# A Challenging Age: Literature, the Climate Crisis, and Intergenerational Dialogue

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The concept of generation has a long and distinguished literary history. Homer famously compared human generations to leaves falling and growing back in a seasonal cycle:

> Why ask me of my lineage? Humans come and go as leaves year by year upon the trees. Those of autumn the wind sheds upon the ground, but when spring returns the forest buds forth with fresh vines. Even so is it with the generations of humankind, the new spring up as the old are passing away. (Homer 1898: 6; translation slightly modified)

Striking here is the sense of sudden temporal compression that derives from the comparison between leaves and human generations. Read today, the effect is reminiscent of time lapse, an acceleration that conveys an emotionally infused perspective on the passage of time. The simile also elegantly embeds human societies within the cycles of the natural world. Yet Homer's language presupposes natural cycles that are in themselves fixed, an entirely predictable background hum to the comings and goings of human generations. In times of ecological crisis, the forests budding forth with fresh vines also become unstable: burned or cleared to make space for agriculture, their rhythms altered by a changing climate. As the 'largest collective action problem that humanity has ever faced', to quote philosopher Dale Jamieson (2014: 61), climate change challenges the practices and rhythms of childhood, maturity, and ageing. It calls for a profound reconsideration of generational language and thinking. This special issue offers a range of perspectives on how literature, in engaging with climate change, productively renegotiates these ideas and the ethical and cultural tensions that traverse them.[1]

[1] Most of the contributions to this special issue are based on papers presented at the symposium of the Vlaamse Vereniging voor Algemene en Vergelijkende Literatuurwetenschap (VAL) in November 2022 (Ghent, Monasterium PoortAckere).

Another philosopher, Samuel Schleffer, notes that 'most of us who live in contemporary liberal societies lack a rich set of evaluative resources for thinking about the human beings who will come after us' (2018: 1). Climate change confronts us with the limitations of our conceptual and 'evaluative resources'—and, in fact, the climate crisis plays a major role in Schleffer's discussion of why we should worry about future generations (to paraphrase the title of his book).[2] In large part, that is due to the temporal scale of the crisis. Consider the dramatic changes to the Earth's climate and ecosystems that are experienced more and more frequently around the globe: rising temperatures and sea levels, habitat loss, extreme weather events such as exceptional droughts or wildfires. Causally speaking, these transformations are the result of processes that started with the industrial revolution at the end of the eighteenth century. The changes we witness today depend on greenhouse gases that were released decades or even centuries ago: they are a problematic legacy from the past (and more specifically the past of Western modernity). On the other hand, even if human societies stopped emitting carbon dioxide today (which is obviously impossible), the CO2 already present in the Earth's atmosphere would have effects for generations to come. Put otherwise, climate change has a built-in time delay, such that the link between cause and effect is never immediate but stretches out over vast temporalities: the decisions we make today, with full awareness of the scale of the problem and its consequences, will affect life on Earth for numerous generations after we are gone. Therefore, climate change calls for long-term thinking across generations, and not merely in the sense of older generations worrying about their immediate descendants but reaching much further into the future.

This is, of course, complicated by the fact that the effects of climate change are not only temporally but spatially distributed. Its global reach creates unique geopolitical challenges in that the societies that are most responsible for the crisis (in the wealthy Global North) are also the least vulnerable to its consequences (see Crist 2013). Thus, while it is easy to speak about human generations in a general way, different cultures approach their intergenerational relationships differently. We can definitely learn from cultures, such as the Haudenosaunee Confederacy, that incorporate previous and future generations in their decision-making processes (see Graham 2008). Drawing inspiration from these non-Western cultures might prompt us to better understand how the effects of climate change will linger in intergenerational trauma, or how intergenerational amnesia—the idea that each generation forgets or ignores the knowledge of previous generations—might erase memories of disappearing landscapes.

Particularly in the developed world, where the vast majority of greenhouse gas emissions are being generated, there are very good reasons to think older generations are not doing a

[2] See also the discussion in Krznaric (2020).

particularly good job of caring for younger ones. Because of that, climate change has often been framed in terms of intergenerational conflict, particularly in the context of youth activism. A highly mediatized speech delivered at the UN Climate Action Summit by Greta Thunberg (2019), for example, pointedly opposes 'us' (children) to 'you' (adults).[3] This type of rhetoric serves a specific political function in environmental activism (see Mangold and Winslow 2023): indifference and inaction vis-à-vis the devastating impact of climate change are presented as a failure of intergenerational dialogue and care.

The climate crisis represents a crisis of generation in a more restricted, biological sense as well, particularly as adults weigh the desirability of having children in times of radical uncertainty. In a *New York Magazine* article, for instance, David Wallace-Wells discusses his unease at the prospect of raising children: 'Among this outwardly conscientious cohort, there is worry about bringing new children into a damaged world, full of suffering, and about 'contributing' to the problem by crowding the climate stage with more players, each a little consumption machine' (2018). As the climate-changed state of the world looks increasingly difficult to predict, what kind of practical and psychological skills will future adults need to cope with its uncertainty? That kind of question is feeding the ecoanxiety experienced by many adolescents and younger adults.[4]

As noted by scholars such as Nicole Seymour (2013) and Adeline Johns-Putra (2019), parental care is frequently invoked in environmental rhetoric as a springboard for action: 'caring for the planet' and 'caring for our children', from that perspective, become almost interchangeable. That way of framing responsibilities towards future generations has some obvious limitations, however, starting with its implicit reproductive (and therefore heteronormative) bias. The equation between environmental and parental care is exclusionary, since it leaves out those individuals who cannot or do not want to have children but are still invested in environmental stewardship and in the flourishing of future generations. Furthermore, as mentioned above, the long-term thinking needed to grasp the issue of climate change extends well beyond concern for one's immediate descendants.

As childhood enters political and social debates on climate change, old age is also becoming a focus of intergenerational tensions and, in some instances, hopes. Thus, Kathleen Woodward has discussed the significance of ageing in times of climate crisis, arguing that old age deepens the 'need to embrace interdependencies across the life course, understanding that whole lives and generational reciprocity are at stake' (2020: 55). The relationship between age and the ecological crisis is complex. Older individuals, and particularly those in a position of power or privilege, are

[3] See García (2020) for a sustained rhetorical analysis of Thunberg's language in this and other speeches.
[4] For discussion of ecoanxiety, see Palinkas and Wong (2019).

frequently seen as turning a blind eye to the crisis, and therefore as responsible for it (insofar as indifference to the climate crisis has the inevitable consequence of deepening the crisis). On the other hand, the 'legacy thinking' associated with old age—that is, the desire to leave a lasting mark on the world—can inspire pro-environmental attitudes or action. Through this tendency, older adults may be better positioned than younger ones to accept the uncertainties of the climate crisis and promote intergenerational dialogue (Frumkin and others 2012).

Lastly, it is worth keeping in mind that understanding generational reciprocity in exclusively human terms is problematically reductive. The ecological crisis is also a crisis of more-than-human interconnection: despite the (largely Western) fantasies of mastery and technological self-sufficiency, human communities are part of a fabric—a 'mesh', in Timothy Morton's (2010) terminology—that includes plants, animals, and entire ecosystems. While it is sensible to frame climate change as a human problem in at least some contexts, the reality is that anthropogenic transformations are bound to affect most life forms on Earth. The problem of climate futurity is therefore one that prompts a reconsideration of kinship not only in the anthropocentric sense, but also in the extended sense of our responsibility towards the nonhuman species whose fate we (especially in the Global North) are determining.[5]

The essays included in this special issue engage with these cultural dynamics and tensions as they are staged by literature in times of ecological crisis. Our assumption is that literature can explore the material and cultural connections between generations and relate them to environmental issues and anxieties. Furthermore, as scholars in the field of ecocriticism have long acknowledged (see, e.g. Garrard 2004), literature represents an important means of imagining and interpreting human-nonhuman relations. Literary works negotiate the significance of childhood and ageing as human-nonhuman relations become unstable or change dramatically.[6]

We are using the word 'negotiation' in the technical sense formulated by Stephen Greenblatt (1988) and more recently developed by Luc Herman and Bart Vervaeck (2017): literary texts can stage societal issues and deploy imaginative and formal tools to come to terms with rifts and contradictions within the cultural field. This negotiation does not necessarily lead to a harmonious resolution, however: literature can develop an 'imaginative counter-discourse' to dominant ideas or serve as 'cultural-critical metadiscourse', to borrow the terminology introduced by ecocritic Hubert Zapf (2001, 2017). Through metadiscourse or critical commentary on environmental attitudes, literature can make an important intervention in debates on the intergenerational dimension of the climate crisis.

[5] See Rose (2011) and Haraway (2015) for this broad understanding of kinship.
[6] Relevant here is also work on the representation of ageing in speculative and dystopian fiction, which often adopts a posthumanist perspective. See Falcus and Oró-Piqueras (2023) for discussion.

The articles collected in this issue explore these literary negotiations by triangulating fields that have engaged in limited conversation so far: ecocriticism, children's literature scholarship, and ageing studies. The emphasis is on how the concept of generation itself is performed by literature (for both children and adults) on a thematic as well as formal level. Thematically, the figure of the child takes on unique significance in environmental fiction, embodying the anxieties of parenthood but also the promise or 'might' (Beauvais 2015) of younger generations (see Caracciolo 2022). Children's literature itself has often addressed environmental themes, and there is a growing body of ecocritical scholarship devoted to it.[7] The first article in this issue, by Vanessa Joosen, builds on those discussions to ask how children's literature can avoid the negative emotions associated with climate change, working instead towards a more hopeful imagination of intergenerational futures.

Narrative can also speak to generational relations in times of climate change on a formal level, by adopting strategies that challenge a conventional, Western understanding of temporality.[8] While scholars in the field of econarratology (James and Morel 2020) have started investigating the ecological significance of narrative form, the articles in this issue focus their attention on narrative forms that bring together two profoundly different kinds of relations: intergenerational bonds and broader questions on humanity's responsibilities towards the nonhuman world. These forms play a central role in the articles collected here. Marco Caracciolo discusses multilinear sagas that chart the longue durée of environmental exploitation or disaster, often extending kinship (metaphorically or diegetically) beyond the human domain. Simona Adinolfi's reading of Ling Ma's *Severance* (2018) examines how the novel's looping forms can capture Western society's inability to overcome indifference to the crisis. Focusing on *The Marrow Thieves* (2017) by Métis author Cherie Dimaline, Dylan Couch engages with a temporal structure derived from Indigenous storytelling, the 'spiraling time' of Anishinaabe mythology, in which past and present generations coexist. Emma-Louise Silva's discussion of Malorie Blackman's *Pig-Heart Boy* (1997) examines formal strategies for the representation of intermental processes in fiction, showing how Blackman uses such strategies to address both intergenerational questions and the broader problem of human-nonhuman relations in times of ecological crisis. The dialogue between image and verbal narrative in the picturebooks examined by Jonas Vanhove also creates new formal opportunities for the representation of more-than-human temporalities. Indeed, going beyond the conventional format of the print book might be one of the ways in which contemporary literature can rise to the challenges of the Anthropocene, for instance by adopting multimodal devices or by opening itself up to digital media.

[7] See Echterling (2016) for an important intervention in this area, which also surveys ecocritical approaches to children's literature.

[8] These formal strategies are well positioned to capture the spatiotemporal complexity of the climate crisis. For further discussion, see Caracciolo (2021).

Finally, the context in which children's literature is read—typically involving a mixed-age audience—can itself be regarded as a laboratory for strengthening intergenerational bonds. This is one of the key assumptions that underlie the contributions by Joosen, Silva, and Vanhove. It is an idea that deserves to be pursued also with more empirical means, for instance by drawing inspiration from the field of 'empirical ecocriticism' (Schneider-Mayerson and others 2020). While there is no doubt more work to be done to expand the interdisciplinary conversation launched by this special issue, we hope our discussion will be seen as a useful and constructive starting point.

**Bibliography**

Beauvais, C. *The Mighty Child: Time and Power in Children's Literature*. Amsterdam: John Benjamins, 2015.

Caracciolo, M. *Narrating the Mesh: Form and Story in the Anthropocene*. Charlottesville: University of Virginia Press, 2021.

———. 'Child Minds at the End of the World', in: *Environmental Humanities*. 14 (1), 2022, 145–161.

Crist, E. 'On the Poverty of Our Nomenclature', in: *Environmental Humanities*. 3 (1), 2013, 129–147.

Echterling, C. 'How to Save the World and Other Lessons from Children's Environmental Literature', in: *Children's Literature in Education*. 47 (4), 2016, 283–299.

Falcus, S. & Oró-Piqueras M. (eds.) *Age and Ageing in Contemporary Speculative and Science Fiction*. London: Bloomsbury, 2023.

Frumkin, H., Fried L., and Moody R. 'Aging, Climate Change, and Legacy Thinking', in: *American Journal of Public Health*. 102 (8), 2012, 1434–1438.

García, A. B. M. 'Constructing an Activist Self: Greta Thunberg's Climate Activism as Life Writing', in: *Prose Studies*. 41 (3), 2020, 349–366.

Garrard, G. *Ecocriticism*. New York: Routledge, 2004.

Graham, L. M. 'Reparations, Self-Determination, and the Seventh Generation', in: *Harvard Human Rights Journal*. 21 (1), 2008, 47–104.

Greenblatt, S. *Shakespearean Negotiations: The Circulation of Social Energy in Renaissance England*. Berkeley and Los Angeles: University of California Press, 1988.

Haraway, D. 'Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin', in: *Environmental Humanities*. 6 (1), 2015, 159–165.

Herman, L., & Vervaeck B. 'A Theory of Narrative in Culture', in: *Poetics Today*. 38 (4), 2017, 605–634.

Homer. *The Iliad*, trans. by S. Butler. London: Longmans, Green, 1898. <http://www.perseus.tufts.edu/hopper/text?doc=urn:cts:greekLit:tlg0012.tlg001.perseus-eng2:6.102-6.211> [accessed 27 September 2024]

James, E. & Morel E. (eds.) *Environment and Narrative: New Directions in Econarratology*. Columbus, Ohio State University Press, 2020.

Jamieson, D. *Reason in a Dark Time: Why the Struggle Against Climate Change Failed—and What It Means for Our Future*. Oxford: Oxford University Press, 2014.

Johns-Putra, A. *Climate Change and the Contemporary Novel*. Cambridge, UK: Cambridge University Press, 2019.

Krznaric, R. *The Good Ancestor: How to Think Long Term in a Short-Term World*. New York: Penguin, 2020.

Mangold, E. & Winslow L. 'Theorizing Rhetorical Children', in: *Western Journal of Communication*. 87 (1), 2023, 86–105.

Morton, T. *The Ecological Thought*. Cambridge, MA: Harvard University Press, 2010.

Palinkas, L. A. & Wong M. 'Global Climate Change and Mental Health', in: *Current Opinion in Psychology*. 32, 2019, 12–16.

Rose, D. B. *Wild Dog Dreaming: Love and Extinction*. Charlottesville: University of Virginia Press, 2011.

Schleffer, S. *Why Worry About Future Generations?* Oxford: Oxford University Press, 2018.

Schneider-Mayerson, M., Weik von Mossner A. & Małecki W. P. 'Empirical Ecocriticism: Environmental Texts and Empirical Methods', in: *ISLE: Interdisciplinary Studies in Literature and Environment*. 27 (2), 2020, 327–336.

Seymour, N. *Strange Natures: Futurity, Empathy, and the Queer Ecological Imagination*. Champaign, IL: University of Illinois Press, 2013.

Thunberg, G. 'Speech at the UN Climate Action Summit (Transcript)', in: *NPR.Org*, 2019. <https://www.npr.org/2019/09/23/763452863/transcript-greta-thunbergs-speech-at-the-u-n-climate-action-summit> [accessed 27 September 2024]

Woodward, K. 'Ageing in the Anthropocene: The View from and Beyond Margaret Drabble's *The Dark Flood Rises'*, in: Barry E. & Skagen, M. V. (eds.) *Literature and Ageing*. Woodbridge: Boydell & Brewer, 2020, 37–63.

Zapf, H. 'Literature as Cultural Ecology: Notes Towards a Functional Theory of Imaginative Texts, with Examples from American Literature', in: *REAL – Yearbook of Research in English and American Literature*. 17, 2001, 85–100.

———. *Literature as Cultural Ecology: Sustainable Texts*. London: Bloomsbury, 2017.

# The Need for a Double Kinship: Children's Literature, Intergenerational Relationships, and Climate Change

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Abstract

This article offers a plea for a consciously hopeful discourse in children's literature that addresses the environmental crisis—a discourse that puts intergenerational dialogue and kinship more central than it currently does. To do so, the article first explores the two meanings of the word "kinship" as they have been developed by Marah Gubar in children's literature studies and by Donna Haraway in posthumanism. It then offers an analysis of four children's books: one that relies on posthuman kinship but leaves out intergenerational kinship (*The Fate of Fausto* by Oliver Jeffers), one that features intergenerational but limited posthuman kinship to address the environmental crisis (David Almond and Levi Pinfold's *The Dam*), one that thematizes the failure of both (a short story from Shaun Tan's *Tales From the Inner City*) and one that features both to produce hope (*Bone Music* by David Almond). *Bone Music* shows that posthumanist and intergenerational kinship can reinforce each other so that people feel reinvigorated in their hope, willingness and agency to confront the systems that need to change.

*Keywords*: children's literature, kinship, age studies, posthumanism

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# The Need for a Double Kinship: Children's Literature, Intergenerational Relationships, and Climate Change

VANESSA JOOSEN

'Education is key to addressing climate change', the United Nations state prominently on the part of their website devoted to environmental solutions.[1] The plea to inform children and adolescents in particular has already led to various educational projects on climate change and produced many children's books and Young Adult novels that address this topic. At the same time, many adults struggle to explain the environmental crisis to the young, either because educators do not feel that *they* fully understand it, or if they do, because that crisis is deeply upsetting for children and for themselves. Western children's literature scholars know the dilemma between the need to inform and the desire to protect best from Holocaust literature for children. There too, authors and illustrators who feel compelled to educate children about disturbing events face the risk of downplaying the atrocities when they want to leave children with a hopeful or at least comforting message. This results in various ethical dilemmas (a.o. Pettitt 2014; Vloeberghs 2008; Kokkola 2003): must certain information be kept from children? If information is provided, what level of detail is desirable? Is it permittable to cast events in a more positive light, with the risk of giving children a distorted view of reality? Whereas Holocaust fiction deals with events from the past, the climate crisis is unfolding in the present, already destroying certain regions and species, with intensifying catastrophes predicted over the coming decades and the potential extinction of humankind in the more distant future. This puts a particular, unprecedented burden on educators: if they want to inform children honestly, they have to share disturbing facts about the present and deeply upsetting predictions about the future with them.

Moreover, adults may feel that they carry some responsibility for the current environmental crisis. They may dread the criticism of the young or the appeal of youth to radically change their habits. In fact, with the 'youth for climate' movement, the educational roles seem to have been reversed, with children and adolescents attempting to raise awareness (see a.o. Stemmann 2022) and not all adults accepting them taking the stage. The Flemish conservative critic Mia Doornaert

[1] https://www.un.org/en/climatechange/climate-solutions/education-key-addressing-climate-change.

spurred teenage climate activist Kyra Gantois to get a degree before 'burning up in a straw fire' (2019),[2] while Antwerp mayor Bart De Wever proclaimed: 'It's not because kids in puberty are demonstrating for the climate, that the politicians should react in a puberal fashion' (cited in Belga 2019; see also Pauwels 2021a).[3] Former US president Donald Trump mocked Greta Thunberg's speech at the United Nations climate summit in 2019, in which she pointed out that 'people are suffering, people are dying' and 'entire ecosystems are collapsing', by calling her 'a very happy young girl looking forward to a bright and wonderful future' (both cited in Lyons 2019). The British environment minister Lord Goldsmith allegedly tried to dodge eleven-year-old Licypriya Kangujam when she confronted him with critical questions at the COP27 summit in Sharm El-Sheikh in 2022 (King 2022). These adults try to re-establish traditional hierarchies by addressing young activists in chastising and condescending ways, or by trying to ignore and avoid them.

However, in the current environmental crisis, intergenerational dialogue and collaboration are crucial when it comes to achieving the large-scale changes that are needed to mitigate the effects of climate change. An example of a powerful intergenerational alliance could be witnessed in Belgium in 2019, when youth-for-climate activists Anuna de Wever and Kyra Gantois joined forces with climate scientist Jean-Pascal Van Ypersele. He expressed his respect for their impact in raising awareness about the environmental crisis and mobilizing large groups of people: 'We have been pointing out the problem for so long. But that did not suffice to forge a breakthrough. You have succeeded in doing that because of the power of your message: "Our future is in danger and you are bailing out. What are you going to do about it?"' (cited in Renson & Saelens 2019).[4]

Children's literature has a role to play in addressing the environmental crisis, and indeed in recent decades countless titles have already thematized mass pollution, extinction and global warming. Several of these works have been the subject of critical analysis, with some scholars pointing out the risk of pessimistic discourses (a.o. Oziewicz 2022a), and others highlighting limitations in the solutions that the books offer (a.o. van der Beek and Lehmann 2022). This article offers a plea for a consciously hopeful discourse in children's literature that puts intergenerational dialogue more central than it currently does. The idea of kinship seems particularly suited to establish this dialogue.

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[2] Original text: 'Brand niet op in een strovuur'.

[3] Original text: 'Het is niet omdat de puberteit betoogt voor het klimaat, dat politieke antwoorden puberaal moeten zijn'.

[4] My translation. Original text: 'Wij wijzen al zo lang op het probleem. Maar dat volstond niet om een doorbraak te forceren. Jullie slagen daar wel in, door de kracht van jullie boodschap: "Onze toekomst is in gevaar, en jullie geven verstek. Wat gaan jullie eraan doen?"' De Wever and Gantois' book *Wij zijn het klimaat* (We are the climate) was another example of intergenerational collaboration, as they authored it together with adult author Jeroen Olyslaegers.

Kinship—a term traditionally used for blood and family relationships—has recently gained currency both in children's literature studies and in posthumanism, albeit with distinct meanings. For Donna Haraway (2014), kinship signals a connectedness to the non-human, whereas Marah Gubar (2013; 2016) has developed a more anthropocentric definition of kinship to grasp the commonalities between childhood and adulthood. Both concepts highlight the importance of relatedness and define it in new ways that are particularly relevant to the current age of climate crisis and intergenerational tension.

As the British poet and artist Kae Tempest writes in their essay *On Connection* (2020): 'fine-tuning the ability to feel a creative connection can help us develop our empathy and establish a deeper relationship between ourselves and the world' (3) at a point where that world feels endangered. This article explores what children's literature and its engagement with concepts of kinship can contribute to fostering such a connection when it comes to addressing climate change. After a theoretical introduction, I discuss four case studies, which I have chosen on the basis of four different combinations of the two types of kinship: one that relies on posthuman kinship but leaves out intergenerational kinship (*The Fate of Fausto* by Oliver Jeffers), one that features intergenerational but limited posthuman kinship to address the environmental crisis (David Almond and Levi Pinfold's *The Dam*), one that thematizes the failure of both (Shaun Tan's *Tales From the Inner City*) and one that features both to produce hope (*Bone Music* by David Almond). My analysis is based on a close reading of the texts and, for the first three case studies, illustrations, paying specific attention to passages that describe the characters' interactions with the environment and with people of other generations, as well as to the way the narratives construct (the absence of) hope.

## Hopeful Narratives in Children's Literature and Environmental Studies

The need to offer hope and stress agency is always strongly felt when dealing with children and goes hand in hand with what Clémentine Beauvais (2015) has called their might. While adults hold power on the basis of their acquired knowledge, experience, and status, might is a kind of power that young people derive from the promise that they hold for the future and the consequent desire of adults to invest in them (Beauvais 2-3, 57). As Beauvais explains, there is a 'paradoxical adult desire to *ask the child didactically for an unpredictable future*' (4) and she identifies in children's literature 'an acknowledgment of failure and of incompleteness on the part of the adult authority which overwhelmingly controls this discourse' (6). A related tension is at work in the intergenerational dynamics related to the environmental crisis, in which adult authority and control is matched with

a discourse of hope that relies on the might of the younger generations. A risk of this discourse that places hope in children's might is that it may shift responsibility to future generations and steer attention away from the need to act now. Activists have highlighted that is not just unfair, but especially problematic in light of tipping points that may reduce human agency in the future (a.o. Thunberg 2019). Deriving hope from children's might is therefore only credible if adults also take responsibility in the present.

Taking action relies on hope. While not denying the acute threat of the climate crisis, Elin Kelsey (2020) pleads for a position of conscious hopefulness. 'The environmental crisis is also a crisis of hope' (4), she argues in *Hope Matters*. The 'epidemic hopelessness' (4) that she observes produces mental distress (8) in people of all ages, including children and adolescents. Moreover, as Rebecca Solnit argues in the foreword to the third edition of *Hope in the Dark* (2004/2016): 'Your opponents would love you to believe that it's hopeless' so that people refrain from taking action. Instead, Kelsey foregrounds signs of nature's resilience and effective human interventions in fighting some causes and effects of climate change, extinction and pollution. Sharing such information can help people understand what works and apply it themselves. The broader community that is thus created is crucial in tackling climate change, Kelsey argues: 'worrying about a problem that is *way* too big for you to tackle inevitably feels discouraging. It's disempowering. It breeds apathy' (18). Vice versa, small initiatives can have a rippling effect to create the large-scale shifts that are needed to fight global heating and mass extinction and pollution, and many people currently feel compelled to take action. In a joint interview with youth for climate activist Anuna De Wever, the Dutch children's author and politician Jan Terlouw reassures viewers that 'most people are good' (Terlouw and De Wever n.d); the challenge lies in uniting that goodwill to establish meaningful changes.

Marek Oziewicz (2022a) points out that a lack of knowledge is not the problem in the current stasis around the climate crisis: 'The contrast between how much we know and how little we have acted on this knowledge may be the greatest puzzle of our time'. When reflecting on the role of fiction in this paradox, he brings up that dystopic narratives may have paradoxically fed into the exploitative capitalist practices they criticize. The 'disaster frame' of dystopic climate fiction 'elicits despair, helplessness, and anger' and suggests that the carbon-based economy causing the climate crisis is unavoidable. Matthew Schneider-Mayerson's empirical research with American readers of climate fiction affirms this risk: while this fiction reminds concerned readers of 'the severity and urgency of anthropogenic climate change' (2018, 495), that is climate change produced by humans, he also observed that 'clifi' (climate fiction) elicited negative emotions in readers that 'were often intense, immediate, and self-directed' (2018, 489). Oziewicz and his fellow authors in

*Fantasy and Myth in the Anthropocene* (2022) 'focus on anticipatory imagination of sustainable futures rather than on critique of the ecocidal status quo' because they believe that 'the dominant "facts & rage" formula is antithetical to creating thought-spaces necessary for radical transformation of how we imagine ourselves in relation to the biosphere' (Oziewicz 2022a, 31). Anger about disturbing facts is not enough to establish change. To put it differently: 'Too long have we focused on projections of the future we dread instead of the futures we want' (Oziewicz 2022a, 32; see also Cole 2021; Milkoreit 2017). I would add that intergenerational solidarity—the willingness to grant people of other generations understanding and support (see a.o. Deszcz-Tryhubczak & Jaques 2021)—is a crucial factor of that desired future, as well as of the present, where action is needed.

**What Kind of Hope? What Kind of Agency?**

First, what does a hopeful children's book in the Anthropocene look like? Would it be fair if it put hope in the idea that the climate crisis can still be averted or mitigated if we take appropriate action? Or is that too much to hope for? Should such a book instead promote the idea that humans are adaptable enough to survive the climate crisis? That some humans will survive? Or that other forms of life will survive even if humankind perishes? Or should children's books steer away from those future projections and find hope in the fact that the current generation of Western children can still lead fairly happy lives despite the knowledge that the climate crisis is unfolding and already severely affects people in other parts of the world?

Second, how is this hopeful future achieved and what kind of agency can children's books suggest? Various critics in environmental studies draw on Ernst Bloch's distinction between passive and active hope (a.o. Kelsey 2020, Solnit). In her famous 'blah, blah, blah' speech from 2021, Greta Thunberg stresses that 'hope is not passive', but that it means taking action (cited in Carrington). Kelsey highlights the need for an 'evidence-based argument for hope' (2020, 11) that relies on research and fosters agency. The question of scale is a hot topic here. Clare Echterling (2016) is critical of the majority of picturebooks and easy readers in the US that only highlight individual acts. She pleads for more books that thematize environmental justice and match personal choices with political activism. In 'What Can You Do as an Eco-Hero', Suzanne van der Beek and Charlotte Lehmann (2022) point out that some children are more privileged than others to be able to take climate action and that the paradigm of the 'eco-hero' is biased towards white children, but they also problematize books that only highlight the agency of adults to take climate action. In the fight against the environmental crisis, big and small actions matter, and hope can only be achieved if systemic changes are envisioned.

In this movement, all generations are needed. 'Unite behind the science', Thunberg's famous slogan (2019a), is also a call for human connection, including intergenerational solidarity. The recognition of the mutual dependencies of various generations can give leverage to climate activism. In mitigating climate change, adults should take responsibility but also be prepared to 'decenter' themselves and adulthood as an ideal, as Justyna Deszcz-Tryhubczak (2019) argues in a plea for participatory research that involves children (see also Peter Kraftl's *After Childhood*). In the disappointment about the lack of action for the climate, adulthood itself sometimes becomes part of the disillusionment. For this reason, Adam Trexler (2015) sees no more space for the most popular type of Young Adult fiction, which centers on adolescents' maturation and attainment of adulthood: 'Coming-of-age books break down when the actions of prior generations trigger insolvable weather disasters and collapse economic opportunities for young people struggling toward independent adulthood' (14). Such generalizations, which homogenize entire generations, are not productive when it comes to addressing the environmental crisis: not all adults are equally responsible for it and not all young people will be equally affected by it. Moreover, the notion of 'independent adulthood' that Trexler mentions has come under pressure from various angles. Central to John Wall's concept of 'childism', which is gaining currency in various disciplines, is the awareness that generations are interconnected and interdependent and that reflections on children's experiences may serve as a lens to improve systems for other age groups too (see also Wall 2019; Joosen 2022). Like Deszcz-Tryhubczak and Kraftl, Wall pleads for decentering adult perspectives and validating children's experiences. This process of decentering adulthood, however, inevitably also involves adults who are willing to empower children. Climate activists usually make that distinction, but ageist clichés have surfaced in their speeches too, for example when Thunberg said in 2019 that world leaders 'are acting like spoiled irresponsible children' (Thunberg 2019b). Such metaphors are paradoxical in a context where children are pointing out adult responsibilities, and one can assume that Thunberg meant it as a parody of the adult condescendence to children that I mentioned earlier in this article. It is also ironic in the light of the title of her own book *No One Is Too Small to Make a Difference* (Thunberg 2019c). To this I would add: No one is too big—or old—to make a difference.

In addition to the scientific and technological challenges that the environmental crisis poses, the biggest challenge lies in creating meaningful human connections, to create empathy and to put aside personal interests and differences to get to action. These are aspects that children's literature has already promoted for years, as Frauke Pauwels (2021b, 279) shows in her work on representations of science in children's literature. She also argues that intergenerational connections may be more complex than they appear at first sight. Two books on environmental justice that she

analyses feature parents who are fighting climate change but commit illegal and—in the eyes of the child protagonists—unethical acts to do so. These books upset simplistic distinctions between children as activist and adults as conservative, and question the limits of ethical environmental activism.

Rather than thinking about adults and children in binaries and differences, it is more productive in the light of the environmental crisis to focus on what they share. As Kae Tempest argues, even in a time as polemical as ours, 'there is commonality' and it can be accessed 'through creativity' (5)—this is where literature can play an important role, to explore that commonality through fiction and literary means. In children's literature studies, the commonality between children and adults has been termed 'kinship' by Marah Gubar. She argues against thinking about children in terms of what they lack or how they differ from adults, but stresses that children and adults have a shared humanity, a common ground that is the basis for joint experiences and empathy. To posthumanists, this may sound very anthropocentric. There a different idea of kinship circulates that is best known from Donna Haraway's *Staying with the Trouble*.[5] She pleads for a feeling of kinship with the non-human (animals, plants, stones, etc.). What the two meanings of kinship have in common is that they detach kinship from its traditional associations with human bloodlines, and that they do not see it as something you are passively born into, but as a relationship that is actively established in the willingness to pay attention to common features and interests. Haraway calls this 'to make "kin"' (Ch. 4). This feeling of connectedness despite difference can form a basis for attention and care, and vice versa, through paying careful attention, a feeling of connection can be established.

## Case Studies

In various recent children's books, hope lies in the survival of earth and some plant or animal life, rather than in the continuity of humanity. Such books can only be hopeful if readers adopt a deep sense of kinship with the non-human.[6] That is needed, because as Patrick Curry argues in

[5] In Oziewicz et al.'s *Fantasy and Myth in the Anthropocene* (2022), kinship is always defined in Haraway's sense, for example in Tereza Dědinová's chapter on Terry Pratchett, Melanie Duckworth's chapter on arboreal magic in Margaret Mahy's work and Prema Arasu and Drew Thornton's chapter on human-monster and oceanic-chthonic kinships or Kim Hendrickx' work on Jeff Vandermeer. Gubar is not mentioned in the index of the book.

[6] For example, in *Astro-Nuts Mission Two: The Water Planet* by Jon Scieszka and Steven Weinberg (2020), Earth says that if humans become extinct, 'I'll be sad… but I will also… be just fine' (n.p.). Oziewicz finds hope in the idea that 'Earth in *AstroNuts* is able to tell its own story, unapologetically drawing young humans into an awareness of how humanity must act to prevent its own demise' (2002b, 144). Another example that he mentions is Barbara Henderson's *Wilderness Wars*, which features an island that resists a luxury resort being built.

*Enchantment: Wonder in Modern Life*, the disenchantment of nature as 'blank canvas, an inert, featureless nothingness' enables ecocide (Curry 2019, 91; also cited in Oziewicz 2022a, 66 and 2022b, 146). If people feel too detached from nature, they are less likely to protect it; while a feeling of posthuman kinship with nature may facilitate attention and care. Some books that thematize such posthuman kinship are oblivious to intergenerational dynamics. One example is *The Fate of Fausto* by Oliver Jeffers (2019). The eponymous character is a man trying to control nature: he cuts off a flower, claims a sheep, and makes a tree and even a mountain bow for him. However, nature is resistant and shows its resilience. When Fausto foolishly tries to control the sea by stamping his foot on it—a trick that worked when he was trying to control nature on land—he is submerged in the water and drowns. It is said that 'he did not understand' the sea and thus got killed. With such a self-centered, authoritarian and foolish human protagonist, readers are invited to sympathize with earth as it first yields but then defeats the arrogant human figure and restores itself. As Oziewicz argues, 'we need to break the spell of the ecocidal unconscious' (Oziewicz 2022b) and in giving earth's non-human life and matter a voice and agency, *The Fate of Fausto* certainly accomplishes that.

However, it does so at the cost of homogenizing humankind, for whom Fausto becomes metonymic. He is cast as an individual: a white, middle-aged businessman in a suit. He is not part of a community, and children are completely absent from the story. The devil that might be expected in a Faustian story resides inside of him. After the disappearance of Fausto, when nature has repaired itself, the text reads: 'the lake and the forest, the field and the tree, the sheep and the flower carried on as before. For the fate of Fausto did not matter to them' (Jeffers 2019, n.p.). If Fausto is metonymic for humankind, this can be a disturbing picture. After all, humans are not isolated, they are connected. The acts of the Faustian people in real life, who exploit earth's natural resources without loving or understanding it, are here connected to the fate of people who think and act differently, and of those who are disempowered or not even born yet. In fact, one of the big inequalities of climate change is that those who are least responsible for producing polluting and damaging gases are the ones who are first and most affected by it. Despite the bleak ending for mankind, *The Fate of Fausto* does not end on a sad note—this is because readers are invited to feel akin to nature and to rejoice more in nature's resilience and restoration than pine over the loss of the human being that tried to control it. However, the reliance on posthuman kinship without intergenerational kinship can lead to frustration because the book does not include children or other human characters who want to care for the earth. Those more caring humans have been written out of the story.

By contrast, David Almond and Levi Pinfold's *The Dam* (2018) finds hope in intergenerational connections in an environmental crisis, but is more limited in its efforts to

establish posthuman kinship. 'Intergenerational' here refers both to family ties and social generations. In this picturebook, which is set in the past, a father and daughter visit a village that will be flooded by a dam. By playing music, they connect with each other and revive the village's former visitors, as they also regret all the life that will be lost. A series of small vignettes show that they contemplate some plants and creatures that are living in the village and that may not survive. The human characters cannot avoid the dam being built—in fact, no effort to do so is mentioned in the story. The loss of non-human life that this involves is quickly glossed over: 'The dam was sealed. / The water rose. / This disappeared. / This was covered over. / This was drowned. / The lake is beautiful' (Almond & Penifold 2018, n.p.). While the vignettes on the following pages signal that new fish arrive in the lake, the passage is reminiscent of the practice of quickly replacing a dead pet with another one to comfort sad children. It's poor comfort for a deeper sense of loss. Instead of the non-human life, the story focuses on the human connections that are formed: first between the father and daughter, as they play music together and connect with the spirits of people from the past, and then on the beaches of the lake, as people of various generations enjoy boating on the lake and picnicking on the banks. In the light of these human acts, the empathy for the non-human quickly fades. Moreover, the end of the book is distinctly anthropocentric, with the lake mainly featuring as the backdrop to human festivities.

Shaun Tan's short story 'We Found Them in Gutters' from *Tales From the Inner City* (2018) thematizes the failure of kinship in both a posthumanist and intergenerational sense. In this story, some humans cleaning up buildings after hurricanes find a group of lungfish. There is a sense of recognition that makes them keep the fish: 'I don't know how else to say this. They had our faces. The same eyes, noses, mouths… it was crazy' (Tan 2018, 150, ellipsis in the original). A feeling of posthumanist kinship is established through this perception of sameness in difference, and that feeling intensifies as the creatures further develop first amphibian and then more human features. The narrator finds them fascinating and helpful, especially when they start ironing shirts, cooking and mending things (151), but there is no sense of real connection. The lungfish, who stay small and are treated like children, learn language and first help the humans. As they have become educated, the transformed lungfish 'even presented illustrated lectures on climate change in our lounge rooms, complete with handout notes and feedback forms', the narrator recalls (152). Here, they are reminiscent of the youth-for-climate activists who try to call attention to the environmental crisis. Since they fail to capture the attention of the humans, the transformed lungfish retreat and end up building a parallel world, with a small environmental footprint, good health system, 'moneyless economy' and convincing 'plan for world peace' (153).

The lungfish are thus constructed as mighty childlike beings, in the sense of might defined by Beauvais and explained above. They are presented as accepting the authority of the adult humans, while also displaying the ability to move beyond those adult humans' knowledge and skills. Through that combination they display great potential for future change. They almost succeed in fulfilling their child potential for building a better society, except for one crucial aspect: they are not able to really get through to the narrator and the other adults in the story, and thus their impact on the world stays limited. Although the narrator maintains that their 'sense of kinship only deepened' (151) during late-night conversations, the humans are too busy and 'frankly, too tired' (152) to really learn from the small creatures they have started to call their better selves. The narrative paints a scene that is reminiscent of the risk of inertia when faced with disturbing facts that I have addressed in the introduction of my article. In Tan's story, the humans fall 'asleep to flickering images of global disaster and plaintive calls for action' (152). They are either bored or so overwhelmed that they no longer care. After some 'patient gifts of sympathy and tiny handpatting', the transformed lungfish retreat. They become so small that they are 'too infinitesimal for us to see' (153). Although the narrator attributes their disappearance to the creatures' inability 'to speak to us' (153), a reluctance on the part of the human beings to learn and change seems to be the real issue. Although the story leaves open the possibility that the small creatures will be self-sufficient in their environmentally-conscious redesign of society, the lack of connection is tragic. It recalls the frustration and even despair of climate activists and scientists that information and attempts at communication do not lead to the systemic change that is needed to mitigate the environmental crisis. Moreover, the connectedness of the various eco-systems makes it unlikely that the lungfish alone will be able to save the earth if the humans don't change. The final lines of the story are multi-layered and deeply ironic, when the human narrator says they can still feel the presence of 'all those other selves': 'The ones we first met as poor lungfish in the gutters of our crisis, who mirrored our good intentions so diligently, and who saw in our wind-blasted, bone-weary compassion a great hope for the future, right at the moment we bent down to pick them up' (153). Despite the kinship that the humans feel for their 'other selves', no change is achieved. The final lines make clear that the human adults are not prepared to de-center themselves: they are 'bent down', prepared to 'pick up' the small lungfish. The 'great hope for the future' can only be materialized in a situation where the hierarchies between generations and species are broken down and all are willing to listen and change. The story's ironic ending leaves readers with the question: what if the humans had paid proper attention to the lungfish and had joined their authority and might to accomplish true dialogue and change?

By contrast, David Almond's *Bone Music* (2021) matches kinship in its posthumanist and intergenerational meanings. In this Young Adult novel, an adolescent called Sylvia joins her mother on a visit to a village in Northumberland. For this city girl, the experience of being cut off from a mobile phone network and surrounded by strangers and an unfamiliar environment is at first alienating. Almond's novel explicitly addresses the feeling of smallness that can lead to a sense of disempowerment and insignificance. As Sylvia looks at the stars at the beginning of her visit, she reflects on her place in the universe and feels overwhelmed: 'Why was it all so huge? Why was she so small?' The answer that the book provides to this anxiety is a new feeling of connection with human and non-human life.

Sylvia engages in active posthuman kinship making through a process of rewilding that involves both the forest and her own mind and body. It starts with the experience that some birds in the forest sing back when humans whistle to them. This instills in her a sense of gratitude and beauty, but also connects her with her younger self and with her mother, whom her dad calls 'child of the forest. A wild child. He said she was a fellow of the deer and the fox'. Human kinship is expressed here in biological terms, as well as in an affinity between the life stages. Sylvia's father stresses the kinship between Sylvia and her mother, as well as between them and nature when he calls his daughter '[f]eral kid of a feral mum'. The common animosity between mothers and daughters in teenage fiction is absent; Sylvia and her mother are united in their love for each other and for the environment. Moreover, Sylvia's grandfather helped to plant and grow the forest – their environmental actions thus stretch over several generations.

*Bone Music* thematizes 'rewilding' as a strategy to restore nature and human connections with nature. Rewilding nature is a strategy that Kelsey lists as providing hope. She describes it as follows: to 'introduce native wildlife back into degraded ecosystems to regenerate wildness and natural processes. The goal is to increase biodiversity, enhance greenhouse gas sequestration, and improve people's access to nature' (81). In Almond's novel the process of 'rewilding' is extended from the non-human to the human. As Sylvia's friend Gabriel says: 'It's no good rewilding the world if we don't rewild ourselves'. This happens to Sylvia during a series of epiphanic experiences. In the rewilding climax of the book, she lets herself be taken over by nature and feels that she becomes one with the forest, with animals and plants growing through her body, which is also merged with that of a girl from a distant past. Her rewilding involves an intense, supernatural contact with both nature and the youth of the past that relies on intergenerational and posthumanist connections. This is presented as a temporary relief for Sylvia's existential angst, which is provoked by wars and environmental crises.

'How are children manifest archaeologically?' Peter Kraftl asks in *After Childhood*. In *Bone Music*, they are present through rock art that forms the basis of a connection between two young girls across thousands of years. In a series of mystic encounters, Sylvia meets a prehistoric girl who lived in Northumberland before the village was built. As her sense of self merges with that of the prehistoric girl, Sylvia also seems to return to a state in which human beings, animals and plants lived more in symbiosis. She reimagines herself as various animals, 'padd[ing] through this forest on all fours, looking for prey, nervous of becoming prey herself' and then experiences becoming the forest herself, with her name Sylvia being Latin for exactly that. This connection is profound: 'She was the forest, she was the earth, she was the air. They gave each other life'. In Haraway's understanding, such a feeling of posthuman kinship is immediately associated with an impetus to care: 'all earthlings are kin in the deepest sense, and it is past time to practice better care of kinds-as-assemblages (not species one at a time)'. The idea of the 'assemblage' points at an entanglement of the human and the non-human that Sylvia also feels when she has transformed into the forest, the air and the earth: 'She wanted to love them and they wanted to love her. Why did we not realise that when we do things to the earth, we do things to ourselves; when we harm the earth, we harm ourselves?' Sylvia's awareness is inevitably anthropocentric (see also Oziewicz 2022b, 146; Curry 2019, 14-16): we only witness what she observes and what she feels, and readers never learn how the birds and the forest feel when Sylvia feels connected to them. Do they reciprocate, or are they indifferent to her presence or even disturbed by it? What is important is that her feeling of kinship with the non-human leads to empathy and a desire to protect the environment; it leads her away from her focus on herself and her friends (signalled in the novel by her desperate attempts to catch a mobile phone signal) and makes her attuned to the natural surroundings and the need to care for it.[7]

*Bone Music* stresses time and again that the human and the earth are entangled, for instance in art: Sylvia discovers prehistoric traces on a rock in which moss and lichen have intermingled with human markings. Similarly, the title of the book refers to a bird's bone on which Sylvia learns to play music. As Emma-Louise Silva (2023) argues in a cognitivist reading of this novel, the entanglement involves the human mind and body. 'Almond's protagonists resemble the natural resources they engage with', Silva (2022) argues in a related blogpost. This awareness of human and non-human entanglement instills in Sylvia and her friend Gabriel a painful confrontation with what humans are doing to the planet. They even ask the existential question whether humanity is

[7] While this change in Sylvia can be criticized for creating a simplistic opposition between urban modernity (captured in the image of the mobile phone) and nature, it is only a temporary one. At the end of the novel, Sylvia returns to the city, enriched by the knowledge and experiences she has gained through her rewilding experience.

worth saving and wonder if oil companies and warmongers are doing earth a favour by finishing off humankind more quickly, echoing the sentiments expressed in *The Fate of Fausto*: 'We're destroying ourselves so that the world can be recreated once we're gone'. However, the adolescents in *Bone Music* offer some tentative hope: 'Maybe if we change'. And: 'It doesn't need to end in destruction'. At first, Gabriel and Sylvia locate this potential in their own age phase: 'We are the ones who can change the world. We, the weird, passionate, troubled, loving young'.

But the shift from despair and cynicism is not just limited to the young. The potential for change is also highlighted in the adult characters, even if not in all of them. At the end of the novel, Sylvia's mother decides to leave her husband because she finds him incapable of change. More developed is the change in the figure of 95-year-old Andreas Müller. Andreas arrived in the UK as a German prisoner of war during the Second World War. Since then, he has evolved from hatred and a desire to destroy to a sense of belonging and serving the community. Andreas has become an important part of the social fabric of the village. Sylvia meets him at several social events and he produces various memories about the town. Towards the end of the book, Andreas shares with her photographs and memories from his past in the Hitler youth, confessing to Sylvia his profound dedication to Hitler and his genuine enthusiasm for the German army and the war. Sylvia finds this deeply disturbing. She wonders: 'How could this boy also be this kind old man?' The passage highlights the potential for profound change. Andreas believes that his imprisonment has saved him, a process in which nature and youth have played a crucial role and that continues to unfold in deep old age: 'I was saved by forests and music and skylarks and stone axes', Andreas explains, 'I am continually being saved. […] I am being saved, Sylvia, by you'. This potential for change in the adult is connected with hope as well as intergenerational bonding. 'Beware the adult', Andreas warns, 'who wants to regiment the child'. Andreas is prepared to decenter himself, both as an adult and as a human being, and this has transformed him into a character with whom Sylvia can connect. He is not cast as an adult teacher or mentor who is 'bent down' and unwilling to listen, to recall Tan's image; rather, 95-year-old Andreas shows Sylvia that adults are not just stable beings, but also dynamic adult 'becomings' (see Joosen 2018, 92) who are capable of learning from the young and changing as a consequence.

Sylvia's visit to Blackwood ends in a dance in which all generations participate, and that marks the connection of young and old 'linked each to each, everyone to everyone, making the spiralling, endlessly regenerating dance of life and time'. It is a moment in which age differences make way for connectedness and shared joy. But this dance is not the end of the novel. The final scene depicts a protest march that involves teenagers, poets, musicians, politicians, a ten-year-old girl, families with toddlers, 'old women and old men'. This is an idyllic scene, with children and

adolescents speaking up and adults – decentering themselves – listening and cheering. The event stands in stark contrast to the lack of connection at the end of Shaun Tan's story, where the lungfish have grown so small that they can no longer be seen, while the adult humans are dozing off. The young generation in Almond's novel gets center stage, and at least some adults are prepared to listen and protest together with them. The experience of intergenerational connection is one in which Sylvia has another epiphany, transcending herself once more to feel akin again with the forest, and she comes out of it feeling empowered: 'We are frail and we are small', she says, 'But we are beautiful and strong, and we can change the world'. That 'we' refers to humans of all generations, as well as to non-human beings and matter. Whether Sylvia's optimism is justified lies beyond Almond's novel – it leaves the future 'dark' in the sense that Solnit describes it, 'as in inscrutable, not in terrible' (Ch. 1). *Bone Music* leaves the reader with hope in the alertness, connectedness and preparedness to act that the climate march represents, without making any promises on the outcome of those actions. As Solnit puts it: 'we need to hope for the realization of our own dreams, but also to recognize a world that will remain wilder than our imagination'. Where Sylvia's imagination and the potential for change will lead, remains unclear, but that very openness is key to its conscious optimism. That openness can also be considered a weakness, especially in light of recent developments. Although still a fairly recent book, *Bone Music* (2021) captures the spirit of a time that already feels to have passed, now that school strikes and climate demonstrations have moved to the background in the light of other events (the war in Ukraine, the energy crisis, and the conflict in Israel and Palestine). Nevertheless, its combination of addressing fear openly, while stressing the potential of posthuman and intergenerational kinship to produce agency and hope, remains relevant, especially in light of the effects of climate change that are becoming ever more visible.

## Conclusion

There are some reservations that we might feel in taking kinship as a cue for active hope in these times of deep environmental concern. First of all, kinship should not be reduced here to a feeling of resemblance, but rather seen as an active process, as Haraway envisages it, that means to be prepared to see common ground, to feel connected, and to act on it. As Tan's story shows, seeing resemblance is not necessarily enough for kinship in this sense, while Almond's *Bone Music* highlights the potential to feel connected to other people and non-human creatures and environments despite profound differences and even disgust. Second, as *Bone Music* makes clear, conflict and kinship do not necessarily need to exclude each other; the opposite of kinship in

creating hope is either a lack of connection expressed through indifference towards the other, or a polemical opposition where differences are perceived as so extreme that empathy or dialogue are no longer possible. Conflict may provide hope if it leads to new insights and growth, as the figure of Andreas makes clear in *Bone Music*.

Current children's books play with the idea that hope may lie in the extinction of humankind. Jeffers celebrates it in *The Fate of Fausto*, where earth restores itself once the only human figure in the story is dead; Almond's Sylvia and Gabriel tinker with it in *Bone Music*; and Tan's 'We Found Them in Gutters' implies it as a potential outcome when the adult humans resemble sleepwalkers even as solutions are presented to them by the more childlike lungfish. The extinction of humankind is a bleak prospect that can only be considered hopeful if young readers feel more connected to the non-human than to the human, or if it is meant to shock readers into taking action. The latter strategy risks enhancing the feeling of smallness and insignificance that Sylvia expresses in *Bone Music* and may further prompt the climate anxiety that Kelsey identifies in people of all generations, and that affects young people worldwide (Thompson 2021; Hickman et al. 2021). The protagonists of Almond's *Bone Music* ultimately reject this scenario as the most desirable one for earth in favour of conscious and careful optimism. It places hope in the willingness to engage in active kinship on the one hand, and the preparedness and ability to change on the other. It situates that ability and willingness to listen, change and then to speak up and act not just in children and adolescents, but also in middle-aged and old adults. To rephrase Oziewicz's words when he criticized the dystopic as the dominant mode in fantastic fiction on climate change, David Almond's *Bone Music* fulfills the promise of not focusing on the world we dread, but on the one we wish. *The Dam* does so too, but remains limited in its attention for the nonhuman. *Bone Music* shows that posthumanist and intergenerational kinship can reinforce each other so that people feel reinvigorated in their hope, willingness, and agency to confront the systems that need to change.

**Bibliography**

Almond, D. & Pinfold, L. *The Dam*. Sommerville: Candlewick, 2018.

Almond, D. *Bone Music*. London: Hodder, 2021.

Beauvais, C. *The Mighty Child: Time and Power in Children's Literature*. Amsterdam: John Benjamins, 2015.

Belga. 'Bart De Wever: "Het is niet omdat de puberteit betoogt voor het klimaat, dat politieke antwoorden puberaal moeten zijn"', *Het laatste nieuws* (27 February 2019). https://www.hln.be/binnenland/bart-de-wever-het-is-niet-omdat-de-puberteit-betoogt-voor-het-klimaat-dat-politieke-antwoorden-puberaal-moeten-zijn~a2f8fbee.

Carrington, D. '"Blah, blah, blah": Greta Thunberg lambasts leaders over climate crisis', in: *The Guardian* (28

September 2021). https://www.theguardian.com/environment/2021/sep/28/blah-greta-thunberg-leaders-climate-crisis-co2-emissions.

Cole, M.B. "'At the Heart of Human Politics": Agency and responsibility in the contemporary climate novel', *Environmental Politics* 13 (1), 2021, 132-151.

Curry, P. *Echantment: Wonder in Modern Life*. Edinburgh: Floris, 2019.

Deszcz-Tryhubczak, J. 'Thinking with Deconstruction: Book-Adult-Child Events in Children's Literature Research', in *The Oxford Literary Review* 41 (2), 2019, 185–201.

Deszcz-Tryhubczak, J. & Z. Jaques, *Intergenerational Solidarity in Children's Literature and Film*. Jackson: University of Mississippi Press, 2021.

Doornaert, M. 'Brand niet op in een strovuur, haal een diploma', in: *De Standaard* (5 September 2019). https://www.standaard.be/cnt/dmf20190904_04591986.

Echterling, C. 'How to Save the World and Other Lessons from Children's Environmental Literature', in: *Children's Literature in Education* 47, 2016, 283-299.

Haraway, D. *Staying With the Trouble: Making Kin in the Chthulucene*. Durham, NC: Duke University Press, 2016. Kindle edition.

Gantois, K., De Wever, A & Olyslaegers, J. *Wij zijn het klimaat: Een brief aan iedereen*. Antwerpen: De Bezige Bij, 2019.

Gubar, M. 'Risky Business: Talking about Children in Children's Literature Criticism', in: *Children's Literature Association Quarterly* 38, 2013, 450–457.

Gubar, M. 'The Hermeneutics of Recuperation: What a Kinship-Model Approach to Children's Agency Could Do for Children's Literature and Childhood Studies', in: *Jeunesse: Young People, Texts, Cultures* 8 (1), 2016, 291–310.

Hickman, C., et al. 'Climate anxiety in children and young people and their beliefs about government responses to climate change: A global survey', in: *The Lancet* 5, 2021, e863-873. DOI:https://doi.org/10.1016/S2542-5196(21)00278-3.

Jeffers, O. *The Fate of Fausto: A Painted Fable*. London: HarperCollins, 2019.

Joosen, V. *Adulthood in Children's Literature*. London: Bloomsbury, 2018.

Joosen, V. 'Connecting Childhood Studies, Age Studies, and Children's Literature Studies: John Wall's Concept of Childism and Anne Fine's *The Granny Project*', in: *Barnboken* 45, 2022. https://doi.org/10.14811/clr.v45.745.

Kelsey, E. *Hope Matters: Why Changing the Way We Think is Critical to Solving the Environmental Crisis*. Vancouver: Greystone, 2020.

King, J. 'Environment minister Zac Goldsmith "ran away from 11-year-old girl" when she asked him about climate', in: *Metro* (15 November 2022). https://metro.co.uk/2022/11/15/cop27-environment-minister-walks-away-from-climate-activist-11-17760908/

Kokkola, L. *Representing the Holocaust in Children's Literature*. London: Routledge, 2003.

Kraftl, P. *After Childhood: Re-Thinking Environment, Materiality and Media in Children's Lives*. London: Routledge, 2020.

Milkoreit, M. 'Imaginary Politics: Climate change and the making of the future', *Elementa*, 5 (62), 2017, 1–18. doi:10.1525/elementa.189

Oziewicz, M. 'Introduction: The choice we have in the stories we tell', in: Oziewicz, M., Attebery, B. & Dědinová, T. (eds), *Fantasy and Myth in the Anthropocene: Imagining Futures and Dreaming Hope in Literature and Media*. Bloomsbury, 2022a. Kindle edition.

Oziewicz, M. 'Fantasy for the Anthropocene: On the Ecocidal Unconscious, Planetarianism, and Imagination of Biocentric Futures', in: Oziewicz, M., Attebery, B. & Dědinová, T. (eds), *Fantasy and Myth in the Anthropocene: Imagining Futures and Dreaming Hope in Literature and Media*. Bloomsbury, 2022a. Kindle edition.

Pauwels, F. '"Het verslag dat geen onderzoeker mag lezen": Wetenschap en klimaatverandering in jeugdliteratuur', in: *Spiegel der Letteren* 63 (1-2), 2021a, 63-88.

Pauwels, F. *Niet eens een labjas? De veelstemmige verbeelding van wetenschappers en technologen in hedendaagse jeugdliteratuur*. PhD dissertation, Dept. of Literature, University of Antwerp, 2021b.

Pettitt, J. 'On Blends and Abstractions: Children's Literature and the Mechanisms of Holocaust Representation', in: *International Research in Children's Literature* 7 (2), 2014, 152–164.

Renson, I. & Saelens, M. '"Hou Vol. Je Hebt Meer Macht Dan Je Denkt"', in: *De Standaard*, 26 January 2019. https://www.standaard.be/cnt/dmf20190125_04131761.

Schneider-Mayerson, M. 'The Influence of Climate Fiction: An Empirical Survey of Readers,' in: *Environmental Humanities* 10 (2), 2018, 473–500.

Scieszka, J. & Weinberg, S. *Astronuts Mission Two: The Water Planet*. San Francisco: Chronicle, 2020.

Silva, E-L. 'Social and material minds through the lens of cognitive narratology in *Clay* and *Bone Music*', in: Joosen, V. et al. *Age in David Almond's Oeuvre: A Multi-Method Approach to Studying Age and the Life Course in Children's Literature*. New York: Routledge, 2023, 36-58.

Silva, E-L. 'From Natural Resources to Cultural Artefacts: Coming of Age in David Almond's *Clay* & *Bone Music*', Website of ChLA's International Committee, 13 September 2022. https://childlitassn.wixsite.com/intlcommittee/single-post/coming-of-age-in-david-almonds-clay-bone-music

Solnit, R. *Hope in the Dark: Untold Histories, Wild Possibilities*. 3rd ed. Chicago: Haymarket, 2016.

Stemmann, A. 'Generationale Umweltkrisen: Verbindungen von Age Studies und Kulturökologie', in: *Naturschreiben: Jahrbuch der GKJF*, Berlin: GKJF, 2022, 25-36.

Tan, S. *Tales from the Inner City*. New York: Arthur A. Levine, 2018.

Tempest, K. *On Connection*. London: Faber & Faber Social, 2020.

Terlouw, J. & A. De Wever. *Jan Terlouw en Anuna De Wever in gesprek over de zorgen voor de aarde en oceaan*. https://www.youtube.com/watch?v=OX6EpT0Ssp0.

Thompson, T. 'Young people's climate anxiety revealed in landmark survey', in: *Nature*, 22 September 2021. https://www.nature.com/articles/d41586-021-02582-8.

Thunberg, G. 'Unite behind the science'. Speech delivered at the Assemblée Nationale, 2019a. https://www.youtube.com/watch?v=bz8jSJAkFRM.

Thunberg, G. 'You're acting like spoiled irresponsible children', Civil Society for rEUnaissance, 21 February 2019b. https://www.eesc.europa.eu/en/news-media/videos/youre-acting-spoiled-irresponsible-children-speech-greta-thunberg-climate-activist.

Thunberg, G. *No One Is Too Small to Make a Difference*. London: Penguin, 2019c.

Trexler, A. *Anthropocene Fictions: The Novel in a Time of Climate Change*. Charlottesville: University of Virginia Press, 2015.

Van der Beek, S. & C. Lehmann. 'What Can You Do as an Eco-hero? A Study on the Ecopedagogical Potential of Dutch Non-fictional Environmental Texts for Children', in: *Children's Literature in Education*, 2022. https://link.springer.com/article/10.1007/s10583-022-09482-z.

Vloeberghs, K. 'Kinder- en jeugdliteratuur over de Holocaust: Een ontmoeting tussen Werkelijkheid en Weergave', in: Joosen, V. & Vloeberghs, K. *Uitgelezen jeugdliteratuur: Een ontmoeting met traditie en vernieuwing*. Leuven: LannooCampus, 2008.

Wall, J. 'From Childhood Studies to Childism: Reconstructing the Scholarly and Social Imaginations', in: *Children's Geographies* 20 (3), 2019. doi.org/10.1080/14733285.2019.1668912.

# Generational Time and Multilinear Form in the Climate Change Novel

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Abstract

Drawing on New Formalism and econarratology, this essay considers the potential of narrative multilinearity in fostering new modes of thinking about generational relations in times of ecological crisis. The starting point is that climate change puts considerable pressure on the forms of generational thinking embedded in Western modernity. The multilinear novels I consider speak to this challenge on a formal level, by revisiting the traditional template of the 'family saga', with its multigenerational, temporally distributed structure. The article's archive includes contemporary novels by James Bradley (*Clade*), Hanya Yanagihara (*To Paradise*), and Namwali Serpell (*The Old Drift*). In different ways and to different degrees, these works reimagine conventionally anthropocentric ideas of generation and kinship, opening them up to entanglements with the nonhuman.

*Keywords*: ecological crisis, econarratology, kinship, New Formalism, temporality

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# Generational Time and Multilinear Form in the Climate Change Novel

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## Introduction

Climate change is, as philosopher Dale Jamieson puts it, 'the largest collective action problem that humanity has ever faced, one that has both intra- and inter-generational dimensions' (2014: 61). The effects of climate change are spatially as well as temporally distributed: scientific and societal debates on the ecological crisis frequently refer to scenarios predicting future impacts of, for example, rising temperatures or sea levels. The temporal scope of these predictions is such that they do not only concern individuals living in the present, but their descendants—potentially, for centuries, millennia, or even larger time scales, since greenhouse gas emissions and other anthropogenic processes are permanently reshaping the Earth's climate and geological make-up. This means that facing up to climate change doesn't only require developing our 'sense of planet', to use Ursula Heise's (2008) phrase, but it also involves cultivating an ability to grasp and imagine global connections across geographic, national, and cultural boundaries. This kind of cosmopolitanism, which plays out mostly in spatial terms, must be complemented by awareness of the temporal 'depth' of the crisis: how it has its roots in past and present practices of capitalist extraction and colonial exploitation, and how it reaches into an uncertain future.

For social animals like us, the easiest way to imagine this temporality is as a succession of generations. Indeed, the temptation to frame the ecological crisis in relation to future generations is so strong that philosopher Samuel Schleffer's book, titled rather broadly *Why Worry About Future Generations?*, identifies climate change as the 'matter of public concern' (2018: 12) that most straightforwardly raises the titular question. A combination of biological and cultural factors links present-day human beings to future generations. Biologically, sexual reproduction ensures the continuation of our species, and indeed the environmental movement has repeatedly mobilized the rhetoric of preserving the planet for our children in order to raise ecological awareness. Lee Edelman (2004) has influentially critiqued this discourse under the heading of 'reproductive

futurism': that is, the tendency to align futurity with heteronormative assumptions or other dominant ways of understanding the human. Nicole Seymore describes this position as follows: 'concern for the future qua the planet *can only emerge*, or *emerges most effectively*, from white, heterosexual, familial reproductivity' (2013: 7).

However, generations are not only a biological construct but deeply influenced by culture. This is where the 'inter-generational dimensions' of the ecological crisis can be extricated from heteronormative models grounded in sexual reproduction. Shifting the focus from the biological grounding of the concept of generation to its cultural openness can go a long way towards addressing the pitfalls of reproductive futurism. After all, the ecological crisis is the product of a certain understanding of human-nonhuman relations, which views human beings as intrinsically different from (and superior to) other life forms. Notions of this kind are constructed and scaffolded by a variety of cultural practices, from education to media discourse and institutional structures. These practices, while clearly intergenerational in the sense that they involve individuals from multiple age groups, do not build on the link between parental and environmental care. The ecological crisis we face today is a product of Western modernity, which is predicated on notions of human mastery over the nonhuman world and also on faith in linear narratives of technological and scientific progress and economic growth.[1] By percolating into a vast range of cultural practices and discourses, these notions shape the outlook of current and future generations. Thus, transforming environmental attitudes entails far more than preserving the planet for *our* children; it requires a fundamental shift in the cultural assumptions handed down to future human beings, regardless of whether they are bound to us by kinship in the biological sense.

Of course, realizing this type of cultural change is a tall order. No single intervention, no matter how ambitious and vast in scale, can hope to make a difference, which is part of the reason why the link between pro-environmental action and parenthood, through its immediate emotional appeal, remains so tempting. But a renewed understanding of (future) generations is likely to play a central role in any attempt to counter the anthropocentric, extractive, and near-sighted outlook of Western modernity. This essay argues that the form of the contemporary novel speaks to these tensions inherent in the concept of generation, particularly its being poised between the biological and the cultural, but also between the human and the nonhuman. Drawing inspiration from the New Formalist method advanced by Caroline Levine (2015), I examine the potential of narrative multilinearity in fostering new modes of thinking about generations, modes that destabilize the link between sexual reproduction and environmental futurity. The novel thus becomes a springboard

[1] See, for instance, the arguments developed by Chakrabarty (2009) and Moore (2017).

for imagining what Kathleen Woodward (2020), in a seminal intervention in the field of ageing studies, has called 'generational time'.

Taking her cue from a novel by Margaret Drabble (*The Dark Flood Rises* [2016]), Woodward outlines a convergence between 'the fields of critical age studies and humanities studies of climate change' (2020: 51). The focus of her discussion is on the idea of generational time, which she defines as follows: 'Entailing two, three, and four generations, perhaps even more, generational time is our singular way of understanding future time, linking us in altogether meaningful ways to others whose futures we care about deeply' (2020: 54). Generational time, from this perspective, is inherently *multi*generational. Implicit in Woodward's discussion of Drabble's novel is the notion that literary narrative, through its excavation of characters' inner lives, may be helpful in fleshing out the idea of generational time—that is, in lending it experiential (affective and imaginative) vividness. Yet Drabble's novel is held back in its engagement with generational time by the way in which it foregrounds a single protagonist, an ageing woman who embodies the privilege and blind spots of the white middle class: to use again Woodward's terminology, the protagonist's 'generational imagination' is limited, and her attachment to her daughter downplays the threats posed by climate change (ironically, since her daughter is a climate scientist). Drabble is thus inviting her audiences to position themselves in opposition to the protagonist, reading against the grain of her inability to devote attention to generational time.

Other works of contemporary 'climate fiction' are more explicit in staging intergenerational concerns and tensions.[2] Jenny Offill's *Weather* (2020), for instance, or many of Lauren Groff's short stories (see, e.g., *Florida* [2018]) foreground characters who are struggling with the anxieties aroused by ecological uncertainty, where uncertainty is straightforwardly linked to the future wellbeing of the protagonists' children.[3] Here generational time is evoked directly, but it is embedded within a parental model of care that is, as observed by Adeline Johns-Putra (2019: 22), fundamentally limiting, since it folds into the biologically based, heteronormative futurity critiqued by Edelman.[4] Instead of focusing on this thematic link between generations and parenthood, this article turns to a set of contemporary climate novels in which generational time is enacted formally through the adoption of a multilinear, multigenerational structure. I will suggest that this broad temporal span

[2] For more on the scope and definition of climate change fiction, see LeMenager (2017) and Adam Trexler's (2015) discussion of the (related but broader) concept of 'Anthropocene fiction'.

[3] I write about contemporary fiction's engagement with climate uncertainty in Caracciolo (2022), where I also offer readings of works by Groff and Offill.

[4] See Johns-Putra (2019: 22): 'parental care ethics as a moral outlook for the future, with its idealisation of care as an ethical disposition and its problematic identity biases, lays itself open to critique on several counts. Among other things, the exclusionary tendencies of identity politics and the parochialism and paternalism that undermine positions of care have the potential to lead to a narrow concept of posterity as genetic survivalism, that is, the privileging of one's own legacy over others'.

represents an effective novelistic response to the generational challenges of climate change. The 'family saga' is the closest equivalent to this multigenerational structure, but as we will see my examples put significant pressure on the definition and meaning of family (and related concepts of kinship and generation). This formal operation promises to uncouple the imagination of futurity from a narrowly biological understanding; it also opens the door to a posthumanist way of thinking about kinship as blurring species boundaries.[5] Not all of my examples are equally radical in this critique of reproductively grounded generational thinking, of course: James Bradley's *Clade* (2015), for instance, mostly hints at the nonhuman on a thematic level, but the form of the novel remains tied to anthropocentric notions; my other case studies, Hanya Yanagihara's *To Paradise* (2022) and Namwali Serpell's *The Old Drift* (2019), go much farther in either defamiliarizing the family saga (in the former novel) or in blending formal devices and more-than-human perspectives on generational time (in the latter). Before turning to these works, however, I will further position my discussion vis-à-vis the fields of New Formalism and econarratology, and I will also introduce recent posthumanist work on the concept of kinship.

## Narrative Multilinearity and Kinship Beyond the Human

One of the main takeaways of Caroline Levine's New Formalism is that literary form matters: the formal choices adopted by writers are no mere embellishment but enter a dialogue with the forms that regulate social life, from hierarchical structures to models of temporal or spatial organization. Take, for example, Levine's reading of Elizabeth Barrett Browning's poem 'The Young Queen', which commemorates Queen Victoria's accession to the British throne in 1837. Levine highlights the way in which poetic meter captures the convergence of the temporalities of public life, 'a piling up of multiple institutional tempos that are necessarily superimposed at the moment of royal succession' (2015: 79). Poetic form and the temporal configuration of social life are thus complexly intertwined.

However, as Levine acknowledges, this continuum of textual and extratextual forms isn't limited to poetry. Narrative itself can be thought of as a macroform that 'captures the experience of colliding forms' and affords 'careful attention to the ways in which forms come together, and to what happens when and after they meet' (Levine 2015: 19). This insight wasn't lost on scholars working within the field of econarratology. Spearheaded by Erin James and Eric Morel (2020), econarratology highlights the ecological significance of narrative form: how narrative strategies can

[5] See also Sako and Falcus's (2023) reading of Kazuo Ishiguro's *Klara and the Sun*, which shares many of my conceptual coordinates—particularly generational time and posthumanism—despite delivering a thematic analysis rather than a narratological one.

speak to debates on the environmental crisis and the concepts that underlie such debates—for instance, the distinction between human agents and supposedly inert matter. I have already alluded to the spatiotemporal distribution of the effects of climate change: asking how narrative may be able to encapsulate these effects within its formal workings is a central question for econarratology. A related concern has to do with what Monika Fludernik (1996: 13) calls the 'anthropomorphic bias' of storytelling—that is, its tendency to approach characters as human-like and gravitate towards human values and experiences. Does this bias imply that narrative is not only inevitably anthropomorphic, but anthropo*centric*? How can stories resist this bias and open themselves up to the nonhuman—not just thematically but formally?

In *Narrating the Mesh* (Caracciolo 2021), I engaged with these questions through a crossover of econarratology and New Formalism. My focus was on how narrative form may disrupt anthropocentrism by capturing three features of the climate crisis: how it straddles multiple scales of reality, how it foregrounds interdependence between human societies and nonhuman phenomena, and how it complicates the (normally human-scale) link between cause and effect. I also observed that narratives engaging with climate change tend to take a nonlinear form, which serves as a direct formal equivalent to the complexity of ecological processes. My discussion in the book doesn't imply that narratives can completely do away with linearity, however. Indeed, since narrative involves temporal and causal sequentiality on a fundamental level, readers will always attempt to project a linear form onto the events told by a story. But such projections can be resisted or complicated by strategies that include the foregrounding of multiple characters or spatiotemporal settings, the adoption of counterintuitive loop-like patterns, and the use of coincidence as the main vector of narrative organization.[6]

Multilinearity, as I use the concept in this article, represents one way of problematizing linearity: it consists in the juxtaposition of story lines that remain separate in spatiotemporal terms (for instance because they are tied to different characters or groups of characters), but may converge periodically in the narrative. Any given multilinear plot is caught in a tension between what I have called distribution and focus (Caracciolo 2023b). The former refers to the spatiotemporal 'spread' of the narrative, how distant the story lines are within the narrative's implicit chronology and spatiality (which may or may not reflect real-world history and geography). The further apart the story lines, the more narrative risks creating a merely episodic sequence with no clear arc or progression. Focus is what resists this centrifugal impulse and brings together the story lines *despite* their distanciation: it is an overall organizing principle that lends coherence to the

[6] I discuss the econarratological significance of the coincidence plot in Caracciolo (2023a), which examines divergent conceptions of probability in narrative theory and scientific thinking.

whole. Consider, for example, one of the most frequently cited environmental fictions of the last decade, Richard Powers's *The Overstory* (2018), which is a multilinear narrative staging characters who originate from different parts of the US: some of them converge in the novel's storyworlds, others never meet and are only connected thematically. Shannon Lambert has argued that Powers's thematic preoccupation with the connectedness of fungal networks in forests serves as a central analogy for understanding the characters' relations: 'events within Powers's story progress through connected yet dispersed character relations which leave the impression of something more vegetal, rhizomatic' (2021: 197). The analogy between human characters and the invisible organization of forests thus creates focus and coherence within Powers's multilinear structure.

However, multilinear narrative can also achieve focus through a different type of relationality, that of kinship (see, again, Caracciolo 2023b). Family relationships have of course been central to the novel since the rise of the genre in the eighteenth century. Ruth Perry, for instance, has argued that the early novel 'functioned to explore and work through the changing kinship arrangements which regulated domestic life and intergenerational relationships' (2004: 6). While this negotiation of kinship often takes place in thematic terms, the multilinear form can use family as the organizing principle of progression, for example by telling the lives of multiple characters, each of which constitutes a relatively independent story line. What brings these characters and story lines together is that they can all be traced to the same family (or families), across various generations. In the twentieth century, the combination of multilinearity and multigenerational focus has given rise to novels as diverse as Thomas Mann's *Buddenbrooks* (1901), Gabriel Garcia Márquez's *One Hundred Years of Solitude* (1967), and Alex Haley's *Roots* (1976).

More recently, the form has gained traction within environmental or 'climate' fiction, and it is this type of multilinearity with a focus on kinship that I explore in the following pages. Beside the three novels I will discuss, Annie Proulx's *Barkskins* (2016) has been hailed as one of the most successful family sagas in contemporary environmental literature: it centers on two Frenchmen, Charles Duquet and René Sel, who move to North America in the late seventeenth century to work as indentured servants. The book's ten parts track Duquet's and Sel's descendants for more than three hundred years, with the final chapters of the novel extending into our century. These sections revolve around individual characters at specific points in time, so that their story lines almost take on an episodic quality. At the end of the book, two family trees display relations among the protagonists' numerous offspring, serving as a concrete visualization of Proulx's focus on kinship and allowing readers to more easily navigate the novel's numerous story lines. Environmental concerns enter *Barkskins* from multiple directions: Duquet owes his fortune to timber trade, a business driven by capitalist greed and the mindless exploitation of natural resources, while Sel's

descendants become involved in nature conservation projects. The structure is intricate and sprawling, but kinship is what keeps it together formally and thematically: not only is the book's multilinear set-up entirely derived from the two protagonists' offspring, but family is presented (as often in this multigenerational genre) as a background of common interests and ambitions that ripple across generations in sometimes predictable, sometimes surprising ways.

Compare this form to Powers's *The Overstory*, which shares with *Barkskins* a thematic preoccupation with plants and how they shape the fortunes of human societies. Both are multilinear novels, but while *The Overstory* foregrounds spatial distribution (i.e., its story lines are more separated in space than in time), *Barkskins* casts a far wider net in temporal terms. Proulx's novel can thus be said to enact, through its multilinear form, generational time in Woodward's (2020) sense: it affords a perspective on how the ecological crisis, which is strongly hinted at in the novel's final chapter (set in 2013), has its roots in colonialism and in the exploitation of the natural world (largely in the form of rampant deforestation). Yet *Barkskins* is less forceful than *The Overstory* in challenging the anthropomorphism of narrative form: the network of kinship that underpins Proulx's work is clearly geared towards human relations, with biological reproduction playing an important (albeit not exclusive) role in determining the novel's temporal span. By contrast, following Lambert's (2021) reading, *The Overstory* foregrounds thematically a nonhuman mode of connectedness (the mycorrhizal network connecting trees and fungi) and blends it with narrative form, particularly the human characters' intersubjective network, by way of analogy. This means that, on a formal level, Powers's novel is far more effective than *Barkskins* in countering the 'anthropomorphic bias' of narrative identified by Fludernik.

Nevertheless, the multilinear form and temporal distribution of *Barkskins* do seem to offer a promising point of departure for an exploration of generational time and its implication not just in the *past* of the ecological crisis but in its uncertain futurity. How can the contemporary novel combine a Proulx-style focus on the temporality of kinship with the opening up of narrative form to the nonhuman we find in *The Overstory*? The answer I will offer in the following pages, through my reading of works by Bradley, Yanagihara, and Serpell, is simple: to speak to the generational time of the ecological crisis and its planetary stakes, the novel must move beyond an anthropocentric way of conceptualizing family itself. Thus, all my case studies question a conventional understanding of family (and related concepts of kinship and generation) by shifting the focus from a species-specific view grounded in reproduction to a broader, more open-ended understanding of these ideas. In doing so, they approach thematically and integrate formally the more-than-human conception of kinship that grows out of posthumanist theory (although, as we will see, they do so to different degrees).

A seminal articulation of posthuman kinship can be found in Donna Haraway's work. Haraway's goal is to make "'kin" mean something other/more than entities tied by ancestry or genealogy. The gently defamiliarizing move might seem for a while to be just a mistake, but then (with luck) appear as correct all along. Kin-making is making persons, not necessarily as individuals or as humans' (2015: 161). The notion of kinship is thus stretched to include relations that cannot be mapped out in genealogical terms and would resist simple visualizations like the family trees that close Proulx's novel. Instead, kinship becomes uncoupled from human reproduction and permeable to encounters with the more-than-human. This doesn't mean that kinship in Haraway's sense has nothing to do with biology: on the contrary, her suggestion that 'all earthlings are kin in the deepest sense' (2015: 162) implies recognition of our common evolutionary history and of the mortality we share with nonhuman animals. Deborah Bird Rose, another posthuman-oriented theorist, argues that the extended notion of kinship 'situates us [human beings] here on Earth, and asserts that we are not alone in time or place: we are at home where our kind of life (Earth life) came into being, and we are members of entangled generations of Earth life, generations that succeed each other in time and place' (2011: 64). The word 'generations' is here used in a non-species-specific sense, to highlight the permutations of life in evolutionary time. Drawing on her fieldwork in Aboriginal Australia, for example, Rose explains that one of her informants 'told long, fabulous stories about shared kinship: about how dogs and humans have a common origin and destiny' (2011: 17). While grounded in evolutionary history, this posthuman understanding of kinship also reshuffles the cultural meaning of family, in that it presents kinship as a form of affective relationality that is not bound to stable categories (humanness, parenthood, lineage, and so on).

Of course, as a human practice, narrative (and particularly narrative circulating in a Western context) cannot completely extricate itself from the human model of kinship that is foregrounded by Proulx's book. But it can defamiliarize this model in various ways, and in doing so it can map its multilinear form onto a posthumanist understanding. I position my three case studies in order of increasing distance from the conventional templates of the family saga, which tend to presuppose an anthropocentric understanding of kinship based on sexual reproduction.[7] All of these novels combine multilinear form with an exploration of temporality that is open to the imagination of human-nonhuman entanglement.

[7] By 'templates', I mean recurring and culturally circulating narrative structures. For more on this metaphor, see Herman and Vervaeck (2017: 609).

## From Family to *Clade*

My first example is *Clade* by Australian writer James Bradley. Compared to Proulx's *Barkskins*, the temporal distribution of *Clade* is more compact, spanning three generations and a few decades rather than centuries. The multilinear structure consists of self-contained chapters and provides none of the paratextual guidance one finds in the Proulx novels (not only the aforementioned family trees, but also the explicit dating of the book's parts). In *Clade*, by contrast, it is up to the reader to fill in the gaps between the chapters and work out the rough chronology of the events. Nevertheless, kinship provides focus for the multilinear set-up. The starting point of the novel's family tree is the relationship between Adam (a climate scientist) and Ellie (an artist): after six years of relationship, they decide to have their first child, but a long and emotionally taxing series of fertility treatment proves necessary.

Sexual reproduction is thus foregrounded from the outset, and so is the magnitude of the crisis that humanity is facing: the planet, we read early on, 'was on a collision course with disaster. In the United States and India floods covered millions of square kilometres, in Africa and Europe the heat was growing ever more intense, in Indonesia and Brazil and Malaysia the forests were burning, yet he [Adam] and Ellie were trying to have a baby' (2017: location 202). Chapter two skips forward a few years, when Adam and Ellie's baby—a girl named Summer—has finally arrived. With another temporal leap, chapter three starts with Ellie driving Summer to a beach house where they are welcomed by Ellie's stepmother, Maddie; the reader infers the news of Adam and Ellie's divorce, and through periodic flashbacks we are introduced to Ellie's father, Tom, who bought this beach house and died five years earlier. Also in a flashback, the reader is told about Maddie and Tom's son, Declan, who died of cancer at a young age, and whose childhood is again juxtaposed with the deepening ecological crisis: 'Absorbed in Declan they let their friends slide, instead spending more and more time down here alone. That was the year the real disasters began—mega-blizzards in North America, tornados in China, the first widespread methane ruptures in Siberia—and it seemed natural to try to shut them out, to concentrate on the fact that here and now they were safe, and had each other' (2017: location 568).

Reproduction is seen as refuge from disaster, a source of comfort and hope as the world's climate shows increasing signs of having reached a point of no return. The whole multigenerational structure of the novel reinforces this affective investment in family, and of course it cannot be a coincidence that the Biblical name of the first character we encounter, Adam, evokes patriarchal stability and continuity. But elsewhere in the novel this blind faith in reproduction is said to be part of the problem, bound up as it is with humanity's obliviousness to climate catastrophe. One of

Adam's colleagues remarks: 'We don't change because we don't believe in the problem, . . . at least not at the deep, intuitive level we need to. We can see it when it's in front of us, see what it means; we know we have to change. But as soon as we're away from it our old thinking reasserts itself, our desire to reproduce, to build power' (2017: location 209). That 'desire to reproduce' and thus 'build power' is experienced by both couples (Adam and Ellie, Tom and Maddie), and it is inscribed in the novel's multilinear form through its focus on kinship.

However, in other respects *Clade* resists and defamiliarizes the anthropocentric understanding of kinship that it displays so prominently through the configuration of the narrative. A first hint is provided by the title, which is also the title of the third chapter (the one starting with Ellie and Summer's arrival at the beach house). Curiously, the word 'clade' never occurs in the text of the novel: it denotes, according to the Merriam-Webster dictionary, 'a group of biological taxa (such as species) that includes all descendants of one common ancestor'.[8] The word thus appears interchangeable with 'family', but it starts defamiliarizing the novel's multilinear form by positioning the human characters within a more-than-human, evolutionary pattern: the title suggests a zooming out in temporal scale, entangling the novel's three generations within a much longer, evolutionary history that *Clade* can only evoke obliquely, but that still complicates the seemingly anthropocentric focus on kinship.

This tendency to highlight continuities between the human characters' multigenerational collective and nonhuman assemblages is tied to the bee motif, which is introduced halfway through the novel but announced from the novel's beginning by the chapter separators, which picture a bee. After breaking up with Adam, Ellie moves to a new home in the country, where she meets a character named Amir, a migrant who works as a beekeeper. Increasingly fascinated by bees, Ellie plans a new artistic project around the insects, and here a preoccupation with human-nonhuman connectedness begins to emerge in the novel. As Amir explains in a conversation with Ellie, 'The first time they [the bees] landed on me, enveloped me, it was as if I was no longer simply me but part of them, as if they connected me to something that went beyond myself' (2017: location 1526). The way in which the bees 'envelop' the character suggests entanglement with the nonhuman, the kind of entanglement that Haraway and Rose express through a posthuman understanding of kinship. Later in the same chapter, Ellie wonders: 'Do individual bees have any conception of time, or is their existence simpler than that, their brief lives lived in the busy rush of the moment?' (2017: location 1652). Given the novel's embedding of human kinship within a more-than-human pattern (the shift from family to 'clade'), the reader may wonder whether this question might not apply to

[8] https://www.merriam-webster.com/dictionary/clade.

the 'brief lives' of the novel's own human characters, seen from the vantage point of natural evolution.

Ellie's fascination with bees thus offers a key to reading the novel as a multilinear narrative ambiguously poised between an anthropocentric understanding of generations and a notion of kinship that resonates with human-nonhuman entanglement. On the one hand, we have patriarchal descendance from Adam, who is the first character readers encounter in the novel and whose death is announced in the final chapter. On the other hand, the interest in the bees' nonhuman collective (which goes hand in hand with the biological language of 'clade') proves defamiliarizing through its putting into perspective the characters' affective investment in family. The result of this tension is that the novel's multilinear structure conveys a sense of generational time that is at least partially detached from anthropocentric notions. My next two case studies amplify this generational imagination of the more-than-human, but they do so by following two profoundly different routes: Yanagihara's novel breaks with the template of the family saga by exploring multigenerational temporality in the absence of clear family relations between the characters; Serpell, for her part, adheres to human kinship as a structuring principle but disrupts it through intermezzos that hint at human societies' connectedness with an insect species (not Bradley's bees but mosquitoes) as our nonhuman kin.

## Uncertain Kinship in *To Paradise*

The three parts of *To Paradise* take place in different centuries: the first book ('Washington Square') is set in the nineteenth century, the second book ('Lipo-Wao-Nahele') in the 1990s, whereas the final book ('Zone Eight') imagines a dystopian future ranging from the 2040s to 2093—a half century during which a number of pandemics reshape the US into a totalitarian society. The first part isn't historical fiction in the strict sense, however: Yanagihara rewrites the end of the Civil War, with the US fracturing into a series of independent states; she also imagines a society—the Free States, where New York is located—in which gay marriage is not only legal but extremely common. The 1990s of the second book also depart from historical reality, albeit in subtler ways than the first part. This is the only book that takes place outside New York City, the titular Lipo-Wao-Nahele being a (fictional) location in Hawaii. The other two books are set entirely in New York City and revolve around a building on Washington Square, which is first owned by a wealthy family, the Binghams (in book one); it is home to the protagonist of book two (an affluent lawyer); finally, it is partitioned into a series of apartments, including that of the protagonist of book three,

a young woman who develops Asperger's-like symptoms after taking an experimental drug used to treat one of the outbreaks.

The dystopian world of the third book is presented as the product of intersecting crises: exploitation at the hands of rich families such as the Binghams of book one, whose wealth is built on colonial practices including slavery; the eradication of Indigenous communities, whose languishing is foregrounded by book two; and last but not least the depletion of the Earth's ecosystems. This environmental dimension becomes particularly salient in book three, where the devastating pandemics are compounded by a sequence of environmental catastrophes: 'Two months ago, the fires; last month, the rains; this month, the floods' (2022: 653). The outbreaks themselves are linked to the ecological crisis: 'Zoonoses have been increasing in incidence every year for the past eighty years, and the reason is because more and more wild land has been developed, and animals have lost their habitats and have been forced to come into closer contact with humans than they were ever meant to' (2022: 477). As this final book makes explicit, *To Paradise* revolves around the collapse of democratic systems as a result of deep connections between forms of violence that are typically framed as separate in contemporary media discourse and culture: violence on marginalized groups, on Indigenous communities, and on the nonhuman environment.

The grandfather of the protagonist of book three, a character named Charles Griffith, is the clearest embodiment in the novel of this convergence of systems of oppression: a top scientist during one of the first pandemics of the twenty-first century, Charles becomes implicated in the government's hardline response, which gradually erodes democratic institutions (including the legalized gay marriage that the characters of book one had taken for granted). 'How far back do I have to go? How many decisions must I regret?' (2022: 576), wonders Charles as he acknowledges the central role he played in the dystopian transformation of US society. The novel embraces the same historical logic of going 'far back', but scales it up from individual to generational time as it highlights the many decisions and shortcomings that led to the totalitarian reality of the third book: the novel's multilinear structure is meant to capture the *longue durée* of systemic processes and their devastating effects on social and material reality.

Given this *longue durée*, one may reasonably expect *To Paradise* to adopt a multigenerational approach, and of course in a broad sense the novel does give shape to a generational time grounded in an alternative nineteenth-century past and reaching into an uncertain (but recognizably bleak) future. Nevertheless, the novel both cues and resists a reading in light of the family saga template evoked by *Barkskins* and *Clade*. Two family names keep popping up throughout the novel: the Binghams and the Griffiths. However, it is impossible to reconstruct a genealogy bringing together

the three books: the reader is tempted to establish family relations, figuring out for example if and how the Charles Bingham of the second book (who is of Hawaiian descent) is related to the affluent Binghams of the first book. When asked about his European-sounding last name, Charles explains that Bingham is 'a missionary name. American missionaries started arriving in the islands in significant numbers in the early nineteenth century; a lot of them intermarried with the Hawaiians' (2022: 199). His interlocutor, David Griffith, brings up a dormitory at Yale named Bingham Hall and asks 'Is there any relation?' while 'already [assuming] there wasn't' (2022: 199). Charles replies vaguely 'Yes—he's an ancestor' (2022: 199), but the conversation reaches a dead end. We infer that Charles may be related to the Binghams of book one, with kinship providing focus for the multilinear structure. However, the novel never confirms this hunch.

The same is true for the other family name that recurs throughout the novel, the Griffiths. A character named Charles Griffith makes an appearance in book one: he proposes to the protagonist (David Bingham) but he is turned down. The David Griffith of book two is plausibly related to this other Griffith, but we never know for sure. In book three, we discover that the protagonist's complete name is Charlie Bingham-Griffith, but the first half of the name was 'edited out of existence' (2022: 575). This revelation positions Charlie as the first figure bringing together the novel's two families, but it also challenges a reproductive understanding of generations. Charlie is the adopted daughter of Nathaniel Bingham, not his biological offspring, and her birth is linked by Charlie's grandfather to questions analogous to those we have seen emerge in *Clade*: 'It takes a special kind of cruelty to make a baby now, knowing that the world it'll inhabit and inherit will be dirty and diseased and unjust and difficult. So why would you? What kind of respect for life is that?' (2022: 556). Even more importantly, though, blood relations between the Binghams and the Griffiths remain shrouded in uncertainty: it is impossible for the reader to establish a family tree of the kind we find at the end of Proulx's *Barkskins*.

Instead, the recurrence of the same names (including the same first names, David, Charles, and Nathaniel) across the novel creates a disorienting impression: it activates the narrative scripts of a family saga but also stubbornly refuse to crystallize into one. The hierarchical progression of the family tree feeds instead into a sense of stagnation and ineluctability, as if history was bound to repeat itself. Yanagihara's alternative history experiment in book one also results in a twenty-first century that is eerily (and dramatically) reminiscent of the crises we are experiencing today, suggesting that no historical intervention could have stopped the violence inherent in the capitalist system.

The notion of kinship that arises from the novel is thus open, ambiguous, and uncoupled not only from any reproductive model but also from the evolutionary perspective entertained by

*Clade*. However, the nonhuman still plays an important role in Yanagihara's novel: in the final book in particular, Charlie's job as a laboratory technician involves manipulating mouse embryos, which the scientists refer to humorously as 'pinkies'. It is not a coincidence that the normally emotionless Charlie expresses 'love' for the pinkies: "'I love the pinkies, too", I said, and as I did, I realized that it was true. I did love the pinkies. They were so fragile and their lives had been so short; they were poor, unformed things, and had been created only to die and be pulled apart and examined, and then they were incinerated and forgotten' (2022: 516). This acknowledgment of care across the human-nonhuman divide—a care made more poignant by the embryos' single-use instrumentality—expands the circle of kinship at the heart of the novel. In the final pages, too, a nonhuman perspective comes to the fore as Charlie's grandfather, who is about to be executed, imagines coming 'back to earth someday as a vulture, a harpy, a giant microbe-stuffed bat, some kind of shrieking beast with rubbery wings who flies over scorched lands' (2022: 704). This image recalls Charlie's attachment to her nonhuman embryos, but it further enriches and complicates the more-than-human kinship envisioned by the novel. As humanity faces existential threats from multiple directions, the bird's eye perspective introduces affective distance from the bleakness of generational time.

## Voicing the Swarm in *The Old Drift*

The paratext of Namwali Serpell's *The Old Drift* is unambiguous in framing the novel as a family saga. After the epigraph (from the *Aeneid*), a family tree displays the descendants of three characters—Percy, N'gulube, and Giovanna—and also provides their dates of birth, which span more than a century, from Percy's 1873 to an anonymous 'boy' born in 2024. Like Charlie in *To Paradise*, this boy brings together the three families. If we turn the page, we encounter a table of contents that is neatly divided into three parts, titled 'The Grandmothers', 'The Mothers', and 'The Children'. This multigenerational set-up allows Serpell to paint a rich portrait of Zambia under British rule and later as an independent nation haunted by its colonial past. With the twenty-first century, the narrative enters Africanfuturist territory as one of the protagonists, Joseph, designs AI-controlled drones that are modeled after a swarm of mosquitoes. Not only is Zambia's history situated within a multigenerational time scale, but it is also placed in a global context: of the three families staged by the novel, one is of African descent, the other two originate in Britain and Italy, with the construction of the Kariba Dam on the Zambezi River serving as the catalyst for the characters' relocation to present-day Zambia. The titular Old Drift is a small settlement on the Zambezi River visited in the novel's first chapter by the photographer Percy Clark, the Percy of

the family tree. The Old Drift, later renamed Livingstone, also happens to be near the site chosen for Kariba Dam.

However, in the course of the novel the word 'drift' takes on more complex meanings. To fully unpack these meanings, we need to consider the italicized chapter intermezzos, which undercut any reading of Serpell's novel as a conventional family saga. In these sections, a nonhuman voice enters the novel and significantly complicates the focus on human kinship. It is the voice of a swarm of mosquitoes, although the last of these italicized sections blends the insects with the insect-like drones created by Joseph, the Moskeetoze. The result is that the 'we' of these intermezzos fluctuates ambiguously between the animal and the technological, echoing contemporary anxieties on the possibilities (and dangers) of AI. This markedly nonhuman 'we' expresses itself in allusive, alliterative, and pun-rich prose, which reads very differently from the more realist style of the chapters. This collective voice serves as a counterpoint to the novel's multigenerational narrative, providing commentary on the human characters' decisions—along the lines of the chorus in classical Greek theater, but with more ironic overtones. We read on the novel's first page: 'Who are we? Thin troubadours, the bare ruinous choir, a chorus of gossipy mites. Uncanny the singing that comes from certain husks. Neither gods nor ghosts nor spirits nor sprites, we're the effect of an elementary principle: with enough time, a swarm will evolve a conscience' (2019: 19). The mosquitoes' playful monologue originates from this collective 'conscience'; this is also where the concept of 'drift' is renegotiated by the novel. One of the interludes states that 'To err is human, you say with great sadness. But we thinful [sic] singers give praise! To the drift, the diversion, that motion of motions! Obey the law of the flaw!' (2019: 545). The idea of drifting thus becomes associated with chance and deviation (the Lucretian concept of 'clinamen' is referenced on the same page): from a human perspective, these diversions are mere errors, a failure of goal-directed action, but the mosquitoes have learned how to use such deviations to their advantage. The novel's interest in disease also comes into play: the idea of 'drift' is further associated with the pathogens carried by mosquitoes, which keep finding ways of eluding the human immune system through genetic variations.

By becoming host to these random mutations, the mosquitoes exert secret control over human history: 'Reckon the wars, how a battleground festers: the British armies in the American South, the Japanese in the Pacific. Even the fall of the Roman Empire was due in part to our diseases' (2019: 486). The comings and goings of human generations are thus subject to 'errors' that can prove disastrous for human communities (including the characters of this novel), but also ensure the mosquitoes' thriving. The rigidity of human plans and desires is repeatedly opposed to the swarm's adaptability as the mosquitoes mediate between the microscopic world of viruses and

human-scale history. The playfulness of the mosquitoes' language serves as a stylistic stand-in for their ability to exist within the cracks of the anthropocentric world—dismissed as a nuisance (or, at worst, a carrier of dangerous diseases) but nevertheless capable of surviving and evolving. The revelation that the mosquitoes may be intelligent drones in the final intermezzo deepens this adaptability motif, suggesting that the 'we' that readers have linked to insects throughout the novel transcends the animal kingdom and blends with technology.[9] As a nonhuman intelligence, this technologically augmented swarm is also capable of surviving a disaster that the novel ambiguously describes under the heading of 'The Change', an event that bears more than a passing resemblance to the climate crisis: as the last swarm-narrated section states, humanity's 'mistake—their Error of Errors—was simply forgetting the weather. Tabitha had warned them all about The Change, and that season was ultra-disastrous' (2019: 563).

As Kariba Dam collapses and Zambia's geography is dramatically reshaped by flooding, the anonymous 'boy' of the book's family tree is born, but he—as the nonhuman narrator emphasizes—'doesn't know who his father is' (2019: 563). This lack of knowledge suggests what is perhaps the ultimate error or deviation in the novel's multigenerational plot: numerous plot lines (as well as family relations) converge in this boy's figure, but his uncertain lineage mirrors and amplifies the inscrutability of humanity's ecological predicament. As the focus of the novel's multilinear structure, human kinship falters; instead, it is replaced by the swarm's uncanny ability to live in the interstices of human history, and perhaps outlive it. Ultimately, readers discover that this multigenerational plot is controlled, or at least influenced, by factors eluding any strictly anthropocentric understanding of generations—and the 'we' of the swarm, similarly to the bee motif in *Clade* but much more overtly, crystallizes the imperative of expanding our kinship to the nonhuman world.

## Conclusion

Multilinearity, I have argued in this article and elsewhere (Caracciolo 2021, 2023b), is a particularly productive form as contemporary fiction confronts the imaginative challenges of the climate crisis. Climate change is distributed in both time and space, frequently across vast scales, and can only be understood as a global phenomenon. Multilinear narrative strategies are well suited to recreating the global reach of the crisis: they allow narrative to encompass characters across significant spatiotemporal distances, thus revealing the historical roots of climate change or its dramatically

[9] Importantly, this 'reveal' is phrased ambiguously, as a series of questions: 'Are we red-blooded beasts or metallic machines? Or are we just a hive mind that runs a program that spews Wikipedian facts?' (Serpell 2019: 562).

different consequences in various parts of the globe. However, in discussions on the global novel (e.g., Barnard 2009), multilinearity is mostly thought of in *spatial* terms: it conveys a cosmopolitan viewpoint that—as influentially argued by Heise (2008)—is urgently needed to come to terms with the scale of climate change. Just as needed, though, is insight into the *temporal* depth of the crisis, how it derives from historically specific practices of extraction and exploitation and how it magnifies future uncertainty, particularly for younger generations. It is not surprising, then, that numerous contemporary climate change-focused novels are revisiting the inherently multilinear form of the family saga. This configuration allows narrative to directly perform what, in the context of ageing studies, Woodward (2020) has theorized as 'generational time', which denotes an ability to imagine the succession of generations and therefore the long-term impact of climate change mitigation strategies (or the lack thereof).

There are multiple examples of this kind of generational thinking in the climate change novel, as I have argued here. Where these works differ, however, is in the degree to which they question an anthropocentric understanding of generations and associated concepts such as family and kinship. Posthumanist theorists such as Haraway (2015) and Rose (2011) have attempted to extricate kinship from an anthropocentric view grounded in species-specific, sexual reproduction. Instead, kinship opens up to entanglement with the nonhuman, which is also perceived as kin—for example, through the imagination of evolutionary time. Not only do this article's case studies embrace a multigenerational form to address the climate crisis and related ecological challenges, but they put a great deal of pressure on conventional models of kinship. Bradley's novel adopts biological language (via the titular *Clade*) as well as the bee motif to defamiliarize the human collective of family. Yanagihara envelops kinship in uncertainty and aligns it with the bleakness of humanity's outlook—with more positive affect only emerging sporadically and in relation to nonhuman creatures (such as Charlie's 'pinkies'). Finally, Serpell deploys a collective narrator (the mosquitoes) to unsettle the teleology of the novel's family tree, suggesting that human goals and desires are always subject to the whims and errors of the nonhuman. In all of these ways, our imagination of generational time is not only deepened but also detached from anthropocentric assumptions—and this might be narrative form's most successful response to the temporal scale of climate change.

**Bibliography**

Barnard, R. 'Fictions of the Global', in: *Novel.* 42 (2), 2009, 207-215.

Bradley, J. *Clade*. London: Titan, 2017.

Caracciolo, M. *Narrating the Mesh: Form and Story in the Anthropocene*. Charlottesville: University of Virginia Press, 2021.

———. *Contemporary Fiction and Climate Uncertainty: Narrating Unstable Futures*. London: Bloomsbury, 2022.

———. 'Rabbit Holes and Butterfly Effects: Narrative Probabilities and Climate Science', in: *Journal of Narrative Theory*. 53 (1), 2023a, 38-58.

———. 'The Global and the Multilinear: Novelistic Forms for Planetary Processes', in: *Studies in the Novel*. 55 (3), 2023b, 325-340.

Chakrabarty, D. 'The Climate of History: Four Theses', in: *Critical Inquiry*. 35 (2), 2009, 197-222.

Edelman, L. *No Future: Queer Theory and the Death Drive*. Durham, NC: Duke University Press, 2004.

Fludernik, M. *Towards a 'Natural' Narratology*. London: Routledge, 1996.

Haraway, D. 'Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin', in: *Environmental Humanities*. 6 (1), 2015, 159-165: https://doi.org/10.1215/22011919-3615934.

Heise, U. K. *Sense of Place and Sense of Planet: The Environmental Imagination of the Global*. Oxford: Oxford University Press, 2008.

Herman, L. & Vervaeck, B. 'A Theory of Narrative in Culture', in: *Poetics Today*. 38 (4), 2017, 605-634.

James, E. & Morel, M. (eds.) *Environment and Narrative: New Directions in Econarratology*. Columbus: Ohio State University Press, 2020.

Jamieson, D. *Reason in a Dark Time: Why the Struggle Against Climate Change Failed—and What It Means for Our Future*. Oxford: Oxford University Press, 2014.

Johns-Putra, A. *Climate Change and the Contemporary Novel*. Cambridge, UK: Cambridge University Press, 2019.

Lambert, S. '"Mycorrhizal Multiplicities": Mapping Collective Agency in Richard Powers's *The Overstory*', in: Liebermann L., Rahn, J. & Burger, B. (eds.) *Nonhuman Agencies in the Twenty-First-Century Anglophone Novel*. Basingstoke: Palgrave Macmillan, 2021, 187-209.

LeMenager, S. 'Climate Change and the Struggle for Genre', in: Menely, T. & Taylor, J. O. (eds.) *Anthropocene Reading: Literary History in Geologic Times*. University Park: Pennsylvania State University Press, 2017, 220-238.

Levine, C. *Forms: Whole, Rhythm, Hierarchy, Network*. Princeton: Princeton University Press, 2015.

Moore, J. W. 'The Capitalocene, Part I: On the Nature and Origins of Our Ecological Crisis', in: *The Journal of Peasant Studies*. 44 (3), 2017, 594-630.

Perry, R. *Novel Relations: The Transformation of Kinship in English Literature and Culture, 1748–1818*. Cambridge: Cambridge University Press, 2004.

Rose, D. B. *Wild Dog Dreaming: Love and Extinction*. Charlottesville: University of Virginia Press, 2011.

Sako, K., & Falcus S. 'Futurity, the Life Course and Aging in Kazuo Ishiguro's *Klara and the Sun*', in: *Frontiers of Narrative Studies*. 9 (1), 2023, 121-136.

Schleffer, S. *Why Worry About Future Generations?* Oxford: Oxford University Press, 2018.

Serpell, N. *The Old Drift*. London: Hogarth, 2019.

Seymour, N. *Strange Natures: Futurity, Empathy, and the Queer Ecological Imagination*. Champaign, IL: University of Illinois Press, 2013.

Trexler, A. *Anthropocene Fictions: The Novel in a Time of Climate Change*. Charlottesville: University of Virginia Press, 2015.

Woodward, K. 'Ageing in the Anthropocene: The View from and Beyond Margaret Drabble's *The Dark Flood Rises*', in: Barry, E. & Skagen, M. V. (eds.) *Literature and Ageing*. Woodbridge: Boydell & Brewer, 2020, 37-63.

Yanagihara, H. *To Paradise*. New York: Knopf, 2022.

# Colliding Forms in Postapocalyptic Novels of Migration

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Abstract

In this paper, I offer a comparison between the forms of migration fiction and postapocalyptic fiction. I argue that the form of "binary time" (Kaup 2021) typical of postapocalyptic narratives and that of the loop are both to be found in migration narratives too, where the narration moves back and forth to the time before and after the journey to the new country. This correspondence can be observed through Ling Ma's 2018 work *Severance*. The novel foregrounds loop and binary time also by showcasing the intergenerational dialogue at play between the protagonist and her parents who migrated from China to the United States, between the young survivors and the older leader in the post-pandemic world that *Severance* stages. Loops and binary time are only disrupted through its ending in which the novel envisions new futurities to navigate the uncertainties that migrating in our present time entails.

*Keywords*: New Formalism, loop narratives, postapocalyptic fiction, migration, *Severance*

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# Colliding Forms in Postapocalyptic Novels of Migration

SIMONA ADINOLFI

## 'Crisis' and Intergenerational Dialogue in Postapocalyptic Fiction and Fictions of Migration

In the last few years, postapocalyptic fiction has known an unprecedented popularity, possibly due to the current anxieties related to climate change, and more recently, to the Covid-19 pandemic. Think about Emily St. John Mandel's *Station Eleven*, which was adapted into a successful tv series; Cormac McCarthy's *The Road*, which was also turned into a film; or *The Last of Us*, the TV series that stems from the popular eponymous videogame. These stories follow a more or less stable template. The protagonists are a group, often simply just a handful of protagonists who venture into the newly metamorphized and threatening world. Often, the reader is provided with a series of analepses which offer a glimpse into the characters' previous lives; in other cases, we are given limited information about the world as it was before or even about the apocalyptic event itself. The narrative proceeds as a journey, a movement from one place that has become unsafe to a possibly better, more welcoming one. Another characteristic of these narratives is that the protagonists are often generations apart, often parent and child. This dynamic offers multiple perspectives on how to face inhospitable and dangerous times and spaces. Moreover, it succeeds in accommodating and teasing out our unspoken fears of extinction as it forces us to expand our view of time after us and imagine what Kathleen Woodward calls 'generational time' (Woodward 2020: 54). Generational time is a way of thinking of the future as a time that includes the lives of multiple generations after ours; embracing this temporality is a means of understanding the urgency of taking action against climate change.

Migration too is connected to discourses around intergenerational dialogue: observing the complex relationships between first- and second-generation migrants is crucial to our understanding of what it means to relocate and belong to more than one country. In *The Promise of Happiness*, Sara Ahmed considers how, in representations of migration, the first generation's desires are associated with the culture of origin and the second generation's with the culture of destination

(Ahmed 2010: 149). This tension is at the center of many narratives of migration and generational time is also a productive concept to be applied in this context.

This essay connects postapocalyptic fiction and fictions of migration by focusing on a specific point of convergence between these two corpora: fictions of migration and postapocalyptic fictions often show the same form, namely binary time. Binary time is exemplified by the distinction between time before and after the catastrophe, before and after the journey to the new country. When postapocalyptic fiction encounters stories of migration, they generate what Caroline Levine calls a 'collision' (Levine 2015: 18) between the binary time and the loop. Apart from fostering discussions on intergenerational dialogues, these two corpora share other convergences that can be best observed in Ling Ma's debut novel *Severance* which brings a postapocalyptic narrative into conversation with a narrative of migration. After an overview of the common formal and thematic patterns of postapocalyptic fiction and fictions of migration, I will illustrate the two formal templates (loops and binary times) at work in postapocalyptic fictions of migration; finally I will move on to the analysis of the novel. This essay seeks to demonstrate how the encounter between postapocalyptic fiction and fictions of migration can both foster different ways to envision future communities and shed light on what it means to migrate in the present century.

## Convergences in Postapocalyptic Fiction and Fictions of Migration

In this essay, I use the term speculative fiction (SF) to indicate fictions set in a possible, alternative world, that allow us to reflect on our present situation, and make use of what Darko Suvin famously called 'cognitive estrangement' (1988: 45). By having the readers distance themselves from reality, SF manages to make them question it and observe it from a critical perspective (Nodelman 1981: 24). Similarly, when analyzing SF from a critical posthumanist perspective, Stefan Herbrechter urges critical theorists to take SF as a 'mode of awareness' (Csicsery-Ronay qtd. in Herbrechter 2013: 123) that can help us on two different levels. On the one hand, it allows us to acknowledge how science and technology are already changing our reality and our embodied experience; on the other, it helps us keep track of the changes in 'moralities, taboos, and values' (Herbrechter 2013: 125) which are ongoing in our present society. As a particular kind of SF, postapocalyptic fiction is particularly well suited to raise ethical questions and 'invite readers/viewers to speculate on their own moral choices' (Gymnich 2019: 68). Similarly, in his essay 'The Great Displacement', Ben De Bruyn considers how migration is becoming one of the thematic focal points of postapocalyptic fictions which in his view 'encourage readers to consider climate and migration crises as democratic

challenges rather than savage spectacles (the great displacement, not the migration apocalypse)' (2020: 4).

In Chapter 3 of his 2021 book, *Speculative Epistemologies*, John Rieder reports how indigenous fiction has frequently been read as SF and offers an analysis of Leslie Marmon Silko's *Ceremony*, an indigenous novel that has entered the SF canon. In a similar fashion, I want to argue that contemporary novels of migration show thematic and formal patterns that are analogous to postapocalyptic fiction. Firstly, we can consider the setting: while fictions of migration are set in multiple locations, given the displacement or relocation of the protagonists, in postapocalyptic fictions the location can ontologically be the same but has undergone a radical change due to the catastrophic event that has reshaped it. It follows that, from the perspective of the migrant/survivor, a complete readjustment to the new environment is required, and the same can be said for the main character in a novel of migration.

Thematically too, fictions of migration and postapocalyptic fiction have aspects in common: there is the urgency, in both cases, to recreate a sense of community lost after the departure from one's own country, or from the loss of the people closer to us because of humanity's quasi extinction. There is also a need to resort to memory as well as to the imagination, to find new strategies for survival, new lifestyles that can make one feel part of the new world one is inhabiting. Intergenerational discourse is also present in both corpora. In fictions of migration, the decision to leave is often taken to grant children a better future than the one available in the country of origin. As mentioned earlier (Ahmed 2010), first-generation migrants often represent the past, the cultural traditions and roots from the country of origin, whereas second-generation migrants often represent the future, with their gradual assimilation in the culture of the country of arrival. In postapocalyptic fiction, the older generation tries to keep the memories of the past world alive for the younger generation, which displays little or no memory of it.[1] Further, in both postapocalyptic and fictions of migration, parenthood is also a frequent issue related to the intergenerational discourse.[2]

One of the concerns raised by scholars working on climate change and the Anthropocene is that preoccupation with the future of the younger generations tends to be linked to a sort of ancestral (and seemingly inevitable) interest in perpetuating one's own lineage. Adeline Johns-Putra sees it as one of the limits of parental care ethics, contending that

[1] See Adeline Johns-Putra's analysis of Cormac McCarthy's *The Road* in her *Climate Change and the Contemporary Novel* (2019: 56-81).

[2] In my PhD thesis, I also discuss the postapocalyptic novel of migration, *The Wall*, by John Lanchester (2019) in the same analytical framework presented here for *Severance*.

> parental care ethics is translatable into a limited position of concern that, interestingly, resembles the biological argument for posterity – that is, the perpetuation of genes. When expressed as a paternalistic attitude to the future as a version of the needs of the present and as a parochial concern with the future as lineage, parental care ethics approximates genetic survivalism. (2019: 59-60)

On the other hand, Kathleen Woodward admits that '[a]t this point in time, when the survival of the human species is at stake, we need to imagine a future in terms of biological reproduction' (2020: 55). Combining reflections on fictions of migration and postapocalyptic fiction can be a productive way to think of these tensions. For instance, it is true that most people on the move choose to leave in order to grant a better future to their own children—and this is also one of the central themes of *Severance*—and hence think in terms of parental care. However, migration can generate different kinds of dynamics that affect the way people on the move are able to think of younger and future generations. In her study on Chinese care workers in France, Winnie Lem investigates the paradox of migrant women leaving their own children to the cares of grandparents, to go work as nannies for children in the host countries. '[M]any migrant mothers […] lamented their inability to devote this time of life to raising their children' (2018: 198) observes Lem, and this often results in a disrupted perception of space and time as the commodified care of being a nanny requires different rhythms than the attempt of being 'present' as mothers from afar (2018: 201). In cases like this, migrant mothers transfer their parental care to children who are not their own, still caring for younger generations but not biologically related.

In a study on transpacific migration, Anne-Christine Trémon examines migrant families' trajectories in their relocations across countries in the attempt to benefit from the country of arrival's economic and social opportunities. In this context, she speaks of 'flexible kinship' to refer to a way to look at kinship 'as a resource that can be mobilized in larger social fields' (2018: 89). In her words:

> flexible kinship draws attention to the specific uses that are made of kinship in the context of migration and diaspora: the adjustment to cultural, political and legal borders that lead to changes in family forms and in the relations between kin. The form the family takes and the nature of the relation between its members are the product of these adjustments. (2018: 99)

If, in the context of migration, the concept of flexible kinship is useful to observe how people on the move embrace flexible family relations in order to benefit from advantages in different socio-political environments, the same concept could be applied in combination with Woodward's generational time: being able to conceive of kinship as something that can be extended to non-biologically related persons makes it easy to think about future generations regardless of our blood relation to them. Similarly, thinking about caring for non-biologically related children, as is the case of the Chinese care workers in France, allows us to conceive taking care of and caring about the next generations' future, and hence the planet today. This dynamic can be observed in many postapocalyptic fictions where non-biologically related survivors all come together to protect and care for a member of the younger generation, not without controversial outcomes.[3] Both fictions of migration and postapocalyptic fiction can then foster creative ways to rethink our relationship to future generations.

In addition, the representation of temporality has common traits in both fictions: postapocalyptic fiction, follows a 'script of binary time' (Keller qtd. in Kaup 2021: 7): 'the present world is coming to a catastrophic end, which clears the way for the emergence of another world that is radically dissimilar' (Kaup 2021: 7).[4] Hence, we are faced with a time before the catastrophe, which in most cases corresponds to the world as we know it, and a world after the apocalypse, in which little or nothing is left of the world as we know it, or as the main characters in the novel know it. Fictions of migration also often present a script of binary time: there is a world before the journey, what is commonly referred to as country of origin, and a world after the journey, the country of arrival, that requires a whole new set of skills and a series of adjustments and survival strategies from the protagonists.

At this point, an important clarification needs to be made. Although the script of binary time is indeed a temporal feature that presupposes a 'time before' and 'after', that distinction does not imply that the plot needs to be temporally linear. More often than not, in fact, the narratives unfold in nonlinear fashion also by employing flashbacks and flashforwards. An example of this in postapocalyptic fiction, for instance, can be found in Colson Whitehead's *Zone One*, where the time before the zombie apocalypse is often recalled by the protagonist in flashbacks, and in stories of the life 'before' that the characters tell each other. In fictions of migration, *Open City* by Teju Cole and *I, The Divine* by Rabih Alameddine are examples of clear distinctions between 'time before' and 'after' that follow nonlinear patterns. In the first, memories of the narrator's past in Nigeria emerge

[3] See Aimee Bhang's analysis of *Children of Men* in her work *Migrant Futures* but also my analysis in the next pages of the way Candace's pregnancy is welcomed by Bob in *Severance*.
[4] Keller is not the only scholar to observe the binary form of postapocalyptic fiction. Lubomír Doležel employs the phrase 'dyadic worlds' in his 1998 work on possible worlds theory, *Heterocosmica*.

through dreams and fleeting digressions from the main narrative as proper flashbacks. In the second, chapters alternate randomly between the protagonist's time in Lebanon and the United States.

As we are about to see in the case study, when postapocalyptic fictions deal with migration, as in the case of the novels of 'great displacement' observed by De Bruyn, binary time is not the only temporal characteristic that emerges in the narrative. Loops become prominent not only in the perception and understanding of time in the narrative but also in the way the narrative itself is constructed.

**Forms of Time**

In recent years, literary analysis is shifting its attention back to the concept of form through New Formalism. New Formalism seeks to demonstrate how formal analysis (such as the methodology of close reading can be) can reveal specific historical and political conditions. In Caroline Levine's words 'forms matter… because they shape what it is possible to think, say, and do in given context' (2015: 5). Levine's seminal work, *Forms*, defines the concept as 'all shapes and configurations, all ordering principles, all patterns of repetition and difference' (2015: 3). Levine gives herself the task of 'enrich[ing] and deep[ening] new formalism' by paying attention to forms' 'portability across time and space' (13). Forms' portability is also crucial here because forms' ability to 'migrate across contexts' (13) allow us to smoothly slide back and forth between literary and political discourses. To look for forms is 'to look for principles of organizations' (13), and despite the daring and often boundless nature of postapocalyptic narratives, they too present patterns, such as the script of binary time that has been mentioned in the previous section.

Levine also introduces the phenomenon of 'collision' defined as 'the strange encounter between two or more forms that sometimes reroutes intention and ideology' (18). The script of binary time introduced earlier is a form that pertains to both postapocalyptic fiction and fictions of migration. When postapocalyptic fiction deals with migration – as in the novels of the great displacement examined by De Bruyn – binary time collides with another form, that of the loop. The collision between binary time and loop, as we are about to see, redirects the focus of the narrative towards the difficulties of moving in a hostile environment, or adapting to a new environment. In *Severance*, loops also trace analogies between the experience of difficult movement of the older and the younger generations.

In his 2021 work *Narrating the Mesh*, Marco Caracciolo investigates forms of narration in the Anthropocene and distinguishes between linear and nonlinear forms. Nonlinear forms seem to

counter our basic understanding of narration since, '[a]t a basic level, narrative establishes connections between events in temporal, causal, and thematic terms. These connections are at the heart of narrative sequentiality' (33). The loop, alongside discontinuous progression, the network—also investigated by Levine—and the rhizome, is mentioned among the nonlinear forms that can be found in contemporary narratives on the Anthropocene (Caracciolo 2021). The loop can be observed in postapocalyptic narratives of migration: the journey of the migrant/survivor is characterized by the repetitiveness of the travel experience, of finding a seemingly safe place to settle in, only to discover its hostility and having to move again, thus starting the quest for a new home from scratch.

At this point, it is important to clarify what I intend with 'loop'. The most straightforward definition of loop is what is commonly known as time loop. A time loop is the kind of 'groundhog day' narrative in which a protagonist lives a day, or a set period of time, all over again for a certain amount of repetitions, until they manage to break out of the loop. As Wibke Schniedermann (2023) observes, these kinds of time loops, which she defines as 'involuntary time loops' or 'ITL' are rooted in an idea of self-improvement:

> Reliving the past holds the wholesome, therapeutic promise of correction and improvement. Time loops make all of this possible in fiction, but they do more than that. […] The ITL hero does not simply get the proverbial second chance, she gets a potentially infinite number of chances, as many as it takes to get it right. Witnessing all the ups and downs and failed attempts provides emotional relief for the audience while the temporal anomaly answers another wish that remains unfulfillable in the audience's reality: to get the self-improvement over with without having to spend years or decades of one's life on it. (Schniedermann 2023: 292)

Involuntary time loops imply an experience of time travel for the protagonist who, in most cases, has something to gain from the repetition of the same day just as readers gain emotional relief from the breakdown of the loop and also a possible closure.

The loop form that I examine in *Severance* does not envision time travel. Time progresses through a more or less linear sequence of events which are different from one another, but in which the structure of the events remains the same. In *Severance*, the protagonist Candace perceives every day as the same day, although her story evolves. She makes no attempt at self-improvement, and has no intuition that, if she improves her behavior or changes something in the way she faces

the everyday, she can gain from it. In the narrative, this 'systemic' loop is indicated through formulaic sentences (such as 'I woke up. I went to work in the morning', of which I speak more extensively in the section dedicated to the novel), and it is a marker of the capitalist system (Martin 2019) that resists the pandemic, and that Candace keeps on experiencing even after the pandemic kills most of the human beings on the planet. The only way for Candace to break out of the loop is to break out of the community of survivors she belongs to, and even then, as I will discuss later on, the narrative will not grant the reader closure.

The collision of binary time and the loop exacerbates the constraints that they both display as form. While binarism prevents an openness to multiplicity and fluidity, loops tie temporal logics to a claustrophobic repetitiveness that entrenches hopes and creative futurities. As we are about to see in *Severance*, the collision of these two forms, apart from seemingly denying readers any relief from their reading experience, also emphasizes a connection between the migrant-parents' experience in the past and the survivor-daughter's experience in the present.

Nevertheless, the ending of *Severance*, by breaking through the loops, offers the chance to reflect on SF's ability to change our perspective on our socio-political reality. As Ciarán Kavanagh in his work on SF explains: '[d]istancing the familiar through such fabulations allows us to experience it with fresh eyes, thereby creating a powerful catalyst for de-automatizing our perceptions' (2020: 5). The 'familiar' in the case of migration would be represented by policies regarding migration that either hinder free movement of people across borders or exploit migrant care workers—like the women interviewed by Lem—to accommodate the needs of the capitalist system. These policies are so common in the current Western socio-political debate that we have become almost de-sensitized to it. Reading SF novels such as *Severance* and attuning our reading ears to their colliding forms, helps us look at those socio-political discourses 'with fresh eyes'.

## ***Severance*: Loops and Binary Time**

After Covid-19 hit, Ma's novel has often been mentioned among the prophetic novels we should have read more carefully to prepare ourselves for the Covid-pandemic.[5] If, however, we shift the focus away from the pandemic for a moment, we can notice how *Severance* provides us with new productive connections between migration and post-apocalyptic fiction. While in the prologue Candace situates the story after Shen Fever has already hit the world as we know it, the novel develops several storylines alternating between the protagonist's parents' past, her past, and her

[5] In her essay on time loops, Schniedermann also ties the recent surge in loop narrative to the experience of the pandemic lockdown between 2020 and 2021 (2023: 291).

postapocalyptic present. The presence of the intergenerational discourse happening 'at a distance' is what makes this a peculiar example of postapocalyptic novel: Candace's parents do not experience the apocalypse brought about by the pandemic—they die before the pandemic even starts. However, the structure of the alternating storylines of Candace and her parents allows the reader to draw comparisons and confront the two generations back to back. The protagonist and autodiegetic narrator of *Severance*, Candace Chen, is a young Chinese-American woman working in a publishing house in New York. Her job is to manage the production of fine-art Bibles. This implies frequent visits to the factory where the Bibles are produced, in Shenzen, China. The chapters are juxtaposed without following a chronological order and alternating between three temporal frames: those dedicated to her life in New York before the pandemic, in which her existence is preoccupied with the consequences of climate change and absorbed by the consumerist logic of capitalist time; the chapters in which her parents' and her past life in China take center stage; and the chapters after the apocalypse, narrated in present tense, where she is part of a group of survivors.

The title of the novel branches out in various possible meanings that apply to each of the trajectories the narrative takes. The word 'severance' only appears once, in Chapter 16—a crucial chapter to understand Candace's relationship to the previous generation and her home country—to designate the choice of Candace's father who accepted a new job in the United States: '[M]y father rarely spoke of the past, and perhaps it was only after having officialized his severance from China that he felt free to speak openly of his life there' (Ma 2018: 188). 'Severance' is the clear cut between past and present, between home country and country of arrival, between the old world order and the new one. But most importantly, it is Candace's separation from the capitalist system in which she has been living passively before and after the pandemic. As we will see in the ending, by leaving the group of survivors, she also ushers in a new time, which cannot be traced back to time before and after the pandemic.

The first storyline, the one right before the apocalypse, follows Candace as she is going through a slow breakup with her partner Jonathan, since he has decided that he wants to leave New York. Unlike Candace, he works sporadically, taking on intermittent gigs, trying to fulfill his dream of becoming a published author. Jonathan's growing impatience with the expensive, fast-paced, consumeristic life in the big city has reached a peak, and he has decided to move. In addition to that, Jonathan is conscious of the impact of climate change on New York, and seems to be more aware of the risks deriving from it. Candace, on the other hand, is attached to New York and to its rhythms and would never leave. She only sees herself in New York before the pandemic hits and her attitude towards her life exudes passivity both at her workplace and in her relationship. She

also shows this passivity when she finds out she is pregnant and never informs Jonathan about it. Before the pandemic, Candace does not seem invested in the pregnancy or in the possibility of building a family with Jonathan, so much so that she does not even tell him before he moves out of New York. In the time before the apocalypse, Candace displays no real intention of thinking about the future of her child. After the apocalypse, however, she will show increased preoccupation with her future child, and by the end of the novel she starts planning a life for her, a life that does not envision migration anymore: 'I want something different for Luna, the child of two rootless people. She will be born untethered from all family except me, without a hometown or a place of origin' (Ma 2018: 287).

Candace accepts the daily routine her job and the metropolis have imposed on her life. 'I woke up, I went to work in the morning' is the formulaic sentence that opens many chapters in this trajectory, making her work life the main, most evident loop in the novel. By contrast, her partner Jonathan is more aware of the rapid changes society is undergoing, of the possible effects of climate change, and tries to warn Candace before leaving New York (Ma 2018: 13). Jonathan and Candace possess, to borrow Aimee Bhang's terminology, two different 'stories of the future' (2018: 3). Jonathan is aware of the financial disparities and speculations which are only going to worsen in time, and envisions a future full of exacerbations of these disparities. His futurity is to build a life outside of the competitive and toxic environment of the big city. On the contrary, Candace is showing she is completely embedded in the neoliberal system of 'chronobiopolitics' where the subject's time is appropriated and molded into what the needs of financial and economic actants are (cf. Bhang 2018: 19). Candace's futurity is simply not in sight. She just focuses on keeping her life as it is.

Another sharp opposition between the two is their approach to climate change, which Jonathan sees and perceives as a threat, while Candace clearly has a hard time picturing it as something that is actually happening. When hurricane Mathilde, the hurricane that devastates New York before the epidemic kills most of the human population, is about to hit, Candace is not even aware of its coming (Ma 2018: 17) until she first gets to work and her colleagues inform her. The sudden awareness that the storm is approaching means for Candace an unexpected day off work, a sudden disruption of her routine: 'A day off meant we could do things we'd always meant to do […] it took a force of nature to interrupt our routines. […] we just wanted to feel flush with time to do things of no quantifiable value, our hopeful side pursuits like writing or drawing or something, something other than what we did for money' (Ma 2018: 199).

Time outside the capitalist loop is dreamt of but also seen as an exception, as something that she cannot envision as permanent. Indeed, in the same chapter, she also reflects on her

differences from Jonathan. She criticizes his life choices which are resistant to the neoliberal, consumeristic form embraced by Candace. She imagines herself telling him 'You live your life idealistically. You think it's possible to opt out of the system. […] opting out is not a real choice' (Ma 2018: 205-6).

In chapter 5 of his work, *Contemporary Drift*, Martin reflects on the representation of work in postapocalyptic novels and speaks of routine as the system that capitalism imposes. He writes:

> Routine is what defines it as work in the first place. It does so by providing a rhetorical and narrative form for the temporal realities of work: the time that governs both the tasks we are continually required to perform and the value that is routinely extracted from them. Capitalism, of course, is what it means for time to be money. Routine, in turn, shows us what it means for capitalism to become synonymous with our time. As a figure for representing the most basic repetitions of the capitalist system—the ceaseless transformation of time into value—routine is not a contingent quality or a subjective experience. It is another name for the system itself. (Martin 2017: 190-1)

*Severance* envisions the routine of the capitalist system as a loop that is exemplified by the daily repetition of the same actions. At the same time, though, in *Severance*, the loop remains a subjective experience of the protagonist which is often contrasted by the position that other characters start to have through the acknowledgment that the capitalist model is collapsing on itself since multiple crises—high rents, climate change, health system disruption—merge and act simultaneously. This is also true for Candace's mother as a migrant in the USA, because her life in the new country forces her to adjust to a different loop-based system.

**Survivors' Time—Migrants' Time**

'The End begins before you are even aware of it. It passes as ordinary' (Ma 2018: 9): so tells us Candace in the very first sentence of the novel. She, as many other people around her in NY, did not see the End—always capitalized in the novel—coming. Nor did they see the hurricane Mathilde approaching New York before. The End comes in the form of a deadly pandemic. The pandemic is caused by an illness coming from China called Shen Fever, and it originates in the Shenzen region, the region where Candace has been many times for her work. Shen Fever is an infection

spreading through the spores of a fungus. The illness slowly turns the patient into an inoffensive zombie, what characters in the novel call 'fevered': the person infected, the 'fevered', remains stuck in the repetition of one last action he or she was performing before the fever reached its final stage. Slowly, Candace sees all the people around her disappear: the first, falling ill, and the last abandoning their work lives to hopefully spend their last days with their loved ones. If people around her are infected and repeat the same action until they perish, Candace is not infected but still stubbornly and carelessly clings to her daily life, neglecting her pregnancy, too: 'I didn't know what to do, so I pushed [the pregnancy] to the farthest corner of my mind. I went to sleep. Then I got up. I went to work in the morning. I went home in the evening. I repeated the routine' (Ma 2018: 150). At one point, she moves in the office permanently, and decides to live there, since public transportation in New York has stopped working.

But Candace is not the only survivor: she is rescued by a group of eight people who become her new, sort of imposed, family, made up of corporate office-workers in their thirties led by Bob, the oldest member of the group who imposes strict rules and a cult-like regime to the others. Their main goal is to hoard goods and supplies and to drive towards a location chosen by Bob that he has been keeping secret and that he calls 'the Facility'. Their hunts are called stalks and involve a ritual of prayers before they enter the place they want to loot, the search in a house or a shop where they collect everything that might be useful for them, and the killing of any fevered (all those hit by Shen fever) that they might find on their way: 'No, we don't kill them, we release them […] Rather than having them cycle throughout the same routines, during which they degenerate, we put them out of their misery right away' (Ma 2018: 70). The role of Bob as leader makes him the keeper of forms: he manages the forms of constraints acting on the group, as the ritualistic prayers done in circles before the stalks. He is also the one who dictates the group's schedule and recreates the capitalist loop inside the Facility in order to work and reconstruct a community based on the same structures of the world before the pandemic. As Levine reminds us, paying attention to how forms operate in literary texts also 'points to a new understanding of how power works' (2015: 8). Observing Bob's function in the novel sheds light on power structure dynamics in complex situations such as that of a group of survivors in a postapocalyptic setting can be. Bob is also 'slightly older' (Ma 2018: 4) than the rest of the group and was 'especially adept at directing others to his will'. His position as the eldest of the group grants him decisional power when it comes to choosing how and where to move.

Further, Bob also simultaneously demands from his group that they let go of the past, operating a severance from the time before the apocalypse and thus also being in charge of preserving binary time: '[b]eing online is equivalent to living in the past. And, while we can agree

that the internet has many uses, one of its significant side effects is that we all live too much in the past. But […] this loss of the internet presents an opportunity. We are more free to live in the present, and more free to envision our future' (Ma 2018: 115). Bob's futurity is to start a new life in the Facility. He directs everyone towards it, taking control of the whole group's 'story of the future'. He imposes on the group that they move towards this designated place. The survivor's journey towards the facility is also a loop, as Candace notices: 'And our days […] continue in an infinite loop. We drive, we sleep, we drive some more' (Ma 2018: 161).

The other survivors, however, picture different stories of the future for themselves, a divergence which will become one of the main breakage points of the group, and designates the tensions between the older leader of the survivors and the younger generation he is commanding. Let us consider this passage in which some of the survivors, away from Bob's controlling ears and unconvinced by his plan of turning the mall into their new home, speculate about a possible future for themselves, where they are free to choose where to go:

> If I could live anywhere, I'd just go home, Ashley said. I'd live in my own house. Of all of us, Ashley was the most homesick. An only child, she spoke often of her parents, gazing delicately off in the distance. If I could live anywhere, Janelle said, I'd go somewhere completely new. I'd rather head south, toward the equator. I'd like to live near a beach […] I'd rather move to Scandinavia if I'm going to live in the cold, Janelle said. Yeah good luck getting through their customs, Evan dismissed. Good luck learning how to sail a boat across the ocean, Ashley added. (Ma 2018: 109)

Stripped of its postapocalyptic setting, this dialogue shares features of aspirations and daydreams common to realist novels of migration, in which the characters often plan or fantasize about their possible future lives in a new country.[6]

The survivors' arrival at the Facility also mostly mirrors Candace's parents' storyline as they settle in the United States. Zhigang and Ruifang leave China and move to Salt Lake City for Zhigang's new job. They relocate from a remote region of China, Fuzhou, to the United States in the late 80s, in search of a better, more comfortable future for them and their only child. Chapter 16 of the novel represents one of the main passages of focus on the Chens' migration in the USA and reproduces in the span of a chapter the postapocalyptic binary time. The chapter opens with a

[6] I am thinking here, for instance, about Laila Lalami's novels *The Other Americans* and *Hope and Other Dangerous Pursuits*. Lalami has her migrant characters often speculate about their futures in a foreign country or think back to their failed expectations.

retelling of the foundational myth of the Latter Day Saints (the Mormons) as they move across the Mississippi river and settle in Utah, in the Salt Lake Valley (Ma 2018: 169-70). 'This is the place' (Ma 2018: 170) says Brigham Young, the leader of the Latter Day Saints. 'This must be the place' (Ma 2018: 170) echoes Candace's father Zhigang a few lines later, as they are landing at the airport in Salt Lake City. A few pages earlier, in Chapter 15, the reader has also just read about the survivors' arrival to the Facility (Ma 2018: 161). It is worth analyzing the two chapters against each other in order to show how they present similar patterns.

The Chens' first night in Salt Lake City is exemplified by a visit to the nearest supermarket: 'in their effort to find something to eat, they walked to the nearby grocery store, about a mile away. Their breath came out like fog in the cold, obscuring their vision, so that when the supermarket first appeared, it seemed like a mirage: enormous, lit up like a sports stadium, surrounded by a vast parking lot' (Ma 2018: 171). In the previous chapter, the survivors have just arrived at the Facility. The nature of the Facility is only revealed when the group reaches its destination and finds itself in front of nothing other but a mall. They park the cars and start stalking. In both chapters, 'the glass doors […] slid open' (Ma 2018: 171), 'the glass doors […] cracked open' (Ma 2018: 162) to let either the migrant couple or the survivors in. The surprise to find themselves in front of the building belongs to both too, whether it results from having never seen such a place, as in the case of Candace's parents, or from not having expected the Facility to be a Mall.

Similarly to the survivors, who, through Bob, rely on repetitive religious rites to survive in the postapocalyptic world, the Chens take part in the meetings of the Chinese Christian Community Church to survive in the new country. Especially Candace's mother, Ruifang, relies on religious practices and on her Bible study group to fight the isolation and feeling of displacement brought about by the relocation. In one of the sermons the Chens hear in Church, migration is defined as a difficult, but valuable 'second chance' (Ma 2018: 179). The idea of a second chance, and of keeping faith is common to Bob's practices too, who, as I mentioned earlier in the section, acts as religious leader, often imposing moments of prayer and religious aggregation on the survivors. When Candace is still relatively new to the group, Bob explains he has recently found comfort in the Bible which has convinced him that he and the other survivors are 'selected', in the sense of 'divine selection' (Ma 2018: 31) and that is why they did not contract the Shen fever. This idea of the divine selection also brings us back to the reference to the Latter Day Saints Church and their belief in being the people selected by God, with Brigham Young, their leader, as an 'American Moses' (Ma 2018: 169).

Loops reappear in the postapocalyptic life at the Facility: 'The days begin like this: They wake up in the morning. They wash and dress and descend to the first floor, in the atrium in the

middle of the mall' (Ma 2018: 220). As Martin observes, '[W]hile post-apocalyptic survival has certainly made it more necessary to work, it has not made work anymore affectively necessary, any more fulfilling or affirming' (Martin 2017: 176).

Ruifang's narrative is also heavily constrained by loops in her new life in Salt Lake City. Apart from the Bible study group she joins with the Chinese Christian Church, she also takes up a job as a wig maker at home, in order to save more money and pay Candace's trip to the US: 'She began every morning with renewed vigor to hook hair, every strand bringing her closer to saving the airfare money to bring their child to America' (Ma 2018: 174). In the introduction to their edited volume *Migration, Temporality, and Capitalism*, Barber and Lem observe how the manipulation of time and space operated by capitalism also influences and troubles the temporalities of people on the move. Ruifang's difficult experience in the United States exemplifies what Barber and Lem call 'conditions of impossibility', whereby '[s]patial displacement also means temporal displacement' (Barber and Lem 2018: 11). What is more, Candace's mother will die before the pandemic of Alzheimer's disease, a sort of pre-pandemic illness of repetition that reconfirms the pervasiveness of loops in the novel. In an episode that clearly foregrounds intergenerational relations, Candace takes care of her mother and often participates in never-ending praying sessions with her, and in her stories about the past, about Candace's father who also died previously in an accident.

**Breaking the Loop**

Nevertheless, the ending of *Severance* opens up to the possibility of breaking through the loop, and thus to the possibility of changing one's condition. This happens by way of two events which are causally linked. The first is Candace's pregnancy. Just as she keeps it from the baby's father, Jonathan, she does the same with all the members of the group. At some point, she tells it to one of the survivors, who ends up revealing the secret to Bob. Bob welcomes the news as a religious sign, as 'a blessing' (Ma 2018: 167), but at the same time he admits that, for this very reason, he fears her leaving the Facility and decides to keep her locked in one of the mall's shops, to prevent any escape attempt. In a way, Bob's decision to control Candace's pregnancy and preserve the possibility of their group of 'selected' to survive is a form of flexible kinship in which Bob invites everyone in the Facility to take turns and make sure Candace is provided for. However, as Rachel, a member of the group, points out to her, 'As long as you carry this baby, he's interested in making sure nothing happens to you' (Ma 2018: 243). Bob's kinship and care towards Candace is exclusively tied to the child, and not to Candace herself, as part of the group. It is, once again, Bob's display of his power and control on the group as the eldest, the provider, and the keeper of forms. In

Chapter 3 of *Migrant Futures*, Bhang focuses on the issue of reproduction and on how it affects questions of futurity by taking into consideration the procedure of surrogacy through the analysis of the postapocalyptic 2006 film *Children of Men*, directed by Alfonso Cuarón. Bhang claims that surrogacy is itself a form of speculation in that it is 'an enunciation of a future acting in place of' (2018: 85). Thus, to paraphrase from Bhang's analysis of pregnancy (Bhang 2018: 91-100) in SF, by locking Candace up in the Facility, Bob is giving her a surrogate mother position, meaning surrogate to both the whole group of survivors, and the entire human race. Similarly to what happens in Cuaron's movie, Bob projects 'his hopes and visions for the future across the body of a woman of color' (Bhang 2018: 98).

Candace's imprisonment does not last long. She manages to escape during the night, discovering that Bob is also fevered and will most certainly soon die, too. The others do not follow her and Candace is able to free herself from the surrogate mother position, and from the expectations that the pregnancy implies. She drives aimlessly first, and then once she feels far away enough from the facility, she understands she is subconsciously driving to Chicago. There, observing the city in front of her, she thinks 'In another life, in my mother's alternate life, I would take the 56 bus directly downtown […] I would go work in the morning. I would return home in the evening.' (Ma 2018: 290). This passage juxtaposes mother and daughter, migrant and survivor, in a final confrontation between possible outcomes of living a life within a loop. This is, however, only a speculation: Chicago is empty, she does not have to answer to a boss, or attend specific tasks, she can just 'get out and start walking' (Ma 2018: 291).

The ending of *Severance* opens up to a future where the idea of the post-apocalyptic community has been abandoned. In both pre and post-apocalyptic life in community, Candace accepted constraints with passivity. In abandoning the survivors and deciding to start a life in solitude, the novel resists the idea common to both Kaup's analysis of Saramago's *Blindness* and Marion Gymnich's concept of 'narrative of survival': both scholars indicate the tendency of postapocalyptic fiction to hint at new forms of 'collective identities, at the (re)discovery of new forms of community' (Gymnich 2019: 70, Kaup 2021). Candace's choice seems thus individualistic and incomprehensible at first. What kind of story of the future does *Severance* leave us with? Debra Benita Shaw's reflections on the concept of home seem to give us the answer: 'It is possible to imagine that nomads and vagabonds, squatters and tent citizens exempted from full human status by their lack of a formal home might re-form the landscapes of planet Earth through creative interventions' (Shaw 2022: 15). While on the one hand, *Severance* leaves us without a satisfying closure to cling to—what happens to Candace? How will she face the last period of her pregnancy on her own? How does a newborn survive with his mother only?—it also grants us the freedom to

imagine a world in which being on the move gives birth to yet unthought forms of existence, an existence where mother and (future) child are free to reconstruct a world out of the loop. The final 'severance' is thus Candace's breakaway from imposed forms of order and constraint.

## Conclusion

This essay investigates the formal and thematic analogies of postapocalyptic fiction and fictions of migration. Fictions of migration often display points of convergence in themes and form to postapocalyptic fiction. Thematically, both fictions deal with displacement, relocation, and intergenerational tensions generated by the anxiety of presenting younger generations with better—or worse—versions of the future world. Further, the two fictions employ the forms of loop and binary time in a process that Caroline Levine calls 'collision'. This collision is particularly visible in postapocalyptic novels of migration such as *Severance*, where loops function as a poignant reminder of the seemingly inescapable constraints to which migrants and survivors are subject. At the same time, though, as I hope to have shown through the analysis of *Severance*, postapocalyptic fiction asks readers to reconsider their assumptions about what it means to relocate and start living in a new country, but also to consider migration as a phenomenon embedded in and affected by the logics of a capitalist system.

### References

Ahmed, S. *The Promise of Happiness*. Durham and London: Duke University Press, 2010.

Alameddine, R. *I, The Divine*. New York: W.W. Norton & Company, 2002.

Barber, Gardiner P. & Lem, W. (eds.), *Migration, Temporality, and Capitalism*. Cham: Palgrave Macmillan, 2018.

Bhang, A. *Migrant Futures*. Durham and London: Duke University Press, 2018.

Caracciolo, M. *Narrating The Mesh*. Charlottesville: University of Virginia Press, 2021.

*Children of Men*, dir. by Alfonso Cuarón (Universal Pictures, 2006).

Cole, T. *Open City*. New York: Random House Trade Paperbacks, 2011.

De Bruyn, B. "The Great Displacement", in *Humanities*, 9 (25), 2020, 1-16.

Doležel, L. *Heterocosmica*. Baltimore: Johns Hopkins University Press, 1998.

Gymnich, M. 'The End of the World as We Know It?', in Erll, A. & Sommer, R. (eds.), *Narrative in Culture*. Berlin/Boston: De Gruyter, 2019, 57-74.

Hebrechter, S. *Posthumanism. A critical analysis*. London/New York: Bloomsbury Academic, 2013.

Johns-Putra, A. 'The Limits of Parental Care Ethics: Cormac McCarthy's *The Road* and Maggie Gee's *The Ice People*', in *Climate Change and the Contemporary Novel* (Cambridge: Cambridge University Press), 2019, 56–81.

Kaup, M. *New Ecological Realism*. Edinburgh: Edinburgh UP, 2021.

Kavanagh, C. *Refiguring Reader-Response: Theorising Experience in Postmodern Fiction*. Cork, 2020. [Dissertation].

Lalami, L. *Hope and Other Dangerous Pursuits*. New York: Algonquin Books, 2005.

Lalami, L. *The Other Americans*. New York: Pantheon, 2019.

Lanchester, J. *The Wall*. London: Faber & Faber, 2019.

Lem, W. 'The Dialectics of Uneven Spatial-Temporal Development: Migrants and Reproduction in Late Capitalism', in: Barber, G. P. & Lem W. (eds.), *Migration, Temporality, and Capitalism*. Cham: Palgrave Macmillan, 2018, 185-206.

Levine, C. *Forms: Whole, Rhythm, Hierarchy, Network*. Princeton: Princeton University Press, 2015.

Ma, L. *Severance*. New York: Farrar, Straus and Giroux, 2018.

Mandel, E. S. *Station Eleven*. New York: Knopf, 2014.

Martin, T. *Contemporary Drift*. New York: Columbia University Press, 2017.

McCarthy, C. *The Road*. New York: Knopf, 2006.

Naughty Dog. *The Last of Us* (2013), Play Station.

Nodelman, P. 'The Cognitive Estrangement of Darko Suvin', in: *Children's Literature Association Quarterly*, 5(4), Winter 1981, 24-27.

Rieder, J. *Speculative Epistemologies*. Liverpool: Liverpool University Press, 2023.

Saramago, J. *Blindness*, Boston: Mariner Books, 1997.

Schniedermann, W. 'The Narrative Features of Involuntary Time Loops', in: *Narrative*, 31 (3), October 2023, 290-307.

Shaw, D. B. 'Home', in Herbrechter, S., Callus, I., Rossini, M., Grech. M., De Bruin-Molé, M. & Müller., C. J. (eds.) *Palgrave Handbook of Critical Posthumanism*. Basel: Springer Nature Switzerland, 2022, https://link.springer.com/referenceworkentry/10.1007/978-3-030-42681-1_47-1 [accessed 24 May 2023].

Suvin, D. *Positions and Presuppositions in Science Fiction*, London: Palgrave Macmillan, 1988.

Trémon, A. "Conjunctural Reversals, Capital Accumulation and Family Adjustments in Chinese Trans-Pacific Migration", in: Barber, Gardiner P. & Lem W. (eds.), *Migration, Temporality, and Capitalism*. Cham: Palgrave Macmillan, 2018, 81-102.

Whitehead, C. *Zone One*. New York: Doubleday, 2011.

Woodward, K. 'Ageing in the Anthropocene: The View from and Beyond Margaret Drabble's *The Dark Flood Rises'*, in: Barry, E. & Skagen, M. V. (eds.) *Literature and Ageing*. Woodbridge: Boydell & Brewer, 2020, 37-63.

# Never the End: Narrating Future Ancestors in Cherie Dimaline's *The Marrow Thieves*

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Abstract

Drawing on Indigenous scholarship, this essay investigates two narrative implications of a spiraling sense of time in Cherie Dimaline's *The Marrow Thieves* to explore how an Anishinaabe epistemology contends with past actions and events by placing characters in dialogue with ancestors. *The Marrow Thieves* presents a spiraling sense of time through the novel's embedded oral tale, called Story, and dreams. The first argument I make in this essay is that the unique chronology posited by Story is such that it collapses concrete distinctions between the past and present, showing how ancestral experiences with settler colonialism inform characters' present-day experiences. I then argue that spiraling narratives convey an intergenerational, collective voice that strengthens attachments to place and relationships with ancestors, community, and nonhumans. Spiraling time clarifies ways in which Indigenous characters respond to, and reflect on, the experiences of ancestors who endured previous apocalyptic events; it's an intergenerational dialogue that supports a thriving Indigenous present and future.

*Keywords*: spiraling time, narratology, Indigenous studies, apocalypse

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# Never the End: Narrating Future Ancestors in Cherie Dimaline's *The Marrow Thieves*

DYLAN COUCH

The frontmatter of Cherie Dimaline's novel *The Marrow Thieves* contains the following dedication: 'For the Grandmothers who gave me strength. To the children who give me hope'. Casual readers might glance at these two sentences and think they express nothing more than a heartfelt message, but these readers would be overlooking something central about the way time works in the text. By dedicating her book to grandmothers and children, the Métis author Dimaline simultaneously gestures toward the past and the future. This dedication is an example of a paratext, material separated from the body of the text, but which acts as framing for how readers should engage the rest of the novel. I open with Dimaline's dedication because what it implies about time provides a structure for thinking about the book in its entirety. In this case, the simultaneous gesture toward the past and future presents to readers an Indigenous sense of time, called 'spiraling time', that considers ancestors and descendants alongside the present.

Engagement with an ancestral presence through spiraling time distinguishes an Indigenous sense of time from a Western paradigm of progress. In his essay 'Indigenous science (fiction) for the Anthropocene', the environmental philosopher and Potawatomi citizen Kyle Powys Whyte theorizes spiraling time as 'varied experiences of time' representative of an Anishinaabe perspective on intergenerational time 'in which it makes sense to consider ourselves as living alongside future and past relatives simultaneously' (Whyte 2018: 228-29). Whyte points specifically to dream-like scenarios and narratives of cyclicality, among others, as science fiction techniques that capture the way Indigenous knowledges guide future actions (232). While Whyte delineates an Anishinaabe worldview, spiraling time and cyclical, non-linear temporalities describe temporal views held by other Indigenous peoples, like the Syilx, Abenaki, Mohawk, and Laguna Pueblo, to name a few (De Vos 2022: 6-7). Spiraling time shifts attention away from progress—the linear march toward a destination, an end—and instead to a present that contains the past and the seeds for living a transformed future. This essay investigates two narrative implications of a spiraling sense of time to explore how an Anishinaabe epistemology in *The Marrow Thieves* contends with past actions and events by placing characters in dialogue with ancestors. *The Marrow Thieves* presents a spiraling sense

of time through the novel's embedded oral tale, called Story, and dreams. The first argument I make in this essay is that the unique chronology posited by Story is such that it collapses concrete distinctions between the past and present, showing how ancestral experiences with settler colonialism inform characters' present-day experiences. I then argue that spiraling narratives convey an intergenerational, collective voice that strengthens attachments to place and relationships with ancestors, community, and nonhumans.

The premise of this young adult science fiction novel is that Canadian authorities hunt down Indigenous peoples, place them in residential schools, and extract dreams from their bones to supply the dominant non-indigenous people who have stopped dreaming. The residential schools the novel depicts echo the destructive boarding schools established in Canada in the nineteenth and twentieth centuries. Along with worsening climatic conditions, the residential schools make up much of the apocalyptic conditions portrayed in the novel. The residential schools in the text frame apocalypses as recurring, multiple, and located in the past rather than oriented toward a future endpoint or eschaton. Although the narrative structure of *The Marrow Thieves* follows a general linear path from beginning to end, Dimaline invokes Anishinaabe storytelling techniques in the form of dreams and a sweeping oral tale called 'Story' that takes up a handful of chapters within the larger narrative.

Childers and Menendez point out that the turn to the past made by Dimaline through storytelling and dreams invoke the past to represent 'a temporal mode of understanding […] that reject the Western narrative of modernity and its linear progression' (Childers and Menendez 2022: 212). Dreams and Story in an Anishinaabe context are knowledge forms shared across generations, and they likewise undergird an Indigenous ontology, as characters in the novel draw on previous generations to thrive despite current apocalyptic events deriving from settler colonialism. These techniques suggest the resilience of Indigenous communities who have dealt with past apocalyptic events and persevered; they likewise show how the past reemerges in, and is inseparable from, the present and future.

As the boarding schools and Indigenous ancestors who occupied them render apparent, 'new' apocalyptic events carry the residue of past ones. Apocalypses for Indigenous communities in the novel are thus 'more like the experience of déjà vu' emanating from existing settler colonial structures (Whyte 2016: 1), while spiraling time is the temporal framework guiding characters through those experiences. In considering spiraling time the organizing structure of Dimaline's text, De Vos also emphasizes that the 'spiral' of spiraling time is not a move backwards toward archaic traditions but rather 'a continuing history of cyclical return, with essential transformations' (De Vos 2022: 5). Spiraling time is a disruption—an unsettling—of linear time to

the effect that the past pervades the present. This essay builds on the work done by De Vos, Whyte, and others to suggest that an Indigenous sense of time, illustrated by dreams and Story, decenter linearity and progression, and indicate themes of reconnection and resurgence in apocalyptic times.

That project rolls out below in two segments. In my section titled 'Spiraling Narrative Time', I utilize concepts of time in Indigenous scholarship to argue that the representation of spiraling time in Dimaline's novel connects current apocalyptic conditions to previous ones. This expanded timescale pushes back against universalizing notions of an apocalypse, emphasizing, instead, Indigenous survivance and perseverance. Second, in 'Narrating Future Ancestors', I suggest readers engage the oral tale and dream events in Dimaline's novel through a collective ancestral voice that showcases how characters look to the past to structure reciprocal environmental relations, reflect on ethics, and orient actions that engage the past and future. Ultimately the function of spiraling time in *The Marrow Thieves* clarifies ways in which characters respond to and reflect on 'the actual or potential actions and viewpoints of […] ancestors and descendants' (Whyte 2018: 229) to support a thriving Indigenous present based on relationships across time (De Vos 2022: 6).

## Spiraling Narrative Time

*The Marrow Thieves* takes readers to the year 2050 in a Canada altered drastically by global warming and socioeconomic collapse. Western society has stopped dreaming, and to solve this existential crisis, Recruiters from the Canadian government capture the still-dreaming Indigenous peoples and place them in residential schools to siphon dreams from their bone marrow and sell to clientele. The novel begins with the main character Frenchie running away from authorities north through a dense wood called 'the bush'. There he encounters Miig and other displaced Anishinaabe characters, including Frenchie's soon-to-be love, Rose, and the elder Minerva. While traveling, this group meets another Indigenous resistance group, among whom is Frenchie's lost father. Toward the end of the novel, Minerva blows up the recruiter's marrow-harvesting plant by harnessing the power of her ancestors through dreams and singing in her native tongue.

My analysis focuses primarily on the group's time in the bush, where Frenchie and the others honor collective stories and practices as means to foster community and learn from past experiences to prepare for a precarious future. Throughout the novel Miig shares parts of a sweeping oral tale referred to as Story, written with a capital 'S', with the other displaced characters. Story appears in the text in the form of two chapters, 'Story: Part One' and 'Story: Part 2'. Its contents are wide-ranging and span a variety of time periods. Frenchie indicates the expansiveness

of time in Story when he says it was sometimes 'focused on one area, like the first residential schools: where they were, what happened there, when they closed. Other times [Miig] told a hundred years in one long narrative, blunt and without detail' (Dimaline 2017: 25). We might think of Story as an anthology of memories or as a kind of living generational dialogue that communicates ancestorial experiences. As Frenchie goes on to inform readers, Story is a 'memory' that Miig needed to set in 'perpetuity' (Dimaline 2017: 25). Containing historical accounts of Indigenous violence and cultural practices, Story 'serves as teachings and guidance' for Frenchie and others 'while they try to find a way to escape the mortal danger of the Recruiters' (De Vos 2022: 27). Those teachings connect events and people across timescales.

Story serves the direct narratological purpose of expanding timelines by connecting events in the past to the present. An immediate way in which Story sheds light on this larger timescale is by linking the present-day residential schools to the ones that existed in actual history.[1] In Miig's telling, the Canadian Government 'turned to history to show them how to best keep [Indigenous peoples] warehoused […] That's when the new residential schools started growing up from the dirt like poisonous brick mushrooms' (Dimaline 2017: 89-90). The link between the old and new schools captured by Story gestures toward a timeline stretching hundreds of years, joining one apocalyptic event to another, and the ancestors who survived the old schools, to those enduring the new ones. The calamitous impact the real-world residential schools had on Indigenous lives cannot be understated. The Canadian government built residential schools to 'eradicate the cultures, languages, and identities of Indigenous peoples', and the schools not only resulted in the death of 6,000 children but also 'in serious health inequities among survivors and subsequent generations' (Rowe et al. 2020: 156). This catastrophic event and its pervasive degradation on Indigenous society in Canada is but one of a series of catastrophic incursions resulting in genocide, sexual and physical abuse, and the loss of language and traditional lifeways, all apocalyptic in scope, that emanate from settler colonialism. Despite *The Marrow Thieves* taking place in a distant future, these old schools provide the backdrop for understanding the novel's residential schools popping up across Canada.

Reflective of an Anishinaabe sense of time, Story both pushes back against Western notions of progress and troubles the apocalypse as an end point by conveying how the past rematerializes

[1] Other scholars have considered the temporal function of Story in narratological terms. For example, the narratologist Erin James developed the term 'pseudo-singular' to describe how the old schools exist within a larger context of events that extend beyond the time of the narrative. The pseudo-singular considers a particular event within a sequence of events that, taken together, creates a much larger timeline, like the link between the new residential schools and the historical extra-narrative involving the old residential school not explicitly narrated, but which readers must consider nonetheless to grasp the relationship between events (James 2022: 102).

in the present. The view of time signified by Story is meaningful for not only connecting the residential schools of old to the novel's present ones, but also in affiliating anthropogenic climate change with settler colonialism. In making this connection between events, I turn to Whyte once more, who writes that 'boarding schools and other problematic forms of education strip Indigenous peoples of languages that express knowledge and skills related to particular ecosystems, seasonal change and knowledge' (Whyte 2016: 6). Referred to as 'containment', these structural attempts to box-in Indigenous communities severely limit abilities to adapt to climate change (Whyte 2016: 5). Gerald Vizenor couches containment in similar terms, calling such suppression and its representation in literature the 'manifest manners of dominance', or the domination of tribes that stems from Manifest Destiny (Vizenor 1994: 5-6). The containment emanating from boarding schools, treaties, and colonial violence is a form of déjà vu indicating that environmental change derived from settler violence is not unlike anthropogenic climate change writ large. In this regard, colonialism takes on a cyclical shape that Story clarifies by drawing connections between the first schools where ancestors suffered, the fictional 'Water Wars' where 'America reached up and started sipping' lakes with a great metal straw, the government-backed push to force Indigenous communities off their lands, and the new residential schools (Dimaline 2017 23-24, 88-89). Story strings these events together on a timeline that stretches past first settler contact, combining numerous experiences of apocalyptic-scale events and reframing the end times as another iteration of settler violence.

The events narrated in Story say something about apocalypses in general—that they are not a singular, equalizing event yet-to-come but rather multiple, enduring, and particular to communities. A spiraling temporality differs from Western views of time in the respect that spiraling time shifts attention away from a model of progress that moves toward an end. In 'Story: Part 2', Miig explains how the dystopia framing the novel's setting stems from the self-same resource extraction that underwrites progress: 'The Earth was broken. Too much taking for too damn long, so she finally broke…and all the pipelines in the ground? They snapped like icicles…people died in the millions when that happened' (Dimaline 2017: 87). The consequence of catastrophic environmental degradation and population loss for Westerners, Dimaline goes on to write, is madness: 'The suburban structure of their lives had been upended. And so they got sicker, this time in the head. They stopped dreaming. And a man without dreams is just a meaty machine with a broken gauge' (Dimaline 2017: 88). That 'broken gauge' indicates a lack of direction. Following a broken Earth, a sense of madness and nihilism pervades Western culture, but 'adapting' to these apocalyptic conditions takes on the same look settler colonialism always wore. Government and Church leaders draw inspiration from the past to warehouse Indigenous bodies

and siphon their dreams. Westerners 'have nothing to guide them', as De Vos puts it, and in the face of a growing existential threat, they turn to Indigenous peoples with the same extractive tendencies, treating them 'like another resource to exploit' (De Vos 2022: 17-18). An extractive relationship to people and place conditions the linear timescale of progress that invokes an encroaching 'end times'. For similar reasons, Whyte cautions against fitting 'Indigenous peoples' knowledge systems or ways of life' into discussions about the Holocene and Anthropocene because such attempts risk treating Indigenous communities as 'survivors' of the Holocene at threat of extinction from the Anthropocene (Whyte 2017: 236). The doomsday narrative Dimaline subverts in the text is problematic from an Indigenous perspective for the very reason that it denies previous apocalyptic events catalyzed by settler colonialism.

The representation of spiraling time through Story conditions a timeline that places the residential schools of old alongside the present-day ones. While that expansive view of time positions the past much closer to the present to draw comparisons between apocalypses, it's important to note that resurgence and survivance through events are also key components of Story. Following the decline of the first schools, Miig tells Frenchie and the others:

> We sang our songs and brought them to the streets and into the classrooms—classrooms we built on our own lands and filled with our own words and books. And once we remembered that we were warriors, once we honored the pain and left it on the side of the road, we moved ahead. We were back. (Dimaline 2017: 24)

Teaching Frenchie and the others that ancestors built their own schools, honored their past, and moved ahead, centers on the significance of remembering and maintaining Indigenous identity, a theme I elaborate on in the next section. As forms of intergenerational dialogue, Story and dreams strengthen those relationships with ancestors. Apocalyptic understandings and their narrative significance thus hinge on *experience*. Grace Dillon, when discussing a 'Native apocalypse', defines the concept in terms of balance and imbalance where 'imbalance further implies a state of extremes, but within those extremes lies a middle ground and the seeds of *bimaadiziwin*, the state of balance…a condition of resistance and survival' (Dillon 2012: 9). The crux of spiraling time then is that it brings previous apocalypses to light by accounting for an intergenerational, collective voice that relays experiences of the past, which in turn orient characters to thrive in the present and future.

**Narrating Future Ancestors**

A spiraling temporality challenges the idea that the Anthropocene wreaks havoc equally or that it poses a 'final' threat to Indigenous peoples who remain somehow unaffected by previous doomsday-caliber events; it instead shows how the apocalyptic experiences had by ancestors in the past guide and frame the experiences had by characters navigating present deleterious conditions. This collective voice indicates the apocalyptic conditions Indigenous peoples already lived through. The oral tale unfolds over two chapters separated from the rest of the narrative and void of speech signifiers, a detail that creates distance between Miig and readers and which minimizes his role in presenting the tale. When sharing Story, Miig refers to past events, but he uses 'we' and 'us' pronouns rather than distinguish ancestors from himself or the young Anishinaabe crowd listening. Indeed, the two 'Story' chapters are rife with the following passages that use 'we' in opaque terms: 'we suffered [at the first schools]. We almost lost our languages. Many lost their innocence, their laughter, their lives. But we got through it, and the schools were shut down' (Dimaline 2017: 23-24). One imaginative effect the frequent and ambiguous use of 'we' has is that, because ancestral characters remain unnamed, it causes readers to transpose the characters they are already familiar with to acts done in the past to suggest the pronoun refers to both ancestors and present characters alike.

The narrative effect of this ambiguous use of 'we' and 'us' pronouns blend past events and characters with characters and events in the broader storyline. It's this collapsing of past characters on the present that helps make it easier to understand the new schools in the context of the old ones. In the chapter 'Story: Part One' Miig tells readers that after colonizers brought diseases, 'we lost a lot…[and] that's when they opened the first schools (Dimaline 2017: 23); while 'Story: Part Two', narrating the new schools, jumps to the present tense: 'we go to the schools and they leach the dreams' (Dimaline 2017: 90). The 'we' in this case simultaneously refers to a collective group hundreds of years ago and to a group in the present, making it appear as though that same group endured both schools. These passages highlight how Miig does not do the telling alone; rather he speaks in relation to a larger narratorial presence that transcends temporal scales and likewise bears audiences into the past. 'We', in other words, becomes a component of spiraling time by which a pervasive and expansive ancestral presence influences the telling of the narrative. Of relevance here is Natalya Bekhta's formulation of 'we' narratives in *We-Narratives: Collective Storytelling in Contemporary Fiction*. We-narratives play a narrative role distinct from I-narratives by constituting 'sites of expression of human collectives' that create the impression the reader is confronted by a collective statement (Bekhta 2020: 3, 16). By merging an ancestral 'we' that survived past residential schools with a 'we' surviving ones in the novel's present, the novel's expression of an Indigenous collective draws attention to the 'long histories of survivance and relations across time and space,

cultural resurgence, and traditional knowledges' (De Vos 2022: 19). 'I' becomes less distinguishable in Story, replaced by a spiraling 'we' that vocalizes relationships of shared histories and experiences.

As the narrative mechanism collapsing past and present distinctions, the representation of spiraling time in *The Marrow Thieves* supports Vizenor's evaluation that Indigenous stories create 'a new sense of survivance' that reflect the courage of their ancestors (Vizenor 1994: 4). Hearing Story even incites courage, making the boys puff out their chests when they listened and causing the women to straighten their spines (Dimaline 2017: 23). Placing Story in the context of a we-narrative takes on special significance when we consider how Indigenous tales of shared survivance push back against the 'simulations of dominance' that literature traditionally expresses by depicting themes of surveillance and domination and making absent 'the tribal real' (Vizenor 1994: 4). While *The Marrow Thieves* paints a dystopic world brought that way by colonial oppression, the novel combats such simulations of dominance by focusing on an Indigenous group that prospers in precarity. Story enables that flourishing in large part by utilizing a collective voice that allows listeners to remember. Ancestors resurged after the initial schools, by remembering and maintaining an Indigenous identity: 'we remembered that we were warriors, once we honored the pain and left it on the side of the road, we moved ahead' (Dimaline 2017: 24). De Vos makes a clear connection between remembering, speech, and healing when she writes, 'The power of language to help Indigenous people "remember themselves," to be a tool for healing from colonizer violence, to be a path to cultural continuance, explains why [stories]…are so important to Indigenous resurgence' (De Vos 2020: 9). As an anthology of memories, Story facilitates survivance by instructing Indigenous ways of thinking and being in the face of settler colonial violence.

Pushing further on how spiraling time illuminates an Indigenous epistemology and ontology, the depiction of both oral tales and dreams in *The Marrow Thieves* cast them as knowledge-types drawn from past connections to inform responsible ways of being in the world. As the Indigenous environmental justice scholar Deborah McGregor explains, Anishinaabe environmental knowledge is about relationships—not only with people, but also with plants, animals, the spirit world, ancestors and those yet to come (McGregor 2013: 78). Anishinaabe environmental knowledge incorporates spiraling forms of time that instruct responsibilities necessary for maintaining reciprocal relationships with others. The ancestral presence suffusing dreams and Story facilitates reciprocal ties to the nonhuman world. Frenchie exemplifies this relational purpose of dreaming when he dreams of a moose after determining not to shoot one the day before while hunting in the bush because he feared the meat would go to waste. 'In a way', he tells readers, 'I got that moose. He visited me in my dreams' (Dimaline 2017: 52). The dream

facilitates Frenchie's ability to reflect on his actions and determine how those actions shape the future. An important note to make is that after Frenchie decides not to kill the moose, something in his chest burns brighter, because he is content with his decision (Dimaline 2017: 50). His choice is an ethical one that takes into consideration future generations who will also depend on the health of the bush for survival. The dream instructs an ethical way of living in the world, one that moves away from extractive relations responsible for the novel's degraded environmental conditions. The moose would not have appeared in his dreams had he took its life, and thus its appearance solidifies for Frenchie his relationship with nonhuman entities.

Enabling Frenchie to reflect on ethics and environmental relations, dreams express an Anishinaabe environmental knowledge that revolves around relationships. Miig makes a more direct connection between ancestors and the environment late in the novel when he relays a story to Frenchie in which he steals vials of dreams from one of the residential schools. After pouring the vials out Miig remarks that 'it rained, a real good one, too. So I know they made it back' (Dimaline 2017: 145), implying the rain was a signal that 'they', those robbed of their dreams, returned to the earth. The novel presents dreams as a material connection between characters and place, implying that this connection is lost when characters lose the ability to dream. Frenchie's dream of the moose, and the vials of dreams returning as rain, all highlight an Anishinaabe worldview centered on interdependent relationships. Whyte further relates the concept of interdependence to an Anishinaabe worldview, clarifying that interdependence can be thought of as the social networks between generations, other tribes, nonhuman agents, and collective identities which motivate 'relatives to exercise their reciprocal responsibilities to nourish and support one another in diverse ways' (Whyte 2018: 127-28). Interdependent social models have a unique relation to time in that they draw from past knowledges and teachings from knowledge holders, like Elders, who inform younger generations. One implication here is that dreams as they're presented in the novel are a form of knowledge that reveals to character how they should 'be' in a deeply interconnected world.

Story also encodes responsibilities passed down through time regarding how to live and care for places. Characters utilize this practice of intergenerational dialogue when considering how to inhabit the bush. Toward the end of the novel, for example, the elder Anishinaabe character Clarence insists on the importance of returning to their homelands. 'I mean we can start healing the land', he says. 'We have the knowledge, kept through the first round of these blasted schools…When we heal our land, we are healed also' (Dimaline 2017: 193). Clarence gestures toward a model of living based on interdependence and reciprocity, acknowledging that when they heal the land, they heal also. That knowledge and its insinuations reflect an Indigenous

understanding of time and space. And because that knowledge draws from the past to shape future actions, characters engage the presence of innumerable generations when looking to heal that land. Drawing on ancestral knowledge to heal the land (and being healed in return) is an attempt to seek balance between humans and the nonhuman world. *The Marrow Thieves* thus fits nicely within Dillon's designation of apocalyptic storytelling that 'shows the ruptures, the scars, and trauma' and provides 'healing and a return to bimaadiziwin', or balance (Dillon 2012: 9). An Anishinaabe environmental knowledge encoded in Story exemplifies those ways of thinking and being that are considerate of past and future people and nonhuman entities, and it informs responsible ways of being in the world that orients actions toward the past and future.

All of this is to say that spiraling time accounts for an Indigenous worldview and contrasts the linear representation of time that positions the apocalypse as an end. What settler colonialists lose most by not dreaming or being in dialogue with ancestors through oral tales is this ability to dialogue with ancestors who act as guides for navigating the present and future. Evidence of the dominant Western society in *The Marrow Thieves* failing to engage with how its own actions affect the future lies in the environmental destruction wreaked leading up to the story's present day. As apocalyptic conditions loom, they become directionless, losing their minds and fostering a sense of fatalism that leads to people killing themselves and others (Dimaline 2017: 88). A linear view of time emphasizes 'hierarchical ways of thinking about humans' relationship with nonhuman realities (including animals) and processes (such as climatological trends)' (Caracciolo 2021: 11). When the apocalyptic conditions of their own making pose a threat to that hierarchy, Western society loses something integral to their sense of self. That loss of self separates characters from their own actions, diminishing culpability and the ability to contend with actions. We can likewise view that loss as an enforcement of the notion that Westerners largely lack a relation to ancestors and all that it implies—a connection to place, the past, and the future—and rather than change, Western society steals that link from others to uphold the very colonial systems responsible for their own demise. As the slow-burning climate crises continue to push against an 'end times' narrative, it's imperative that descendants of settlers reconcile with that past, and accordingly, adopt actions that prepare for a more equitable, sustainable future. Honoring an ancestral presence gives place cultural and spiritual significance, factors that contribute to how Indigenous groups manage resources.

Analyzing spiraling time in *The Marrow Thieves* points to how an Anishinaabe connection to ancestors sustained by oral tales and the like results in healthier land relations and encodes the knowledge to heal the environment when conditions deteriorate. At the center of these relationships lies the power of stories. Stories strengthen connections. It's the stories we tell that condition our actions, our thinking, our relationship to time and space; it's stories that shape our

ties to this precarious planet and that determine whether we face those problems with doom or hope.

**References**

Bekhta, N. *We-Narratives: Collective Storytelling in Contemporary Fiction*. Columbus: Ohio State University Press, 2020.

Caracciolo, M. *Narrating the Mesh: Form and Story in the Anthropocene*. University of Virginia Press, 2021.

Childers, E. & Menendez, H. "Apocalypse When? Storytelling and Spiralic Time in Cherie Dimaline's *The Marrow Thieves* and Louise Erdrich's *Future Home of the Living God*", *Text Matters*, (12) 2022, 211-226.

De Vos, L. M. "Spiralic Temporality and Cultural Continuity for Indigenous Sovereignty: Idle No More and *The Marrow Thieves*", *Transmotion*, 6 (2) 2020, 1-42.

Dillon, G. *Walking the Clouds: An Anthology of Indigenous Science Fiction*. University of Arizona Press, 2012.

Dimaline, C. *The Marrow Thieves*. DCB, an imprint of Cormorant Books Inc., 2017.

James, E. *Narrative in the Anthropocene*. The Ohio State University Press, 2022.

McGregor, D. "Anishinaabe Environmental Knowledge", *Contemporary Studies in Environmental and Indigenous Pedagogies*, SensePublishers, 2013, 77–88 [April 2023] https://doi.org/10.1007/978-94-6209-293-8_5.

Rowe, G., et al. "Prioritizing Indigenous Elders Knowledge for Intergenerational Well-Being", in *Canadian Journal on Aging*, 39 (2) 2020, 156–68.

Vizenor, G. *Manifest Manners: Postindian Warriors of Survivance*. Wesleyan University Press, 1994.

Whyte, K. P. "Indigenous Science (fiction) for the Anthropocene: Ancestral Dystopias and Fantasies of Climate Change Crises", *Environment and Planning. E, Nature and Space (Print)*, 1, (1-2), 2018, 224–42 [March 2023] https://doi.org/10.1177/2514848618777621.

Whyte, K. P. "Settler Colonialism, Ecology, and Environmental Injustice," *Environment and Society*, 9 (1) 2018, 125–44 [March 2023] https://doi.org/10.3167/ares.2018.090109.

Whyte, K. P. "Is it Colonial Déjà vu? Indigenous Peoples and Climate Injustice", in *Humanities for the Environment: Integrating Knowledges, Forging New Constellations of Practice*. Edited by Joni Adamson et al, Earthscan Publishers, 2016, 88-104.

# "A Chance of Life Against No Chance At All": Intergenerational Minds in Malorie Blackman's *Pig-Heart Boy*

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Abstract

Prompted by a newspaper article in the mid-1990s about xenotransplantation, the transplantation of organs from one species into another, children's literature author Malorie Blackman was inspired to write *Pig-Heart Boy* (1997), a novel that recounts the experiences of thirteen-year-old Cameron and his pig heart transplant. The novel not only depicts the physical and mental repercussions that the operation has on Cameron, but it also zooms in on how this ethically complex operation affects his grandmother, his parents, and his unborn sibling. Putting the thoughts of these three generations at centre stage, this article positions itself within the field of mind-focused research in literary studies, merging cognitive narratology with children's literature studies to demonstrate the importance of intergenerational relationships in approaching a challenging future. By doing so, it extends Alan Palmer's framework of "social minds" (2010) with age-sensitive analyses, providing close readings of how thinking across generations is depicted in *Pig-Heart Boy*. Through intergenerational exchanges, these characters find out that projecting oneself into the future can be hope-giving and life-affirming, underlining the role that imagination, and by extension, fiction, can play in such complex equations of imagining the future in times of climate crisis and in debates concerning multispecies justice.

*Keywords*: children's literature, cognitive narratology, intergenerational thinking, social minds, multispecies justice

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# "A Chance of Life Against No Chance At All": Intergenerational Minds in Malorie Blackman's *Pig-Heart Boy*

EMMA-LOUISE SILVA[1]

## Introduction

Children's literature author Malorie Blackman described one of her most lauded novels, *Pig-Heart Boy* (1997), as being inspired by a newspaper article in the mid-1990s about xenotransplantation, the transplantation of organs from one species into another, which was, at the time, a speculative suggestion to solve the lack of human organ donors. *Pig-Heart Boy* recounts the experiences of thirteen-year-old Cameron Kelsey and his pig heart transplant. Cameron suffers from a viral infection that affects his heart, and the verdict is that he will die before his next birthday unless he goes along with Dr Bryce's suggestion of xenotransplantation. Dr Bryce, an immunologist specialising in transgenics, the transfer of genes between organisms, explains the rationale behind the pig-to-human transplant as follows: "Pigs are not endangered species, their organs are very close to humans' in size and, as they're already bred for food, we thought it would make sense to use them in our line of research" (1997, 37). However, Dr Bryce adds that "a number of animal rights and animal welfare groups don't agree" (1997, 32).

The dire circumstances that Cameron is faced with form the starting point for the plot of *Pig-Heart Boy*, which delves into the complications and ethical concerns of interspecies transfer. Yet Cameron is also confronted with other issues. While he struggles to fight for his life, his mother, Catherine, becomes pregnant unexpectedly. She refrains from informing her husband, Michael, about the pregnancy. On top of his life-threatening disease, Cameron navigates the strife that the situation causes between his parents. He also deals with grudges among his peers at school, who force him to take a stance when it comes to topics of animal cruelty and the pros and cons of

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transgenics and gene editing. Furthermore, Cameron catches his grandmother, whom he calls Nan, leafing through advertisements of coffins in a magazine, considering which coffin she will choose upon her death. Nan explains this to Cameron as follows: "I'm no spring chicken any more and I have to think about these things. I'm going to be in my coffin a long time, so I want to make sure I pick out one that's comfortable" (1997, 182). Her attitude towards death bothers Cameron. He juggles all this while trying to live a teenage life unspoilt by heart disease. However, Cameron, his parents, and his grandmother engage in intergenerational thinking that ultimately gives them hope.

This article puts thinking that spans generations at centre stage, positioning itself within the field of cognitive narratology, or mind-focused research in literary studies (Cohn 1978; Herman 2011; Bernaerts et al. 2013; Caracciolo 2014; Zunshine 2015). More specifically, it extends Alan Palmer's framework of "social minds" (2010) by discussing passages of *Pig-Heart Boy* that evoke "intermental thought, which is joint, group, shared, or collective thought" (Palmer 2010, 4) and by using an age-sensitive lens, while drawing on perspectives from children's literature studies. By engaging in close readings of intergenerational minds in *Pig-Heart Boy*, a novel targeted at young readers, this article examines how three generations attempt to overcome fatalistic scenarios, tracing how they confront their unstable futures.

The novel prompts readers to consider topics such as xenotransplantation, gene editing, animal rights, and the ethical complexities of using animals as "spare parts for humans" (Berchtold, 2022, n. pag.). After all, such procedures generate much debate: while advocates consider this approach as a potential solution that could help cut transplant waiting lists, animal rights activists are concerned with the ethical implications of genetically modifying animals so that they can serve as organ donors. As for the suitability of these topics for young readers, Blackman writes in the foreword to the 2022 edition of *Pig-Heart Boy* that "it never ceases to amaze [her] how some adults underestimate what subject matter will interest and stimulate children and teens […] the best stories encourage children to think for themselves" (n. pag.). The climate crisis brings about new understandings of human-nonhuman relations and animal rights, and there is no doubt that the generations to come will be forced to navigate how they approach such understandings in uncertain times.

As Marco Caracciolo points out in his discussion of narrating unstable futures in contemporary fiction, the element of uncertainty "is a source of deep concern, because it can obstruct action and fuel indifference and even fatalism about the future" (2022b, 2). Cameron and his family are unsure whether the pig heart transplant will work, but it is their only hope to lengthen his life expectancy. This uncertainty surrounding the future in *Pig-Heart Boy* does not only have repercussions on the personal futures of Cameron and his family, but it also plays a role at the level

of the human-nonhuman divide and the broader societal questions surrounding interspecies transplants. Despite their uncertain prospects, the family's thoughts about the future catalyse their collective will – across the grandparent-parent-child lineage – to proceed. Yet this raises questions about multispecies justice. In the field of animal welfare science, researchers such as Heather Browning (2023) and Walter Veit (2023) are asking whether we can compare well-being across species. Browning points out that such comparisons are morally problematic regarding how we go about assigning "moral weight to different species or individuals within our ethical decision-making" (2023, 531). For Cameron in *Pig-Heart Boy*, it's "a chance of life against no chance at all" (1997, 252), but what about the measure of welfare and the moral weight of Trudy, the donor pig?

To show how Cameron, his parents, and his grandmother engage in intermental thinking regarding the challenges they face, this article starts by sketching the complex themes of family and kinship in *Pig-Heart Boy*, based on Elisabeth Wesseling's understanding of the term "family" in children's literature studies and David Quammen's concept of the "tangled tree" (2018). Then, this article considers the idea of entangled intergenerational minds within the field of cognitive narratology. Following this, I engage in close readings of Cameron, his parents, and his grandmother thinking collectively (and not always harmoniously), both before the pig heart transplant and afterwards. Finally, this article concludes by discussing how such age-sensitive analyses of characters' interactions can extend Palmer's "social minds" framework and why children's literature forms an ideal basis to do so.

## Family and "Tangled Trees"

When considering the social thinking that goes on across three generations belonging to one family in *Pig-Heart Boy*, the essay on the topic of family in the *Keywords to Children's Literature* (2021), written by Wesseling, is helpful, especially when it comes to her description of "genetic" and "elective" belonging in families:

> On the one hand, family seems to be an obvious fact, defined by a genetically circumscribed group into which one is born […] on the other hand, if a family is chosen through marriage, adoption, fostering, or comparable cultural practices of affiliation, the genetic determinism of the words seems much less certain. (74)

In *Pig-Heart Boy*, Cameron and his family must negotiate the impact of having "elective" matter in the form of a pig's heart being brought into the "genetically circumscribed group" of their family

(Wesseling 2021, 74). In her discussion of family and kinship across species, Woodward discusses the concept of the "tangled tree" (2022, 15), inspired by David Quammen's *The Tangled Tree: A Radical New History of Life* (2018). The "tangled tree" metaphor speaks to ecocritical questions and denotes how "genes can be traded laterally across the boundaries of species" (Woodward 2022, 15). Such instances of horizontal gene transfer, or "the sharing of genetic material between organisms that are not in a parent-offspring relationship" (Soucy, Huang and Gogarten 2015, 472) usually occur between plants, fungi, and bacteria (Emamalipour et al. 2020). However, in *The Tangled Tree*, Quammen points out that

> [w]e are composite creatures, and our ancestry seems to arise from a dark zone of the living world, a group of creatures about which science, until recent decades, was ignorant. Evolution is trickier, far more intricate, than we had realized. The tree of life is more tangled. Genes don't just move vertically. They can also pass laterally across species boundaries, across wider gaps, even between different kingdoms of life, and some have come sideways into our own lineage. (2018, 11)

*Pig-Heart Boy* thematizes interspecies transfer of a pig's heart into a teenage boy to save him from a life-threatening disease. Yet the novel also serves as a literary example of the tangled tree metaphor when it comes to its presentation of the entanglements of characters' thoughts across generations. The novel evokes the tangled tree concept in extreme modalities, both in its treatment of interspecies xenotransplantation and in its depiction of intergenerational minds.

Cameron's pig heart transplant is not something his family members or his peers step over lightly. In the following passage, Cameron's friends joke about his kinship with pigs as they plan to eat together after a visit to the swimming pool:

> "Cam, you can have a bacon burger," Andrew told me.
> "Or a couple of pork chops," Rashid laughed. "If you don't mind eating your cousins!"
> Andrew was doubled up with laughter now. (1997, 203)

This bad attempt at humour lays the discomfort bare that Cameron's friends sense: they laughingly consider his pig heart as signifying a relationship of kinship with pigs. The novel questions the tensions between "nuclear and extended definitions of family" (Wesseling 2021, 74). Cameron's peers are confronted with uncharted waters: he is the first human being to undergo a pig heart transplant. His love interest at school, Julie, shares her opinion with him on this matter, albeit

coloured by her mother's thoughts: "I think Mum's right. You've got a pig's heart inside you, so how d'you know what's going on in your body now?" (1997, 179). His friend Andrew tells Cameron he "changed" after the operation, he is "more pushy" and "more arrogant" (1997, 195). Cameron refuses to believe that his perceived character traits of being pushier and more arrogant are the repercussions of having a pig's heart, yet the remarks made by his peers do have an impact on his mental health.

While Cameron, his parents, and his Nan navigate the challenges of the pig heart transplant in an effort to save his life, the world around them is less accepting. Yet within the Kelsey family, there is room for reading each other's thoughts and for engaging in difficult conversations. When analysing such forms of thinking in *Pig-Heart Boy*, which is described by Emma Trott as "both an illness narrative and a speculative *Bildungsroman*" (2024, 218), Palmer's framework of "social minds" (2010) is useful as are insights from the field of cognitive narratology. As Palmer explains, "all of us, every day, know for a lot of the time what other people are thinking. This is especially true of our loved ones, close friends, [and] family" (2010, 2). *Pig-Heart Boy* shows an interest in "the pursuit of knowledge about other minds" (Palmer 2010, 5) within the Kelsey family, and this in an intergenerational way.

## Intergenerational Minds in *Pig-Heart Boy* through the Prism of Cognitive Narratology

Palmer urges cognitive narratologists to zoom out and consider "the whole minds of fictional characters in action" (2002, 28). His research on social minds in novels is a helpful way of approaching thinking that goes on between characters in books (2010, 4). However, it is important to be wary of not simply focusing on what Palmer describes as "characters in action" (2002, 28), or characters' outward behaviour, as Caracciolo and Cécile Guédon point out: it is just as important to take into account characters' first-hand experiences as their minds unravel throughout the narrative (2017, 47). In the case of *Pig-Heart Boy*, such a focus on both behaviour and first-hand experiences is vital, but the component of age plays an equally important role given that Cameron's teenage mind is evoked in intense interaction with his parents and his grandmother. Moreover, while *Pig-Heart Boy* grants direct access to Cameron's thoughts via first-person narration, the thoughts of his parents and grandmother are either filtered through Cameron's mind or are featured in speech acts.

According to David Herman, "approaches to narrative study that fall under the heading of cognitive narratology share a focus on the mental states, capacities, and dispositions that provide grounds for – or, conversely, are grounded in – narrative experiences" (2014, 46). The depiction

of such "mental states, capacities, and dispositions" (Herman 2014, 46) in narratives has been predominantly studied in relation to adult characters (e.g., Palmer 2002; 2004; 2010; Mäkelä 2013; Bernaerts 2014; Van Hulle 2014; Luyten 2015; Bernini 2016; Beloborodova 2020; Silva 2023b). Yet Caracciolo's "Child Minds at the End of the World" moves beyond adult characters to consider child focalization in postapocalyptic scenarios, stressing that "even in literature by adults, and largely, for adults […] the evocation of children's experiences may help audiences distance themselves from adultist ways of thinking" (2022a, 159).

Children's literature then, as Justyna Deszcz-Tryhubczak and Zoe Jaques write, forms an excellent backdrop for discussions of solidarity between generations (2021, xvii), and concepts from the field of cognitive narratology have filtered into children's literature studies (Trites 2012, 2017; Nikolajeva 2017; Alkestrand and Owen 2018; Pauwels 2019), prompting research into the complexities of how adult authors go about describing children's thoughts in books for young readers, for example (Silva 2022). The tenets of mind evocation in fiction targeted at child readers specifically have been explored by Maria Nikolajeva in her study of the depiction of consciousness in children's fiction (2001), by Deszcz-Tryhubczak in her article on social minds in children's fantasy fiction (2020), and by Emma-Louise Silva in her consideration of social and material minds in children's literature author David Almond's fiction (2023a). This article adds to such studies spanning children's literature and cognitive narratology by considering the minds of characters of different generations in *Pig-Heart Boy*. As such, the idea of intergenerational minds can be considered as a subtype of Palmer's "social minds" (2010): the mindwork of characters belonging to different generations – as evoked through depictions of their behaviour, their first-hand experiences, their mental states, and their capacities, dispositions, and speech acts – is depicted in an interconnected way, resembling Quammen's "tangled tree" metaphor (2018).

By analysing the passages in which the thoughts of Cameron, his parents, and his grandmother feature in *Pig-Heart Boy*, this article delves into the constantly fluctuating situations the family members find themselves in, ranging from family friction to intergenerational dialogue when it comes to Cameron's pig heart transplant, which is ultimately an operation that involves interspecies gene transfer across the human-nonhuman divide. Due to the life-threatening issues that dominate their present moment, the three generations in *Pig-Heart Boy* find it difficult to project themselves into the future, especially when it comes to what Cameron's grandmother calls "having a pig's innards in [his] chest" (1997, 181). Cameron, his parents, and his grandmother find it difficult to live in the moment, because they are constantly confronted with the future and what will become of them, and because they often struggle to envision what their future might look like, both before the pig heart transplant and afterwards.

**Intergenerational Minds: Before the Pig Heart Transplant**

Before the operation takes place, Cameron loses the will to fight for his life and flirts with death by sitting down at the bottom of a swimming pool to compensate for the game his friends play that he cannot, namely "Daredevil Dive" (1997, 15). Whereas his friends emerge from the water laughing, Cameron's lungs ache and he feels "a sharp, stabbing pain in [his] chest" (1997, 13). This experience forces him to come to terms with the repercussions the viral infection has on his body and makes it clear to him that his own heart will not allow for such physically strenuous activities in the present moment: if he wants to have any chance at becoming healthy enough to join in with the game of daredevil dive, he must undergo the pig heart transplant. The following passage displays how Cameron's parents navigate their son's will for agency and independence:

> "Cam, I really think-"
> "No, Dad," I interrupted. "It's my body and my heart so I have a right to ask questions and say how I feel."
> "What's got into you today?" Dad asked, bewildered.
> "I was wondering that myself," Mum added.
> "I realized something today," I said. "I'm running out of time. Every breath I take is a countdown. So I haven't got time to pretend to feel happy when I'm not. I haven't got time to keep quiet when all I want to do is shout at the top of my lungs. I haven't got time for any more *lies*."
> "My God …" Mum breathed the words, stunned. "Cameron, we don't lie to you."
> "We never have," Dad agreed.
> "You don't tell me the whole truth though. You leave things out. It adds up to the same thing." I knew my mum was hurt and upset and so was Dad, but I was too tired to search for the right words to water down my feelings. Prevarication and skirting around the truth took strength, patience and stamina and I was running out of all of them. (1997, 40-41)

Here, Cameron critiques the generation of his parents, who, along with the doctors and nurses, think they are protecting him by withholding information. Even though he depends on his parents' consent to go ahead with the operation (it was in fact his father who first contacted Dr Bryce in desperation), and even though he trusts in the doctors' and nurses' insights and skills to ensure the transplant goes smoothly, Cameron does not always think highly of the adults surrounding him:

"It seemed to me that that was all grown-ups ever did. They either talked down to you, ignored you or showed you up something chronic. I just hoped and prayed that I would grow older but not grow up. To be grown-up was the lowest of the low!" (1997, 97). The fact that adults do not always tell Cameron "the whole truth" (1997, 41) annoys him, yet he channels this annoyance into joy when he finds out that a baby sibling is on the way. When Cameron and his parents visit Dr Bryce's clinic to meet the pig donor, Trudy, they are asked to pass through an X-ray scanner. His mother, Catherine, refuses to go through the scanner and is forced to reveal her pregnancy to the rest of the family seeing as she does not want the radiation to harm the baby:

> I stared at Mum. I couldn't believe it.
> *Mum was going to have a baby.*
> Why hadn't she said anything before now? How could she and Dad keep it a secret? I was going to have a brother or a sister. Pure joy erupted in me like an exploding volcano. *I was going to have a brother or sister.*
> "Dad, why didn't you tell me?" I grinned.
> But Dad wasn't smiling. He was watching Mum. "I didn't know Cam. I'm just as surprised as you are," he replied quietly. (1997, 72-73)

Before this moment, Catherine had refrained from informing her husband and son that she is expecting a baby, fearing that her present state of being pregnant might hurt Cameron by implying a future he may not be part of. The concealment towards her husband prompts a tense atmosphere in the family home, yet Cameron sees the news as coming at "the best timing in the world" (1997, 81): becoming a brother is something he can look forward to. The video messages Cameron records on his camcorder for his unborn sibling, whom he calls Alex, allow him to vent his frustrations, doubts, and fears about his status of being the first human being to undergo a pig heart transplant. The messages also create a space where he can project himself into the future while sharing his thoughts with his unborn sibling. In these recordings, he aims to share "Life lessons" with Alex (1997, 109). These are presented as embedded narratives in *Pig-Heart Boy* and are rendered in italics throughout, conveying what Palmer describes as "the whole of a character's mind in action: the total perceptual and cognitive viewpoint, ideological worldview, memories of the past, and the set of beliefs, desires, intentions, motives, and plans for the future" (2010, 11). As such, *Pig-Heart Boy* evokes entanglements of minds across generations that serve as examples of the "tangled tree" metaphor (Quammen 2018, 11), in terms of thought transfer across generations. Cameron uses the video messages to ask his sibling (who will be thirteen years younger than him) to remember his

(by then possibly deceased) elder brother's life lessons towards the future, especially regarding their parents, for example:

> *The thing to remember about Mum and Dad is that they don't know everything. I'm not saying that they think they know everything. That's not the case. But they do think they have all the answers! But that's not just Mum and Dad really. That's most, if not all grown-ups. They don't like to be told things by anyone under twenty-one. It's as if they believe that the whole world will think they're stupid if we know something that they don't. So watch out for that. It's a real pain.* (1997, 110)

Cameron is vehement that he may take his video recorder with him to Dr Bryce's clinic and wants to have it in his room after the operation. In fact, the last thing Cameron does before the operation is record a message for Alex: "*But what am I wittering about? I'll soon be healthy and fit myself. We are going to have such fun. I can't wait*" (1997, 119).

**Intergenerational Minds: After the Pig Heart Transplant**

The first day after the operation, Cameron takes to his video recorder again to record messages for Alex, using the videos as a kind of diary format (1997, 133). This journalling has positive effects on Cameron's evolution and his mother encourages it. Furthermore, Cameron gains a sense of responsibility towards his unborn sibling, especially when it comes to the rift between their parents. In one of the videos, he confesses: "*That's another reason why I'm desperate for this operation to work. If it doesn't, I'm not sure Mum and Dad will still be together when you're born*" (1997, 110). Later in the story, Cameron decides that he will "try to hang on long enough to see her or him" so that he is able to "say goodbye to Alex in person" (1997, 238). The future birth of his sibling charges Cameron with the will to live and become an elder brother, yet his grandmother also has a great impact on Cameron's positive mindset. While other family members, such as Cameron's aunts "turned away or changed the subject – or both" (1997, 46) when it comes to his heart condition, his grandmother does not. Just like Cameron insists on being told the truth, Nan also insists on her right to be informed:

> "So what's all this about you having a pig's innards in your chest?" Nan thumped the back of her hand against my chest. "And why do I have to buy the *Daily Press* to find out what's going on with my own grandson?"
> "We told you Cam was going to have a heart transplant," Mum tried.

> "You didn't say where the heart was coming from though, did you?"
> Mum sighed. "I've been getting grief for that all day."
> I made the big mistake of trying to explain. "Nan, we couldn't tell anyone. Dr. Bryce told us not to."
> "And just when did I become – anyone! I'm your nan – not *anyone*."
> "Mother, don't start again. *Please*." (1997, 181)

Whereas Cameron's mother bemoans the grief Nan has been giving her, Cameron knows that indeed, Nan is not "anyone": she even becomes his ally in openly talking about suffering and death. The following passage conveys Cameron's horror when he discovers the hate mail hidden in a drawer in the guest room where Nan is staying. Cameron's grandmother decides to stay over to help the family cope with the ordeal of the press camping outside their home following Cameron's operation. This situation is brought on by Cameron's best friend, Marlon, and his parents, John and Erica, who reveal the news of the pig heart transplant to the press in exchange for money, which only adds to the grief Cameron and his family are experiencing:

> It was horrible. Some of the letters accused Mum and Dad of only letting me have the operation so they could cash in on the resulting publicity. Some were from animal lovers who sympathized with Mum and Dad's position but asked if they had explored all the options. Some were actually from people wishing us well but they were few and far between. Most were just nasty.
>
> Profoundly shocked, I looked up at Nan. "Have you seen these?" I asked.
>
> "Some of them," Nan admitted. "They're today's batch of letters. I read some of them when I arrived this morning. I didn't know your mum had put them in there. I wish she'd told me." (1997, 189)

In this passage, readers gain direct access to thirteen-year-old Cameron's thoughts as they unfold. The passage is depicted in first-person narration from Cameron's vantage point. In terms of intergenerational thinking, it shows, firstly, that Nan is aware of the letters, but that she is not aware of their hiding place; secondly, that Cameron's parents thought it wise to hide such hate mail from Cameron; and thirdly, that he is shocked at discovering this secret that his grandmother and his parents are keeping from him. Even though readers are not granted direct access to his parents' or his grandmother's thoughts, we do gain knowledge of the workings of their minds filtered through Cameron. By piecing together his first-hand experience and the speech act of Nan, readers gain

access to the actual focalised perspective of one mind that implies multiple entangled minds. Yet these multiple other minds are adult minds being implied by a teenage mind, and as Palmer notes, "the results of an analysis of a single fictional mind can then be enmeshed with those of the other minds in the storyworld" (2010, 11). Such an enmeshing also unites Cameron and his Nan when it comes to their thoughts on facing possible death. Cameron reflects on the fact that "she [Nan] was always talking about death and dying. She said that at her age it was a topic that interested her! In some ways, it made a refreshing change" (1997, 46).

Both Cameron and Nan demand their rights while facing death, and this shared experience strengthens their bond, across the grandparent-grandchild age difference. Linking such age differences between grandparents and their grandchildren to childhood studies and age studies, Vanessa Joosen has pointed out that both fields are faced with "the challenge of fighting the marginalisation and deprivation of agency of people who need care or are at least perceived as needing care" (2022, 6). Nan's understanding of the end of the life course exemplifies the "animating tension between despair and integrity" (Woodward 2022, 18). Nan's detached projection into the future is refreshing for Cameron as is her relationship with her grandson: "I could talk and argue with Nan in a way that I couldn't with my parents. Not that Nan stood for any nonsense – she wouldn't go for that at all. But she didn't talk down to me and she didn't talk to me like a parent" (1997, 246). This is a recurring pattern in books that thematize the relationships between children and old people (Joosen 2015). Nan often functions as a bridge between Cameron and his parents, soothing intergenerational tension. Nan understands Cameron's keenness to go swimming with his friends and to get back to life as normal, whereas his parents fear for his safety and forbid such excursions. She respects his abilities and needs in the here and now, while his parents are more concerned with safeguarding his future. Nan also appears more attuned to what is going on in Cameron's mind:

> "Can I watch?" I asked, hoping Nan wouldn't spot what I was trying to do.
> "No, you can help!" she replied at once. "You may be smart, child, but I'm smarter!"
> […]
> "I want you back down here in five minutes – maximum," said Nan. "Or I'll come upstairs to fetch you – and you don't want that."
> "Are you reading my mind or something?" I asked, impressed.
> Nan laughed. "Now if I told you that, you'd know as much as I do!" (1997, 187)

In fact, Nan is the only one on Cameron's side when it comes to his decision against having a second pig heart transplant when it appears that the anti-rejection and immuno-suppressant drugs are not working after the first operation (1997, 239). However, Nan's time runs out in the course of the novel, and it is ultimately her death that propels Cameron to grasp this second chance of a new beginning after all. Nan dies of natural causes in her sleep, and in one of their last conversations, she urges her grandson to not give up and to reconsider having the second pig heart transplant: "But Cameron, dear, you're allowed to be scared. You're just not allowed to give up – not without a good fight. So put your fists up and come out slugging" (1997, 240).

In a video recording for his unborn sibling Alex, Cameron reflects on how this piece of advice from his Nan who was "so full of life" (1997, 251) has repercussions on his decision: "*Another pig's heart. To be honest, I wasn't going to, but a couple of days after Nan's death I decided that I would.* […] *A chance of life against no chance at all*" (1997, 252). By engaging in intergenerational exchange, Nan's thoughts infuse her grandson's thoughts, and his thoughts are then recorded to pass on to his unborn sibling should Cameron not live to see the day of the birth. While Cameron's response to Nan's death forms a pivotal prompt in his decision to go for the second pig heart transplant, the effect of Nan's passing away is not centralized when it comes to Cameron's parents. We do not gain insights into how Cameron's parents feel about Nan's death. While this does not suggest an unfavourable evocation of the parents throughout the novel (as is the case in *The Granny Project* (1984) by Anne Fine, for example (Joosen 2022, 15)), it does strengthen the intergenerational bonds between grandmother and grandson, resulting in solidarity and dialogue in their shared navigating of agency and death. However, it also shows that intergenerational thinking can just as well revolve around tensions and contradictions on the pathway towards mutual support.

## Conclusion

The close readings above show how an age-sensitive approach can be used when considering narratives that depict characters' thoughts that are entangled across generations. Such an approach extends Palmer's "social minds" framework by adding a lens that is focused on how the generational links between characters can influence intermental thought in ways resembling "tangled trees" (Quammen 2018). The novel closes with hope-giving intergenerational understanding that spans the grandparent-parent-child continuum in *Pig-Heart Boy*, which is built on thinking across generations against the backdrop of interspecies crossover. Children's literature often thematizes age (Joosen 2024, 229) and Blackman's *Pig-Heart Boy* forms an excellent example of this. Despite the complex circumstances, the three generations depicted in *Pig-Heart Boy* find out

that projecting oneself into the future can be hope-giving and life-affirming, underlining the role that imagination, and by extension, fiction, can play in such challenging equations of imagining the future in times of climate crisis and in debates concerning multispecies justice.

In her reflection on "multi-species literary ethnography" (2022, 1), Woodward stresses the importance of literary imagination: "A novel is also a thing that grows. From an idea, an image, an object, a seed […] giv[ing] life to ideas that have taken root, branching in multiple directions" (2022, 23). *Pig-Heart Boy* functions as a literary lab that experiments with how people from different generations engage with each other – in both moments of conflict and in fruitful dialogues – while challenging readers to stretch their imagination into realms of xenotransplantation, gene editing, animal rights, and the ethical concerns these topics imply. Together, Cameron and his family stay positive in the face of adversity, and this despite their age differences.

By analysing passages that depict Cameron's thoughts during exchanges with his grandmother, his parents, and his unborn sibling, it becomes possible to see how forms of thinking across generations can impact the will to confront uncertain futures. Through moments of intergenerational connection, they find out that projecting oneself into the future can help, even in the light of potential or imminent death. Cameron and Nan talk openly about death, his mother speaks freely about her pregnancy, and Cameron finds the strength to live if only to make it for the birth of his unborn sibling. Through conflicts, honest dialogue, and empathy, intergenerational minds are centralised in *Pig-Heart Boy*, and as such, an understanding is fostered that respects all generations – the unborn, the child, the adult, and the old adult.

**Bibliography**

Alkestrand, Malin, and Christopher Owen. 2018. "A Cognitive Analysis of Characters in Swedish and Anglophone Children's Fantasy Literature." *International Research in Children's Literature* 11 (1): 65-79. https://doi.org/10.3366/ircl.2018.0254.

Beloborodova, Olga. 2020. *Postcognitivist Beckett*. Cambridge: Cambridge University Press.

Berchtold, Kristina. qtd. in Reuters. "German researchers to breed pigs for human heart transplants", in: *The Guardian*, February 3, 2022: https://www.theguardian.com/science/2022/feb/03/german-researchers-to-breed-pigs-for-human-heart-transplants.

Bernaerts, Lars. 2014. "Narrative Games and Fictional Minds in B. S. Johnson's *House Mother Normal*." *Style* 48 (3): 294-312. https://biblio.ugent.be/publication/5794141.

Bernaerts, Lars, Dirk De Geest, Luc Herman, and Bart Vervaeck, eds. 2013. *Stories and Minds: Cognitive Approaches to Literary Narrative*. Lincoln: University of Nebraska Press.

Bernini, Marco. 2016. "The Opacity of Fictional Minds: Transparency, Interpretive Cognition and the Exceptionality Thesis." In *The Cognitive Humanities: Embodied Mind in Literature and Culture*, edited by Peter Garratt, 35-54. London: Palgrave Macmillan.

Blackman, Malorie. [1997] 2022. *Pig-Heart Boy*. London: Penguin Random House.

Browning, Heather. 2023. "Welfare Comparisons Within and Across Species." *Philosophical Studies* 180: 529-551. https://doi.org/10.1007/s11098-022-01907-1.

Caracciolo, Marco. 2014. *The Experientiality of Narrative: An Enactivist Approach*. Berlin/Boston: De Gruyter.

Caracciolo, Marco. 2022a. "Child Minds at the End of the World." *Environmental Humanities* 14 (1): 145-161. https://doi.org/10.1215/22011919-9481484.

Caracciolo, Marco. 2022b. *Contemporary Fiction and Climate Uncertainty: Narrating Unstable Futures*. London: Bloomsbury.

Cohn, Dorrit. 1978. *Transparent Minds: Narrative Modes for Presenting Consciousness in Fiction*. Princeton: Princeton University Press.

Deszcz-Tryhubczak, Justyna. 2020. "Reading About Solidarity and Collective Action: Social Minds in Radical Fantasy Fiction." *Children's Literature in Education* 51: 144-159. https://doi.org/10.1007/s10583-018-9379-1.

Deszcz-Tryhubczak, Justyna, and Zoe Jaques. 2021. "Towards Intergenerational Solidarity in Children's Literature and Film." In *Intergenerational Solidarity in Children's Literature and Film*, edited by Justyna Deszc-Tryhubczak and Zoe Jaques, xi-xxvii. Jackson: University Press of Mississippi.

Emamalipour, Melissa, Khaled Seidi, Sepideh Zununi Vahed, Ali Jahanban-Esfahlan, Mehdi Jaymand, Hasan Majdi, Zohreh Amoozgar, L. T. Chitkushev, Tahereh Javaheri, Rana Jahanban-Esfahlan, and Peyman Zare. 2020. "Horizontal Gene Transfer: From Evolutionary Flexibility to Disease Progression." *Frontiers in Cell and Developmental Biology* 8: 1-16. https://www.frontiersin.org/articles/10.3389/fcell.2020.00229/full.

Herman, David, ed. 2011. *The Emergence of Mind: Representations of Consciousness in Narrative Discourse in English*. Lincoln/London: University of Nebraska Press.

Herman, David. 2014. "Cognitive Narratology." In *Handbook of Narratology*, edited by Peter Hühn, Jan Christoph Meister, John Pier, and Wolf Schmid, 46-64. Berlin/Boston: De Gruyter.

Joosen, Vanessa. 2015. "Second Childhoods and Intergenerational Dialogues: How Children's Literature Studies and Age Studies Can Supplement Each Other." *Children's Literature Association Quarterly* 40 (2): 126-140. https://doi.org/ 10.1353/chq.2015.0016.

Joosen, Vanessa. 2022. "Connecting Childhood Studies, Age Studies, and Children's Literature Studies: John Wall's Concept of Childism and Anne Fine's *The Granny Project*." *Barnboken: Journal of Children's Literature Research* 45: 1-21. https://doi.org/10.14811/clr.v45.745.

Joosen, Vanessa. "Age". 2024. In *The Routledge Companion to Children's Literature and Culture*, edited by Claudia Nelson, Elisabeth Wesseling, and Andrea Mei-Ying Wu, 229-240. New York / London: Routledge.

Luyten, Alison. 2015. "Cognitive-Genetic Narratology and the Fictional Mind in *To the Lighthouse*." *Manuscrítica: Revista De Crítica Genética* 28: 94-111. https://www.revistas.usp.br/manuscritica/article/view/177801.

Mäkelä, Maria. 2013. "Cycles of Narrative Necessity: Suspect Tellers and the Textuality of Fictional Minds." In *Stories and Minds: Cognitive Approaches to Literary Narrative*, edited by Lars Bernaerts, Dirk De Geest,

Luc Herman, and Bart Vervaeck, 129-151. Lincoln: University of Nebraska Press.

Nikolajeva, Maria. 2001. "Imprints of the Mind: The Depiction of Consciousness in Children's Fiction." *Children's Literature Association Quarterly* 26 (4): 173-187. https://doi.org/10.1353/chq.0.1496.

Nikolajeva, Maria. 2017. "'Haven't you ever felt like there has to be more?' Identity, space, and embodied cognition in young adult fiction." *Encyclopaideia* 21 (49): 65-80. https://doi.org/10.6092/issn.1825-8670/7604.

Palmer, Alan. 2002. "The Construction of Fictional Minds." *Narrative* 10 (1): 28-46. http://dx.doi.org/10.1353/nar.2002.0004.

Palmer, Alan. 2004. *Fictional Minds*. Lincoln: University of Nebraska Press.

Palmer, Alan. 2010. *Social Minds in the Novel*. Columbus: The Ohio State University Press.

Pauwels, Frauke. 2019. "Reading as a Scientist: Children's Nonfiction through a Cognitive Lens." *Children's Literature Association Quarterly* 44 (4): 432-446. https://doi.org/doi:10.1353/chq.2019.0049.

Quammen, David. 2018. *The Tangled Tree: A Radical New History of Life*. London: William Collins eBook.

Silva, Emma-Louise. 2022. "Cognitive Narratology and the 4Es: Memorial Fabulation in David Almond's *My Name is Mina*." *Age, Culture, Humanities* 6: 1-29. https://doi.org/10.7146/ageculturehumanities.v6i.131854.

Silva, Emma-Louise. 2023a. "Social and Material Minds through the Lens of Cognitive Narratology in *Clay* and *Bone Music*." In *Age in David Almond's Oeuvre: A Multi-Method Approach to Studying Age and the Life Course in Children's Literature*, edited by Vanessa Joosen, Michelle Anya Anjirbag, Leander Duthoy, Lindsey Geybels, Frauke Pauwels, and Emma-Louise Silva, 36-58. New York / London: Routledge. https://doi.org/10.4324/9781003369608.

Silva, Emma-Louise. 2023b. *Modernist Minds: Materialities of the Mental in the Works of James Joyce*. Leiden/Boston: Brill.

Soucy, Shannon M., Jinling Huang, and Johann Peter Gogarten. 2015. "Horizontal Gene Transfer: Building the Web of Life." *Nature Reviews Genetics* 16: 472-482. https://doi.org/10.1038/nrg3962.

Trott, Emma. 2024. "A Change of Heart: Animality, Power, and Black Posthuman Enhancement in Malorie Blackman's *Pig-Heart Boy*." In *Animals and Science Fiction*, edited by Nora Castle and Giulia Champion, 217-238. London: Palgrave Macmillan.

Trites, Roberta Seelinger. 2012. "Growth in Adolescent Literature: Metaphors, Scripts, and Cognitive Narratology." *International Research in Children's Literature* 5 (1): 64-80. https://doi.org/10.3366/IRCL.2012.0044.

Trites, Roberta Seelinger. 2017. "Cognitive Narratology and Adolescent Fiction." In *The Edinburgh Companion to Children's Literature*, edited by Clémentine Beauvais and Maria Nikolajeva, 102-111. Edinburgh: Edinburgh University Press.

Van Hulle, Dirk. 2014. *Modern Manuscripts. The Extended Mind and Creative Undoing from Darwin to Beckett and Beyond*. London: Bloomsbury.

Veit, Walter. 2023. "Can We Compare Well-Being Across Species?" *Psychology Today*.

https://www.psychologytoday.com/intl/blog/science-and-philosophy/202306/can-we-compare-well-being-across-species.

Woodward, Kathleen. 2022. "'Old Trees Are Our Parents': Old Growth, New Kin, Forest Time." *Age, Culture, Humanities* 6: 1-29. https://doi.org/10.7146/ageculturehumanities.v6i.132851.

Wesseling, Elisabeth. 2021. "Family." In *Keywords for Children's Literature*, Second Edition, edited by Philip Nel, Lissa Paul, and Nina Christensen, 74-76. New York: New York University Press.

Zunshine, Lisa, ed. 2015. *The Oxford Handbook of Cognitive Literary Studies*. Oxford: Oxford University Press.

# Complex Temporalities and Shared Reading: Picturebooks in the Anthropocene

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Abstract

Starting from the notion that the current environmental crisis challenges traditional notions of temporality, this article argues that children's picturebooks are uniquely positioned to help engender a 'critical temporal literacy' (Huebener 2020, 24). The combination of different modes (visual, tactile and textual) in picturebooks can offer innovative representations of alternative temporalities. Furthermore, as picturebooks are usually the first books encountered by new readers, the reading practice is often shared between generations which raises opportunities for intergenerational thinking and communication. I discuss three contemporary picturebooks (*Once Upon A Time There Was And Will Be So Much More* by Johanna Schaible; *Tales From The Inner Cities* by Shaun Tan; *Seasons* by Blexbolex) that employ different literary strategies to enrich human temporalities through contact with the nonhuman.

*Keywords*: Children's literature, picturebooks, Anthropocene, environmental crisis, econarratology

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# Complex Temporalities and Shared Reading: Picturebooks in the Anthropocene

JONAS VANHOVE

## Introduction

In *Nature's Broken Clocks: Reimagining Time in the Face of the Environmental Crisis,* Paul Huebener argues that "the environmental crisis is indeed a crisis of time but responding to this problem is not merely a matter of speeding up or slowing down; it requires untangling the complexities of time in its many cultural and ecological forms" (2020, 11). The connection between temporality and environmental crisis is not straightforward and is unique to the current moment. As Dipesh Chakrabarty writes: "for the first time ever, we consciously connect events that happen on vast, geological scales—such as changes to the whole climate system of the planet—with what we might do in the everyday lives of individuals, collectivities, institutions, and nations (such as burning fossil fuels)" (2018, 6). The connection between everyday lives and larger geological scales is captured in the notion of the Anthropocene, a proposed timeframe that is marked by the impact Western industrialized societies have had on the planet's geological layers. The most striking symbol and symptom of the Anthropocene is perhaps the climate crisis. For a long time, climate change, caused by the activities of Western industrialized societies and one of the biggest threats to the continuation of the human species, did not evoke a response worthy of the danger it poses. Even when science proved decisively that global warming was happening and that it was anthropogenic, the sense of urgency did not immediately reach the general public. Of course, politics and economics have played their part in this lack of action. In *Losing Earth* (2019) for instance, Nathaniel Rich discusses the role the oil industry played in the obstruction of actual action being taken. However, the difficulty in judging the severity of climate change is also linked to the existence of conflicting temporalities. Rob Nixon for instance, considers climate change as an example of the 'slow violence' of environmental destruction, which is "a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all" (2011, 2). This slow tempo is difficult to grasp for the human imagination, because it does not occur within the temporal plane of our everyday lives. Now that there is a

significant increase in forest fires, drought, and floods in Western societies and we thus experience some of the consequences of global warming, the sense of urgency is finally growing. In other words, the slow pace of climate change is accelerating and colliding with our felt experience of everyday. It is this collision of different timescales, living a life that takes place on different temporal planes at the same time, that highlights the need for what Huebener calls a "critical temporal literacy" (2020, 24).

As one of the first encounters for children with the outside world, picturebooks help children to build a model of that world (see for instance Stephens 2011, Nikolajeva 2014, Coats 2019) and thus inevitably play an important role in developing an understanding of abstract concepts such as time.[1] "To unpack these [time] socialization stories", writes Charis St Pierre, "involves considering the timescales at which these books operate, when and to whom they are oriented, and the ways human temporality falls in or out of sync with the various, multifaceted temporalities of other than-human beings" (2023, 3). Following St Pierre, this article asks how picturebooks might engender in young readers a critical temporal literacy on the one hand, and how, as a highly specific form of intergenerational communication, children's literature contributes to an intergenerational understanding of environmental crisis.

There are two ways in which picturebooks are well-suited to encompass multiple temporalities at once. Firstly, as an object, it can, as the selected examples will demonstrate, employ visual, textual, and material means to counter the well-established Western linear imagination of time. Secondly, the often shared reading practice of picturebooks, between adults and children, is also a confrontation between multiple temporalities. While the adult is looking into their past for a nostalgic vision of childhood, the child is looking forward into a future marked by adventure, more individuality and more agency in an expanding world. In order to explore how picturebooks can help raise awareness of the complexities of time in the Anthropocene, I draw on insights from the field of econarratology, which proposes that "narratives can convey environmental understanding via building blocks such as the organization of time and space, characterization, focalization, description, and narration" (James and Morel 2020, 1). I have selected three contemporary picturebooks that, each in their own way, adopt a highly sophisticated temporal structure. Johanna Schaible's *Once Upon a Time There Was And Will Be So Much More* (2020) foregrounds, through experimentation with page size and binding, that a single moment—"Make a wish!"—exists within many different temporalities. In Shaun Tan's *Tales from the Inner Cities* (2018), human and nonhuman temporalities collide, which has a profound effect on both. Lastly, Blexbolex's *Seasons* foregrounds

[1] Following Bettina Kümmerling-Meibauer, who argues in *The Routledge Companion to Picturebooks* for "the particularities of the picturebook as a unique art form" (2018,4) and thus the need to establish the picturebook as a separate category, I will employ the spelling in one word throughout.

human entanglement with nonhuman phenomena through an associative rhizomatic reading strategy and displays how other temporalities guide our actions more than our traditional, human-invented clock time.

**Picturebooks, Temporal Imagination, and Intergenerational Collaboration**

As mentioned above, I see two ways in which children's picturebooks can hold different temporalities simultaneously: the material object and the narrative and visual strategies employed on the one hand and the implied shared reading practice on the other hand. As "the very notion of time takes its form through development of metaphorical thought" (Huebener 2020, 13), the aesthetic means of children's literature can be important in the conceptualization of an abstract notion such as time. Time itself is often represented through spatial metaphor. Even aspects of time that are not directly experienced, such as the movement of time, receive specifications through metaphorical language. As Boroditsky writes:

> Does time move horizontally or vertically? Does it move forward or back, left or right, up or down? Does it move past us or do we move through it? All these aspects are left unspecified in our experience with the world. They are, however, specified in our language most often through spatial metaphors. Whether we are looking forward to a brighter tomorrow, falling behind schedule, or proposing theories ahead of our time, we are relying on spatial metaphors to talk about time (2000, 4).

If the Anthropocene and climate crisis challenge us to reconsider our notion of time and "if figurative thinking forms the essence of our explanations of time, then the self-conscious manipulation of metaphor is of fundamental importance" (Huebener 2020, 13-14). In (adult) literature, formal experiments with temporality have already been described by scholars working in the field of econarratology. In *Narrating the Mesh: Form and Story in the Anthropocene*, Marco Caracciolo proposes four spatial models of narrative that manipulate the more traditional linear spatial metaphor into a different shape. First, a discontinuous progression, which "resists linearity *from within*, building on a linear (sequential) structure but also disrupting it via a highly fragmentary organization" (2021, 72). Second, a loop, which "undercuts teleology" and "also creates a paradoxical sense of closure" (2021, 73). Third, a network-line plot organization, in which different plot lines "first presented as independent from one another, converge and become increasingly intertwined" (2021, 73). The final spatial model is rhizomatic, which is a "nonhierarchical form[s]

of organization that make[s] connections horizontally rather than in a linear, tree-like fashion" (Bazzul & Kayumova 2016, 288). In narrative, a rhizomatic structure is highly decentralized and thus "fosters a plurality of connections and a sense of playful openness" (Caracciolo 2021, 73).

These alternative temporal structures also feature in contemporary picturebooks. In their discussion of temporality in *How Picturebooks Work,* Maria Nikolajeva and Carole Scott argue that the picturebook chronotope is "an excellent illustration of word and image filling each other's gaps, or, of even greater significance, compensating for each other's insufficiencies" (2006, 139). In other words, the multimediality of picturebooks seems to make them even better equipped to foreground different temporalities. However, Nikolajeva and Scott also argue that "complex temporality is often limited in picturebooks because of their compact nature, which excludes long time spans" (2006, 165). The picturebooks discussed here (and others that have recently been published, such as Oliver Jeffers' *Meanwhile Back on Earth* and *Begin Again*) demonstrate that picturebooks can include larger scales and conflicting temporalities. The fact that many have been published only recently might indicate that children's literature is trying to find new ways to handle discussions of time and convey complex temporalities. Hopefully, this renewed interest in temporal literacy will help future generations to think beyond the "structural short-termism" (Adam & Groves 2011, 18) of human action which has lead us into environmental crisis.

Apart from this reconsideration of the complexities of time, the "slow violence" of climate crisis also requires a strengthening of intergenerational bonds and a sensibility for intergenerational collaboration. As Stephen M. Gardiner argues, climate change is a "substantially deferred phenomenon" because it is "resilient" and 'backloaded' (2006, 403). In other words, with a phenomenon like climate change, the full impact of a generation's actions, good or bad, can only ever affect a future generation. This temporal dispersion thus requires intergenerational thinking and communication, which is what picturebooks and texts for young readers have been doing for a long time. In the introduction to *Intergenerational Solidarity in Children's Literature and Film*, Zoe Jaques and Justina Deszcz-Tryhubczak argue that "texts for young audiences stimulate intellectual and emotional appreciation of multifaceted connections between generations through representations of intergenerational solidarity and […] children's and adults' joint engagements with such texts may turn into collaborative cultural practices around reading that strengthen intergenerational bonds" (2021, XII).

In children's literature, both generations bring their own world knowledge to the text. Picturebooks require a lot of gap-filling and therefore "we may find infinite possibilities for word-image interaction" (Nikolajeva and Scott 2006, 2). Furthermore, the high need for the co-authoring of the text by the reader-viewer is connected to the typical reading practice of these picturebooks:

picturebooks are often read in collaboration with adults. This reading practice of asking questions and pointing things out with someone from a different generation, who brings a different world knowledge to the table, helps to build a shared model of the world.

Sandie Mouraõ's discussion of wordless picturebooks in "What's Real and What's Not: Playing with the Mind in Wordless Picturebooks" for instance, offers examples of children working together to make sense of Antione Guillopés *Loup Noir* (2004). Mouraõ separated a class group in smaller groups and asked them to write the story that might accompany the wordless illustrations. In their discussion, the children "used language skillfully to talk collaboratively about their interpretations" (2015, 198) and managed to come up with "very creative responses to the wordless picturebook" (2015, 198). After a reading of the book guided by their teacher, who pointed out a visual element the children had missed, the children created a different story which contained a different causal relationship between the pictures. In this case, the adult helped the children to integrate more elements into their interpretations, but only after the children got the chance to tell the story from their own perspectives as well.

In recent years, ambiguity has become an important aesthetic quality of picture books (see Campagnaro 2015). Ambiguity is understood in this context as illustrators using illustrations that "do not directly represent the text but rather fill in the textual gaps" (Campagnaro 2015, 122). The ambiguous text-image relation affords children and adults "a space for things to be undisclosed and unsaid and encourages children's interpretive involvement" and "allows children to experiment with the relativity of points of view" (Campagnaro 2015, 141). Mouraõ's case study mentioned above illustrates Campagnaro's assertion and serves as a great reminder that picturebooks offer much-needed opportunities for children to "share their understandings and interpretations of all literature, to use oral language to think together" (Pantaleo 2015, 239).

According to Sylvia Pantaleo, in recent years, "the illustrations in picture books have become increasingly more sophisticated over the years: changes in printing technology have also affected the range of artworks represented in these multimodal texts" (2015, 226). The increased aesthetic awareness and tolerance for ambiguity reflects "current efforts to rethink, revalue, and refashion what childhood is and how it is experienced" (Reynolds 2007, 91). Furthermore, innovations in printing techniques have also helped to develop more complex forms of visual storytelling. This "often involves an unusual format or element of graphic design that then plays a major role in the narrative […] many wordless picturebooks are highly innovative works that defy boundaries [and] question the conventional linear reading process" (Kümmerling-Meibauer 2014, 8). The combination of this high tolerance for unusual formats and ambiguity and the idea of a shared reading practice where different generational worlds collide, makes picturebooks ideal

contenders for grappling with the imaginative challenges of understanding climate change and the Anthropocene.

## Spatio-Temporal Zoom in Johanna Schaible's *Once Upon a Time There Was and Will Be so Much More*

Johanna Schaible's *Once Upon a Time There Was and Will Be so Much More* is an example of a visual narrative that, in a highly original manner, depicts the multilayered temporality of the present moment. Read linearly, the book opens in the past when "billions of years ago, land took shape", brushes past the present—"Now! Make a wish!"—and eventually ends up in an open-ended future filled with questions—"What do you wish for the future?". The book visualizes the motion of temporally zooming in and out on a present moment by having the pages physically shrink in size when moving from past to present, each page becoming smaller so that previous pages remain exposed. The format of the page adapts accordingly from a standard picturebook double spread to a widespread panorama. Conversely, when the book proceeds into the future, the pages grow in size. Furthermore, when the reader is in the present, the smallest page in the book, all the different temporalities (era, years, months, hours, minutes) become visible. Where picturebooks usually freeze the narrative mid-action on one page and then continue after the turning of the page (see for instance Perry Nodelman 1988), here the page break is never absolute, emphasizing the flow of time rather than causality, duration rather than singular frozen moments on a single page.

The smallest page, the present, depicts a starry sky with a shooting star cutting across, hence the line "Make a wish". The outlook of the page resonates with the final page, which once again portrays a nighttime sky. However, this time the sky is lit by faraway city lights. Both pages also reflect the very first page, back when "land took shape", where the dark sky is lit by drops of magma, escaping the wild flood of volcanic material that is busy creating the earth's geological layers, the very same layers that will one day be altered by human activity. These three pages express the limits of and even point beyond the human experience of temporality: a deep past, the inescapable present, and a near and far away future. In between these pages, past moments are marked definitively by statements, whereas the future is marked by open-ended questions put to the reader.

The book also presents a different formal challenge, because although the book can be read linearly, it also invites a parallel reading. In a parallel reading, the reader compares the pages of similar timeframes in the past and the future. The result is a world overtaken by human presence and invention. For instance, a page in the past marked "hundreds of thousands of years ago, people

moved from place to place", referring to the first migrations that spread the human race across the globe, becomes a page of people walking leisurely, sporting the latest backpack in a similar but changed landscape, that has been adapted for human living. Another page shows people building the great pyramids. Its future opposite is then a page of people visiting them, transported there by the many multicolored coaches we all know so well from the touristic spots close to home. The book does not provide an overt commentary of issues of mass tourism. Instead, it might even feel like it promotes tourism by asking "what sights will stay with you always?". The adult reader however might wonder whether these images present a positive outlook or whether the questions hide a bleaker future vision. Another example: a page from the past depicts a landscape invaded by a quarry. The combination of text and image indicates that humans are already altering the landscape: "ten years ago, the landscape looked different". The corresponding future page shows an entirely urban space, filled with apartment blocks, only livened up by a few spots of green from the obligatory trees planted by the side of the road. Here, the caption asks: "where will you live in ten years' time?" Although the image is definitely a pleasant vision of urban living, the question takes on a different dimension when the reader realizes that all that open green space, a living space for all forms of nonhuman life has been usurped by humans in a timespan of only twenty years.

It is no stretch to imagine that readers from different generations will react differently as the relation to the past and the future changes when a person grows older. The book thus challenges its dual readership to engage in an intergenerational conversation about the human influence on the planet. Adults can discuss their past and the role their generation has played, whereas children are invited to voice their hopes for the future: the book ends with the question "What do you wish for the future?".

Schaible's work foregrounds the flow of time and in doing so exposes a series of environmental concerns. The reader, who is addressed directly and whose life unfolds against the background of great planetary changes, is placed in the middle of those environmental concerns. In her visualization of time passing, Schaible employs a discontinuous progression, where the reader jumps across time with each turning page. However, by making the previous event still visible from the next page, Schaible has found a way to concretize the way the past reverberates into the present. Conversely, the way the future is already visible from a previous page, due to the innovative play with the page sizes, also demonstrates how desire and longing influence the present. Each moment in time is framed by other similar moments.

However, there still remains an imbalance between the represented deep time of the past and the implied narrow future of a single lifetime, reflecting the difference between accepting that humans have not always been around and having to accept that humans might not be around in

the future. Even though the vision of the future is limited, *Once Upon a Time …* successfully combines deep planetary time with the experiential human time frame and offers a way of imagining these conflated temporalities while also inviting the reader to think intergenerationally.

## Human and Nonhuman Temporalities in Shaun Tan's *Tales from the Inner Cities*

Shaun Tan's *Tales from the Inner Cities* is a collection of poetic short stories and illustrations, described by Lorraine Kerslake as a "visual poetic journey" (2022, 45). The stories place 'wild' animals (i.e. rhinos, bears, tigers, …) and more urban animals (i.e. pigeons, dogs, …) in an urban landscape and explore how the transformed landscape affects nonhuman modes of being and what the confrontation between human and nonhuman intelligences could mean for the way we inhabit the urban landscape and give meaning to our modern lives. One of the most striking differences lies in the temporal experience of the human and nonhuman. A city is of course a beacon of the entrepreneurial spirit of the Anthropos that does not sit well with nonhuman temporalities. As Tyson Yunkaporta notes, "a city is a community on the arrow of time, an upward-trending arrow demanding perpetual growth. Growth is the engine of the city—if the increase stops, the city falls […] A city tells itself it is a closed system that must decay in order for time to run straight, while simultaneously demanding eternal growth" (2020, 50). Humans have changed their landscape to fit with the capitalist desire for economic growth, a story following the model of linear progress. However, by introducing nonhuman animals to this urban world, *Tales from the Inner Cities* becomes a meeting place of conflicting temporalities. Instead of considering Tan's city purely as a landscape, it might be more effective to think of it in Barbara Adam's terminology as a "timescape", a landscape in which "ecological phenomena" are understood "as complex webs of interdependent temporalities" (Adam, quoted in Bensaude-Vincent 2022, 213). The term timescape "opens up a window on the temporalities of things we interact with" (Bensaude-Vincent 2022, 213) and foregrounds, as Shaun Tan does in these stories, that "time is immanent to beings, to all things whether animate or inanimate. There are as many times, as many lifelines as there are things" (Bensaude-Vincent 2022, 215). In several stories, contact between human and nonhuman causes the human to slow down the pace at which they are living. Furthermore, the slowing down brings the human in contact with some form of previously inaccessible ancient knowledge.

In the story *Crocodiles*, crocodiles live on the 87th floor of an otherwise normal apartment building, where they have "big long walls of uninterrupted glass along which to follow the sun all day, slowly moving from east to west; such luxurious reptilian basking would never be possible at ground level" (2018, 11). The office-workers in floors above and below them do not know they

are there but they do know this: "fall asleep at your desk and you'll be running naked through a dark forest screaming terrified monkey gibberish, only to wake with a rush of overwhelming exhilaration and clarity, of feeling absolutely alive" (2018, 12). The proximity to the nonhuman, although it occurs unknowingly, enlivens an otherwise grey and dull corporate existence. The crocodiles are presented as possessing some kind of knowledge that is inaccessible from the human perspective, thanks to their significant temporal perspective:

> Nobody even remembers that this whole city was built on a swamp. The crocodiles, well, they've been living in this very spot for a million years and I'll bet they'll still be here long after the traffic has ground itself back into mud […] In the cool brain of a crocodile, the city is just a waiting room: the biggest of all waiting rooms, rising up through an age with which they have no account, no appointment, and to which they owe no attention (2018, 13).

The accompanying illustration offers a view of the uninterrupted glass of the apartment building, which reflects the cloudy sky. In the left upper corner, a lone window-cleaner seems suspended in time. Because his body is reflected in the never-ending glass, the reader-viewer might suspect an uncoupling of mind and body. While the body rests outside in the human urban space, the mind is trapped in the reptilian world that the presence of the crocodiles seems to conjure.

In the story of the butterflies, a hoard of butterflies comes out "at lunchtime" (2018, 17), a trivial time indication yet very indicative of a modern human temporality. The butterflies are numerous: "not millions, billions or even trillions, but a number beyond counting, beyond even the *concept* of counting, so that people on the street were relieved of any estimation" (2018, 17). The choice of the verb *to be relieved of* seems to imply that there is a pressure on modern humans to permanently occupy a rational state of mind and forego their intuitive bodily being. Similar to the contact with the crocodiles, which released an ancient, mystical, beastlike reflex in the otherwise so composed office workers, the contact with the butterflies releases the humans from "the endless ticker-tape of voice-over narrative" (2018, 18) that is the human linguistic mind: "but for now, the briefest of all moments, we did not ask why. We thought of nothing but the butterflies, the butterflies settling on our heads" (2018, 19). Here the butterflies are not given their own form of intelligence: it is their sheer beauty, "descending from dizzying heights like spring blossoms of every imaginable colour and pattern" (2018, 17), which is offered to the human characters on a scale so big that it is impossible to ignore. This chance encounter with non-human beauty triggers in the human a pre-linguistic level of being in the world, if only for the briefest of moments. The

illustration forms the counterpoint to the image of the crocodile story. In the same blue-grey urban setting filled with high-rise buildings, the people have come outside to bask in the multicoloured eruption of butterflies. Where the window-cleaner was a lone figure, suddenly disconnected from his presence in the human-made world, here the humans get together in equally high numbers as the butterflies.

In the story of the *Yak,* an unnamed narrator works in a very modern factory that creates mechanical vegetables. In this highly modernized and fast-paced world, there exists just one connection to a more mystical and ancient way of being, the yak, "a shaggy old animal that management somehow forgot to sell, upgrade or retrench" (2018, 211). Everything about this animal is so slow and quiet that it becomes nearly indistinguishable from its surroundings: "At first you can't see it against the grey, but then you focus like a monk, and it's like a soft spot that lightens, peels away from the vanishing point of the factory wall. […] we just huddle and listen to the bells reach our ears first, bells that are so quiet they go *under* the sound of industrial compressors where nothing could possible rise above it" (2018, 211). When the narrator and his co-workers climb on top of the beast, they "become so buried in those layered curtains of hair that I feel lost in the heartbeat of this giant furnace of an animal" (2018, 212). On top of the yak, the pace of the modern world finally slows down: "The cars, buses and trains rush past in rush-hour frenzy, but none are as pleased with their speed as those who ride the yak" (2018, 212). Not only does time slow down, it is even capable of reversal on the yak: "like children, maybe that's what we are becoming, losing interest in phones and newspapers, shrinking in size until our clothes become blankets, we can crawl inside our own pockets, just wanting to savour the oceanic sway of bovine hips and shoulders, this old lullaby, and feel the world shift around our ears" (2018, 212). When they arrive, not a couple of hours but "many ages later" (2018, 212), they have been changed, they "drift, just like that, like paper boats, all the way across cracked footpaths and rubbish-strewn lanes and leaky stairwells, all the way to each and every bright-painted doorframe, drawn in by glowing yellow blooms of kitchen steam, children laughing and crying and clattering toys, the long lines of white crumpled linen, the chime of bells and the deep, deep, woolly smell of home" (2018, 213). Finally, as the "woolly smell of home" contrasts with the smell of the yak that is "deep and earthy and beautiful, strangely familiar" (2018, 212), Tan's poetic evocation of how contact with the nonhuman can bring down the pace at which we live eventually reveals what is most important to the laborers: a sense of belonging, which they find at home, in the presence of the next generation. *Yak* thus also fosters a different temporal connection, between adulthood and childhood, emphasizing the contrast between a dulling rational mind and a different, more intuitive mode of being. This connection receives a visual counterpoint in the illustration of the yak carrying the

workers home. The image, which strongly recalls Monet's *Impression, soleil levant*, is impressionistic in style, with very little delineation of the figures and buildings. The impressionist endeavour of capturing fleeting moments of light and beauty is mimicked here in the fur, where flickering strands of bright colours show where people have made their ascent on to the yak's back and into the realm of childhood, which promises them the relaxation that comes with living in the now.

Finally, the story *Dog,* which has also been published as standalone, treats the encounter between human and nonhuman in a different manner. Where other stories focus on how contact with the nonhuman offers access to a different temporal experience, *Dog* emphasizes the longstanding bond between humans and dogs by temporally zooming out, like in the work of Johanna Schaible, and showing the deep shared history behind a simple dog walking moment in the city. The experimental form of *Dog* is hybrid: stanzas from a poem alternate with successive double page illustrations. The poem starts with "once we were strangers / rough voices falling to the wind / every tooth and claw and stick a weapon / every urge a ragged mystery" (2018, 23). The following page is a double spread of a man, recognizable as a hunter by its spear and a wolf-like dog. Strangers to one another, man and dog are staring at each other from different river banks. That river, the reader finds out in the next stanza, is time itself: "Time flowed out before us / an endless river" (2018, 27). The following spread displays man and dog hunting together as they have entered a communal space in the endless river of time.

Tan approaches the human-dog relationship from an evolutionary perspective, indicating how individuals may die, but both species continue to live and strengthen their bond: "And when you died / I took you down to the river / And when you died / You waited for me by the shore / So it was that time passed between us" (2018, 31). The following pages each display a person and a dog, occupying the same land. However, as opposed to the first picture, they are looking away from each other, both on their shore on the river Time, waiting for the other to reappear. The double page spreads show man and dog in diverse iterations: Indigenous American and wolf-like dog, African hunter and greyhound, European soldier and a German shepherd, ending with a modern city dweller, walking a black Labrador, that most popular of domestic dogs. By holding on to the same composition in every illustration that alters only slightly with each repetition—imagine a human and dog separated by a diagonal structure that is alternatively a forest, a desert, an icy land, cultivated farm land, an aqueduct, a wartime railroad structure, and finally a dull, grey city road—Tan emphasizes that this mysterious interspecies bond is the result of a slow-moving transition.

In every transition, the landscape takes on an ever more human, urban form, slowly distancing both the human and the non-human animal from the natural world. The poem underscores this point made by the visual storytelling. The reader is made aware of how the non-

human animal started in a shared world with the human and ends up in a world shaped by and for humans. In the beginning, the lines read: "Time flowed out before us, an endless river, the plains opened up, the sky lifted, and you cried out to me then '*This world is ours!*' and so it was" (2018, 27). After the illustrated evolution outlined above, the lines read: "But now everything is different / The river flows wrongly / the plains are gone / the sky presses down like a thousand ceilings" (2018, 53). Although this hybrid form of poetry and visual storytelling displays the far-reaching irreversible effects of human activity on the planet, it is also a love story of a strong inter-species bond that occurs both on a personal scale, the moment when the modern city dweller walks their dog, but also on a deeper historical scale, in every iteration of the human-dog bond there has ever been.

Put together, the different *Tales from the Inner City* offer a view of a humanity that lives in fast-paced, altered world, while being locked in an abstract mind. Through bodily contact with the non-human world, a sort of regression occurs. This regression to an earlier state of being, similar to that of a child or a non-human animal, brings the body in accord with the world that surrounds it. In doing so, Tan seems to signal that fast-paced contemporary life can only be slowed down by reintegrating more contact with the non-human. Through the deep time lens of *Dog, Tales from the Inner Cities* offers a successful example of what such a relationship might look like.

### ***Seasons:*** **Associative Shared Reading**

Blexbolex's *Seasons* (originally published in French under the title *Saisons*) offers its readers a bright-coloured, nearly encyclopedic overview of all the objects we use and encounter at different times of the year, the activities we pursue and the emotions and affects that constitute our inner lives as it is influenced by the changing of the seasons. Through the juxtaposition of an illustration on the left-hand page and on the right-hand page, both accompanied by a word, which is descriptive of either the object illustrated or an affect evoked by the picture or felt by the person depicted, the reader-viewer is asked to associate and find connections between the illustrations. The illustrations evoke associations through diverse strategies such as their shapes, colour schemes, or the accompanying word. But *Seasons* also counts on the world experience of its audience, as the combinations range from straightforward, such as the combination "cocoon-butterfly", to highly mysterious, such as the combination "decorations", which shows a child decorating a Christmas tree, with "thoughts", which shows an adult sitting in a snowy landscape, hugging herself and blowing out a breath of air. Of all the three case studies presented here, *Seasons* requires the highest level of very personal gap-filling.

Furthermore, this associative strategy, which not only requires the reader-viewer to look closely at the illustrations but also to examine their own associations and inner life, foregrounds the interconnectedness of human and nonhuman earth processes. The people in *Seasons* are not lone agents with an all-encompassing agency. Instead, their activities, but also, and perhaps more importantly, the states of their inner lives, are constantly influenced by nonhuman processes, of which the weather is the most notable. This associative endeavour seems to be an ideal method for taking stock of an incomprehensible Anthropocene present. This makes this reading strategy, looking for clues to string images together in meaningful sequences, highly rewarding and reflects in some way the rhizomatic experience of living in the Anthropocene: how can we make sense of our human lives as part of different assemblages of human and nonhuman earth processes?

The temporality of *Seasons* also forces its readers to think about the connections between human and nonhuman. *Seasons* offers an example of what is sometimes called "natural timekeeping", which privileges "environmental processes as the markers and units of time's passing rather than abstract numerical categories such as hours and weeks" (St Pierre 2023, 41). The difference with our more habitual 'clock time', is that natural timekeeping is not an abstraction, but firmly rooted in our concrete experience of the world, in "the material cycles of the earth" (St Pierre 2023, 17). *Seasons* foregrounds the many different material cycles that constantly cross human-nonhuman boundaries: growth, harvest, nesting, birth, hunting, and so on. As Charis St Pierre notes, "as much as children's literature trends toward the revolving cycles of sunsets or seasons, to speak of 'cyclical time' could be to speak of any one of these timescales, or a million more" (2023, 42). The way the boundaries between human and nonhuman are crossed in these material cycles can be intended by the depicted humans, as in "harvest" for instance, but also unintended: the plastic garbage left by people in one illustration, becomes the foundation for a bird's nest in a future illustration. However, as *Seasons* does not offer the same deep time effects of the other case studies I discuss here, it does not entirely succeed in helping its reader-viewers to imagine the difference in timescale between the long-lasting decay of the plastic and the, in contrast, short life of the chicks born in that nest.

Even without depicting deep time, *Seasons* does evoke how objects, events, or affects can travel the multiscalar ladder. For instance, a double page spread depicts on the left-hand side a traffic jam, the cars carrying happy families on the way to a holiday destination. The right-hand side of the spread depicts a colony of ants or antlike creatures. The shape of the traffic jam and colony are alike, which invites the reader to think about the connection that is being drawn. Is there an enormous evolutionary difference between us and the ants or are we all just repeating similar cycles, governed by some force outside of our control?

In addition to confronting the reader with the human role in material cycles and natural timekeeping, the child-adult relationships depicted in *Seasons* also show how a personal temporality, whether a person possesses a larger past or a larger future, influences their experience of a certain event. For instance, one combination shows an adult woman dressed in summer clothes. Her head is held high, as though she is basking in the sunlight. The page reads "freedom". The opposite page shows a child, also dressed in summer clothes, lying on a bench, playing with a toy car. The page reads "loneliness". The book does not display how the passage of time feels differently at certain ages, but portrays accurately how a similar event, which is in this particular case the momentary absence of other people, causes different affects depending on the phase of life you find yourself in. As such, *Seasons* rewards a collaborative reading between children and adults, where they can meet in the interpretation of the book and see how their temporal nature influences how they experience the world. The emphasis on natural timekeeping, in combination with the rhizomatic associative reading strategy that foregrounds entanglement and interconnectedness, and the opportunities for reflection on the different generational reader-viewer's own place in the cycle of life, offers a mirror to see ourselves as part of Anthropocene assemblages, that exist on multiple and diverse temporal cycles.

## Conclusion

As cultural products, picturebooks aid in conceptualizing time and creating a "critical temporal literacy" (Huebener 2020, 24). With the consequences of enduring and collective human action on the planet becoming clear, the Anthropocene calls for a novel conceptualization of time that integrates different scales, ranging from experiential to historic and planetary. Furthermore, models for intergenerational communication and thinking become increasingly relevant. Picturebooks can both offer novel imaginations of time, through their textual, visual, and material strategies, and open up avenues for different generations to come together, through their implied shared reading practices. I have discussed how the traditional spatial metaphor for time in Western societies, the linear model, can be challenged by other spatial models. I have discussed how three contemporary picture books employ different strategies to foreground these alternative temporalities. Johanna Schaible's *Once Upon Upon a Time There Was And Will Be So Much More* visualizes how different timescales converge in a single moment and all single moments resonate far beyond the present. Shaun Tan sees fault in the fast-paced urban lifestyle of the presence and looks for a remedy in slowing down the pace through contact with the nonhuman. That contact with the nonhuman is epitomized in the human-dog relationships, which Tan takes out of the everyday by foregrounding

the rich historical transformations dogs went through to become man's best friend. Blexbolex's *Seasons* foregrounds the entanglement of human and nonhuman earth processes through a rhizomatic structure that demands an associative reading strategy. Furthermore, the three picturebooks reward a shared reading practice between adults and children, which opens up new meanings. In these multiple ways, children's literature affords a diversity of heterogenous temporalities and in doing so is finding imaginative ways to speak to our Anthropocene present.

**Bibliography**

Adam, B. & Groves C. 'Futures Tended: Care and Future-Oriented Responsibility', in: *Bulletin of Science, Technology & Society*. 31 (1), 2011, 17-27.

Bazzul, J. and Kayumova, S. 'Toward a Social Ontology for Science Education: Introducing Deleuze and Guattari's Assemblages', in: *Educational Philosophy and Theory*. 48 (3), 2016, 284-299.

Bensaude-Vincent, B. 'Rethinking Time in Response to the Anthropocene: From Timescales to Timescapes', in: *The Anthropocene Review*. 9 (2), 2022, 206-219.

Boroditsky, L. 'Metaphoric Structuring: Understanding Time through Spatial Metaphors', in: *Cognition*. 75 (1), 2000, 1–28.

Blexbolex. *Seasons*. Wellington: Gecko Press, 2010.

Campagnaro, M. 'These Books Made Me Really Curious: How Visual Explorations Shape the Young Readers' Taste', in: Janet Evans (red.) *Challenging and Controversial Picturebooks*. New York: Routledge, 2015, 121-143.

Caracciolo, M. *Narrating the Mesh: Form and Story in the Anthropocene*. Charlottesville: University of Virginia Press, 2021.

Chakrabarty, D. 'Anthropocene time', in: *History and Theory*. 57 (1), 2018, 5-32.

Coats, K. 'Visual Conceptual Metaphors in Picturebooks: Implications for Social Justice', in: *Children's Literature Association Quarterly*. 44 (4), 2019, 364-380.

Deszcz-Tryhubczak, J. & Jaques Z. (red.) *Intergenerational Solidarity in Children's Literature and Film*. Jackson: University Press of Mississippi, 2021.

Gardiner, S. M. 'A Perfect Moral Storm: Climate Change, Intergenerational Ethics and the Problem of Moral Corruption', in: *Environmental Values*. 15 (3), 2006, 397-413.

Huebener, P. *Nature's Broken Clocks: Reimagining Time in the Face of the Environmental Crisis*. Regina: University of Regina Press, 2020.

James, E. & Morel E. (red.) *Environment and Narrative: New Directions in Econarratology*. Columbus, Ohio State University Press, 2020.

Jeffers, O. *Meanwhile Back on Earth: Finding our Place through Time and Space*. New York: Philomel Books, 2022.

Jeffers, O. *Begin Again: How We Got Here and Where We Might Go – Our Human Story, so Far*. New York: Philomel Books, 2023.

Kerslake, L. 'Aesthetic Entanglements in the Age of the Anthropocene: A Posthuman Reading of Shaun

Tan's Tales from the Inner City', in: *Bookbird: A Journal of International Children's Literature.* 60 (4), 2022, 38-47.

Kümmerling-Meibauer, B. (red.) *Picturebooks: Representation and Narration*. New York: Routledge, 2014.

---. *The Routledge Companion to Picturebooks*. New York: Routledge, 2018.

Mourão, S. 'What's Real and What's Not: Playing with the Mind in Wordless Picturebooks', in: Janet Evans (red.) *Challenging and Controversial Picturebooks.* New York: Routledge, 2015, 181-200.

Nikolajeva, M. *Reading for Learning: Cognitive Approaches to Children's Literature*. Vol. 3. Amsterdam: John Benjamins Publishing Company, 2014.

Nikolajeva, M. & Scott, C. *How Picturebooks Work*. New York: Routledge, 2006.

Nixon, R. *Slow Violence and the Environmentalism of the Poor*. Cambridge, Massachusetts: Harvard University Press, 2011.

Nodelman, P. *Words about Pictures: The Narrative Art of Children's Picture Books*. Athens, Georgia: University of Georgia Press, 1988.

Pantaleo, S. 'Filling The Gaps: Exploring the Writerly Metaphors in Shaun Tan's The Red Tree', in: Janet Evans (red.) *Challenging and Controversial Picturebooks.* New York: Routledge, 2015, 225-242.

Reynolds, K. *Radical Children's Literature: Future Visions and Aesthetic Transformations in Juvenile Fiction.* London: Palgrave Macmillan, 2007.

Rich, N. *Losing Earth: The Decade We Could Have Stopped Climate Change*. London: Pan Macmillan, 2019.

Schaible, J. *Once Upon a Time There Was and There Will Be so Much More*. Somerville, Massachusetts: Candlewick Press, 2020.

Stephens, J. 'Schemas and Scripts: Cognitive Instruments and the Representation of Cultural Diversity in Children's Literature', in: Mallan, K. & Bradford C. (red.) *Contemporary Children's Literature and Film: Engaging with Theory*. London: Bloomsbury Publishing, 2011, 12-35.

St Pierre, C. 2023. *Promising the Future: Environmental Temporalities in Contemporary Picturebooks*. Alberta, 2023. [Dissertation]

Tan, Shaun. *Tales from the Inner Cities.* London: Walker Studios, 2018.

Yunkaporta, T. *Sand Talk: How Indigenous Thinking Can Save the World*. San Francisco: HarperOne, 2020.