitability. Here, judges would weigh against each other such factors as the type or extent of the economic benefits of the mine (drawing on the discussion above regarding the economic bona fides of this project) and the substantiveness of the mine's contribution to generating runaway climate change (explored in Part IV).

This condensed examination of the ecological limitation's application reveals another potential area of concern regarding its establishment. The concern is that ecological limitation matters may invite judges to engage in an unacceptable amount of political decision-making. This is decision-making on complex topics requiring extensive value judgments.[106] As demonstrated above, the second and third steps in 'structured proportionality' analysis raise this issue in particular. They are likely to require judges to delve into a range of value judgments on economic policy and environmental ethics in order to assess the viability of 'alternatives' to government action worsening climate change and the appropriateness of the 'balance' struck respectively.[107] I explore this concern in the next Part. I begin by considering the view that judges do not have the democratic mandate for such decision-making. I, then, examine whether they have the relevant skills and resources.

VI POLITICAL DECISION-MAKING AND THE ECOLOGICAL LIMITATION

A *Democratic Mandate*

In Australia, judges are not democratically elected nor accountable to the people in any direct sense.[108] A position can be taken on this ground that decisions

105 Tom Swann and Mark Ogge, 'The Mining Construction Boom and Regional Jobs in Queensland' (Discussion Paper, Australia Institute, September 2016); Richard Denniss, 'Why Adani Won't Die' (May 2018) *The Monthly*; Energy & Resource Insights, *Queensland Government Still Considering Subsidising Adani* (Report, 2018) <http://downloads.erinsights.com/research_briefings/180615-TMR_RTI_analysis.pdf>. See Avgoustinos (n 18) 227–8.

106 Describing decision-making as 'political' could have a range of other meanings. See Chris Finn, 'The Justiciability of Administrative Decisions: A Redundant Concept?' (2002) 30(2) *Federal Law Review* 239, 242–51; Jeremy Kirk, 'Rights, Review and Reasons for Restraint' (2001) 23(1) *Sydney Law Review* 19, 28–30 ('Rights').

107 Indeed, the joint judgment in *McCloy* (n 96) states that a value judgment is required in the 'balance' step with regard to the political communication limitation: at 195 [2(B)] (French CJ, Kiefel, Bell and Keane JJ).

108 High Court judges, for instance, are appointed by the Governor-General in Council and retain their position until the retiring age of 70: *Constitution* s 72. They can only be removed in exceptional circumstances due to incapacity or proved misbehaviour: at s 72(ii).

regarding value judgments on controversial or complex topics are generally best left to the political branches with the requisite democratic mandate. In Australian constitutional law, this means that High Court judges should resist establishing implications that require such political decision-making. As Michael Coper phrases this argument with regard to the political communication limitation, '[i]s it not … fundamentally undemocratic for [the Court] to overturn the wishes of a democratically elected body whose very purpose in life is to make the country's laws?'[109] Decisions central to an ecological limitation matter, such as whether a coal mine should be approved based on considerations of its environmental and economic impacts, involve such politically-charged value judgments. This suggests that the ecological limitation should not be established and such decisions should remain the purview of the legislative and executive branches.

This argument against the ecological limitation is essentially that its establishment poses a threat to the structural integrity of the Australian constitutional system in itself. This presents a conundrum. While maintaining Australia's habitability is 'necessary' to protect the structural integrity of the Australian constitutional system, so too is maintaining the proper roles of the judicial and political branches. As James Stellios states, sometimes 'necessity clashe[s] with necessity'.[110] To resolve this conundrum, one may argue that the ecological limitation should not be established. Political means (such as parliamentary scrutiny, public debate and so forth) may be relied upon to restrain offensive government action burdening Australia's habitability. It may be a loss not to have this additional (legal) means of restraining such *Constitution*-threatening government action but the roles of the branches of power must be preserved. Employing the ecological limitation runs too high a risk of impairing one feature 'necessary' to the *Constitution*'s 'structure' in order to protect another.[111]

The strength of this 'democratic mandate' argument, however, is questionable. If one accepts that the *Constitution* has legitimacy and that the judiciary is the appropriate institution to interpret and apply it, then this anti-democratic objection seems to rest on how clearly or not the implication in question derives from the

109 Michael Coper, 'The High Court and Free Speech: Visions of Democracy or Delusions of Grandeur?' (1994) 16(2) *Sydney Law Review* 185, 190.

110 James Stellios, *Zines's the High Court and the Constitution* (Federation Press, 6th ed, 2015) 3. Stellios made this point with regard to the High Court's position on the implied immunity of instrumentalities in *A-G (NSW) v Collector of Customs (NSW)* (1908) 5 CLR 818 (the 'necessities' in conflict in that case, however, differed from the ones being discussed here).

111 Thus, the argument is not that political means for restraining government action burdening Australia's habitability should reflexively be prioritised over legal ones based on a sense that the *Constitution* is singularly founded on the principles of political, rather than legal, constitutionalism. Such an argument is unlikely to succeed. As the High Court states in *Lange* in the process of explaining its support for the political communication limitation's establishment, the '*Constitution* displaced, or rendered inapplicable, the English common law doctrine of the general competence and unqualified supremacy of the legislature': *Lange* (n 16) 564 (Brennan CJ, Dawson, Toohey, Gaudron, McHugh, Gummow and Kirby JJ). In short, the *Constitution* is a hybrid of both political and legal constitutionalism: Lisa Burton Crawford and Jeffrey Goldsworthy, 'Constitutionalism' in Cheryl Saunders and Adrienne Stone (eds), *The Oxford Handbook of the Australian Constitution* (Oxford University Press, 2018) 357, 362.

Constitution.[112] If the implication flows from the text and structure of the *Constitution*, then the judiciary has the right to enforce it. On this count, the anti-democratic argument does not appear to have substantive content on its own that needs to be addressed. Instead, it adds weight to the already pressing need for judges to ensure that their reasons for establishing any constitutional implication are sound.[113]

Further, a primary focus of the ecological limitation is future generations. The notion that protecting the Australian constitutional system from legislative or executive action burdening Australia's habitability can be left to orthodox democratic means loses cogency when one considers that the likely victims of such burdens are yet to exist or too young to engage in political activities such as voting. Stephen Gageler, writing prior to his appointment to the High Court, argues that courts should play a more assertive role holding political institutions to account in Australian constitutional law where their accountability to the Australian people 'is either inherently weak or endangered'.[114] This is the case here, considering the interconnected constitutional and ecological needs of *future* Australians who cannot practicably engage in the political processes of today.

On this count, the ecological limitation seems to be in a stronger position than other implied structural limitations such as the political communication and *Melbourne Corporation* limitations. Individuals concerned about their freedom of communication and states concerned about their autonomy respectively have more access to orthodox political means of protecting their interests (thereby making it less 'necessary' for the courts to intervene). These individuals have capacity as voters and these states have capacity as relatively well-resourced institutional powers to combat such respective government encroachments of their constitutional protections.[115] The likely victims of government action burdening Australia's habitability, however, are yet to be born, form part of Australia's franchise or engage in politics. While organisations may form in ad hoc ways to protect these future generations' political interests, they are not assured as solid a systemic safeguard in the political system for the encroachment of their constitutional protections. The 'democratic mandate' argument was ultimately not strong enough to thwart the establishment of the *Melbourne Corporation* and political communication limitations. It appears less strong with regard to the ecological limitation.

B *Skills and Resources*

Another reason why judges engaging in political decision-making in ecological limitation matters may be cause for concern is that they purportedly do not possess

112 Kirk, 'Implications I' (n 38) 652–3; Kirk, 'Rights' (n 106) 32–4.

113 Kirk, 'Implications I' (n 38) 653.

114 Stephen Gageler, 'Beyond the Text: A Vision of the Structure and Function of the Constitution' (2009) 32(2) *Australian Bar Review* 138, 152.

115 For a similar argument comparing the political avenues available to the states and individuals, see Kirk, 'Rights' (n 106) 24.

the skills and resources for such decision-making.[116] To draw on the Carmichael mine case study as an example, judges may be viewed as ill-equipped to assess the complicated economic merits of the mine and then weigh them against its environmental impacts when undertaking proportionality analysis.[117] The legislative and executive branches, in contrast, are ostensibly designed for such political decision-making. The politicians and public servants that populate these branches have the skills and resources to make decisions on complex issues that require such value-based assessments through their access to government data, experts on staff, contact with the community and so forth. Again, this raises the issue of 'necessity clash[ing] with necessity'.[118] Both protecting Australia's habitability from certain decisions by the legislative and executive branches and preserving the constitutional roles of these branches and the judiciary (based on their respective skillsets) are 'necessary' to maintain the structural integrity of the Australian constitutional system. The argument can be made that the latter 'necessity' should trump the former, meaning that the ecological limitation should not be established.

Several problems exist with this position. First, concerns that the proportionality stage of the ecological limitation test invites judges to engage in too much political decision-making can be made, and have been made, against the use of proportionality generally.[119] In *Cunliffe v Commonwealth* ('*Cunliffe*'), for example, Dawson J warns that proportionality 'invites the court to have regard to the merits of the law — to matters of justice, fairness, morality and propriety — which are matters for the legislature and not for the court'.[120] Despite such concerns, the Court not only continues to employ proportionality in a range of areas of Australian constitutional law. As discussed in Part V, it seems to *require* the employment of proportionality when formulating limitations protecting constitutional guarantees (which would include the ecological limitation if established). Does the proportionality stage of the ecological limitation test require judges to draw upon skills and resources materially distinct from, or beyond, those that they must draw upon when undertaking proportionality analysis in other areas of Australian constitutional law? This query cannot be answered definitively.

116 Ibid 24–8; Caroline Henckels, 'Proportionality and the Separation of Powers in Constitutional Review: Examining the Role of Judicial Deference' (2017) 45(2) *Federal Law Review* 181, 194–5; Rosalind Dixon, 'The Functional Constitution: Re-Reading the 2014 High Court Constitutional Term' (2015) 43(3) *Federal Law Review* 455, 470.

117 I am focusing on the third step of the ecological limitation test involving proportionality analysis (as outlined in Part V) because it is the one inviting political decision-making that might challenge judges' skills and resources most substantially. For discussion on this challenge regarding the first and second steps of the test, see Avgoustinos (n 18) 171–5.

118 See above n 109 and accompanying text.

119 See, eg, *Leask v Commonwealth* (1996) 187 CLR 579, 616 (Toohey J). See also HP Lee, 'Proportionality in Australian Constitutional Adjudication' in Geoffrey Lindell (ed), *Future Directions in Australian Constitutional Law: Essays in Honour of Professor Leslie Zines* (Federation Press, 1994) 126, 127; JJ Doyle, 'Constitutional Law: "At the Eye of the Storm"' (1993) 23(1) *University of Western Australia Law Review* 15, 26–7; Gabrielle Appleby, 'Proportionality and Federalism: Can Australia Learn from the European Community, the US and Canada?' (2007) 26(1) *University of Tasmania Law Review* 1, 3.

120 *Cunliffe* (n 88) 357 (citation omitted).

Nevertheless, it is difficult to see how this is so given the complex and challenging value judgments, on economic matters and otherwise, that may be involved when determining the constitutionality of government action with regard to the defence power, nationhood power, s 92, and other constitutional areas requiring proportionality assessment.[121]

Consider, for example, the case of *Adelaide Company of Jehovah's Witnesses Inc v Commonwealth* ('*Jehovah's Witnesses*').[122] This matter centred on a declaration by the Governor-General that an organisation of Jehovah's Witnesses was a body 'prejudicial to the defence of the Commonwealth' under the *National Security (Subversive Associations) Regulations 1940* (Cth).[123] This was due to the organisation's anti-war stance based on its members' religious beliefs during World War II. In order to determine the constitutionality of these regulations under s 116, the Court was required to weigh the (detrimental) impact of these regulations on peoples' free exercise of religion against its (beneficial) impact on the entirely different societal objective of aiding the war effort.[124] In other words, judges were required to compare the profoundly difficult to quantify impacts of a single government action on people's spiritual lives against those to combat the existential threat posed by a large-scale war. Judges are evidently accepted as possessing the skills and resources for the political decision-making involved in such cases. This suggests that the considerations involved in proportionality analysis in ecological limitation matters, as complex and challenging as they may be, are within judges' capabilities.

Second, ecological limitation matters are not monolithic. Some may present greater challenges than others with regard to judges' skills and resources and options are available for dealing with these challenges on a case-by-case basis. One option is that judges may defer to the relevant government's position on particular issues when applying the ecological limitation, as they may when applying other constitutional mechanisms.[125] When assessing the economic bona fides of a fossil fuel venture such as the Carmichael mine, for example, the Court might defer to

121 *Polyukhovich v Commonwealth* (1991) 172 CLR 501, 697 (Gaudron J) (defence power); *Davis v Commonwealth* (1988) 166 CLR 79, 100 (Mason CJ, Deane and Gaudron JJ), 107 (Brennan J) (nationhood power); *Betfair* (n 100) 476–7 [101]–[102] (Gleeson CJ, Gummow, Kirby, Hayne, Crennan and Kiefel JJ) (s 92). See Kirk, 'Guarantees' (n 88) 8–9, 31–4. Also note the explicit acknowledgment of the role value judgments play in proportionality analysis by French CJ, Kiefel, Bell and Keane JJ in *McCloy* (n 96) (in the context of the political communication limitation): at 216 [76].

122 (1943) 67 CLR 116 ('*Jehovah's Witnesses*').

123 *National Security (Subversive Associations) Regulations 1940* (Cth) reg 3.

124 *Jehovah's Witnesses* (n 122) 155 (Starke J). For discussion on the relationship between proportionality analysis and the free exercise of religion limb of s 116, see above n 87. The High Court concluded in this case that s 116 had not been breached but the relevant regulations were ultimately deemed unconstitutional as they were beyond the scope of the defence power contained in *Constitution* s 51(vi): at 147–8 (Latham CJ), 149 (Rich J), 156–7 (McTiernan J), 167 (Williams J).

125 See Henckels (n 116); Avgoustinos (n 18) 167–70.

the relevant government's assessment of these bona fides if it wishes.[126] Further, if an ecological limitation matter on the whole appears too incongruous with the judiciary's role, then that particular matter may be declared non-justiciable.[127] This suggests that the High Court does not need to refuse to derive the ecological limitation due to concerns regarding judges' skills and resources. Deference and justiciability may be employed to address such concerns when applying the limitation in any given case.

Third, one must take into account the ways in which the judiciary might be better equipped to make this assessment required under the ecological limitation test. The primary aim of the ecological limitation remains fundamentally judicial — protecting the Australian constitutional system from actions of the legislative and executive branches that may impair it. The judiciary has a better claim to impartiality to assess the potential damage done to this constitutional system by the political branches' actions than these political branches themselves. Further, the judiciary is designed to resist partisan self-interest and focus on long-term considerations.[128] These are attributes critical to understanding climate change and assessing its potential ramifications. In contrast, political branches populated by politicians have institutional weaknesses — partisanship, short-sightedness, bureaucratic tendencies and influence from vested interests profiting from exploitation of natural resources — that have the potential to mire their ability to objectively assess the threat runaway climate change might pose to the Australian constitutional system.[129]

This is not merely a theoretical point. These institutional weaknesses help explain, in practice, why the Australian government and governments worldwide have collectively failed to do their share to combat climate change over the last three decades.[130] Magistrate Judge Coffin found this reasoning compelling in his

126 See Avgoustinos (n 18) 229–33.

127 *Thomas* (n 78) 354 [105]–[106] (Gummow and Crennan JJ); Andrew Hanna, 'Nationhood Power and Judicial Review: A Bridge Too Far?' (2015) 39(2) *University of Western Australia Law Review* 327, 357–8; Sir Anthony Mason, 'The High Court as Gatekeeper' (2000) 24(3) *Melbourne University Law Review* 784, 787–94. While it was not a constitutional law matter but an administrative law one, *Minister for Arts, Heritage and Environment v Peko-Wallsend Ltd* (1987) 15 FCR 274 offers an example of governmental (mis)use of nature ostensibly requiring too much political decision-making to be appropriate for judicial determination. Chief Justice Bowen held that a Cabinet decision on the World Heritage listing of Stage II of Kakadu National Park was non-justiciable in large part because it 'involved complex policy questions relating to the environment, the rights of Aborigines, mining and the impact on Australia's economic position of allowing or not allowing mining as well as matters affecting private interests such as those of the respondents': at 278–9.

128 Kirk, 'Rights' (n 106) 28–9.

129 See Michael M'Gonigle and Louise Takeda, 'The Liberal Limits of Environmental Law: A Green Legal Critique' (2013) 30(3) *Pace Environmental Law Review* 1005, 1042–3, 1056; Mary Christina Wood, 'Advancing the Sovereign Trust of Government to Safeguard the Environment for Present and Future Generations (Part I): Ecological Realism and the Need for a Paradigm Shift' (2009) 39(1) *Environmental Law* 43, 54–61.

130 Governments from 154 nations including Australia officially declared their commitment to stabilise greenhouse gas emissions to avoid 'dangerous' levels of climate change in 1992 at the

determination that a United States District Court matter, on whether the *United States Constitution* includes implied protections to ensure the nation's ecological stability for future generations in the face of climate change, may proceed to trial.[131] He states:

> [T]he intractability of the debates before Congress and state legislatures and the alleged valuing of short term economic interest despite the cost to human life, necessitates a need for the courts to evaluate the constitutional parameters of the action or inaction taken by the government.[132]

This specific counterpoint may not wholly quash concerns that the legislative and executive branches have superior skills and resources to engage in the political decision-making involved in ecological limitation matters. It does, however, add weight to the argument that establishing this judicial means of curbing government action worsening climate change is 'necessary' and diminishes the strength of the claim that political means of quelling such action are sufficient.

Overall, the ecological limitation generally does not seem to place more of a burden on the judges' skills, resources or democratic mandate than other implied (or express) limitations. Indeed, the ecological limitation may be on firmer ground on this point in some respects than other limitations. In the next Part, I consider some final objections that might be raised against deriving the ecological limitation. These objections explore Australian constitutional doctrine from a historical perspective.

VII AUSTRALIAN CONSTITUTIONAL HISTORY AND THE ECOLOGICAL LIMITATION

A *The Framers' Intentions*

One may argue that the framers of the *Constitution* intended for political means to be (or, more acutely, took for granted that political means would be) relied upon to quash legislative or executive action burdening Australia's habitability.[133] While this intention may be difficult to demonstrate, the best evidence for its existence

United Nations Conference on Environment and Development in Rio de Janeiro: *United Nations Framework Convention on Climate Change*, opened for signature 4 June 1992, 1771 UNTS 107 (entered into force 21 March 1994) art 2. More than 25 years later, many observers fear that 'dangerous' climate change has already commenced or that little time remains for it to be averted. See, eg, Rockström et al (n 14); Steffen et al, 'Planetary Boundaries' (n 14); Eileen Crist, 'Beyond the Climate Crisis: A Critique of Climate Change Discourse' (2007) 141 (Winter) *Telos* 29, 31–3.

131 *Juliana v United States* (D Or, 6:15-cv-1517-TC, 8 April 2016).

132 Ibid slip op 8.

133 This intention would likely take the form of an 'implicit assumption': Jeffrey Goldsworthy, 'Implications in Language, Law and the Constitution' in Geoffrey Lindell (ed), *Future Directions in Australian Constitutional Law: Essays in Honour of Professor Leslie Zines* (Federation Press, 1994) 150, 154. This is where the founders may not have actually considered a particular meaning but simply assumed it.

may be made on *expressio unius* grounds.[134] The fact that the framers placed various limitations on government power in the *Constitution* but not one akin to an ecological limitation suggests that they did not intend for such a judiciary-enforced limitation to be available. The ecological limitation, therefore, should not be established for it conflicts with this intention.

This argument, however, could be made with regard to any implied limitation. The Court has demonstrably been willing to establish such limitations despite the possibility of such an *expressio unius* argument against it. The *expressio unius* argument is on stronger ground where 'numerous and detailed' express limitations exist (making any left out a noticeable absence) or an express limitation exists similar to the implied one being proposed (suggesting that the framers turned their mind to the subject matter in question and chose to place restraints on some facets of it but not others).[135] Neither is the case here.

Further, the harm that the ecological limitation seeks to prevent was virtually beyond the framers' imaginations at the time of the *Constitution*'s conception. The threat of runaway climate change simply did not exist nor was environmental science developed enough to raise the possibility in people's minds in any sufficient detail.[136] The notion that the political branches may be the ones playing a significant role contributing to bringing about such threats was likely even further from their minds. If the framers did harbour any intentions regarding how government action burdening Australia's habitability would be dealt with in the constitutional system they were developing, it was based on outdated science and vastly different circumstances.

The High Court is generally unwilling to take into account the framers' intentions where they are based on antiquated knowledge and conditions.[137] Such intentions are seemingly only taken into account in instances where they have some particular utility. In *Cole v Whitfield*, for example, the High Court was willing to consider the framers' intentions when drafting s 92 to help interpret this section, despite how bound these intentions were in the particular economic landscape of the late nineteenth century.[138] The High Court was not taking the framers' intentions into

134 Kirk, 'Implications II' (n 39) 30. *Expressio unius* is a principle of statutory construction asserting 'that the express mention of a matter militates against implications arising from elsewhere in the document relating to that type of matter'.

135 Ibid.

136 Jeremy L Caradonna, *Sustainability: A History* (Oxford University Press, 2014) 87–91; James Crawford, 'The Constitution' in Tim Bonyhady (ed), *Environmental Protection and Legal Change* (Federation Press, 1992) 1, 2.

137 The framers, for example, likely assumed that treaties would play a minor role in Australian political life. They were likely unaware of how their significance would grow substantially over the twentieth century. In *Commonwealth v Tasmania* (1983) 158 CLR 1, however, Mason J asserts that such 'mere expectations held in 1900' are irrelevant in interpreting the external affairs power and what laws the Commonwealth may pass based on treaties it has signed under this power: at 127. For another example, see discussion on how the definition of the term 'race' in s 51(xxvi) of the *Constitution* has changed since the 1890s: Justin Malbon, 'The Race Power under the Australian Constitution: Altered Meanings' (1999) 21(1) *Sydney Law Review* 80.

138 (1988) 165 CLR 360.

account to interpret the section to mean whatever the framers intended.[139] It was merely using these intentions to gain a better sense of what influenced the particular wording chosen for the confusingly phrased section. With regard to the ecological limitation, the framers' intentions do not provide such useful or unique insights.

The fact that the harm the ecological limitation seeks to prevent was virtually beyond the framers' imaginations places this implied limitation in a stronger position than others. The framers, for instance, would have been aware that the political branches may act in a censorial manner. They would have also been aware that the Commonwealth, once established, might encroach upon the States' autonomy. Despite these harms being known to the framers (and them seemingly opting not to place limitations in the *Constitution* to thwart them), the High Court still established the political communication and *Melbourne Corporation* limitations respectively. The basic awareness of this harm the ecological limitation seeks to prevent, however, was lacking. Any intention the framers had on this point would seem to be of lesser utility in challenging the ecological limitation as it would with regard to these other limitations.

B *Existential Threats in Australian Constitutional History*

One might seek to draw on Australian constitutional history in another way to challenge the establishment of the ecological limitation. As discussed above, climate change represents an existential threat to the Australian constitutional system as well as the nation as a whole.[140] An argument may be raised against the ecological limitation on the grounds that such threats have historically led to the Court expanding legislative and executive powers, not contracting them at the behest of the judiciary. Perhaps the clearest examples of this dynamic in Australian constitutional law centre on the defence power, s 51(vi) and nationhood power. The Court has held that the Commonwealth's lawmaking capacity under the defence power may expand immensely during times of war.[141] In World War II, for example, various Commonwealth laws affecting large segments of the national economy (such as fixing prices and restricting sales of essential items) were held to be permitted under the defence power as part of the war effort.[142]

With regard to the nationhood power, this implication was established to expand the Commonwealth's ability to tackle non-military threats to the nation.[143] An early incarnation of the implication gained recognition in cases involving the threat of

139 Ibid 385 (Mason CJ, Wilson, Brennan, Deane, Dawson, Toohey and Gaudron JJ).

140 See above Parts I, III.

141 *Andrews v Howell* (1941) 65 CLR 255, 278 (Dixon J); *Stenhouse v Coleman* (1944) 69 CLR 457, 469 (Dixon J) ('*Stenhouse*').

142 *Victorian Chamber of Manufactures v Commonwealth* (1943) 67 CLR 335 (fixing prices); *Stenhouse* (n 141) (restricting sales). For discussion on the elasticity of the defence power, see Geoffrey Sawer, 'The Defence Power of the Commonwealth in Time of War' (1946) 20(8) *Australian Law Journal* 295; Kate Chetty 'A History of the Defence Power: Its Uniqueness, Elasticity and Use in Limiting Rights' (2016) 16 *Macquarie Law Journal* 17, 18, 22.

143 See above nn 25–6 and accompanying text.

communism during the Cold War, as discussed in Part I, while in more recent times it has been employed to permit the Commonwealth to protect the nation from the impacts of the global financial crisis.[144] The historic expansion of governmental powers in response to such threats suggests that curbing governmental power in the face of climate change via the establishment of the ecological limitation may not be doctrinally sound.

A fundamental problem with this position exists, however, due to the relationship between the government and the threat in question. In the cases involving the above scenarios — World War II, the spread of communism and the global financial crisis — governments were seeking to address these threats. The question in front of the Court was essentially the extent to which they could use their powers in this pursuit. In the context of the ecological limitation, the government action at hand is not being sought to combat the relevant threat (in this instance, climate change) but worsen it. For this reason, the situations are not analogous. The better parallel in Australian constitutional history is that of implied structural limitations. With regard to cases involving the political communication, *Melbourne Corporation* and other such limitations, the government action at hand is the subject posing a threat to the Australian constitutional system. This is why I have drawn on the precedent set in these cases to help model the ecological limitation, rather than those regarding the defence and nationhood powers.

Nevertheless, a salient point can be gleaned from these latter cases. The Court demonstrates an understanding in these matters that the *Constitution* must be interpreted in a way that is responsive to the particular dynamics of the relevant threat. As Isaacs J states in *Farey v Burvett* when advocating for an expansive reading of the defence power as part of the war effort in World War I:

> The *Constitution*, as I view it, is not so impotent a document as to fail at the very moment when the whole existence of the nation it is designed to serve is imperilled.[145]

A similar sentiment is appropriate in the context of climate change. The *Constitution* must be read in a manner that takes into account the specific operation of this existential theat. This includes recognition of the seriousness of the threat, the incremental nature in which the threat is generated and the role that Australian governments play in its generation.[146]

VIII CONCLUSION

In this article, I have proposed that a doctrinally sound argument can be made for the establishment of the ecological limitation in Australian constitutional law. The

144 Ibid; *Pape v Federal Commissioner of Taxation* (2009) 238 CLR 1.

145 (1916) 21 CLR 433, 451. Justice Isaacs makes this point in the context of discussing the need for the defence power to permit the Commonwealth to legislate on matters concerning the food supply of Australia given the fact that '[d]ay by day we are reminded how potent a weapon both of attack and defence is the control of a nation's food supply'.

146 See above Parts I, III–IV.

case law in this area accommodates the incremental or partial manner in which government action worsening climate change may damage this constitutional system. It also accommodates the reality that such action is likely to have countervailing benefits for Australian society that must be taken into account. Constitutional doctrine suggests that proportionality be included in the formulation of the ecological limitation in order to address this reality.

The main argument against deriving this limitation from the *Constitution*'s 'text and structure' is that it is incompatible with the judiciary's role. The ecological limitation, however, generally does not seem to burden the judiciary's skills, resources or democratic mandate more than other implied limitations. Judges can also draw on the concepts of deference and justiciability in response to the political decision-making involved when applying the ecological limitation on a case-by-case basis. Further, while the framers may not have intended for the establishment of such a constitutional implication, the same is true of other implications that the Court went on to establish regardless. The relevance of these intentions is weakened further by the fact that runaway climate change, and government action contributing to this crisis, was not an issue to which the framers appeared to have turned their mind. Finally, comparisons with precedent in Australian constitutional history where the Court expands governmental power in the face of existential threats to the nation are not apt. In these matters involving the defence and nationhood powers, the government is taking action in an attempt to quell the threat, not help bring it about. Government action worsening climate change, which is the subject of ecological limitation matters, belongs to the latter category.

Of course, while further inquiries can be made to shed light on this argument's chances for success in court, there are no guarantees that the judiciary would agree with my findings.[147] The argument for establishing the ecological limitation seems viable within the framework of the 'text and structure' approach, but the operation of this approach permits a large amount of judicial discretion. The arguments against its establishment generally appear to hold no greater weight than those similarly raised with regard to other implied limitations. It is plausible, however, that the High Court might favour such counterarguments regardless. While the limitation has doctrinal merit in theory, this does not ensure its establishment by a court in practice.

The desirability of pursuing the ecological limitation in court, however, does not only rely on its doctrinal merits. It also depends on real-world circumstances — and these circumstances may already be present. One might conclude that government action exists, such as executive approval of the Carmichael mine, that is egregious enough or otherwise lends itself to litigation on this proposed implication. One might also conclude that the alternative political means for combatting such action have shown themselves to be insufficient.[148] While the chances for success in an ecological limitation matter are likely to improve in the future when climate impacts will be better understood, the time-sensitive nature of

147 For discussion of these other areas of inquiry, see Avgoustinos (n 18) 247–53.

148 For discussion on the political campaigns and climate litigation that have been employed in opposition to the Carmichael mine, see ibid 190.

the climate crisis must be taken into account. The fact that time is running out to avoid generating runaway climate change, if it has not substantially lapsed already, means that the most effective climate action (be it in the realm of climate litigation or otherwise) is that which is taken now.[149] While these circumstances cannot be considered optimal, they might nevertheless be right for judicial consideration of the ecological limitation.

It must also be remembered that the story of a constitutional implication's establishment is rarely straightforward. The political communication limitation, for example, first gained some form of judicial consideration from Murphy J in the late 1970s;[150] gained majority support from the High Court in the early 1990s;[151] attracted significant criticism from diverse quarters almost immediately after this majority support was attained;[152] ultimately gained the High Court's unanimous support in *Lange* despite this criticism;[153] but continues to remain the subject of debate on its formulation and application two decades later in cases such as *McCloy v New South Wales* ('*McCloy*').[154] The *Boilermakers* limitation, for another example, was built on the findings in previous separation of powers cases such as *New South Wales v Commonwealth* in 1915;[155] gained judicial support in the eponymous 1956 case;[156] was widely criticised in subsequent decades with its 'eventual overruling' seeming 'only a question of time' by George Winterton in 1983;[157] only to survive such predictions and find renewed support in more recent years.[158] These implications secured a place in Australian constitutional law in the face of substantial criticism and took the time, work and experimentation of judges, lawyers, scholars and countless other actors.

The stories of constitutional implications' establishment need to start somewhere. This work is offered as a starting point for a discussion on the derivation of the ecological limitation. Taking seriously the need to maintain the Australian constitutional system for future generations means taking seriously the threat climate change poses to it. The High Court's derivation of the political

149 Danny Noonan, 'Imagining Different Futures through the Courts: A Social Movement Assessment of Existing and Potential New Approaches to Climate Change Litigation in Australia' (2018) 37(2) *University of Tasmania Law Review* 25, 35–6.

150 *Ansett Transport Industries (Operations) Pty Ltd v Commonwealth* (1977) 139 CLR 54, 88; *McGraw-Hinds (Aust) Pty Ltd v Smith* (1979) 144 CLR 633, 670.

151 *Nationwide News* (n 39); *ACTV* (n 37).

152 See Avgoustinos (n 18) 65–7.

153 *Lange* (n 16).

154 *McCloy* (n 96).

155 (1915) 20 CLR 54.

156 *R v Kirby; Ex parte Boilermakers' Society of Australia* (1956) 94 CLR 254.

157 George Winterton, *Parliament, the Executive and the Governor-General: A Constitutional Analysis* (Melbourne University Press, 1983) 63.

158 Fiona Wheeler, 'The *Boilermakers* Case' in HP Lee and George Winterton (eds), *Australian Constitutional Landmarks* (Cambridge University Press, 2003) 160, 172–4.

communication, *Melbourne Corporation* and other implied structural limitations positions the *Constitution* as, in essence, a self-preserving document. The *Constitution* does not permit Australian governments to take action that tarnishes the *Constitution* itself. If it is accepted that climate change is (among other things) a constitutional problem, then it is important to interrogate the potential for constitutional solutions to it in the spirit of this self-preservation. The ecological limitation outlined in this article has been proposed as such a solution.