Breathable Futures: Breath as Feminist and Decolonial Imagination in Heating and Polluted Worlds

Sophie van Balen [1]*

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ABSTRACT

In feminist, decolonial, and ecological work, many pathways towards what are claimed to be 'sustainable' futures are criticised for their status quo-reiterating, ecologically devastating, effects (Kolbert, 2021). To struggle free from these rather claustrophobic climate futures, this article conceptualises *breathable futures* as a way out of current and pressing atmospheric troubles (e.g., climate change, air(borne) pollution, 'silent' skies (Carson, 1962)) and their intersecting 'suffocating structures' that squeeze the breath out of many beings ontologically, physically-ecologically and atmospherically. This article mobilises Irigaray's (1999) account of the 'forgetting of air' to explore why it is so difficult to imagine futures otherwise. It continues by critically situating this account in polluted, heating, and otherwise un/breathable worlds, informed by work of Kristen Simmons (2017) and Achille Mbembe (2022, 2017, 2020), thereby staying with the trouble of techno-intimacies (Weston, 2017) and more-than-human (co-)respiration. Ultimately, it proposes to rethink subjectivity alongside three (techno-)imaginaries: intoxication, allyship, and (be)coming alive. In these imaginaries, breathable futures come to the fore as multiple and asynchronous worlds generated by living beings in their (be)coming alive. They break with dreams of maximisation, solution, and (fair) distribution, and instead figure open-ended struggles for breathability in changing more-than-human coalitions.

Keywords: climate change, sustainability, breath, Irigaray, imagining feminist decolonial futures

INTRODUCTION

Feminist, decolonial, and ecological work has demonstrated that many pathways towards what are claimed to be 'sustainable' futures are in effect reiterating the – ecologically devastating – *status quo* (e.g. Kolbert, 2021). A common type of such *status quo* facilitating pathways puts faith in technological 'solutions' to mitigate ecological damage (Mbembe, 2022: 16), such as carbon capture technologies that allow for sustained fossil fuel combustion (e.g., BBC, 2023), air conditioners that could keep uninhabitable places habitable indoors (e.g., Latta, 2022), or 'green' hydrogen to facilitate the sharp increase in energy demand due to electrification (e.g., *Reuters*, 2023). However, by suggesting that climate change is techno-scientifically *measurable* and *manageable*, these mastery narratives (Singh, 2018; Plumwood, 1993) keep intact and project into the future existing injustices, among which I focus on the marginalisation and exploitation of more-than-human others for the continuation of affluent, modern lifestyles. This is in part because they rely on a hegemonic, exclusionary, imaginary of subjectivity: in facing climate change as a technical puzzle, these futures comfortably posit 'humans' – generally white and male – as exterior and superior to nature, and as the species that may (and does) control it (Mbembe, 2022; Haraway, 2016b).

To struggle free from these hegemonic imaginaries and their depictions of climate futures, as feminist and decolonial scholars we may ask how to imagine futures differently. In this article, I specifically conceive of *breathable* futures as a way out of current and pressing atmospheric troubles (e.g., climate change, air pollution, 'silent skies'[1] (cf. Carson, 1962)) and their intersecting 'suffocating structures' that squeeze the breath out of many ontologically, physically-ecologically, and atmospherically. To do this, I turn to *breath* as site of feminist and decolonial

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[1] In *Silent Spring*, Carson describes the silence that makes tangible the immense biodiversity loss that results from the widespread use of pesticides. Whereas Carson focuses on bird song, we may easily pick up on her notion to include the diminishing of most flying insects – to do so, I use the term 'silent skies'.

[1] *Erasmus University Rotterdam*, NETHERLANDS
***Corresponding Author:** vanbalen@esphil.eur.nl

imagination and embodiment. Within the broad range of possible other(wise) futures, I focus on imaginaries of *difference* in a continuation and critical repositioning of Irigaray's (1999) analysis that the 'forgetting of air' that makes presents so unbreathable to many is symptomatic of a uniform, western ontology and conceptualisation of subjectivity. Proposing imaginaries of difference for breathable futures, I rethink Irigaray's imaginaries of proximity, co-existence, and becoming in terms of intoxication, allyship, and (be)coming alive.

For, as toxic, nuclear, and other unrelenting waste accumulates, and earth is covered with buildings, roads, apparatuses, industrial excavations, and (the material infrastructures of) digital worlds, scenarios in which modern-day technology is absent or in which breathing is presumed to exist apart from human-made toxicants, microplastics, and nuclear debris have become an impossibility (Mbembe, 2022: 12, 32). The question thus becomes how to defuse the techno-rationality of dominant climate depictions without 'naively' disregarding technological, polluted and heating worlds.[2] In this article, I re-imagine such more-than-human relations and their futures through the lens of atmospheric techno-intimacies (Weston, 2017) and coalitions (Ahmann, 2020) that deconstruct the hegemonic imaginary featuring Man as techno-scientifically mastering nature and/or others. To that end, I mobilise the works of an interdisciplinary range of decolonial and feminist thinkers that bring together breathing, 'troubled' more-than-human worlds, and alternative imaginaries.[3] In section I, I explore why it is so difficult to imagine futures otherwise by tending to Irigaray's analysis of imaginaries of *sameness*, which conceal as well as perpetuate historical and political suffocations. I theorise these 'suffocating structures' from a decolonial perspective by building upon the theoretisations of Kristen Simmons and Achille Mbembe. In section II, I tend to breathing as it relates to imaginaries of *difference* and situate Irigaray's original theoretisation in polluted, heating, and otherwise un/breathable airs in technological worlds.[4] In section III, I newly formulate three imaginaries of difference, departing from Irigaray's imaginaries to account for the structures of suffocation in the polluted and heating technological worlds explored in the previous sections. These are imaginaries of intoxication, allyship, and (be)coming alive. With these imaginaries, I explicitly locate the generation of alternative climate futures beyond the work of those who are consciously working in this direction and invite others to think along, contest, change and work with them.

I: THE DIFFICULTY IN IMAGINING CLIMATE FUTURES OTHERWISE

Critiques of dominant depictions of climate futures as being sexist (Terry, 2009), techno-salvationist (Kolbert, 2021), racist (Pulido, 2018), and/or 'just' inadequate for keeping with 1.5 degrees scenarios (Climate Action Tracker, 2023) have multiplied over the past years. Despite their crucial importance in refusing to give in to existing injustices, these critiques do not necessarily offer alternative imaginations of climate futures (Bina et al., 2020; Jasanoff and Kim, 2015), nor do they always tend to the question why it is so hard to imagine futures otherwise. In this section, I tend to the latter question.

The Subject of Dominant Climate Depictions

What makes it so difficult to imagine climate futures differently? A compelling but not complete explanation can be found in regarding dominant depictions of climate futures as indebted to what Luce Irigaray in *The Forgetting of Air in Martin Heidegger* calls imaginaries of sameness. Sameness is the term Irigaray uses to characterise and critique the 'forgetting of air' in western thought and culture – which she takes to be dominant well beyond 'the West' and which I mobilise here as constitutive of ongoing colonialism, imperialism, patriarchy, and techno-rationalism. Irigaray traces the forgetting of air in ontology and points out the onto-political assimilation of other (marginalised, non-hegemonic) types of *subjectivity*, for her notably female subjectivity, that goes alongside it.[5] For, in *forgetting* air as that which we breathe constantly and by which we are always surrounded and permeated, the Subject imagines himself to be bounded (Irigaray, 1999: 55), self-originating (30) and superior to things and others that divert from his way of being, which he sees as not form but matter, as objects to his Subjectivity (23–24).

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[2] Cultural theorist Peter Sloterdijk (2016: 166) criticises Irigaray for her naivety where it comes to technology. I agree with him on this point and add to that a more pronounced focus on polluted and heating worlds, because I think we can only conceive of breathable worlds if we take the specifics of the unbreathability of the world we live in as our starting point. With this, I do not mean to suggest that Irigaray is unaware of or uninterested in the environmental trouble we are in (e.g., Irigaray, 2015; Irigaray and Marder, 2016).

[3] In alphabetical order: Achille Mbembe, Alexis Pauline Gumbs, Chloe Ahmann, Christina Sharpe, Kath Weston, Kristen Simmons, Luce Irigaray, and Stacey Alaimo.

[4] I use the term un/breathable to signal that unbreathability and breathability structurally coincide.

[5] Ontologically, the forgetting of air results in the existence of 'things' and 'beings' which exist separately from one another with 'nothing' in between, 'wandering the propositional landscape' (Irigaray, 1999: 86). The Subject, having forgotten his dependency on air, posits this 'nothing' in its place, thereby erasing, on the one hand, the 'from which' of his own existence, and simultaneously, on the other hand, founding his own presence on the forgetting of air (164).

Wiping out this first bodily need of breathing, the Subject identifies himself with the mind, and as such identifies existence with thinking (123). Irigaray analyses this imaginary of subjectivity, wondering whether the traditional male philosopher breathes physical air at all.[6] Hegemonic imaginaries of sameness thus are forgetful of air ontologically and thereby prefigure the forgetting of physical-ecological air and breathing (6–7). This wipes out the process of being born (and taking a first breath), the mother and maternal (and with them dependence, connection, and permeability), and notions of change (growing, learning, metabolising, and withering) (32–35). The Subject has become a being that exists in the air of thought and language instead of nature, and that shapes the world accordingly, in sameness. All that fits or can be made to fit is appropriated, all that does not is cast out as nothing (98).

This Subject figures centrally in dominant climate depictions. That is, his characteristics of being exterior to nature (boundedness, creating a nature-culture divide), superior to nature (self-originating, mind over body), and the one to control (manage, master) nature are necessary for well-known depictions of climate futures to make sense. Take the already existing practice to keep extremely hot places habitable by air-conditioning all inside spaces: the nature-culture divide is made explicit through intense technological management. Inside is the world of human beings, outside is the rest. By air conditioning, the conditions outside are disregarded or at the very least devalued (see also Sloterdijk, 2016). So are the lives spent there. Blowing the heat outside warms up surroundings even faster and doing so 24/7 sets a massive energy demand. Even if this energy were to be produced sustainably, the materials needed for its production put great pressure on limited resources and mining them causes considerable pollution and ecological damage. Or take the strategy of electrification that the Netherlands for example chooses (Sijm, 2024: 7): here, too, the main objective is keeping intact 'our' current way of living. Part of that is how we conceive of subjectivity in a changing climate. To choose electrification signals that the Subject is understood to not be (truly) affected by climate change – beyond his choice of car. Rather, the limitation given (in terms of CO_2) is taken as an invitation for technological innovation without acknowledging the need for fundamentally revisiting what got us into this mess. New technological 'solutions' are thought up that (still) rely on the ecologically destructive and often neo-colonial mining of rare earth metals, the creation of immense amounts of (future) tech-waste, cheap labour under unhealthy or even outright dangerous conditions, and so on. And yet, ecology keeps refusing to be controlled totally (Irigaray, 1999: 12; Mbembe, 2022: 121–122). The techno-imaginary of the human mind/expert operating technology to control nature (or in this case climate change) thus comes with the control of many 'others', human and otherwise, that are likewise to be shaped into certain roles and places for the perpetuation of the Subject and his way of living.

This shows that dominant depictions of climate futures are meant for a certain group of people – a certain way of being – that consider themselves indeed in control, (relatively) unaffected or safe from harm, and not in need of changing. These are the people that can, to name just a few examples, buy an electric vehicle, trust that they will be helped/compensated in case of ecological disasters, and do not work next to airplane engines or on open waste pits. But in the same instance, other ways of being do not have a place in these futures as their lives do not reflect the subject of sameness. To refugees relying on non-seaworthy vessels for their flight, the divide between nature and culture must seem much less stable. To parents bringing up kids near open e-waste dumps, existence cannot be understood as disembodied or unaffected by polluted and heating worlds. And to people living amid ecological degradation and the accompanying death of many animals and other living beings, or on island states and other low-lying regions, the control of human beings over nature turns out limited at least. As Mbembe writes, this is no accident but the result of centuries of establishing white (and male) subjectivity as distinct and separate from others (2017: 36), and of violently forging living beings (in *Critique of Black Reason* Mbembe's focus is on African people) into bodies fit for exploitation/extraction, defined by their race (40) or object-status (79).[7]

Suffocating Structures Keep the Subject in Place

Specific historical and political structures thus play a significant role in the un/breathable presents of those living in marginalised and less privileged positions. These structures shape the specific conditions produced by (and reproductive of) sameness, including the assimilation/reduction of others. That is, apart from imaginaries of sameness, also the historical embeddedness and materiality of these structures stabilises and conceals the structural physical-ecological and atmospheric un/breathability situating others. Kristen Simmons and Achille Mbembe both theorise these types of un/breathability as forms of 'suffocation', arguing that ingrained structures of (settler) colonialism, imperialism and techno-rationality keep the Subject in place by threatening breathability for indigenous

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[6] Irigaray continues bleakly, showing her engagement with ecological thinking: does the ontological forgetting of air, turning everything into bounded, measurable things that can be capitalised, not also lead to pollution (1999: 6), to unbreathable futures (10), to death (13)?

[7] It is out of scope for this article to lay out the exact overlap in their arguments, but Mbembe's critique of 'difference' (2017: 46, 183) may be read as exactly a critique of sameness: a distant separation between the white Subject and Others, wherein the white subject is dependent on this irreconcilable gap for his status.

peoples, people in the Global South, as well as women, marginalised groups, plant life, and most of the living world. By using the term suffocation and by extension referring to responsible historical and political structures as 'suffocating structures', not only the position of those in need of breathable air, but also that of those enjoying it at their expense comes into view.

Kristen Simmons (2017) points out the multiple toxic, polluted, violent, and otherwise unbreathable airs that are breathed by marginalised communities in settler colonial presents. She distinguishes various forms of suffocation in what she conceptualises as 'settler atmospheres,' (§2) thereby extending breath beyond the physical-ecological. Simmons argues that social as well as chemical 'toxic strangulations' (§6) are endured by marginalised communities and indigenous nations, as exemplified by the use of tear gas and pepper spray by riot police, the heavy and incessant pollution of indigenous lands, the withholding of indigenous autonomy, and the deaths by police suffocation suffered disproportionately by black men. Settler atmospherics thus include both material threats to the physical-ecological breathing of living beings and other – atmospheric – forms of asphyxiation and strangulation aimed at ways of thinking, knowing, being, and organising/relating.

Pointing out the role played by technology in these suffocations, Achille Mbembe (2020) signals how 'modern' fantasies of leaving the body or averting death and 'capitalist' (S61) rationalities of digitalisation and technological development rage a 'war on life' (S60). That is, driving many forms of suffocation is a *technological rationality* that facilitates modern human control (of nature/living/others) and comes with the unlimited expansion of digital and otherwise technological spaces and their material networks (Mbembe, 2022: 12). Apart from the atmospherically suffocating effects of ever-intensifying control, these spaces and networks can only exist because of neo-colonial land grabs and resource depletion – usually in the Global South – and its incessant pollution and ecological degradation (22–24, 103–105; Povinelli, 2021).[8] As such, the lives and breath of the marginalised, not in the least those made into 'Blacks' (Mbembe, 2017), have been and are being exploited to keep up the system (of private ownership [Mbembe, 2022: 41]) that allows the western subject to erect himself above others and disregard their existence as living, breathing beings.

As I work and write from the Netherlands, ongoing histories of slave trade, colonialism and (climate) migration are never far away. Neither are imaginaries revolving around the mastery of nature scarce in the country that according to itself 'won over the water' by building dykes, dams, and delta structures.[9] The colonial *present* in the Netherlands recently lead to a climate change related lawsuit regarding the Dutch government's neglect to care for people living in the 'special municipalities' in the Caribbean (de Zeeuw, 2023). Especially for Bonaire, with vital infrastructure in low-lying coastal areas, the trope of having beaten the water makes no sense at all. In the European Netherlands badly insulated houses, the (funded) use of pesticides and chemicals, urban neighbourhoods lacking any and all greenery, largescale nitrogen emissions and respiratory diseases for instance present very real, lived threats to the breathability of many. Imagining futures otherwise necessarily starts from these (multiple) realities. To account for them, I will continue by thinking about breath 'non-innocently': in polluted, heating and otherwise un/breathable worlds.

II: BREATHING MAKES ROOM FOR DIFFERENCE

So, can we get out of sameness? Yes. If the aim is to bring about change on feminist and decolonial terms, there is need for the creative work of tending to, articulating, and fostering 'new ontological foundations (…) that enable new imaginaries, new symbolics, new politics' (Roberts, 2019: 48). This necessarily includes rethinking more-than-human relations and, with those, figuring new techno-imaginaries. For as Mbembe (2022: 10) writes, we have already entered the world of almost all-encompassing technology, such that it has become our biotope.[10] And as Simmons explicates, this work must start from lived realities in un/breathable atmospheres, even if those atmospheres are not our own. '[A]ttuning to how others (cannot) breathe' (Simmons, 2017: 5) may give way to imagining new ways of living. Our task, in short, is to 'make room for' (Mbembe, 2022: 37) 'difference' (Irigaray, 2015, 1999).

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[8] I thank one of the reviewers for pointing out that, indeed, 'grey' economic growth in especially China (Carbon Majors, 2024) and chemical/industrial pollution in the Global North may trouble an all too easy North-South distinction in terms of polluter and pollutee.

[9] Over a quarter of the European Netherlands are below sea level and significant parts of the country used to be unfit for living because they were under water, regularly flooding, or swamp-like.

[10] Sloterdijk (2016) makes a similar point but from a western perspective, conceptualising the technological mediation of the atmospheres in which 'human beings' spend their lives. His work however ultimately keeps intact imaginaries of sameness, mainly because he focuses on the breathability of *spaces* instead of rethinking subjectivity through breath (van Balen, 2021). Whereas breathing, as I argue in this section, brings into view more-than-human 'bodies' (plural) relying on metabolisations with air, and the structures of suffocation that specifically and differently situate them.

Ways of Being Differently

Following Irigaray, breathing introduces difference (as opposed to sameness) because it foregrounds embodiment and therefore different ways of being (Irigaray, 2015). Over and against the forgetting of air thus does not stand the remembering of air, but the remembering of breathing as that which makes life possible, nourishes, connects and relates all, and brings about constant movement and change, while the breathing body is likewise constantly being moved and changed. In Irigaray's writing, recalling air shows that the metaphysics of bounded individuality is illusory, because air reveals what is forgotten in ontologies focused on separated 'things' and 'beings', and simultaneously brings into view our (human) dependence on air for anything we might be, want, or do (1999: 5–6). Before one can speak, think, or even cry, one needs air. And therefore, one breathes. By thinking through breath ontologically, Irigaray thus foregrounds materiality, or rather *ecology* (Stone, 2015: 123).

Critiquing Heidegger's notion of Being which she argues to be synonymous with being Man, Irigaray traces a second way of being, a female subjectivity, that first gives air 'and does so irrecoverably' (1999: 28) and then supports his being by providing an outside (31). 'Nature' (or air, depending on the section) and woman are in this way by Irigaray brought together in their dual role of giving life (natality) and providing the glue to the lives as lived and conceptualised by men in sameness (Irigaray, 1999: 31). In remembering breath, the being in her own right of this 'she' undoes imaginaries of self-origination and boundedness by remembering growth in utero, birthing, being fed milk produced by a mother's body (32–33). Also the imaginary of human exceptionalism is undone (55), because human beings are clearly part of nature as breathing beings, and control is shown to be a misconception now that many other (power) relations with one another and environments come to the fore through breath. As an alternative, Irigaray links breathing to imaginaries of *co-existence*, *becoming*, and *proximity* (cf. Roberts, 2019: 13), which I come back to in section III.

Working with these imaginaries, I follow Laura Roberts (2019) and Emily Zakin (2011) in their understanding of Irigaray's notion of difference as indebted to psychoanalytic theory. Rather than claiming there to be 'masculine' and 'feminine' natures or essences, Irigaray's critique of masculine subjectivity regards the role it plays as an *imaginary* that is supposedly neutral (Roberts, 2019: 25). Imaginaries are depictions of the self, self-images that anticipate the subject's 'future organization' (Zakin, 2011: §3). The masculine imaginary of boundedness, self-origination and control is connected to a reliance on eyesight (Irigaray, 1999: 43–44): when one *looks* in the mirror, they see themselves as ending at the skin, independently existing from others, and the actor (the one looking) amid inactive objects (those looked at). Unsurprisingly, air is in most instances invisible. Since this imaginary is, however, experienced (by some) as neutral and universal, and is embedded symbolically (in language and thought) as such, it debilitates other ways of being that might well rely on other senses and sensations.

The conceptualisation of sameness versus difference as located in the imaginary and facilitated by the symbolic leads me, possibly contra Irigaray, to think difference in terms of (more-than-human) plurality instead of her own insistence on two subjectivities.[11] Even though I would concur that Irigaray's texts have quite explicit heterosexual underpinnings, I think that her work on breath is better suited with a notion of *plural* possible imaginaries of difference (Parker, 2015: 91–92; Górska, 2016: 107).[12] In this vein, Roberts speaks of 'women (…) and feminized others' (2019: 25) to signal that even though difference is plural, masculine subjectivity may be said to assimilate through feminising those that do not fit. Difference, then, comes to the fore 'not in an overview that reveals a spectrum of multifarious group[s] as seen from above' but rather 'begins in the specificity of one's own body/matter which resists conceptualization and categorization' (Parker, 2015: 92). Difference starts in the body in the viscerally intimate experiences of breathing. As a site of feminist and decolonial embodiment, breathing – including an attunement to the breathing of others – thus may be the starting point for imagining other ways of being, relating, and organising by enabling the creative work of generating and tracing imaginaries of difference.

Breathing in Polluted and Heating Technological Worlds

But even though Irigaray moves into sight the materiality of air, she does not trace it in its own right as it makes up polluted, heating, and otherwise un/breathable technological worlds. This is reflective of her stance on materialist theory (Irigaray, 2002) but may also be due to Irigaray's positionality. To most white, able-bodied women (me included), the air – especially in forests or other green places – may be unproblematically more breathable than the atmosphere of patriarchy, and breath may be experienced as a physical need and aspect of

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[11] Although Irigaray (1999) is primarily concerned with human beings, in other texts (e.g., 2015; 2016) she includes other living beings in her thinking about difference. I use the term 'more-than-human' to refer not only to other living beings, but also to non-living things such as viruses, particles or plastic ducks.

[12] Górska (2016: 107) similarly conceptualises breathing as 'articulation and materialisation of *intersectional* social justice politics' (italics mine).

'being alive', but not so much as a threat as well (Neimanis, 2019). But as traced in section I, the suffocating structures threatening breathability for marginalised groups often only become visible when considering their materiality. The pollution of indigenous lands suffocating local plant life registers only if pipelines, leakages, particles, and accumulations are traced and thus if difference not only regards imaginaries of sameness but also structures of suffocation.

This means that breathing should not be narrowed down to breathing in, but includes breathing out. The pollution of indigenous lands links to living standards in other regions and in that sense to what is exhaled (directly and indirectly) by the human beings in them. Likewise, intensive livestock farming causes trouble in Europe because of the nitrogen these animals exhale and emit, which changes local ecosystems. An account of breathing as site of embodiment *and* imagination thus needs to take into account the un/breathable airs breathed in and out by many, and the effects this has on relations with others and environments, including technological ones.

So, what about technologies and those things or beings that are not human, animal, plant, fungi, rock etc. but rather chair, phone, oil platform, PFAS particle, disintegrated plastic cup, or otherwise? Irigaray theorises breath as an ecological and existential need for human and other living beings, but in the polluted, heating, technological worlds in which we find ourselves today, it makes not much sense to define breathing along the natural-cultural or natural-artificial divide. The ecological proximities and metabolisms breathing brings into view demonstrate that breathing is not unique to, nor uniquely located in, 'living' beings and environments. Following breath beyond the 'living' moreover brings into sight that the ideal of forever smooth and always available technology is troubled by the power outages, extreme weathers, and political struggles over habitable land in polluted and heating worlds. And the imagined control human beings have through technology falls apart when attempting to trace (atmospheric) pollution, or when living beings defy predictive or statistical patterns. As technology has become our biotope, the question of breaking with the techno-rationalism of dominant climate depictions necessitates re-imagining human-technology relations and envisioning techno-imaginaries of difference.

When taking breath as a feminist and decolonial site of embodiment and imagination in un/breathable technological worlds, breathing thus should be understood as a more-than-human, non-innocent, existential dependency on air, in which dependency is not only understood in relation to inhaling, but also to exhaling as individual-transcending movements. Rethinking more-than-human relations in this way critically repositions Irigaray's undoing of human exceptionalism and control in polluted and heating technological worlds.

III: IMAGINING CLIMATE FUTURES DIFFERENTLY

Irigaray develops her imaginary of difference in terms of proximity, co-existence, and becoming. Picking up on these elements, but placing them in polluted and heating technological worlds, I propose three connected imaginaries for making sense of breathable futures. These imaginaries are proposals in the sense that they would need engagement, contestation, and adjustments to come alive as shared imaginaries. They are invitations for collaboration. The imaginaries proposed furthermore aim (through other formats and formulations) at speaking to many, or at least not only to those already engaged in climate politics broadly conceived. This is part of the reason why I do not take the path of theorising 'vulnerability' as imaginary like for instance Singh (2018) and Górska (2016) do. Vulnerability may be part of reconceiving ourselves and our relations through breath, but I find it lacking as inspiration and politics for alternative futures. Why should I aspire to be vulnerable *per se*? And who am I to ask others to be vulnerable? Last, the proposed imaginaries are meant to be read in congruence with one another.

Imaginaries of Intoxication

What does *proximity* entail in polluted and heating technological worlds? In contrast to an imaginary of distance, to see living as taking place in air as that which is breathed brings to the fore the impossibility of distancing ourselves from our surroundings, and likewise from ecological destructions and other structures of suffocation. As such, proximity translates into exposure: as breathing beings, we are physically, affectively, and atmospherically exposed to the airs and atmospheres in which we move around (Alaimo, 2016: 5). USA writer, scholar and activist Alexis Gumbs' (2020) notion of the 'undrowned' as an imaginary for black people who survived and still survive the constant exposure to waves of violence is a forceful imaginary of exposure. Gumbs sets out to learn from marine mammals about strategies for undrowning, staging her exploration in the ocean whose waves drowned so many slave-made people being shipped to the Americas. As Gumbs shows, an imaginary of exposure not only addresses vulnerability, but may also allude to resistance and survival.

But being exposed does not yet account for the intricacy of breathing that brings together breathing in (in which we are exposed) and breathing out. As breathing beings, we human and animal beings add CO_2 to earth's atmosphere simply by being alive. As product owners/users in the Global North, we rely on industrial emissions, resource extractions, and waste management located primarily in the Global South, thereby breathing out as in co-

producing the unbreathability of air 'there'. As human inhabitants of Europe, we cannot escape breathing in and out western traditions of thought and culture, such as the European Dutch techno-imaginary of having beaten the water. Since a non-innocent understanding of breath includes accounting for that which we breathe out, I suggest rethinking Irigaray's imaginary beyond exposure in terms of *intoxication*. Intoxication signals the exposure and transformative effect of breathing in as well as accounting for the (active) role played by those living and breathing in bringing about the air's un/breathability. This reveals the (ethical) ambiguity as well as the political potential of this imaginary.

Kath Weston's (2017) notion of 'intimacies' are helpful to think this through. One of the relations Weston attends to is the techno-intimacy we (in the USA, although it extends at least to other car-loving countries) have with cars and their smell (182). Consider the widespread gesture of taking a deep breath in a new car to relish in its newness, doubled in the option to buy this experience through fragrant pouches. This gesture is indicative of the intimate respiratory relations between human beings and technologies as well as the mismatch between affective, cultural attachments and the material, visceral proximity – in this case literally intoxicating – to the ecological and physical demise they embody. But aside from being a place to breathe in, driving and producing cars of course bring about un/breathable air 'elsewhere'. Elsewhere, here, regards the car's immediate surroundings as well as those places, beings and things engaged in the production and continuation of it. To reimagine mobility through these intoxicating intimacies, both distancing tactics – inside from outside, and local from dispersed over distant locations – should thus be deconstructed.[13]

Imaginaries of intoxication thus shed a rather different light on breathability, revealing it to be under pressure in many respects today. But they do not and should not play a critical role alone. In reimagining respiratory intimacies in heating and polluted technological worlds, they may be generative of ways of living differently as well as of depictions of alternative futures as breathable futures. In this regard, it is important to see that intoxication by no means is negative *per se*. For instance, the pet whale robot that helps children inhale their asthma medicine on time and at the right speed by showing them to be in a state of hypoxia (Lv et al., 2023), clearly indicates a positive side to respiratory techno-intimacies. In co-producing air, breathers furthermore bring about both breathability and unbreathability. They contribute to both the perpetuation of suffocating structures and to undoing or altering them. Fanon's 'combat breathing' (1965: 65) may be the most explicit example and one that shows the importance of breathing for decolonial practice. To stop breathing (or to stop having children) is therefore not the way to bring about breathable futures. Rather, the point is figuring out breathing in and out in non-destructive or even constructive ways.[14]

One obvious starting point for conceiving of breathable futures through the lens of imaginaries of intoxication is to radically break with the use of toxicants (Liboiron et al., 2018: 334). That is, calls for the diminishing of pesticide use are all around, but by thinking through breath the question of using less of a substance that does not break down is senseless: a slower death is still a death and not one that is particularly preferable either. Rather, it becomes clear that breathable futures are those in which these substances are banned and existing pollution is being acknowledged and addressed. In contrast to bans or things to give up, an organised walk through Tata Steel's 'backyard' dunes or projects such as Bloei & Groei ([n.d.] 'flower and grow', a project initiated by Ama Koranteng-Kumi to bring together women to garden/grow foods together and work on their relations to themselves and nature) are demonstrative of how imaginaries of intoxication can be thought in terms of constructive contributions.

Imaginaries of intoxication thus reconfigure subjects as breathing beings exposed to all that is part of the polluted, heating, and otherwise un/breathable worlds in which they live together with more-than-human others, albeit in varying ways. Such exposure can denote being affected and opening up or resisting, but in any case, it transforms the subject who cannot distance themselves from it. Simultaneously, imaginaries of intoxication tend to breathing out, to the co-production of un/breathable air by those (human and otherwise) who breathe it. As such, they make visible the local and trans-local repercussions and structures of living, among which are structures of suffocation, but they also point towards possible ways of breathing out in non-destructive or even constructive ways. Intoxication may then become a political strategy, a tactic perhaps, of seeping and spreading change.

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[13] The 'eerlijke scooter' (fair/honest scooter) gets halfway there. This imagined scooter on stickers in European Dutch cities has an extended exhaust that ends up emitting right in front of the driver's face. By breaking through at least one of the imagined 'elsewheres', the fair scooter reimagines the self in terms of its proximity to and co-production of polluted and heating technological worlds. It may however further obfuscate the second, more persistent distancing move.

[14] Here, I briefly pause to note the trouble with the terms constructive and destructive as destruction is at times vital to making room for something new, for construction, and as these terms are easily read ethically as being 'good' (construction) and 'bad' (destruction) strategies (see also Eltahawy (2023) and Malm (2021)). I nevertheless use these terms here to differentiate between processes and practices of ending/banning/withdrawing and those of re-imagining/giving shape/experimenting.

Imaginaries of Allyship

Tightly related to this first imaginary is Irigaray's second element of difference: *co-existence*. With whom are we intoxicated and intoxicating? Or, phrased in classic feminist terms, who are 'we'? Thinking through co-existence in polluted and heating technological worlds brings to the fore that the 'who' of who breathes these un/breathable airs stretches far beyond human beings. As Irigaray concurs, breathing is an ecological movement that connects animals, plants, fungi, oceans, and all those other 'living beings' in between. But as I argued, breathing is a more-than-human affair, as illustrated by face masks during the COVID-19 pandemic or by the material arrangements (houses and their air conditioning, linen hanging out to dry above street traffic, blackouts due to extreme weather) that are exposed to and metabolise air 'with us'. Nor does breathing end with those who are doing the breathing. Viruses or pollen do not breathe, but they are intimately entangled in breathing (Irigaray and Marder, 2016: 129–134). Furthermore, all these different beings or things do not necessarily exist outside of one another, as elaborately figured in biologist and STS scholar Donna Haraway's theoretisation of the cyborg and the holobiont (2016a, 2016b; see also Gabrys, 2022: 211–212), and as exemplified by respiratory devices or organic air washers.

Of course, drawing a larger and larger circle until most things and beings on earth are included in breathing is not very informative nor compelling when the question is with whom we carry responsibility, or with whom we are dependent on breathable environments or futures. Co-existence in more-than-human un/breathable worlds involves more than just existing together. It is about problematising and rethinking we-formations, and as such about *allyship*. One way to think about respiratory we-formations is the one conceptualised by USA environmental anthropologist Chloe Ahmann as 'atmospheric coalition'-building (2020: 465). Ahmann describes how activists invoke air as that which is breathed by many – including you! – to build solidarity. Pollution produced by a waste incinerator does not suddenly stop spreading, even though neighbours living close by may be much more (directly) exposed to it than others further away. But even others who can be quite sure they are not themselves exposed can become part of the atmospheric coalition through invoking solidarity around clean, breathable air. Atmospheric coalition-building is thus not defined nor confined by physical perimeters of pollution. Rather, it entails bringing together collectives through a shared concern for breathable air.

These collectives are more-than-human, as is clear when we consider the European Dutch collective 'Frisse wind' (Fresh wind/new reign). Frisse wind fights for breathable air in the surroundings of Tata Steel's blast furnace in IJmuiden, which has been polluting their surroundings with carcinogenic/toxic substances and has up until recently found local and national governments on their side (van Balen, 2023). In 2023, Frisse wind increased their coalition building work by setting up a camera that constantly records the smoke emitted by the factory's chimneys. With this camera, a newly launched website called 'spot the toxic cloud', and a collaboration with Greenpeace, Frisse wind started drawing in many people to participate in the fight for breathable air in the region. Even for people living all the way across the country, the sight of the constantly emitting chimneys now entered their homes and the excitement of participating in a 21st century Goliath's takedown became tangible.

The imaginary of allyship thus draws attention not only to common exposures and interdependencies, but also to the we-formations that are problematised by thinking through breath and those that form through many different possible ways of atmospheric coalition-building. Reimagining living in heating and polluted technological worlds makes visible the more-than-human relations and struggles over breathable air and the differentiated exposures faced by some in contrast to others. It signals that we are in this together, but also not really, not equally, not all. Attuning to the breathing and breathing troubles of others may in terms of the imaginary of allyship thus entail practices of knowledge creation or mobilisation as well as figuring out ways to be allies to those in different positions than you. Sometimes, un/breathable air goes unnoticed and is in need of being made visible, or tangible. Sometimes, structures of suffocation are perpetuated or further obfuscated in otherwise seemingly 'good' situations or proposals. Sometimes, breathability requires you to take less space, to let others take over, to unlearn the habit of saving the world (Singh, 2018).

Breathable futures become visible in imaginaries of allyship not in terms of a maximisation of breathability as if it were countable and (fairly) distributable. Rather, breathable futures are futures for which 'we' must struggle together in changing coalitions, and which will constantly be formed and reformed in ongoing political explorations of what breathability entails and who is part of the breathing community. I do not see this as a bleak depiction of building walls between communities and guarding communal interests, but rather as an open-ended and ongoing politics of relating in non-naïve, political terms. Allyship in breathable futures in this way is porous and subjected to change itself. In breathable worlds, not only 'individuals' and 'environments' are constantly becoming, so are relations, coalitions, and dependencies.

Imaginaries of (Be)Coming Alive

Becoming is the third and last imaginary proposed by Irigaray. But what does becoming entail in polluted and heating technological worlds, and what does it lead to? With becoming, Irigaray rethinks the broadly Western, but also more specifically Heideggerian, depiction of Being. She calls into remembrance growth and decay, feeding and

being fed, transforming and beings transformed, reproducing, and being brought into the world (1999: 54–55, 83–84). With becoming, Irigaray sets time in motion: beings, things, and relations are in constant becoming with one another, making up and remaking worlds, figuring and refiguring histories. USA literature and black studies scholar Christina Sharpe's (2016) proposal of 'being in the wake' mobilises such becoming. Being in the wake entails both coming after those who came before, shaping us and the worlds we live in, mourning them and keeping their memory alive, and from that position giving shape to the worlds we live in and those to come.

Becoming in heating and polluted worlds also signals the ways in which we are affected and changed by those worlds and their un/breathability. It brings into view that we ourselves are becoming polluted as demonstrated by research on microplastics found in human bodies (e.g., Roslan et al., 2024) and the so-called indirect health effects of being exposed to 'safe' levels of PFAS for decades (e.g., van Beijsterveldt, 2022). But again, this becoming does not only pertain the individual. Heating worlds move people(s), animals and other species, change cultures, and wipe away entire states.

Simultaneously, becoming may also indicate a certain agency and future-orientedness. What do you want to become when you grow up? In the un/breathable worlds in which we live I therefore propose to rethink Irigaray's becoming as an imaginary of (be)coming alive. This is not so much to foreground narratives of survival or biological definitions of living, but to pick up on the appeal that notions of living, liveliness, living the life, etc. have and repurposing them here. Contra the Subject of sameness, cultivating a *living* subjectivity (cf. Irigaray, 2015) may mean to reconnect thinking with embodiment, feeling with both emotions and sensations, and being human with breathing, with being ecological. It suggests sidestepping the rat race that leaves you exhausted and out of breath, and instead refigures 'living the life' in associative connection with flourishing, natality, and waking up. This is in no way meant as a conservative imaginary of a return to simple family life or 'pre'-technological living. Be(coming) alive in polluted and heating technological worlds may just as much invoke dancing at a rave to blow off steam, blowing up a pipeline to make a difference, or experimenting with vertical farming in ecologically challenging environments. Bringing forth living and becoming in technologies, it alludes to the becoming more and more lively of AI, but also and more importantly signals the becoming of technologies and the networks they rely on, such as made explicit in the magazine *Lowtech* (n.d.), which runs only when there's solar power.

Becoming alive may as such speak to people not engaged in climate politics broadly conceived but who do feel the effects of suffocating structures every day. It aligns with climate justice movements but foregrounds the differentiated viscerality and everydayness of breathing by beings worldwide. It invites a plurality of notions of what it means to (be)come alive, as well as how this relates to differently lived presents and futures. In so doing, it does not deny or hide those that have for long been alive and who have suffered or enjoyed or both throughout time. I therefore hope it can as an imaginary draw relations between ways of past, present and future living instead of placing a single form of living above/upon others. By keeping intact the 'becoming' but also alluding to 'coming', both historical inheritances and figurations of futures are called forth. This means that YOLO – living as if the end is near and you might just get everything out of it regardless of the mess – does not align with what I mean by (be)coming alive. The double terminology signals that there is no terminal station to (be)coming alive, such as we might conclude from (post-)apocalyptic fantasies about cataclysmic endings, survival or having survived.

Apart from questions about the what of becoming, we may however still wonder about the how. How do we (be)come alive? One the one hand, as becoming polluted indicates, it is already, irrevocably and continuously ongoing. (Be)coming alive is not a path we may just leave untaken. On the other hand, it is one we can more or less align with, more or less take up and actively give shape to. This taking up and giving shape necessarily starts from where you're at: every becoming is embedded in others, and (be)coming alive is as such not a switch to flick. With respect to individual climate politics, this for example shows why it is impossible to suddenly stop contributing to the destructive structures you are part of. There is no way to say 'I'm out', but there are many starting points in everybody's life to pick up on what it means to (be)come alive more and more, over time and with others.

Breathable futures thus become visible through the imaginary of (be)coming alive not as terminal stations or end goals, and neither as suddenly coming into existence through some major event (whether life choice, apocalypse or revolution). Rather, as feminist and decolonial scholars 'know' and marginalised beings 'experience' daily, breathable futures are in the making in many places at different paces and in various respects and directions all at once. Breathable futures are not periods we will arrive at either collectively or simultaneously. They also will not come about 'automatically' because history takes us there or because 'we' as scholars advocate them. Rather, they are the breathable worlds generated and cultivated by living beings in their distinct processes of (be)coming alive.

CONCLUSION

Living in un/breathable worlds invokes questions about how things might be differently imagined; it calls for imagining futures otherwise. But this is not easily done. In this article, I mobilised Luce Irigaray's work on the forgetting of air to argue that imaginaries of sameness direct dominant depictions of climate futures and curb the possibilities for imagining them otherwise. This is because imaginaries of sameness, explored in terms of the imagined exteriority, superiority, and technoscientific control of human beings over nature, 'forget' or assimilate other ways of being and relating.

Irigaray's imaginary of difference, grounded in the remembering of breath, however needed to be (1) situated in relation to various (material) structures of suffocation and a plurality of different subjectivities and (2) thought through in heating, polluted, and otherwise un/breathable technological worlds. Regarding the first, I tended to convergences of colonial, imperialist, capitalist, patriarchal, and ecological structures of suffocation informed by the work of Kristen Simmons and Achille Mbembe in section I and conceptualised difference in a plural sense and with regards to imaginaries of sameness as well as structures of suffocation in section II. In section II, I continued by thinking through breath in un/breathable, technological worlds, which I described as a non-innocent conceptualisation of breath that could figure in decolonial and feminist imaginations.

With the aim of facilitating such imaginations of 'breathable futures', I proposed three imaginaries of difference and connected these to ways of thinking about climate futures differently. Imaginaries of *intoxication* point to how the breathing subject is exposed to polluted and heating worlds while also contributing to them. This depiction of subjectivity counters notions of human exteriority and boundedness by making explicit the proximities and intimacies that are inherent to breathing in and breathing out. Imaginaries of *allyship* pick up on commonalities in such exposures as well as we-formations questioned by a rethinking of subjectivity through breath and through those formed in un/breathable worlds and the struggles it holds. This way of thinking subjectivity unravels notions of human independence and superiority by visualising more-than-human interdependencies and common vulnerabilities, and the different kinds of relations or coalitions they bring, as well as bringing to the fore the struggle that is irrevocably part of thinking through breath. And imaginaries of *(be)coming alive* mobilise the continuous change as well as the subject's relatedness to histories, presents, and futures through breath. It challenges narratives of superiority and technoscientific control with an appeal to more-than-human liveliness, embodiment, and breathability.

So, whereas dominant techno-imaginaries look to 'solve' climate change with technological fixes, 'control' ecological degradation through intensified codification and domination, or 'overcome' it by emancipating from nature, breathing shows that living beings and technologies can be(come) intimate allies for breathable futures, intoxicating and being intoxicated together in difference, co-respiring perhaps. In a time where technologies are already resembling the living more and more, as intimate allies, technologies may also become living parts of living worlds/networks, leaving behind the smoothness and availability that places them outside of visceral encounters and instead becoming with their energy sources or environments, being moved by frictions and suffocations, moving/changing towards breathable air for all.

In and through these three imaginaries, breathable futures come to the fore as multiple and asynchronous worlds generated by living beings in their (be)coming alive. Breathable futures are therefore not end points, nor can they be complete or finished, as breathability is not something that could be maximised or (fairly) distributed. Rather, breathable futures figure open-ended struggles for breathability in changing more-than-human coalitions. This is not to say that nothing can be said about breathable futures. By thinking through breath, dominant strategies of relative improvement (say, less pesticides) are shown to be senseless. When we rethink subjectivity through breath, suffocating structures are explicated and show themselves to be in need of radical upheaval without thereby invoking purity. Such radical change however is not to be expected from sudden events or grand endings. Rather, it is brought about in figuring and refiguring breathing in and out, on individual and collective levels, in non-destructive and constructive ways.

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