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Heterotemporality and Posthumanism in Alternative Futurisms

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Abstract

The Anthropocene concept as introduced by climate scientists has received a lot of criticism from humanities scholars for its projection of a unitary human subject or *Anthropos* and for its reliance on a linear conception of time. This article explores the potential of alternative futurist fiction, specifically from African and Indigenous Canadian contexts, to rewrite this Anthropocene narrative in more inclusive fashion. I argue that, through their use of polychronic narrative techniques and foregrounding of non-human actants, alternative futurisms do task the reader to interrogate the temporal and western-centric presuppositions embedded in mainstream science and climate fiction. At the same time, the article cautions against hasty inferences about the capacity of alternative futurisms to fundamentally unsettle governing ontological or temporal categories. The article should thus be read as a plea for a more balanced approach to this fascinating new archive, which resists easy categorization in terms of received oppositions between Western and non-Western imaginaries and politics.

Keywords

alternative futurisms, climate fiction, Anthropocene, temporality, posthumanism

It is now accepted as a truistic fact that the Anthropocene, the scientific term proposed at the turn of the twentieth century to denote a geologic era in which humans themselves constitute a geomorphic force, reproduces inherited assumptions of Western modernity. The term thus constitutes what William Empson would have called a "compacted doctrine," which reflects specific prejudices and privileges (Empson 39). The two most common critiques levelled against Anthropocene discourse are, first, that it projects a "one world" ideology that universalizes problematic notions of humanity and, second, that it reproduces a linear understanding of temporality by presenting the current moment as a cardinal point in our relation to the future.[1] Since the Anthropocene is of course first and foremost a narrative of our place in time and in the world, it is unsurprising that the double critique leveled against this new scientific concept has been extended to climate fiction, a strand of contemporary literature that engages more or less directly with climate change. By dramatizing climatic change as a universal catastrophe happening in the (not so) distant future, and by often casting straight white men in the role of climate saviors, such narratives appear to suffer from similar flaws—pretense of homogeneous humanity, assumption of linear time—that have been associated with the Anthropocene concept as such.

A lot of environmental humanities scholarship therefore engages the question of storytelling in the Anthropocene, asking questions such as: What is the plot of the Anthropocene narrative as developed by scientists? What currents of struggle and critique get obscured or absorbed by this concept, so central to world society's current self-descriptions? Stephanie LeMenager's discussion of the "woman problem" in climate fiction, or Matthew Schneider-Mayerson's argument that a lot of recent American climate fiction novels reproduce white Western privilege, to name just two examples, should be understood in light of these broader concerns about the futures emplotted by the Anthropocene concept (LeMenager; Schneider-Mayerson). While a number of scholars and intellectuals have argued that narrative art, and specifically realist fiction, is fundamentally unsuited to capture the long time scales of the Anthropocene (e.g., Ghosh; Clark), others have argued that the representational resources of genre fiction might be mobilized to reach a deeper understanding of our role as geomorphic agents in this new epoch. Thus, responding to Amitav Ghosh's provocative statement that the traditional epic is better attuned to the Anthropocene than the modern novel with its human-scaled,

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[1] For a discussion of these critiques, see, for instance, Bonneuil and Fressoz; Horn and Bergthaller.

character-driven plot lines, Ursula Heise has argued that science fiction displays a "modern epic impulse" that allows it to render the expanded temporal horizon of the Anthropocene in ways not possible in conventional realist fiction (Heise 300). While Heise's proposal to take seriously the potential of marginal or subcultural genres to address global problems in the Anthropocene has been useful in offsetting the realist bias of a lot of climate change criticism, it at the same time elicits further reflections regarding the cultural presuppositions embedded in such fiction. As has often been noted, speculative genres are notoriously Western-centric, and the rise of science fiction is strongly entangled with histories of colonialism (Rieder). Although the two do not coincide in all respects, a lot of mainstream climate fiction reproduces some of the unspoken assumptions and exclusions that plague the Anthropocene as a temporal marker. Given this, it should not surprise that scholars have turned to new types of futurism which promise to deprovincialize science fiction, and thus might, insofar as they address climate concerns, also diversify the narrative repertoire for representing the Anthropocene.

My aim in this article is to contribute to this scholarly debate on the diversification of Anthropocene discourse by exploring the potential of alternative futurist climate fiction. The new futurisms can be traced back to at least the early 1990s, when Mark Dery coined the term Afrofuturism in reference to the popular science fiction novels by Black writers such as Samuel R. Delany (Dery; Womack). While not all Afrofuturist fiction engages directly with global warming—Butler's *Parable of the Sower* (1993), which has been hailed as an example of proto-climate fiction (Trexler), is a notable exception—the genre contributes to the broadening of future imaginaries in the Anthropocene by challenging the racist biases embedded in mainstream SF and fantasy. Meanwhile, various other futurist movements have sprung up in the slipstream of Afrofuturism, including Latinx- or Chicanxfuturism, as well as Asian, Indigenous, and queer futurisms and various cross-overs between these groupings such as Indigiqueer fiction. Whatever their inflection, all these futurisms propose new ways of imagining futurity by highlighting minoritized (non-western or non-heteronormative) perspectives. On a formal level, most of these narratives display a tendency to engage multiple traditions and genres, which they often play off against each other in order to develop alternative future imaginaries. The burgeoning scholarship on these futurisms has explored their potential for troubling Western notions of linear progress and universal humanity through the use of heterotemporal and posthuman narrative elements. While similar narrative devices and procedures can be found in other forms of speculative fiction or "mainstream" climate fiction—think of the use of transhistorical plots or posthuman

agents in novels such as David Mitchell's *The Bone Clocks* (2014) or Jeanette Winterson's *The Stone Gods* (2008)—they are arguably more pronounced in the new futurisms, where they explicitly serve to bring into focus persistent inequalities underpinning Euro-Western modernity.

While I do believe that the new futurisms constitute a rich archive for addressing concerns related to the emplotment of the Anthropocene, I also feel that the political urgency that mobilizes this fiction and the scholarship about it makes it difficult to gauge to what extent it truly offers an alternative to dominant futures imaginaries. Insofar as they embody a broader development in the globalization of the literary marketplace, the new futurisms inevitably participate in the dynamics of world society. One might argue that the recent boom of such narratives across the globe is symptomatic of our joint fixation on the future as a shifting temporal horizon, and on the current generation (however defined) as somehow uniquely situated in relation to it. This is of course not to suggest that these popular fictions cannot reflect critically on the futures industry with which they are unavoidably entangled. What Fredric Jameson has argued regarding utopian fiction specifically, namely that its most successful instances are always "those that fail most comprehensively," may well be applied to any kind of futurist fiction, including the cofuturisms of today (Jameson xiii). What I mean to suggest, then, is not that alternative futurisms cannot articulate or contribute to oppositional politics but rather that we cannot fully understand the cultural work they do without considering modern world society's orientation toward an open future, which invites and easily absorbs alternative imaginaries.[2] We should also observe that, not unlike the postcolonial literatures of the second half of the twentieth century, the new futurisms are linked to and derive their energy from specific emancipatory movements. In contradistinction to postcolonial literatures, however, the new futurisms are not straightforwardly directed against "Western" hegemony or imperialism. This is already evident in the introduction of terms like Africanfuturism in contradistinction to Afrofuturism, a gesture that is meant to identify an Indigenous, African imaginary as distinct from the African American experience (Okolo, Sokunbi, and Isiaka). Many Indigenous populations (including, for instances, the Berbers of Algeria and Morocco, or the Maasai in Kenya and Tanzania) consider themselves to have been colonized by non-European powers. As Bruce Robbins has noted, the recent interest in Indigeneity as an emergent category

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[2] For anthropological and sociological analyses of the temporal structure of modern society and its orientation toward an open future, see, for instance, Luhmann; Appadurai; Beckert.

for mobilizing political energies and for building global coalitions in struggles for self-determination and climate justice indirectly serves to relativize the Euro-Western colonialist presence. I would agree with Robbins that it is "too soon to assess the moral and political implications of this shift" (Robbins, 14). A misdirected understanding of the societal significance of the new futurisms, therefore, might lead us away from a thorough understanding of the future-oriented structures that animate world society. Spurred on by the progressive aims of activist movements, scholars have been quick to embrace notions such as "spiraling temporality," introduced by Indigenous philosopher Kyle Powys Whyte, as a potent alternative to Western temporality and ontology (Whyte). As Stephen Jay Gould showed in *Time's Arrow, Time's Cycle*, however, the arrow and cycle of time co-exist in modern historical consciousness (Gould). Simplifying the debate in terms of a schematic opposition between linearity and spirality (a cyclical movement that is at the same time progressive) as indices of dominant Western and dominated non-Western temporalities respectively strikes me as unproductive, as it might obscure the complex ways in which both mainstream and alternative futurisms rely on the temporal horizons of modernity.

I will develop my argument by means of a paired reading of two post-1990 alternative futurist stories, namely "Terminal Avenue" (1996) by Indigenous Canadian author Eden Robinson (Haisla/Heiltsuk), and "Mother of Invention" (2018) by Nigerian-American novelist and comic strip artist Nnedi Okorafor. Robinson and Okorafor may be regarded as representative of the new paradigms of Indigenous futurism and Africanfuturism respectively. Both feature prominently in two foundational anthologies published in 2012 that were instrumental in putting these movements on the literary map: Grace L. Dillon's *Walking the Clouds* (which includes Robinson's "Terminal Avenue"), and Ivor W. Hartmann's *AfroSF* (which opens with Okorafor's "Moom!" later included in slightly altered form as the prologue to her bestselling novel *Lagoon*). "Terminal Avenue" does not directly thematize climate change, but it may be approached as an Anthropocene fiction given its innovative formal structure mixing temporal horizons and worlds.[3] "Mother of Invention" first appeared in a 2018 issue of *Slate* as part of the series

[3] An example of an Indigenous futurist story that does explicitly thematize global warming is William Sanders's "When This World Is All on Fire," equally included in *Walking the Clouds*. This story is formally less ingenious, however, and does not present the reader with complex temporality and parallel storyworlds. My own approach to climate fiction is in line with that of narrative theorists who focus attention on the formal dimensions of such texts rather than merely their explicit thematization of environmental issues.

Future Tense Fiction, focusing on "how technology and science will change our lives." I have selected the stories by Robinson and Okorafor as my tutor texts to reflect on the new futurisms' capacity for challenging "Western" temporality and anthropocentrism respectively. My argument will be that the stories hint at—but do not sustain—an alternative ontological framework through their evocation of multiple temporalities and non-human agents. Insofar as they displace traumatic events linked to (neo-)colonialism onto the future, Robinson and Okorafor partly rely on the linearizing and homogenizing dimensions of narrative that they at the same time ask us to interrogate.

Polychronic Narration in Eden Robinson's "Terminal Avenue"

Eden Robinson's "Terminal Avenue" is set in a dystopian version of Vancouver following what are called the "Uprisings" directed against an unspecified government-led "Adjustment" program for Native American reservations. The story narrates how the protagonist Wil is pursued and assaulted by so-called Peace Officers at Surreycentral station for having left the assigned urban zone for Native Americans. The story takes its title from the fetish club where Wil performs the role of a *real* Indian in BDSM acts for white patrons, thus in a way rehearsing his battering at the hands of the Peace Officers at Surreycentral, the protagonist's actual and symbolic terminal station. At the same time, the story troubles this sense of terminality in a number of ways, among other things by hinting at alternate realities (and thus the possibility of escape) and through the ambiguous ending (whether the protagonist dies is significantly left open by the narrative). This agency already shines through in Wil's full name, used by the Peace Officers to identify him, namely Wilson Wilson. The name suggests a refusal to accept the linearity and finality of Wil's narrative. Indeed, Wil himself refers to the name as "one of his mother's little jokes, a little defiance" (212). If this "little defiance" does not amount to a major uprising, it still suggests an alternative to the seemingly natural end state sanctioned by the colonialist system through an act of doubling that displaces and possibly reverses ascriptions placed onto the Native community.

The sense of terminality to which the title alludes is belied on a more fundamental level by the temporal structure of the story. The story time of "Terminal Avenue" comprises a fairly brief span, possibly just a few minutes in between the opening sequence when "the five advancing Peace Officers" have their eye on and identify Wil (207), and the concluding paragraph, "when the club

flattens him to the Surreycentral tiles" (214). The narrative or discourse time is much longer, however. The main body of the story consists of a series of ten intercalated fragments through which the reader acquires a sense of Wil's character and predicament. Among other things, the fragments disclose to us the backstory of Wil's father, who was himself assaulted by police officers in the presence of his family and eventually commits suicide, and that of Wil's brother Kevin, who in order to survive the Adjustment first joins a Mohawk resistance movement but then switches allegiances, after which he is considered "dead" to his mother (208). The aim of the flashbacks to Wil's family history is to contextualize the primary narrative in relation to a larger history of intergenerational, systemic violence inflicted upon Native Americans, and particularly Native American men. Robinson's interesting use of the future tense to narrate events that happened before the primary narrative of Wil's interception by the Peace Officers—evident in clauses such as "His lover will wait for him tonight . . . she will be wearing a complete Peace Officer's uniform" (209)—highlights the function of the analeptic fragments in conveying the difficulties involved in reconstructing the unspeakable traumas related to settler colonialism, and their repercussions for the articulation of viable future imaginaries for Indigenous populations in Canada.

In addition to the flashbacks that serve to round out Wil's background and identity, "Terminal Avenue" includes fragments that are not just strategically, but inherently temporally indeterminate. This is the case for the oneiric moments in the story, one example being the fragment where Wil's memory of Kevin daring him to jump off the high diving tower blends into a dream where there is no water in the swimming pool and Wil crashes into the concrete floor (208). This dream prefigures Wil's possible death at the hands of the five Peace Officers, one of whom, as Wil speculates during his final moments, might be his brother. Another example of inherently inexact temporal sequencing occurs in the fragment immediately following, where Wil's father reappears after his death as a ghost to his mother at the moment when she decides to throw Kevin out of the house as a result of his decision to join the Peace Officers: "She summoned the ghost of their father and put him in the room, sat him beside her, bloody and stunned" (208). The ghost of the wounded father here serves to dramatize the inherited injustices and resultant internal divisions running through the Native American community. Dreams and counterfactual dialogues with deceased family members may be considered essential resources for Native American communities in their effort to articulate an alternative futurity that acknowledges colonial injustices from the past. A third and final instance of inherently inexact temporality in the story is the use of

anachronisms. The narrative suggests that Kevin's decision to become a Peace Officer was the outcome of him being present "at Oka on August 16 when the bombs rained down and the last Canadian reserve was Adjusted" (211). This passage evokes the so-called Oka crisis during the summer of 1990, when a land dispute between the Mohawk people and the town of Oka in Quebec escalated into violent conflict, with two fatalities as a result. A similar anachronism is embedded in the secret family potlatch that Wil chooses to remember at the moment when he is assaulted by the Peace Officers at Surreycentral. For Wil, the potlatch and the boat trip from Kitamaat, the home of the Haisla Nation, mark a time when the family was still in harmony with itself and with nature. The anachrony resides in the fact that the potlatch was held "in secret" (213). This observation calls to mind the Canadian government's potlatch ban, which, instituted at the end of the nineteenth century to assimilate Native American communities, was only repealed in the 1950s with the revision of the Indian Act. The secret family potlatch in "Terminal Avenue" suggests that the historical ban has somehow persisted into the dystopian future in which Wil's story plays itself out, which thus complicates a clear linear structure for the story.

The most radical form of multiple temporality, however, occurs early on in the story, in the third out of ten sections, when the narrative is interrupted by the following, brief fragment seemingly unrelated to the drama of Wil's "termination":

> A rocket has entered the event horizon of a black hole. To an observer who is watching this from a safe distance, the rocket trapped here, in the black hole's inescapable halo of gravity, will appear to stop.
> To an astronaut in the rocket, however, gravity is a rack that stretches his body like taffy, thinner and thinner, until there is nothing left but x-rays. (208)

While this passage draws on familiar ingredients in futurist fiction, they here remain entirely detached from the story itself. The astronaut entering a black hole does not, properly speaking, belong to Wil's storyworld. If there is a connection, it is not temporal or causal but analogical in kind. Further on we read that, as a young boy, Wil dreamed of becoming an astronaut, and that he only abandons this childhood dream at his dad's funeral, which marks the beginning of the disintegration of the family unit and Kevin's betrayal of his community (211-12). That the astronaut dream lost its potential to anchor an alternative future for Wil is illustrated by the fact that the five Peace Officers who assault him at Surreycentral

"look like old-fashioned astronauts" (208). The astronaut sequence thus analogically brings out Wil's sense of alienation in relation to the dystopian future he inhabits and the loss of his childhood innocence. The experience of the astronaut disappearing into the black hole can be said to mirror that of Wil being "adjusted" by the Peace Officers, while the perspective of the "observer watching from a safe distance" possibly evokes that of a non-Indigenous person in Canada for whom Native American communities appear trapped in a bygone era. What in astrophysics is called the event horizon, the point beyond which events cannot affect an observer, thus emblematizes the absence of Indigenous perspectives from "Western" future imaginaries. The spaghettification of the astronaut further calls to mind the scene in the playroom of the sex club where Wil racks his white dominatrix on a table, while she is wearing a Peace Officer's uniform and helmet. If such scenes are suggestive of the complex power relations inherent in settler-colonial societies, they also point to ways in which Native American communities can strategically resist their literal or symbolic "termination." When Wil crosses a certain pain threshold during the SM games, he starts to hallucinate as a result of which he can enter another plane of reality and be "free" (212).

The narratologist David Herman has distinguished between two kinds of polychrony, understood as "a mode of narration that purposely resists linearity by multiplying ways in which narrated events can be ordered" (Herman, 221). In the first kind of polychronic narration, the temporal ordering of events is unclear or inexact in order to convey the complexities involved in remembering and transmitting traumatic events that resist easy resolutions in terms of linear causal sequences. Polychrony here primarily pertains to questions of epistemology and affectivity. The second form of polychrony, in contrast, codes events as inherently temporally indeterminate as part of the structure of the real. Here, polychronic narration impinges on the ontological rather than epistemological dimension of stories (Herman 253).[4] In such cases, we are dealing with what Herman calls "organic temporality," a form of temporality "in which any given moment is organically related to, or systematic with, moments that are ostensibly earlier and

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[4] Herman's typology of polychronic narratives calls to mind Brian McHale's distinction between modernist and postmodernist fiction in terms of epistemological and ontological questions respectively (McHale). It might be too soon to isolate a "dominant" for climate fiction, but it is clear that this sort of fiction is much more outward-facing than the self-reflexive novels that McHale analyzed, even as it often employs similar narrative devices. For a tentative analysis of the differences between postmodernism and contemporary climate fiction, see Caracciolo, in particular ch. 1.

later than the instant in question" (255).[5] As Herman suggests, the second type of polychrony is the more radical one, as it not only interrogates our ability to create fully rounded narratives but also operates on the structure of time as such. While Herman does not pursue this connection, his reflections on polychronic narration might prove their relevance for current debates in narratology on the implications of the expanded timescales of the Anthropocene for the construction of storyworlds. Insofar as it brings into relation human and non-human timescales, the Anthropocene narrative forces us to think of time as multilinear. What Herman calls organic temporality might thus provide us with a vital representational resource for making legible the multiple, interacting timelines of world society in relation to the Earth's spheres.

Given the strong link between the new futurisms and global activism, one might hypothesize that the use of polychrony in such fiction mainly functions to bring out the exclusions built into master narratives such as that of the Anthropocene and therefore does not fundamentally call into question "Western" notions of time. In order to work through traumatic histories, narratives of this sort have to presuppose the linearizing capacity of storytelling. Significantly, interpretations of "Terminal Avenue" have emphasized its potential for offering "healing" solutions through the creation of parallel universes linked to traditional Heiltsuk or Haisla practices (Dillon; Scott). The astronaut sequence, however, hints at a more complex form of polychrony. In my view, the fragment is irreducible to a hallucination or dream on Wil's part, as it bears no causal or chronological relation to the narrated events. It is thus of a different order than the other polychronic elements in the story, which, while they equally impinge on the temporal ordering of the events, mainly serve to foreground the lasting historical trauma besetting Indigenous communities. We can observe several such "organic" associations in the story, for instance in its interesting use of color schemes which cue the reader to connect the "robin's egg blue" of the Peace Officers' uniforms with Wil's white lover's blue veins, and the blue in the wings of a dragonfly (207). While these objects are causally completely unrelated and evoke very different affective responses, one might posit an "organic" relation between them organized around the visual perception of colors. Beyond the overt narrative of recovery, thus, "Terminal Avenue" hints at a deeper process of organic repression, which establishes

[5] Herman derived his term organic temporality from Freudian psychoanalysis, which traces the origin of certain neuroses back to phylogenetic developments, such as orthograde posture resulting in the atrophy of olfaction. Freud explained these neuroses as a form of "organic" repression (Freud).

associational links between objects that seem opposed (the lover and the soldiers) or unrelated (the dragonfly). I would argue that the story's relevance in relation to debates about the limitations of the Anthropocene narrative should be sought primarily at this level, namely in the evocation of "repressed" organic connections that resist integration into chronological or causal sequences.

Posthuman Agency in Nnedi Okorafor's "Mother of Invention"

In turning to my second case study, I will now shift attention from questions of temporality to the category of the human. "Mother of Invention" tells the story of a woman named Anwuli who delivers a baby in a smart home in a future version of a Nigerian metropolis named New Delta. New Delta (a future version of Lagos?) represents a post-oil future in which the new cash crop is periwinkle supergrass—created by Nigerian scientists in a Chinese lab—that will only grow in the fertile swamplands where the city is located. The new green economy that has emerged from this resource however also has a dark side, as the grass causes "pollen tsunamis," which have become more unpredictable as a result of climate change, with great health risks for the population. Anwuli, who has contracted a rare, lethal allergy to pollen as a result of her pregnancy, has been urged by her doctor to leave the city during the upcoming pollen storm. However, as she is afraid that her ex-fiancé Bayo, who left her upon hearing that she was pregnant and who, as it appears, already has a family elsewhere, will return to reclaim the house for himself, Anwuli stays put and delivers her baby alone, with the help of the smart home's drones. Ostracized by her community which regards her as a "home-wrecking lady," Anwuli anxiously awaits the coming storm with her newborn. She is unaware that the smart house has secretly been working on what it calls "Project Protective Egg," the invention to which the title alludes. Not only does the house repair broken windows during the storm, it has also pre-emptively constructed ducts filtering pollen from the air, and it has rebuilt its own steel cushioning beams, allowing itself to rise up from the delta floor before the filters become overwhelmed by the pollen. At the end of the story, the perspective shifts to Bayo, who is sitting out the storm in his family house two miles away from Anwuli, wondering whether she is alive. Suddenly, he feels that this house, too, begins to rise, and he is beset with "a horrid sense of doom" as he realizes that his wife and his smart homes know more about his extramarital affair than he had realized.

Through its thematization of smart homes acting heretically against the desires or designs of its proprietor, "Mother of Invention" raises interesting

questions of posthuman agency. While mainstream science fiction abounds with such technofuturist fantasies, they acquire a peculiar inflection in Okorafor's African narratives. In a discussion of *Lagoon*, Namwali Serpell has characterized Okorafor's fiction as a form of "retroposthumanism," which mixes West African mythologies involving non-human characters and spirits with typical futurist tropes and themes (Serpell). In "Mother of Invention," this juxtaposition of oppositional temporalities and knowledge systems is equally present, although in this case we are not dealing with actual aliens from outer space but with "shape-shifting" smart homes. The mix of old and new is already evident in the name that Anwuli's ex-fiancé has given to his smart home, namely Obi 3, which, while evoking the character of Obi-Wan Kenobi from the *Star Wars* movies, is in fact derived from the Igbo word for home. Bayo possesses three smart homes, one where his legitimate family resides (Obi 1), one for his company (Obi 2), and one where Anwuli lives (Obi 3). Okorafor's brand of retroposthumanism also comes out in the sequence where Anwuli engages in a frustrating dialogue with her virtual assistant right before going into labor. When prompted, the system shows a virtual man with a cane and an Igbo chief cap who vaunts the achievements of New Delta, "the greenest place of the world." The virtual man's ecomodernist narrative clashes with his traditional clothing, which resembles that of an elder in Anwuli's ancestral village. Ostensibly designed to set her mind at ease, the virtual man's folkloric appearance only causes Anwuli to become increasingly impatient with the virtual assistant technology and she urges it to skip to a description of the dangers of New Delta allergies. In response, the virtual man transforms into a doctor in a lab coat explaining the symptoms and consequences of a lethal allergy named Izeuzere (the Igbo word for sneeze) while still wearing the traditional Igbo chief cap from his previous incarnation. The odd combination of futurist and retro elements causes Anwuli—and with her, the reader—to become skeptical of the official government discourse of New Delta as a post-carbon utopia. Significantly, this embedded critique does not translate neatly into a critique of Western colonial-developmentalist assumptions, as it includes both new colonial powers such as China and homegrown Nigerian practices and institutions.

We may bring into focus the political import of Okorafor's posthumanism by means of a comparison with Ray Bradbury's 1950 story "There Will Come Soft Rains." Critics have identified Bradbury's terse story as a source of inspiration for "Mother of Invention" (Sanchez-Taylor 93). Steeped in Cold War future imaginaries, "There Will Come Soft Rains" presents us with a nuclear wasteland in which a smart home is the sole remaining building. Devoid of inhabitants, the house

continues to mechanically perform the tasks which it has been programmed to do, until it finally burns down. While the house is already emptied of life, the resolution is oddly gripping for the way in which it bestows animacy onto the house and the mechanical objects populating it—cleaning mice robots, an automatic lawn mower, a speaking clock, and a disembodied voice reciting a poem by Sara Teasdale from which the story derives its title. When the fire reaches the nursery, which has been made to resemble a jungle for the entertainment of children long gone, the animal projections of lions, giraffes, panthers, and other animals appear to frenetically flee the devouring flames. Bradbury's story, thus, can be read as a critique of the disastrous consequences of mindless technological innovation in the face of a nuclear holocaust. Okorafor's "Mother of Invention" may equally be read along such lines, but it contains an additional dimension that is entirely absent from Bradbury's story. While the African imagery in Bradbury's story merely emblematizes modern alienation, Okorafor deliberately explores the tensions between African traditions and modernity. In contrast to the smart home in Bradbury's narrative, Obi 3 does not mindlessly reproduce tasks, but continually anticipates the home user's needs, delivering tasks unasked: "it was always repairing and sometimes building on itself." Importantly, Obi 3 attunes itself to the person who occupies the house most, as a result of which it acts on Anwuli's behalf, even though she is not the owner of the house she inhabits. As a result, Anwuli can claim Obi 3 as "*her* house" (emphasis in original), just as Obi 1 listens primarily to Bayo's wife, since he spends most of his days at the office. As such, the story asks us to reflect on the structural inequalities brought on by the conjoined forces of traditional patriarchy, technological innovation, and extractivism.

The differences between the stories by Bradbury and Okorafor can be linked to changes in computational processing and futuring technologies since the Second World War. Artificial intelligence is no longer a simulation of human cognition for the execution of repetitive tasks, as in Bradbury's story, but rather entails a new kind of cognition altogether, predicated on the predictive powers of artificial neural networks. While the larger philosophical questions of this transformation are currently being debated in the new field of Critical AI (Raley and Rhee), my aim here is limited to some observations on storytelling in relation to the new futurisms. Erin James has argued that the Anthropocene puts pressure on traditional narratological categories, such as the opposition between narration and description. Taking her cue from Rob Nixon's influential concept of slow violence, or forms of violence that are only visible in their delayed or incremental effects, James has proposed new analytical concepts such as the "effect-event," meaning "an event that

is only legible in its delayed, transformative effects" (James 110). As James insists, effect-events are not reducible to events that are difficult to reconstruct in terms of what caused them; rather, in an effect-event, "the narrator is unable to establish a chain of causality to link effects to an event, as they are incapable of narrating the event in the first place because of the representational challenges that it poses" (111). In a sense, this brings us back to David Herman's distinction of kinds of polychrony as discussed in the previous section. But the focus on effect-events inevitably also leads us to ask how posthuman elements trouble the received distinction between events and descriptions embedded in standard definitions of narrative.

In applying James's insights to "Mother of Invention," we should look beyond obvious forms of non-human agency, whether the pollen tsunami in which Anwuli gets caught, or Obi 3's rescue operation in response to it. Such events, which figure centrally in much futurist climate fiction, are eminently narratable. While turning an element that is normally a part of the setting into a protagonist of the story does complicate the narration-description distinction, it does not fundamentally challenge basic principles of causality or chronology, even if most of Obi 3's actions are anticipatory responses to the unpredictability of both the weather patterns and Anwuli's behavior. More interesting are ostensibly purely descriptive elements that serve to set the scene or establish a mood for the story, such as the flower that Anwuli crushes under her foot in the opening lines. While Anwuli's action here serves to contextualize her predicament, her ostracization from the community as a result of her relationship with a married man, as well as her worry about the allergic effects resulting from her pregnancy, the flower itself does not drive forward the plot in any way. It does, however, display a measure of stubborn resilience linked to the genetic qualities of the peri supergrass. When Anwuli raises her foot, the flower "sprung back into place, letting out a puff of pollen like a small laugh." The simile here calls to mind Sara Teasdale's poetic description of the natural world in "There Will Come Soft Rains," the poem that inspired Bradbury's story. Teasdale's poem, written in response to the devastations of the First World War and the 1918 flu pandemic, evokes a peaceful world after human extinction: "Not one would mind, neither bird nor tree/ If mankind perished utterly" (Teasdale). In similar fashion, the "sturdy thing" that Anwuli tries to trample in "Mother of Invention" embodies a natural world that seems completely indifferent to human history, even as it has been genetically altered by humans. The "puff of pollen" can thus be approached as a kind of effect-event, since it does not contribute directly to the progression of the story, but does index the accumulated effects of a larger pattern of destruction,

uniting Nigeria's oil and post-oil phases, on the bodies and wellbeing of the protagonists.

Conclusion: Swiss Cheese Futurisms

In ways that might be regarded as defining for the new futurisms generally, the stories by Robinson and Okorafor discussed in this article produce the kind of *déjà vu*-effects and extended forms of cognition that complicate the usual templates of mainstream catastrophe-narratives. By evoking extreme or multiple temporalities and by bestowing delayed agency onto descriptive elements, the stories analyzed in this article gesture toward alternative temporal horizons and ontological categories that appear to offset received conceptualizations of the Anthropocene. Contrary to what scholars have argued, however, it seems doubtful to me that these alternative futurisms can offer an entirely new ontological framework for confronting the challenges of the Anthropocene epoch, for two reasons. To begin, as indicated, it is by no means self-evident that the new futurisms fit neatly into the postcolonial archive. This is perhaps most clearly visible in Okorafor's story, which thematizes ethnic tensions in post-independence Nigeria while also evoking the neo-colonial influence of non-Western world powers such as China. In more subtle ways, Eden Robinson's story encourages us to reflect on the politics of Indigeneity through the protagonist's masochistic rehearsals of his own death and his brother's possible involvement in bringing it about. We will need to develop a new vocabulary to address the complex ways in which the politics of futurity intersects with Indigenous demands for self-determination as articulated in these narratives. If Indigenous activism is not defined exclusively in opposition to European colonialism, then the opposition between Western and non-Western forms of worldmaking equally becomes more fraught than scholars have so far been willing to acknowledge.

The second reason why I believe the politics of the new futurisms is in need of fuller scrutiny is that their alternative future imaginaries cannot be divorced from the temporal dynamics of modern world society at large. As social theorists have argued, modern world society stabilizes itself by orienting itself toward an open future containing mutually incompatible perspectives. If the impulse to counterfactualize reality is an anthropological constant to be found in all times and societies, the veritable boom of futurisms at the current juncture cannot, I believe, adequately be understood without also factoring in the temporal apparatus underlying modernity, specifically its privileging of an experience of the future as a

"surplus of possibilities" (Luhmann 279). Even as they critique Western notions of temporal sequence and progress, therefore, the storytelling experiments on the part of Indigenous authors such as Robinson and Okorafor are an expression of the plurality of perspectives that a complex world society enables. In this regard, it is interesting to speculate whether and to what extent the introduction of new self-descriptions such as the Anthropocene might actually transform the way we, as a species, tell stories. Marie-Laure Ryan once argued that postmodern "impossible" fictions create a kind of "Swiss cheese ontology": while these stories pierce holes in the texture of fictional worlds by means of odd elements that inhibit immersion, they still contain many solid areas that rely on the usual laws of logic to narrate events and plots, without which such experimental fiction would become unreadable (Ryan 144). If the popularity of the new futurisms indicates a heightened tolerance for ontological holes in our storyworlds, therefore, this development might reflect a concomitant intensification of our collective desire for imaginative immersion and narrative continuity.

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