Climate anxiety as posthuman knowledge

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ABSTRACT

The American Psychological Association defines 'climate anxiety' or 'eco-anxiety' as a chronic fear of environmental doom (Clayton et al., 2017, p.68 [Glossary]). This paper instead theorises climate anxiety as an emergent form of posthuman knowledge, albeit one that is dominated by vulnerability rather than affirmation. Put this way, the cultivation of ethical relationality through meaningful multi-species encounters holds potential for transforming this vulnerability and alleviating the anxiety. Offering both a reappraisal of early earth-writing by humanistic geographers and an engagement with recent work on 'earth emotions', including notions of 'ecological grief' and 'mourning', the article critically reviews lines of thinking – together constituting a new form of posthuman wellbeing studies – that challenge clinical understandings of climate anxiety by reimagining the purpose and mode of psychological intervention for the futures of earthly wellbeing.

1. Towards posthuman wellbeing studies in the horizon of climate anxiety

… we anticipate that other global challenges such as *climate change and planetary health, mental health, natural resources*, inequalities, governance, education, conflict, sustainability and others will feature prominently. (Elliott and Pearce, 2020, p.1; our emphasis)

The remark above appears in the inaugural editorial from 2020 for the new journal *Wellbeing, Space and Society*, indicating 'other' aspects of enquiry into wellbeing that the Co-Editors in Chief anticipate appearing in its pages. After laying out what they take as the *main* contexts and foci for the journal, they position 'climate change and planetary health' as one amongst *other* 'global challenges' impacting human wellbeing – some, of course, might position it as *the* global challenge of the moment – while immediately allying it to considerations of 'mental health' and 'natural resources'. The latter phrase hints at the stuff of nature, the materials composing the earth's natural world that can become regarded, if problematically, as 'resources' required for human existence and possibly flourishing. This material stuff, what in some vocabularies may become identified as the 'non-human', is crucial to what follows in our paper. Equally pertinent for us is what circulates under the phrase 'mental health', since the keystone issue that we wish to address is what happens when the ramifying challenges that climate and broader environmental change pose to planetary health – to the wellbeing, as it were,

of the overall planetary system (and its inter-related environments and ecologies) – are *also* refracted through the mental health of the planet's human occupants. More specifically, our concern is with what some commentators now call 'climate anxiety' or 'eco-anxiety'. We wish to provide some conceptual commentary – deliberately being quite 'speculative' in places in the sense of operating conceptually, only lightly anchored in empirical phenomena or studies – on the envisaged phenomena of climate anxiety, which we take as an absolutely fundamental issue for human wellbeing and how it might be compromised in the present conjuncture.

While not intended as a critique of the exciting papers already published in *Wellbeing, Space and Society*, it does strike us as surprising that nothing has yet appeared that centralises – or even pays lip-service to – the nexus of climate change, planetary health, mental health and wellbeing. Indeed, papers to date have almost solely trained their gaze on the most obviously 'human' of geographies – houses, neighbourhoods, settlements, cities and their bustling everyday lives of different population cohorts (sometimes identified by age, gender, ethnicity, [dis] ability, sexuality and more) – or on what might be regarded as more 'natural' features surfacing in the already humanised versions of gardens, parks and urban 'green spaces'. In that regard, studies reported here have sat within a lengthy lineage of work on geographies of stress, mental (ill-)health or (limited) mental wellbeing which have, in diverse methodological guises, explored the 'spatial epidemiologies' seemingly binding variations in these human states to patternings in either

underlying 'socio-economic' environments or distributions of service, facility and amenity provision (for a review, see Philo, 2005). These are indeed resolutely *human* studies, centred on the human *and* on things *wittingly* 'made' by humans. As such, they offer scant space to nature in the guise of environments and ecologies that may be distant from centres of human habitation, yet still impacting consequentially upon 'us' humans, nor to natural processes that are now fundamentally altered – we might say damaged by humans, *unwittingly* 'made' worse by human (ab)use of so-called natural resources – and potentially displaying disruptive powers far exceeding human control. To frame things thus is to intimate 'posthuman' futures wherein humans are confronted by nature, the nonhuman or the more-than-human, as it threatens to overwhelm human beings physically and mentally.

Little has yet been said in wellbeing studies about how these seismic reworkings of nature rebound into the realms of human wellbeing, intruding themselves in minds, psychologies and emotions, however exactly such human facets might be conceived. For a paper with a partial focus along these lines in the present journal, however, see Shiba et al. (2020). Little has been registered about how pre-existing senses of wellbeing, anchored perhaps in more or less coherent and considered beliefs, thoughts or even 'cosmologies', have been assaulted, shattered and dismantled, with dramatic consequences that arguably topple wellbeing over into mental ill-being, into mental distress, even into clinically recognisable 'mental illnesses'. There *are* concepts and literatures alert to such considerations, but as yet they tend to lie beyond the orbit of much that passes for wellbeing research, notably in geography and the other social sciences, the key disciplinary bases to date for the current journal. There are also some pertinent concepts and literatures still to be located *in* that more familiar orbit, to be sure, but they require careful recasting in order to do better service in the horizon of what, summarising the drift of comments made through these introductory paragraphs, we wish to call 'climate anxiety and the posthuman'. It is into these fuzzy gaps in work on wellbeing that our paper inquires.

The American Psychological Association defines 'climate anxiety' or 'eco-anxiety' as a chronic fear of 'environmental doom' (Clayton et al., 2017, p.68 [Glossary]) but such emerging psychological – we might also call them psychiatric or indeed 'clinical' – formulations of climate anxiety tend to suppose an ultimately familiar anxious human condition simply tied to 'new' tremulous relations with a disrupted future nature. They remain locked into the human, into tried-and-trusted understandings of the human and its psychological functioning, denying that there is anything new, different, lapping at our contemporary shores. Instead, in what follows we speculate about the affordances of thinking instead about climate anxiety as a novel and emergent form of posthuman knowledge, engaging directly with the shadow now cast by an excessive non-humanity entirely indifferent to the fate of the human. In so doing, we envisage a species of posthuman wellbeing studies inflected by an openness to vulnerability – foregrounding the threatened conditions of both human and planetary health – rather than uncritical affirmation – as in a simplistic celebration of what is so engaging, enlarging and enriching about thinking posthumanistically (or more-than-humanly) rather than with cribbed reference always to the human. That said, the cultivation of ethical relationality through meaningful multi-ontological, variably scaled encounters – running between humans and diverse organic and inorganic nonhumans – arguably still holds potential for transforming this vulnerability, for alleviating climate anxiety, and hence we do allow, if tentatively, an affirmative spirit to continue energising how we unfold our arguments here.

We proceed by, firstly, providing a partial summary of early humanistic geography writing – with its perhaps surprising intimations of the posthuman – which conceptualised human nature relations via versions of 'environmental humility' and through witnessing both positive and negative nature relations. Secondly, we briefly summarise the contributions of some health geographers and post-human thinkers who have (partially) built on such foundations but more fully excavate a case

for understanding 'earth emotions', often inspired by engagement with indigenous peoples. These two sections serve to problematise clinical formulations of climate anxiety, urging the need for new interdisciplinary conversations about how fractured human-nature relations impact psychological, emotional and cultural life. Having established these two genres of scholarship helping us to think in more detail about eco-anxiety, we turn to the implications of such conceptualisations, referencing scholarship on posthuman knowledge that can theorise generatively *with* the vulnerability of conscious and affective human species. We conclude by speculating about how the knowledges of psychologists, geographers, indigenous scholars and posthuman writers might foster new interdisciplinary points of connection and action – hailing minds and bodies – regarding future visions for, and interventions into, human (and indeed planetary) wellbeing.

2. Humanistic geography

Humanistic geographers emphasized that human life and experience is a dynamic, multivalent structure that incorporates bodily, sensory, emotional, attitudinal, cognitive, and transpersonal dimensions. (Seamon and Larson, 2020, p.3)

As Seamon and Larsen (2020, p.3) argue, the 1970s ushered in a 'humanistic geography' that sought to defy its own nomenclature by encouraging new ways of seeing earth-human relations, via philosophically informed experiment 'that assimilated shifting philosophical and practical concerns, including Earth's ecological crisis'. In their account of the history of humanistic geography, these authors suggest that environmental, earthly concerns, were often central to academics' approaches to understanding their place in the world. For example, Relph's (1981) work posited an 'environmental humility' envisioned as 'a way of engaging with the world whereby things, places, landscapes, people, and other living beings are all respected just for being what they are'. This 'regard' academic humanistic geographers had for earthly life in all its forms is an important precedent for ways of thinking about posthuman relations discussed in this paper, spanning a spectrum of both positive and negative dimensions.

The 'environmentalisms' of humanistic geographers were obvious in different ways, from Tuan's (1974) emphasis on the 'environmental attitudes and values' which make up the social, biological and cultural dimensions of human being, and a commitment to 'human--being-in-the-world' (Tuan, 1980), to Relph's (1976) phenomenologically inspired 'existential insiderness' and 'outsiderness'. The latter can be taken as an early precedent for 'solastalgia' (discussed below). While Relph's insiderness suggests an almost imperceptible sensing of safety and ease in place, as opposed to being 'stressed' (Seamon and Sowers, 2008, p.44), outsiderness instead implies a 'lived division', 'separation' or 'homesickness' in place *and* between self and world. Humanistic geography was hence interested in both more positive (well-being) and negative (stressful) environmental relations. With regards to the latter, the early work of Tuan (1980) on 'landscapes of fear' elaborated a grand history of human-nature relations characterised by more negative dynamics largely because of the powers of nature to limit human lives. Tellingly, as Tuan concluded, 'it is the paradoxical fear that plants and animals, even rivers and lakes, may die through human abuse. The fragility of nature, not its power, now makes us almost constantly anxious' (Tuan, 1980, p.212). The 'topophobic' (see also Trigg, 2016) dimensions of 'being in the world' are perhaps best acknowledged not as an essential human response to place, but as a dynamic anxiety prompted by the social and economic conditions, contested aesthetics and degradation of places and landscapes. For Seamon and Larsen (2020, p.4), moreover, much of this work adopted a generative respect for the world (and everything in it) whereby it is 'thoughtfully cared for and intentionally protected'.

Intriguingly, a recent paper in *Wellbeing, Space and Society* by Finlay and Rowles (2021) – and note that Rowles was a 1970s pioneer of

humanistic geography – explicitly returns to such work (labelled here as 'behavioural geography') in proposing a novel form of 'clinical geography'. Such a geography is supposed to feed into person-centred interventions designed (in an expanded sense of being 'clinical') to assist individuals in distress whether due to 'home-level insecurities [or] to vulnerabilities generated by climate change' (Finlay and Rowles, 2021, p.1). Meta-level environmental threats never appear elsewhere in the paper, but the approach here is nonetheless primed from the outset to emphasise 'person-in-environment', with matters of being 'in' or 'out-of-place' – echoing Relph's insiderness and outsiderness – clearly centralised (esp. *ibid.*, Fig. 1 and 2). There could be merit in running this version of 'clinical' understanding up against the standard psychological stance on climate anxiety mentioned earlier: how, indeed, would it tackle eco-anxiety, with what attention to human *and* (external) nature, and with what possibilities for being generative rather than merely reactive. It seems, then, that there are important disciplinary precedents in humanistic geography, characterised by reflexive environmental experience and thinking that encompasses negative (anxious 'outsiderness') and positive (respectful 'insiderness') feeling-states, ones upon which we might draw when critically discussing climate anxiety as posthuman knowledge.

3. Earth emotions

Ecological emotions matter, about the ways they challenge our presuppositions about human selves (which are not naturally given in here) and about the natural world (which is never just out there). (Smith, 2013, p.3)

The influence of philosophical thinking, which distinctively marked the humanistic geography project, is also present in other genres of enquiry that trouble the relations between the earth and human emotional states, including writings about anxiety and grief. The work of the Australian environmental philosopher Albrecht (2019) – who has worked with geographers – elaborates a complex linguistic genealogy of 'psychoterratic emotions' in the Anthropocene, referencing what many are now prepared to name the current geologic era in which human agency manifestly shapes earth environment and climate. Central to this work is the concept of 'solastagia': a form of psychological and existential distress connected to the earth, particularly to pain or distress caused by the loss of solace and sense of desolation connected to the state of one's home or territory. It is a concept intimately associated with a lived experience of negative environmental change, attacks on one's 'sense of place' and the installation of a characteristically chronic condition – a gradual erosion of identity and belonging connected with particular places. Solastalgia, Albrecht et al. (2007) argue, is a kind of 'homesickness' that can arise for someone who remains located within their home environment – rather than having moved away from it – precisely because the place (the local environment or nature) has changed, maybe itself become 'sick' in some way (if we speak of '(un) healthy' places). Evidently, then, such thinking complements that by the early humanistic geographers and notably Relph (1976) on 'existential outsiderness'.

Importantly, other work seeks to contextualise current thinking about climate and change in a *longue durée* of ecological trauma experienced especially profoundly by 'indigenous' peoples across the globe in many different times and places. Their experiences give the lie to banal claims about the Anthropocene as caused by and the responsibility of *all* humans: transparently, the most harmful Anthropocentric impacts have been caused by only *some* humans in *some* places, ironically rarely the ones on the frontlines of enduring these impacts. The compounded effects of racisms, settler colonialism and extractive capitalism must always be acknowledged in this connection (Yusoff, 2019). With particular reference to the plight of Canadian First Nations peoples, Consolo et al. (2020a) discuss 'ecological grief' – the 'grief felt in relation to experienced or anticipated ecological losses, including the loss of

species, ecosystems and meaningful landscapes due to acute or chronic environmental change' (Cunsolo and Ellis, 2018, p.275) – as a 'natural human' response to ecological degradation or destruction. In a range of publications, Inuit cultures and relations with reducing animal numbers and shrinking landscapes – as seas swallow what had previously been icy 'land' – are shown to be increasingly marked by a deep sadness at this loss, which can therefore also be cast as acute solastalgia (Cunsolo et al., 2020b, p.50). Notable here – again echoing humanistic geography – is the call for a place-based analysis, *locating* grief with regards to indigenous people, cultures and specific communities, alongside paying attention to 'anticipatory grief' (the ecological grief yet to come) experienced in relation to non-humans and 'witnessing the end of a beloved species, as well as the erosion and degradation of related complex knowledge systems' (*ibid*, 2020b, p.51).

For the Inuit, thousands of years of interconnection with Caribou, for example, have been disrupted by their loss from particular regions. While people have adapted, Cunsolo et al. (2020b, p.53) argue that their profound and ambiguous grief continues and that 'an essential way forward in ecological grief research [should ensure] place-based, locally-appropriate, and culturally-relevant standards of what is "unacceptable" and "intolerable" losses are applied'. Such an argument is only one kind of response to grief. Cunsolo and Landman (2017) elaborate more fully the potential and witnessing work of grief and what it can achieve. Arguing for further understanding of the political and ethical capacities of 'mourning' – connected to the difficult, raw openness that comes with grief – these authors take on the challenge of 'moving mourning beyond the human', cautious that this is different to human grief and involves complicity with *and* sorrow for species that are lost or being lost. The aim is to harness a call for 'a new form of mourning, a new form of ecological ethics and politics to mourn beyond our species, beyond human bodies, to expand what constitutes a mournable body' (*ibid*, p.22). For these authors, there is potential here to consider how these feelings might act as a resource for 'political and ethical change' and 'productive, meaningful' work. For Cunsolo and Landman (2017, p23), anticipating our own narrative here, this work may involve expanding or informing 'the work being done in post-humanist ecological ethics and politics'.

This brief discussion of 'earth emotions' has focussed on the presence and labour of ecological grief, precisely because this new way of understanding human-earth relations has been suggested as a route to hopeful action, even forms of wellbeing that might be possible in a changing, ecologically degrading planet. While never denying the 'slow violence' of environmental degradation (Nixon, 2011) being visited on the likes of the Inuit, Consolo (2017) communicates the hope that incorporating grief of and for the non-human into climate change discourse and action, 'staying with the trouble (Haraway, 2016) of loss and 'tarrying with grief' (Butler, 2004, p.30), may propel a fuller, richer identify with the non-human. Consolo draws comparison with the politics of mourning associated with AIDS and how collective loss here mobilised 'something else' around public understanding and action in connection with a stigmatised disease. Collective forms of mourning and related anxiety for a climate-changed planet might therefore involve new kinds of emotional resilience and adaptation in order to maintain wellbeing, as well as suggesting creative ways – albeit ones that must avoid replicating past 'extractivist' logics of appropriation *from* the peoples and places concerned – for bringing indigenous scholarship into the orbit of wellbeing studies. Examples can be found in *Wellbeing, Space and Society* of indigenous peoples, places, spiritualities and more being brought into the fold of wellbeing studies (Ohajunwa et al., 2021; Zermeño and Pirtle, 2021), but as yet without leaning into the sorts of considerations centralised here.

4. Posthuman knowledge

Some theorists have argued that we are living in a 'post-human' world, in which the absolute boundaries between humans and non-

humans, nature and society have been broken down and all beings are connected together in a series of overlapping 'webs' or 'networks' of activity. (Fox, 2006, p.525)

Posthumanism is an attempt to re-think our subjectivity in relation to other forms of life and agency and therefore has connections with the literature reviewed above. For Braidotti (2013, 2019) – a leading theorist, philosopher, and proponent of this way of thinking – the posthuman project is summed up by the term *zoë*, which refers to 'all living things together' including *bios* (social life as organised by humans) and technology. As such, posthumanism is not 'after human' or 'beyond human', but an extension/expansion of how the human is viewed, ultimately putting the 'human' in better balance with the rest of the living world. Key to this is Braidotti's notion of multi-scalar relationality whereby posthuman 'subjects' consciously relate at three levels: their interior selves, interactions with human others, and their existence within the world at large. This is in stark contrast to the prevailing 'biopsychosocial' model of health/illness that stops short of this third relation, typically defining the social only in 'interpersonal' (human) terms (Wade and Halligan, 2017), as we have argued is also true of conventional wellbeing studies. An equivalent critical stance on the neglect of relations with and into a wider world (of environments, of nature) has of course already been detected in humanistic geography, including at the heart of Finlay and Rowles's (2021) proposed reorientating of 'the clinical'. By explicitly acknowledging the importance of this third relation, the human in posthumanism is diminished only to the extent that it is set on an equal footing with all other things. As Braidotti (2019) is at pains to underscore, 'equal' does not mean 'the same as' and never has.

For Lorimer (2009), posthumanism resonates with developments in cultural geography, a subdiscipline of human geography. Within cultural geography, posthumanism has been met with less ambivalence due to the influence of feminist, post-structuralist, postcolonial, queer, and non-representational theories in the subdiscipline, all in response to a wider affective turn with the social sciences and humanities (Gregg and Seigworth, 2010). First, these approaches take a performative approach to the social in that the human is not a 'passive object' but an 'actor' that continually moves in and out of assemblage with human and non-human entities; second, individual identities are not fixed but are constantly being re-inscribed in ways contingent on interactions that are always open-ended (Lorimer, 2009); and third, they challenge 'the dogmatic tendencies of humanism that fetishise the human as the sole agent of transformation' (Williams et al., 2019, p.638). One obvious consequence of these approaches is the blurring of boundaries between the physical and the human (Lorimer, 2009), or between nature and culture, again clearly extending the ethos of early humanistic geography.

What, though, are the implications of posthumanist thinking for a wider geography of mental health and well-being as this might relate to climate anxiety? Here, we note developments in cognate disciplines to recontextualise mental health and clinical practice in response to posthumanist understandings prompted by the climate crisis (see Adams, 2020, on anthropocene psychology, and Boulet and Hawkins, 2021, on recontextualising social work; and also Finlay and Rowles, 2021). Common to these efforts is the knowledge that humans are entangled in a more-than-human world, constantly bumping up alongside nonhumans of all shapes, sizes and effectivities, and so damage to that world cannot but elicit psychological, emotional, and psychological consequences for humans (as explicitly discussed above with reference to 'earth emotions'). This realisation has led some mental health professionals to adopt more 'relational' approaches in their practice, much of it informed by posthumanism as well as 'community-based, political, anarchistic, decolonised, matriarchal (approaches) grounded in an ecological epistemology' (Ife, 2021, p.241). Thus, geographical ways of thinking have an important role to play in the fields of mental health and well-being by helping to redefine the 'social' as a more-than-human concept where space and place matter (Boyd & Parr, 2020).

As we have demonstrated so far in this paper, negative environmental changes can engender profound and existential distress in people both individually and collectively (Albrecht, 2019). What we have also argued, however, is that it is possible to delineate framings of earth-human relations with the potential to give rise to hopeful action or different forms of wellbeing, even under the press of climatic-environmental threat (Cunsolo and Ellis, 2018). Put another way, climate anxiety creates a challenge for Western medicalised approaches to mental ill-health that regard it as a 'problem' necessitating 'treatment' (Orygen, 2021). For decades, 'first line' treatment for anxiety disorders has been cognitive behavioural therapy (CBT), an approach that regards anxious feelings and behaviours as caused by identifiable (and 'treatable') errors in thinking (Andrews et al., 2016). More recently, psychology practitioners – in collaboration with allied disciplines – have questioned the pathologising of climate anxiety in this manner because of concerns that a reduction in climate anxiety might also reduce pro-social behaviours aimed at mitigating the effects of climate change (Bingley et al., 2022). Implicit in this argument is an understanding that climate anxiety is not simply an individual problem, but something arising out of our perceived human vulnerability *in relation to* the environment or nature. In a sense, climate anxiety and other earth emotions are merely differing expressions of earth-human relationality, all of which needs to be embraced – operated with generatively – if we, species human, are to adapt meaningfully to a changing climate.

For Braidotti (2019), posthuman knowledge is predicated on vulnerability, which she likens to a kind of exposure to our inseparateness from the rest of the world. As she states in a recent book, '[*v*]ulnerability as the power of exposure is defined as an ethical and political means to come to terms with – rather than disavow – the untenable, painful and unacceptable aspects and disasters of posthuman times' (Braidotti, 2019, p.168). Joyful or affirmative relations, for Braidotti, are only reached by first understanding our conditions and by 'reworking the negative experience and affects that enclose us' (*ibid*, p.169). Affirmative ethics is not about 'cancelling' pain and suffering – not denying the enactments of 'slow violence' – but about proposing different ways to deal with them. Returning to Braidotti's notion of multi-scalar relationality, this means cultivating an ethics of care at the level of the individual, in our interactions with human others, and through our relations with the 'more-then-human' world. In this sense, affirmation is not simply 'joy' but a way of valuing *what we are already capable of becoming*. In relation to climate change, this refers to our inherent ability to live productively and to reject self-destruction, even as it cannot be forgotten that great variability exists in the capacities of different peoples and places for such productive, re-constructive living.

Cunsolo (2017) draws similar conclusions by valuing the productive work of mourning, which involves shifting away from vulnerability (fear) and towards affirmation (value). Mourning affirms the value of the relationship with the thing that we have lost, or are in the process of losing, and reframing climate anxiety as a version of ecological grief therefore makes sense as a psychological intervention. Climate anxiety is a fear that climate change will destroy 'us' as humans, by virtue of our dependence on 'natural resources' for life, encompassing a dread of what might happen to us if the environment, one day, fails to support human life. Ecological grief, however, is a concern for the fate of *zoë* – the 'more-than-human' world – and intimates a downplaying of the grief that might be felt, narrowly, about a possible passing of the human. As such, psychological interventions that seek to transform climate anxiety, rather than 'eradicating' or 'reducing' it, can capitalise on productive mourning, a posthuman mourning, as a process. Likewise, third-wave psychotherapies like Acceptance and Commitment Therapy (ACT: see Hayes, 2020) that normalise (without remotely justifying) human suffering, as well as eco-therapies working explicitly with the earth-human relation (Jordan and Hinds, 2016), hold promise for 'treating' clinical levels of climate anxiety.

5. By way of concluding

Perhaps release may come from considering that we are not in the midst of a desperate, heated, chaotic battle to save The World. In fact, we lost that battle, lost that future, lost that world.

We. Have. *Lost.*

Take a breath.

Now what? (Osborne, 2019, p.146)

As climate educator Verlie (2022, p.8) argues, '[*r*]ather than emotional resilience, learning to live with climate change aspires for affective transformation'. If we are to live differently, then we must learn to feel and think differently. Posthumanism is not a panacea for climate anxiety or climate change. Instead, it is one way forward towards more hopeful futures in which we appreciate better the interdependencies of our more-than-human world. This unsettling and uncharted challenge is one that, odd as it might seem, holds resonance with those humanistic geographies introduced earlier. In a recent editorial, with reference to the global COVID-19 pandemic crisis, Castree et al., p.412) ask, '[*a*]s part of this, are there older approaches, ideas or methods that might usefully be revisited? Conversely, what might we need to invent in order to address absences in our cognitive and normative tool box?' We ask this same question of ourselves with reference to understanding contemporary formulations of climate anxiety. Humanistic geographers long ago highlighted our (human) complex and entangled self-world relations, ones marked by existential insiderness and outsiderness, and associated fears and anxieties, and such notions chime loudly with claims made about earth emotions full of ecological grief and mourning. None of these stances or 'disciplines' takes-for-granted or suggests that human beings might simply live comfortably, without anxiety, 'in place', on earth, given the evident pressures on our intimate worldly relations. Nonetheless, a posthumanist recasting of climate anxiety as a state which might be addressed more through progressive grieving, less through standard clinical intervention, goes further in visioning collective psychologies in and for a more-than-human world.

In our paper, we have briefly and strategically positioned different pathways into thinking about climate anxiety and futures of earthly well-being, but as such we have prioritised more-or-less conscious human relations and possibilities. Seamon (2013, p.148, our emphasis) reminds us that '[*w*]e can speak of environmental embodiment – the various lived ways, sensorily and mobility-wise, that the body in its *pre-reflective* perceptual presence encounters and works with the world at hand, especially its environmental and place dimensions'. The implication of this reminder is that any eco-orientated therapeutic intervention around climate anxiety must acknowledge conscious work as only part of the human-world matrix at stake. The temptation in discussions of climate anxiety is to argue for 'affective transformation' in *words*, whereby we, as humans, reflect on, relate to, or represent our worldly instability while seeking to renew our worldly responsibilities. However, as Verlie (2022, p.112) declares, 'climate anxiety emerges from our transcorporeal [inter-bodily] enmeshment with disordered planetary atmospheres', we have yet fully to take up the challenge of what climate change *feels like*, especially as 'body subjects' (Seamon, 2013), to use an older humanistic geography phrase. Verlie (2022, p.112) argues that 'experiences of climate anxiety are [too] often framed as internal, psychological human phenomena', instead advocating 'a subjective metamorphosis, a changing of the sense of self from an insulated individual human being to a distributed, atmospheric, more-than-human 'becoming''. Verlie's charge asks us to consider climate anxiety as a state of mind *and* body, since our future human wellbeing on earth may not only be predicated on a *cognitive* productive mourning process for *zoë*, but on the sedimenting into practice of new body-knowledges as fresh repertoires for living with excessive nature. Thus, in closing, we speculate that posthuman wellbeing studies need

new questions, research methods, ways of knowing and comportments for acting with respect to climate anxiety, but in ways that incorporate pre-conscious or less-than-conscious body subjects and body-knowledges.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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