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‘For this reality is not human but inhuman,
and man with his customs and his character
counts for very little in it’ (Antonin Artaud, 1958: 48)

Introduction

The struggle with environmental issues that reach beyond the limited spatio-temporal imagination of humans has been the subject of much recent social scientific writing. One strand of writing seems to be concerned with industrial activity and its production of contaminants such as heavy metals, microplastics and radiation. Due to their extreme dispersal, minute scale and extreme temporal scales of decay these contaminants are perceived as falling ‘outside the conventional definition of ‘the real’’ (Adam, 1998: 10; see also Van Wyck, 2005). Another strand has focused on the ‘scalar dislocations’ (Jasanoff, 2010: 249) reflected in the discourse around climate change and natural disasters, which result from experiencing sudden changes to ‘life as it has been known’ (Urry, 2010: 195; see also Clark, 2011; Yusoff, 2010). Literary theorist Stephen Connor notes how current environmental problems seem to result in an overall ‘recoiling from the prospect of such enlargement of scale and such alarmingly contracting horizons’ (Connor, 2008). Referring to the work of Michel Serres, he calls for an expansion of our scope of thinking and living (Connor, 2008). Serres himself points out that the kind of history we are working and thinking with is too limited for us to gain a sense of our relations with the world: we do not bear in mind histories such as the DNA’s cosmic origins or the migration of early humans (Serres, 2003).

This argument is further illustrated by astrophysicist Hubert Reeves, who embeds human history in the history of the universe, the ‘adventures of matter’ that gave rise to life: *‘the atoms in our bodies were created there... our lives are inscribed in this adventure of matter-organisation. We are a chapter in this history of the universe’* (Reeves, 2010). Reeves describes astrophysicists as ‘historians of the universe’, who, through observation of the cosmos, uncover phenomena which have profound implications on the way we understand ourselves as humans. He admits how, as such a historian, he experiences the universe as profoundly strange and often disconcerting: ‘there is always the spectre of fear, madness, terror, as reality might not be ordered or logical’ (Reeves, 2010). Humans, he laments, are limited in their imagination and their ability to grasp this strangeness in their thinking. Amongst the examples he names are counter-intuitive phenomena such as additional dimensions, elastic time, ‘gigantic changes that can happen in microseconds’ and the observations of the world and the universe that appear to humans as absurdities (Bon, 2010; Reeves, 2010). For Reeves, ‘the main problem we are fighting with is to adapt our thinking to our observations and not our observations to our thinking’ (Reeves, 2010). He finds that science can reassure to a certain degree, but many uncomfortable questions remain. There will always be anxiety surrounding the purpose of life and its relations to the universe. As science writer Marcus Chown suggests, we might find that ‘ultimately, things [may] happen for no reason at all’ (2010).

A similar reasoning appears to have given rise to Mikhail M. Bakhtin's concept of ‘cosmic terror’, which takes into account the inhuman stretches of space and time and the body as a site of negotiation of cosmic relations. For most researchers, Bakhtin is hardly an author that comes to mind when thinking about the current debates around materiality in social theory, especially not in relation to the challenges of a changing climate. Primarily regarded as a theorist of the novel and of *human* interactions, his work has, on the whole, been rather peripheral to studies of the environment. Mostly written under censorship in Stalinist Russia,

his work further presents a challenge in terms of determining what can be taken as literal and what has to be read between the lines. The few articles and book chapters dealing with Bakhtin's 'geographical' ideas have mainly given attention to the concept of the 'chronotope' (the Bakhtinian version of 'space-time') to theorise landscape and space (Folch-Serra, 1990; Holloway and Kneale, 2000), and to the idea of the 'carnavalesque' and its potential for theorising resistance and identity (Hetherington, 1998). Recently, Bakhtin has made a brief reappearance in connection with the resurgence of interest in vitalism, which Bakhtin is believed to have argued against (Bennett, 2010: 89; Rousseau, 2010). Dismissed as a 'mechanist' (Bennett, 2010:89) or humanist, Bakhtin's conceptualisation of materiality has, so far, been debated mainly in the humanities¹. While this discussion of 'Bakhtinian materiality' has resulted in valuable insights regarding human-world relationships, there seems to be little equivalent reflection in the social sciences². In order to stimulate interdisciplinary debate, this article seeks to bring the two discourses around materiality into dialogue with one another. Rather than trying to pin down Bakhtin's entire conceptualisation of materiality or human-nature relationships, the article will focus on the relevance of his ideas to one particular issue: the instrumentalisation of climate change.

I will begin by proposing that Bakhtin views the world as permanently in a state of becoming, continually constituted by a dialogue not only between human, but also between human and 'nonhuman' forces. This dialogue, I will argue, represents a struggle rather than a harmonious co-creation, which sees humans pitched against an 'alien', active world beyond their control. The second part relates this human-world relationship to Bakhtin's concept of 'cosmic terror' – the human reaction to extreme spatial and temporal distances. This concept is compared with current social-scientific engagements with the 'inhuman', which also stress the radical asymmetry of human-nonhuman dialogue. It is further explained how 'cosmic terror' plays a key role for Bakhtin in the instrumentalisation of fear of change. The third part looks at Bakhtin's preoccupation with resistance to this instrumentalisation, and his prompt to find ways to make this resistance more accessible. A comparison is made with current directions in literature studies, which address questions of materiality, representation and communication in relation to climate change.

Co-authoring with the alien

How do we relate to the world? According to Bakhtin - or at least the Bakhtin most of his commentators seem to agree on³- it is through a process of co-creativity, which he terms 'authoring' or 'co-authoring'. This process binds us to the Other in a 'Janus-like' manner: we are never ourselves without the Other, as we are constituted by it (Bakhtin, 1993: 2). At the same time, we are unique, each of us being the product of different kinds of co-constitutions. This difference, but simultaneous intra-relation, represents Bakhtin's dialogue - a struggle we become involved in when we encounter another person or entity, which, in turn has been affected by others. It is a mutual transformation we cannot escape from, a continuous struggle with new concepts formed by the multitude of negotiations of relations across space and time (Bakhtin, 2003: 295). Since Bakhtin's 'dialogue' seems to imply active negotiation, much of the discourse around it has remained focused on human interaction. A few authors, however, have made the case that 'co-authoring' does not only involve human actors, noting the indeterminate boundaries of the body (Hitchcock, 1998: 88), the impact of nonhuman actors on human relations (Morson and Emerson, 1990: 451) or even the suppression of the 'material' aspects of Bakhtin's dialogue (Cohen, 1996:51). The potential limitlessness of dialogue, for many authors, is expressed in Bakhtin's statement: '...I hear *voices* in everything and dialogic relations among them' (Bakhtin, 1986: 169, his emphasis). Intended as a critique

of both formalist and structuralist movements, which featured prominently in the discourse in Bakhtin's time, the statement comments on formalist privileging of form over content, and structuralist 'mechanical' focus on the text (Bakhtin, 1986: 169). Rather than precluding an interpretation in line with a 'more-than-human' dialogue, this provocation opens up to questions around materiality and representation, which reflect current debates in the social sciences and humanities regarding the 'nonhuman'.

A challenge that presents itself to authors attempting investigations into the 'material' dimensions of Bakhtinian dialogue is how the 'mutual transformation' between humans and 'nonhumans' is supposed to take place. One approach has been to argue for a scientific understanding of mind-matter relations, based on Bakhtin's interest in the scientific developments of his time, such as the Theory of Relativity (Bakhtin, 2003: 272;), quantum mechanics (Bakhtin, 1986:126) or genetics (Bakhtin, 2010: 76). It has been argued that Bakhtin derived his notion of the active observer from Einstein's work (Holquist, 2010: 6; Clark and Holquist, 1984:69), and that Bakhtin's book *Rabelais and His World* constitutes an attempt to 'plumb the depths of the organic... to use the resultant biological categories in an engagement with the social and historical' (Taylor, 2004: 166). Sources of inspiration for a dialogue with the organic have been identified in the work of physiologist Ukhomsky and geochemist Vladimir Vernadsky. In this context, parallels have been identified between Bakhtin's writings on interactions between mind and materiality, and Vernadsky's suggestion that human consciousness functions as a 'distinct geological force' (nöosphere) in shaping the biosphere (animate matter) and the geosphere (inanimate matter) (Mandelker, 1994: 387; Vernadsky, 1998[1926]). In addition to his philosophical encounters with the likes of Kant and Bergson, the work of physiologist Ukhomsky has been singled out as a key influence on Bakhtin in allowing him to consider the relation between human consciousness and world as a 'dialogic continuum rather than as an unbridgeable gap' (Clark and Holquist, 1984:175). Bakhtin himself makes a direct 'scientific' comparison between his imagined interrelations of the 'real and represented world' which, for him, are 'similar to the uninterrupted exchange of matter between living organisms and the environment that surrounds them' (2008:258). This image can be seen as reflecting a 'third way' between theories of immediacy on one side and theories of representation on the other. Yet it remains unclear, in this instance, what makes up the 'real' world.

A second path to approaching dialogue with the 'non-conscious' has been to focus on Bakhtin's breaking up of a unified nature into 'heterogeneous orders' of space time (Sandywell, 1999). In this context, Barry Sandywell (1999) has asked whether a dialogue between different spatio-temporal scales would be possible, ranging from the nature of 'small time', which encompasses our everyday experience of temporal dimensions, to the cosmic scale of 'great time', a dimension humans have problems relating to. Such dialogue across different perceptions and dimensions of space-time, he argues, would make possible a reflection on the multitude of relations between humans and their so-called 'environment' (Sandywell, 1999: 114).). Sandywell envisions this 'dialogical ecology' to 'extend[...] across the entire spectrum and stratifications of organic and inorganic life' (1999: 115). There appear to be two suggestions about 'dialogical ecology' in Sandywell's interpretation. The first one puts forward the notion that all images of nature are mediated, and thus it is us who give 'nature' a voice. The second one implies that physical changes to the planet and the universe that happen in the course of 'great time' highlight the universe's own creativity (see Sandywell, 1999: 114). Again, Bakhtin seems to steer between the two visions: while clearly tying meaning and creative agency to human consciousness – for instance, by describing science as 'directed toward mastery over *mute objects, brute things*' (Bakhtin, 2008: 351, author's italics) - he opens up at least the represented world of the novel to the

productiveness of 'matter'. Here, objects become 'attracted into life's orbit; they become living participants in the events of life. They take part in the plot and are not contrasted with its actions as mere 'background' for them' (Bakhtin, 2008: 209). In the space of the novel, objects cease to be 'background' and 'act': '[t]here is no landscape, no immobile dead background; everything acts, everything takes part in the unified life of the whole' (Bakhtin, 2008: 218). In the 'real' world, they appear to be, too. Contemplating François Rabelais' portrayal of the human body, Bakhtin notes that '[i]n the process of accommodating this concrete human corporeality, the entire remaining world also takes on new meaning and concrete reality, a new materiality' (2008: 171). This materiality of the world, I suggest, should not be understood in a metaphorical sense, as it is evoked in relation to bridging the 'immeasurable abyss' between materiality and word (Bakhtin, 2008: 171). The motivation for Bakhtin, however, is not necessarily to demonstrate material agency, but to show the relationship of how we envision and represent the world, and materiality in general, on our capacity for action and creative imagination – two abilities that are significant for challenging 'monologic' or closed narratives.

To engage with the prevailing rift between matter and text in the imagination, embodiment, as a composite of matter and capacity for communication, emerges as a vital feature of Bakhtinian dialogue. In its materiality, our bodily set-up prevent us from perceiving ourselves, and instead force us to remain directed towards the Other, but its distinct material and temporal dimension turns the 'given' world into a world it needs to respond to (see Clark and Holquist, 1984: 74-75). This imagination of body-world relationship could be compared to Levinas' notion of embodiment, in which to have a body means to be unable to escape the need to respond (1981; see also Holquist, 2010: 30). Bakhtin emphasises that the body negotiates word *and* world. The organic nature of the living body could further be regarded as the material expression of 'unfinalisability' – of continuous openness to transformation. At first sight, the conditions of this transformation between body, mind and world seem to entail a world that is not an equal partner in dialogue: it lacks consciousness and therefore cannot create context (Bakhtin, 2008: 351; Morson and Emerson, 1990: 98). Again, in his writings on Rabelais, Bakhtin seems to offer the possibility of a different significance for the nonhuman: that the world presents an Other that is too vast and incomprehensible for humans to be in equal exchange with:

'We must take into consideration the importance of cosmic terror, the fear of the immeasurable, the infinitely powerful. The starry sky, the gigantic material masses of the mountains, the sea, the cosmic upheavals, elemental catastrophes – these constitute the terror that pervades ancient mythologies, philosophies, the systems of images, and language itself with its semantics' (Bakhtin, 1984: 335).

Given this description and Bakhtin's frequent references to the 'alien' in relation to materiality, his 'nonhumanity' should more accurately be referred to as an 'inhumanity'. Considering that he wrote the works that discuss the 'inhuman' in Stalinist Russia, Clark and Holquist suggest that they also need to be taken into consideration as a metaphorical commentary on the experiences under this rule (1984: 311). As I will try to show in this article, their literal reading may be equally meaningful, both in terms of theoretical problems around material and human agency, and as a method of political action.

A characteristic of human-nature dialogue in Bakhtin is that both parties, while involved in a process of co-authoring, should also be considered adversaries: to act and to be involved in dialogue does not mean there are no asymmetric power-relations or desires of actors to 'triumph' over one another (Bakhtin, 1984: 282-283). One of the tensions Bakhtin elaborates

on arises between the human desire for safety, (food) security and a stable, calculable environment (see Bakhtin, 2008: 235) and 'nature' as a generator of continual change. Humans cherish triumph over 'nature', because they seek to gain a more comfortable position in the face of a 'great, cold, alien world' (2008:233, 1984: 39) and its often unpredictable 'voicings' (like Marx, Bakhtin has an interest in overcoming the 'alien', albeit through different means⁴). It could thus be said that the default refusal to accommodate a dialogical materiality of the world (by humans) stems to a significant degree from the experience of material processes as not only inhuman, open and 'messy' (Morson and Emerson, 1990: 36), but as (over)actively co-authoring human lives, without humans having any or only little control over this inhuman authorship. Conscious dialogue with the world, on the other hand, would imply less an anthropomorphic animation of the world or a levelling of the human and inhuman, but a dealing with the shock of difference through being open to it. Rather than envisioning this dialogue with the 'inhuman' to lead to more ethical behaviour towards the (material) world, Bakhtin prompts us to affirm and overcome the 'shock' of the perceived remoteness and meaninglessness of this world for ourselves (Sandywell, 1999: 113). The question Bakhtin at the centre of Bakhtin's enquiry could be worded as: how do we engage with the gulf that separates humans from everything else, and whose seeming reliance on perpetual change and random occurrence stands in the way of (our desire for) meaning? For Bakhtin, this question is crucial, because he is concerned about the wider impact of our vision of the (material) world on our relationship with both the material and social world. At the centre of his attention is the vulnerability of those who seek to disconnect from or stabilise the world, thus gaining a false sense of permanence and mastery. This concern is encapsulated in his concept of 'cosmic terror'.

A 'world-constituting fear' ⁵

'Cosmic terror' takes into consideration the relations between humans and inhuman dimensions such as the alienness of the cosmos. Bakhtin describes this terror as a 'fear of that which is materially huge and cannot be overcome by force' and as a 'heritage of man's ancient impotence in the presence of nature' (Bakhtin, 1984: 335, 336). Geographer James Kneale likens Bakhtin's concept to a similar one described by Lovecraft, according to which humans realise their vulnerability in the face of 'the vast gulfs of space and time revealed by sciences like astronomy and geology' (Kneale, 2006: 109, 188). While it has been argued that fear of the elements has subsided to some degree in our current age and does not play a part in constituting our world, expected global changes due to climate change and the recent prevalence of natural disasters seem to make the concept of 'cosmic terror' ever more relevant. In his book *Rabelais and His World*, Bakhtin interprets Rabelais' satirical tales as a way of dealing with the 'cosmic terror' prompted by 'unfortunate weather conditions and the plague' apparently afflicting the Renaissance writer's country at the time of writing (1984: 340). Although some theorists have argued that climate change is an 'invisible risk' that escapes our perception (Beck, 2009:72) or has been 'naturalised' to such a degree that merely the hype about 'new economic opportunities' survives (Žižek, 2010:328), others have pointed out that this situation may change and that fear of future disasters may be used by governments and other groups (Dalby, 2009:47; Hulme, 2008:14), leading to 'post-politics' (Swyngedouw, 2010:225) and increasingly authoritarian regimes (Jonas, 1984:150-151, Klein, 2008). Certainly, narratives of 'elemental fear' accompany the growing body of geoenvironmental research, with one project consultant explaining the motivation for his work as 'sheer terror' (Lockley, 2012).

The feeling of vulnerability to natural forces is further reflected in a current strand of social scientific writing which emphasises the 'radical asymmetry' of human-world relationships. Authors such as Nigel Clark and Myra Hird suggest that 'we might need to think of the entire zone of human-nonhuman interchange as itself nothing more than a concrete, localised and contingent region in the midst of an overwhelmingly inhuman expanse' (Clark, 2011: 48-9). Such an image illustrates not only the asymmetry of dependence, but the feeling of vast spans of meaninglessness and indifference (see Clark, 2011: 50; Hird, 2010: 59). This 'inhuman expanse' appears to be rendered ever more vivid through the imagery evoked in connection with climate change: humans pitched against the large-scale and unpredictable reactions of a planet 'reassert[ing] itself with a vengeance in all its aspects' (Žižek, 2010:330; see also Serres, 2011:124). This context underlines a further dimension of 'cosmic terror': the fear of lacking control over certain natural processes extending into a more general fear of change (see Hirschkop, 1999; Kneale, 2006). At the moment, it looks as if these aspects of 'cosmic terror' are both gaining in amplitude, as a number of scientists have pointed out that the risks of climate change are being understated and that we are likely to face sudden, drastic changes sooner rather than later (Lovelock, 2006, McGuire, 2012). Current research has further given rise to the theory that the period we are living in represents an unusually stable phase in what could be described as a planet in perpetual, cyclic change, and that 'climate stability is an illusion' (Hulme, 2010: 270). As science studies scholar Sheila Jasanoff affirms, the planetary changes in connection with climate change, require us to build entirely new imaginaries of space and time (Jasanoff, 2010: 237).

For Bakhtin, dealing with 'cosmic terror' implies a re-examination of our relationship with the world. In what could be read as an implicit critique of Marx - Marx as interpreted by the communist regime he was living under - Bakhtin contrasts two different kinds of rapport: 'small' and 'great' experience. The 'small' or 'idyllic' register of experience includes the 'secure and stable little world of the family, where nothing is foreign, or accidental or incomprehensible' (Bakhtin, 2008: 232) and where 'objects [are] not severed from the [unmechanised] labour that produced them' (Bakhtin, 2008: 234). This register represents a 'narrow' experience of life, an illusion of permanence and stability erected against the imagination of a 'great but abstract world' of isolated individuals subjected to mechanised labour (Bakhtin, 2008: 234). It is not only the small, but also the abstract 'great' experience, which tends to close humans off from the world, rendering the latter mute and inactive (see Bakhtin cited in Shepherd, 2006: 42). The first common danger comprises a withdrawal from the greater world through nursing an unrealistic imagination of life. Such a state is likely to leave oneself vulnerable to shock and surprise. The second danger follows from this, in that one makes oneself susceptible to forces that promise to maintain or return stability. As Bakhtin observes, to the person who inhabits 'small experience', 'there is one cognizer (everything else is an object of cognition), one free subject (everything else is dead things), one who is living and unclosed (everything else is dead and closed), one who speaks (everything else is unresponsively silent)' (cited in Shepherd, 2006: 42). By contrast, in his alternative 'great experience', 'everything is alive, everything speaks' (cited in Shepherd, 2006: 42).

To Bakhtin, withdrawal from the 'great world' does not have a liberating or protective effect, but, on the contrary, makes one more manageable and controllable by others. In an almost Arendtian fashion⁶, he argues that there is a lack of resources - imaginative resources - to allow for significant resistance. Where loss of stability is equalled with loss of meaning, there is a will to give over control. This has pointedly been expressed by Régis Debray in his ironic manual 'On the good use of catastrophes', in which he asserts that for most people, a bad government is preferable to none: it feels safer to have someone whose absence can be

lamented or complained about in the event of catastrophe than to have a total absence of guidance or foundation (see Debray, 2011: 51). Other authors have highlighted the appeal of religion or the occult in times where reality 'seems as deaf as never before' (Adorno, 2005[1951]: 240; see also Ronell, 2009:36; Žižek 2009:158). Gesturing towards 'official culture', Bakhtin illustrates how it maintains and gains power by nourishing the desire for an unchanging environment (Bakhtin, 1984:336). Such dynamics can already be observed at full play in current climate change politics, where lobbies and political parties are denying the possibility of drastic near-future changes or are promising technological fixes in order to cater to the stable, 'preferred reality' of their potential voters (McCright and Dunlap, 2010: 127; Szerszynski, 2010: 22). Not only does such denial potentially speed up catastrophic development, but also render everyone (not only the fearful) more vulnerable to drastic measures that might have to be taken as a countermeasure (Hird, 2010: 64). As Ben Taylor argues, this tendency to oppose changes at all costs is even present if someone is outwardly occupied with constant and progressive change (see Taylor, 2004: 163).

The key for Bakhtin to protect oneself from being easily controlled appears to lie in the creation of a new kind of experience of the world, built on a different concept of the 'great world'. Rather than thinking in terms of 'idyll' versus 'abstraction', he proposes to 'find a new relationship to nature'. In Bakhtin's words, the resulting 'great experience' encompasses relations

'not to the little nature of one's own corner of the world but to the big nature of the great world, to all the phenomena of the solar system, to the wealth excavated from the earth's core, to a variety of geographical locations and continents' (Bakhtin, 2008: 234).

In an argument similar to that of Michel Serres, presented in the introduction to this article, Bakhtin finds that human awareness needs to stretch further than one's immediate surroundings, in order to understand one's situatedness:

'In great experience the world does not coincide with itself (it is not what it is), it is not closed and not finalized. In it there is memory that does not have borders, memory that descends and disappears into the pre-human depths of matter and inorganic life, the experience of the life of worlds and atoms. And for this memory the history of the individual person begins long before the awakening of his consciousness (his conscious I)' (Bakhtin cited in Shepherd, 2006: 41).

For Bakhtin, one needs to create the exact opposite of both 'small' and abstract 'great' experience - to not only make everything come alive, but to become 'object-like in a subject-like world' (cited in Shepherd, 2006: 42). Far from a call to submit oneself to some construction of 'natural law', thinking about the world as active and perpetually changing - and oneself as part of this world - might enable the realisation that one is part of socio-material processes which 'transcend[...] and outlast[...] one's own life' (Hirschkop, 1999: 277; see also Morson and Emerson, 1990: 416). While the short-sighted view of small experience only allows us to see the immediate destruction and personal loss, and the 'abstract' great experiences makes us crave for an unrealistic conception of meaning, the focus of Bakhtin's alternative 'great experience' entails abandoning the focus on the individual tragedy and meaning as inherent in the outside. Instead of leading to the adoption of a passive attitude, this quasi nihilist stance promotes, to borrow Ray Brassier's phrase, a 'gain in intelligibility' regarding one's relation to everything else (Brassier, 2007: 238). Bakhtin's focus on the

relationship of time and matter thus serves to develop the inevitability of change from a disempowering into an empowering phenomenon: change happens, but that also indicates that apparent stability – or illusion of stability – is open to questioning and can even be destroyed, even though it may take a long time. This represents the point at which Bakhtin turns to the prospect of renewal to show that meaning should not necessarily become attached to one's immediate experience or life-time: 'in great time nothing ever loses its significance... nothing dies, but everything is renewed' (Bakhtin, cited in Shepherd, 2006: 33-34). Whereas this attitude could be described as overly optimistic, it represents one path towards shaking off paralysis in the face of crisis. Bearing the danger of seeing oneself at the mercy of active forces against which no meaningful action can be taken - and of waiting for change to happen 'naturally' - it also braces against the imposition of meaning, for instance, of catastrophes representing 'God's will'. Physical changes such as climate change gain a different meaning, if one accepts such events as being (a necessary) part of time and matter (see Bakhtin, 2008: 206; see also Žižek, 2009: 159). This is not to deny that climate change is human-made, but rather to urge that the environmental changes it entails should not be accepted fatalistically or be imbued with artificial meaning.

Such a focus on renewal is likely to sound idealistic to someone caught up in a traumatic event, however, Bakhtin's vision could be taken as an encouragement to engage with the potential of catastrophe and find a way of making sense of it for oneself - against 'the official picture of events' (Bakhtin, 1984: 439) – as an alternative to being held captive by one's fear. An example of this kind of 'deparalysation' can be found in Naomi Klein's reporting on citizen activism in disaster areas which have become subject to aggressive redevelopment, such as the 'land reinvasions' undertaken by forcibly disowned Thai fishermen, or the 'grassroots reconstruction' it inspired in New Orleans (2008: 463-465). Both practices went against the reaction to wait for official solutions – 'solutions' that increasingly closes down alternative engagements with the world. The artist-led action of the Atis Resistanz in the wake of the Haiti earthquake is another example of individuals and communities organising their own 'renewal' after losing faith in meaningful intervention by 'official forces' (Gordon, 2010). It is this capacity to find alternatives to official discourses of fear that seems central to Bakhtin's thought and, I argue, should become more central to the discourse around climate change politics.

Accessible 'bodily' resistance

How does one, practically, deal with 'cosmic terror' and with the lure of safety? And how does one do it on a large scale? This question appears to have parallels in the work of Bakhtin's contemporaries – the Russian Formalists, the Surrealists, Brecht, Artaud, Bataille – who each pursued the development of strategies to destroy the 'false reality' and default setting of 'small experience' (see Beasley-Murray, 2007: 6). Like these artists and writers, Bakhtin argues for the possibility of a 'radical violation' of 'the usual run of life' (Reth, cited in Hirschkop, 1999: 191). While Brecht attempts to disrupt habitual perception and 'false reality' by engineering rational detachment, and Artaud by mobilising raw forces of emotion and sensation, Bakhtin puts forward his own version of defamiliarisation (or 'estrangement') by advocating a 're-familiarisation' with the alienness of the world. In his discussion of medieval carnival practices, a central element of this re-familiarisation is bodily experimentation – the emphasis lying on *bodily*, as experimentation not only takes place in the form of physical action, but appears to involve verbal exploration as well (Bakhtin, 2008: 171). As mentioned in the previous part, there seem to be two ways of living for Bakhtin: one driven by denial and

terror of the world, and another propelled to overcome this terror by affirming and opening up to it. This affirmation is also played out through the body, which represents a sensory vehicle for becoming conscious of 'cosmic elements' within oneself (Bakhtin, 1984: 336). Here, Bakhtin follows, as Viktor Shklovsky highlights, a long tradition of regarding corporeality as 'a method for renewing insight and broadening the frequency of perception' (Shklovsky, 2011: 362). More so, for Bakhtin, the body appears to be the key to protecting oneself against the instrumentalisation of catastrophe, because of its potential as a site of disruption, error, aberration and surprise (Hitchcock, 1998: 90). He maintains that the (political, religious) forces catering to the desire for 'small experience' utilise and try to actively suppress the body's link to the sphere of nature/the cosmos, as thinking and acting in terms of 'cosmic' scales is considered an opposition to immediate stability (Bakhtin, 1984: 320; Hirschkop, 1999: 277, 283).

The body also increasingly plays a role in the discourse around climate change. It is noticeable, for instance, in the critique of imaginations behind the 'abstract' word 'globe' as opposed to 'planet'. As Gayatri Chakravorty Spivak writes: 'The globe is on our computers. No one lives there. It allows us to think that we can aim to control it' (2003:72). Other critics, too, have noted the 'sterile' character of a 'disembodied and unsituated global climate with its universalizing demands on our imaginations and behaviours' (Hulme, 2010: 273) and the 'expert and elitist' nature of the discourse surrounding it (Beck, 2010: 254). Against this image, climate change has been reinterpreted as a reminder of our physical nature, 'represent[ing] a collision point between humanity's civilizational ideals and its creaturely nature: between progress and extinction, between the linear time of history and the cyclical time of nature, between transcendence and metabolism, between spirit and mere exhalation' (Szerszynski, 2010: 10). To advance the potential of this interpretation, alternatives are being experimented with. These tend to see the body and its range of sensations and capacities both as vulnerable to disaster and as actively negotiating such events. Examples include Bronislaw Szerszynski's call for building new relationships with weather, particularly with 'reading' weather (2010), Nigel Clark's bodily generosity (2011) and Kathryn Yusoff's vision of 'the corporeal experience of limits', which, for her, also include the experiences of biophysical limits (2010: 93). Yusoff's example underlines above all how the suppression of the sensory – in her case the substitution of the violence of species extinction with ordered management or archiving - is likely to perpetuate the violence (2010: 88, 95). Turning to Bataille's exploration of limits as an inspiration for engaging with climate change, and specifically the human impact on biodiversity loss, she argues for a redistribution of the senses through opening ourselves to 'the immanence of the universe, be that through earthworms or spit, wild beasts or our own animality' (2010: 94).

What connects Bataille and Bakhtin is a corporeal negotiation – set against a default negation - of 'base' matter. 'Base' does not necessarily imply 'low' in this context, although especially the 'lower bodily stratum', in connection with other bodily orifices or 'passageways' between the body and the world, is a central motif in Bakhtin's writing (Morson and Emerson, 1990: 444, 266). As Alan Stoekl suggests, an engagement with base matter represents a form of resistance to 'scientific or political mastery' (see Stoekl, 1985: xv). The difference between the two approaches seems to lie in the form of engagement. According to Denis Hollier, humans coming to terms with Bataille's 'base matter' are challenged about their perception of their place in the world (1990: 135). Encountering Bakhtin's 'alien' matter, they are, too, however, in contrast with Bataille who appears to understand explorations of material limits and 'baseness' as a rather violent act (Bataille, 1985: 43), Bakhtin seems to envision such investigations as a playful encounter. Emphasising its joyousness and generativity, the subject of this exploration 'gay matter' (1984: 335). The kind of sensual encounters Bakhtin uses to

illustrate a negotiation of 'cosmic terror' seem rather peculiar, considering what is at stake: eating, defecating, sexual intercourse and other mundane functions and necessities. Bakhtin justifies his choice by emphasising the intimate bodily interpretation of 'cosmic matter' and the opening of the body to the world that takes place during these activities: through eating and drinking, for instance, we consume the earth and the sun (Bakhtin, 2008: 210, 1984: 335). Likewise, he shows how 'popular', accessible experimentation emerges as a strategy to make conscious connection with the material, with the cosmic⁷ (Bakhtin, 1984: 380), because it:

'... destroy[s] and suspend[s] all alienation; [draws] the world closer to man, to his body, permit[s] him to touch and test every object, examine it from all sides, enter into it, turn it inside out, compare it to every phenomenon, however exalted and holy, analyse weigh, measure, try it on' (Bakhtin, 1984: 380-1).

In this respect, his proposal of negotiating matter resembles more closely what Debray calls 'putting the supernatural into the household setting' (2011: 83, own translation). This does not imply a 'domestication of terror' in the sense of abandoning critical questioning of a regime that imposes terror (Boym, 2010: 284), or a standard narrative of appropriation of the world for human ends – after all Bakhtin not only talks about 'swallow[ing] the world', but also about being swallowed by it (Bakhtin, 1984: 317) - but rather a making accessible of overcoming the one's vulnerability to the use of terror.

It has been argued that this fairly primeval management of fear through 'gay' matter should not necessarily be understood as a call to experiment with bodily fluids as a form of resistance, although Terry Eagleton has criticised Bakhtinian discourse as 'strikingly shitless' (2001: 239). While there have been proposals to see the 'rude passages' as mere metaphor, the focus on bodily experimentation with the cosmic, especially in relation to the instrumentalisation of fear, must not be dismissed as entirely meaningless. A comparison with Svetlana Boym's work on estrangement, for instance, highlights how sensation (and sense) can become an indicator for a removal of 'worldliness' (both in terms of Hannah Arendt's 'public, political interaction' and Bakhtin's physical-metaphorical complex). Interpreting Arendt, Boym warns of ideologies which 'offer[...] an extremely coherent closed system of thinking' and thus 'force[...] people to distrust the reality of their everyday experiences and their senses' (2010: 263). In contrast to appeals for embodiment, organicism and sensation, which seek to enforce a bounded idyll such as the nation state, or a turning away from the textual-as-critical-practice in favour of 'idiotic enjoyment' (see Morton, 2009: 96, 136), Bakhtin repeatedly stresses that the object of sensory engagement with the world is to 'destroy the official picture of events' (1984: 439). The body is imagined not as a receiver or ideal, but, to paraphrase Vicki Kirby, as a 'dangerous supplement that we possess or are possessed by' (Kirby, 1997: 73). Cultures wishing to 'pacify' its capacity for danger tend to isolate the body both from other humans (physically and ideologically) and a material and spatio-temporal 'great reality'. From this perspective, bodily experimentation, staged by Bakhtin within a popular setting, indicates the necessity to make the tools of challenging official narratives accessible. Although Shklovsky has corrected Bakhtin's claim that Rabelais used 'popular imagery' to enable a wide-spread questioning of 'false seriousness' (Bakhtin, 1984: 439) by pointing out that the supposedly 'low culture' images served as satires directed at 'erudite scholars' (Shklovsky, 2011: 320), Bakhtin's insistence on popular communication may be an unobvious hint.

Where Bakhtin differs from most theories of the body as providing a source of 'resistance' is his insistence that bodily interaction does not merely take place through the tactile register, but through the verbal as well. As previously indicated, the image he argues against is that of

the body as closed off from both world *and* word (see Bakhtin, 2008: 171, 177). According to this image, the body can only be understood in negative terms: on the one hand, it is characterised by inferiority in the face of the textual (because it is material), on the other, it epitomises a disconnection from the world through its rejection of the 'visceral'. For Bakhtin, either extreme – radical dematerialisation or total materialisation - is unsustainable. His elevation of the suppressed aspects of the body's capacities to the role of pathways to the cosmos and, through this, to full humanity, highlights this often-performed cut. This issue of materiality and representation, seen through the lens of Bakhtin's 'monstrous' body imagery, echoes a prominent theme in current literary theory discourse on climate change, where the debate has revolved around the question what kind of direction to take in the face of a phenomenon that is both clearly material and clearly constructed. Moving between embrace of climate change as a 'joyous' catastrophe 'for *thought*' (Cohen, 2010: 86) and shock over its seemingly insurmountable challenge on all levels (Clark, 2010:132), recent discussions of environmentalism and deconstruction see theory as facing the double task of 'explor[ing] the figures and failed personifications by which ecological damage is tracked, politicized, put into media, entertainment vehicles, or gets absorbed as an assented to acceleration' and of dealing with the challenge of climate change to criticism itself through its 'non-personifiable' agencies (Cohen, 2010:82). Bakhtin's work can be read as trying to negotiate both of these directions by shuttling back and forth between matter and representation. It is here that his linking of the material and cultural inhuman can serve as a starting point for experiments with expanding political agency in times of crisis.

Openings

Mikhail Bakhtin's writing on 'cosmic terror' sensitises us to the consequences of different imaginations of the world which place us in positions of varying vulnerability to outside threats and diminishing political agency. Climate change is perhaps the most radical and literal example of how imagined relations between oneself and the planet - or cosmos - impact on one's capacity to counter narratives which seek to close down avenues of political and ideological change. A phenomenon whose status is contested by many both on the levels of knowledge and sensory experience, climate change seems to require not only 'rational proof', but 'sensory confirmation'. The difficulty of obtaining this 'sensory confirmation' continues to play into the hands of those who seek to resist demands for action. Here, the question has frequently been asked of what needs to happen in order for people to take action, apart from the events themselves. A different question arises out of Bakhtin's work. As the spectre of change is increasingly conjured up by groups who wish to take advantage of the longing for 'small experience', we may need to add a concern about what needs to happen in order for people not to take the wrong kind of action. Grappling with the dual challenge of resistance to instrumentalisation and the accessibility of this resistance, Bakhtin alerts us to the need to find pathways that are accessible to many different publics. Drawing parallels between his own time – life under censorship and the threat of persecution in the Soviet Union – and the Middle Ages, which saw a largely uneducated public dominated by a literate religious and secular elite, Bakhtin appears to propose a strategy whose primary aim is to 'de-paralyse' populations, if only to create a temporary window of possibility. The same parallel could be drawn with the present, where countries such as the US and UK see declining literacy levels and support for critical thinking in education (e.g. Strathern, 2006), and the proliferation of anti-intellectualism, which extends beyond vocal conservative religious or political figures.

Aforementioned social scientific work on climate change seems to suggest that 'cosmic fear' is

perhaps impossible to overcome, due to our extremely vulnerable position at the receiving end of planetary and extra-planetary forces on the one hand (Clark, 2011) and to technological, political and social forces on the other. It has also been argued that through recent technological innovation, whatever resistances playful body-world relations such as the 'grotesque' offer, have already been appropriated in such a way that they have become part of (scientific) mainstream culture (Davies, 2011). Whether at the scale of the human, animal or plant 'body' or at the scale of the planet, experimental boundary-crossing practices such as genetic and geo-engineering are increasingly becoming part of 'official culture'. As Bakhtin's critic Shklovsky reminds us, medieval carnival was a historical phenomenon, which used very particular strategies which may have been surpassed by now (2011: 339-340). At the same time, he implies that despite the 'multidirectional' moving of time, we are dealing with 'similar patterns of repetition', suggesting that an engagement with past methods of 'changing the story' may inform the methods of today. Shklovsky's 'experimental strategy' of staging a fake pogrom during the First World War 'to avoid the real one' (see Boym, 2010:218), may indeed not work in the context and at the scale of climate change, where the 'real' is already happening, but it could be argued that local crises such as flooding, and official reactions to it, could be taken as large enough expressions to give people a sense of the reality of larger environmental and cultural changes – and of potential alternative responses.

Several directions open up from Bakhtin's concept of 'cosmic terror'. Of particular relevance to building resistance against the instrumentalisation of climate change seem to be pathways of rendering the strategies of instrumentalisation (intellectually and viscerally) sensible, accessible and 'degradable'. Discussing the logics of political terror and population control, anthropologist Michael Taussig observes that 'standard rational explanations' are 'pointless' when it comes to dismantling 'intricately construed long-standing cultural logics of meaning-structures of feeling' (Taussig, 1984: 471). In addition, he discerns silence, solitude and awe as means of enforcing fear. Read alongside Taussig, Bakhtin's appeal to think in cosmic terms and to seek conscious or even playful, joyful encounters with a greater materiality and temporality could be seen as a means of confronting and overcoming silence, solitude and awe, by finding resonance both with the diversity of thought produced over 'great time' and with the knowledge that meaning is not of the world but co-produced in relation with it. Becoming aware that meaning is not inherent, but constructed and changeable, can result from a number of practices. One proposed method reflects current efforts in making climate change itself 'sensible' – by using art and other public interventions as means for contesting what officially counts as 'sensible' (see Yusoff and Gabrys, 2011). Karen Pinkus' deconstructive reading of two public artworks - the *Carbon Clock* at Union Square, New York and the *CO2morrow* sculpture at the back of London's Royal Academy of Art – points to such installations as a means of contrasting the rhetoric, practice and homogenised time of 'carbon management' with 'the chaotic ungraspability of climate change' (Pinkus, 2010:61). At the same time, Deutsche Bank's erection of a similar 'carbon clock' at nearby Union Square, to advertise its climate change management services, signals the rapid incorporation and reinterpretation of both the material and symbolic aspects of such interventions. This does not mean that such public interventions are vain efforts, especially as they grow in magnitude. Indeed, Bakhtin's joyful degradation could be interpreted as cumulative loss of respectability of a system, including the respectability of official 'figures' (as in numbers) (Bakhtin, 1984: 463-467). This strategy has been shown to be effective, for example, through activists' public exposures of formerly respectable corporate and state practices as 'grotesque criminality' (Klein, 2008: 446). As Naomi Klein observes, such contemporary 'debasements' are featuring increasingly sharp renderings of alternative proposals (2008:451), mirroring Bakhtin's advocacy of not merely iconoclasm, but the simultaneous construction of a new, habitable world (Bakhtin, 2008: 177).

Another direction could be to reinterpret the focus of today's engagements with 'cosmic terror'. Landscape architect and biologist Seth Denizen proposes that contemporary 'cosmic terror' should be understood less as vertigo in the face of deep time and endless matter – the 'terror of having always been of the world' – but as a sudden compression and speeding-up of time towards 'immanent finitude' (Denizen, 2012). Putting into question the iconic 'hockey stick graph' imagery which proliferates in the popular media to denote 'crisis' in just about every phenomenon on this planet, from a steep increase in temperatures to a sudden explosion of Elvis impersonators, he calls for a widening of the space (of representation) in which this crisis unfolds (Denizen, 2012). One could further argue that, having already become inverted in a 'carnavalesque' manner, human-world relationships continue to result in daily 'unconscious' experiments with the planet. Against this new relationship, future directions might not only consist of undertaking these experiments more consciously, such as artist Francesca Galeazzi's controversial release of 6 kg of CO₂ in the 'pristine' Arctic (Galeazzi 2008; Brahic, 2008), but also with a different kind of alien-ness: that of new technologies. With its laboratory-based side excluded from hands-on public access, but its products available to many people the form of information technologies and, at least in some countries, transgenic plants, there are already many examples of 'conscious' use, which aim at imagining alternative possibilities of our relation to the world. These activities pursue different goals than the aforementioned mainstream technological 'grotesque' as defined by Gail Davies. Examples include the activities of the hacker organisation and 'galactic community of life forms' Chaos Computer Club (CCC) whose projects have spanned from monitoring government activities around the 'War on Terror' or the scramble for the resources to encouraging DIY engagement with information and biotechnology (e.g. Chaos Computer Club, 2008, 2012). The CCC's project has even started to extend into a political movement, manifesting in Germany's *Piratenpartei* (Pirate Party), in which some CCC members participate (Lüpke-Narberhaus, 2011). A similar move away from engagements with 'nature' has been expressed by Žižek who recommends that we start opening up to experiments with waste, abstraction and extreme representation instead of an unhelpfully idealised image of nature in order to react better to the double threat of disaster and its instrumentalisation (Žižek, 2009).

Whichever direction one takes with countering the instrumentalisation of climate change, Bakhtin alerts us to the necessity of taking into account that materiality and meaning are closely entwined, and that the relation between the two can be interpreted for very different ends. Even more importantly, perhaps, his work serves as a reminder that we need to keep devising accessible tools for the critical examination of narratives and for imagining new openings.

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Notes

1 Examples are the influential 'Politics and Poetics of Transgression' which discusses the 'high' and 'low' spheres of Bakhtin's materiality (Stallybrass and White, 1986), Peter Hitchcock's work on the connection between Bakhtin's own physical suffering and his conceptualisation of materiality (1998), Tom Cohen's criticism of the exclusion of materiality in Bakhtinian discourse (1998), Ken Hirschkop's analysis of Bakhtin's conceptualisation of fear and its relation to materiality and politics (1999), Ben Taylor's work on Bakhtin and vitalism (2004) and Tim Beasley-Murray's comparison of Bakhtin and Benjamin (2007). While the discussion of 'Bakhtinian materiality' in the humanities has resulted in valuable insights, there seems to be no equivalent reflection in the social sciences.

2 Exceptions are sociologist Barry Sandywell's discussion of Bakhtin's and Benjamin's views on nature-culture relationships (1999), geographer James Kneale's work on thresholds (2006) and Craig Brandist and Gavin Tihanov's edited collection *Materializing Bakhtin: The Bakhtin Circle and Social Theory*.

3 Some interpreters, such as Paul De Man (1983), Tom Cohen (1996) and Terry Eagleton (2001), caution against too literal reading of Bakhtinian dialogue, which included most 'accepted' interpretations.

4 Bakhtin seems to be in dialogue with Marx, when it comes to the theme of nature as the 'inorganic body of man' (Marx, 2009 [1844]: 83). It could be argued that, while Marx sees labour as the means of overcoming alienation from nature, Bakhtin suggests play and sensation. It remains unclear whether this is an amplification of the theme of 'sensuality' (or 'sense-experience') in Marx writing (2009: 110) and thus a critique of the virtually exclusive focus on labour by Soviet communists, or whether this is a critique (or satire?) of Marx himself.

5 Hirschkop, 1999:273

6 Arendt defines the 'banality of evil' as a 'lack of imagination' (2006: 287).

7 This could be read as a gesture towards the Formalists' idea of estrangement, which Bakhtin has been known to criticise as merely estranging the word and not the object (Bakhtin, 1990: 307).

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