Democracy and Agonism in the Anthropocene: The Challenges of Knowledge, Time and Boundary

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Abstract

The diagnosis of a new geological epoch, The 'Anthropocene', has implications far beyond geological science. If human activity has disrupted the planet, then this diagnosis potentially disrupts socio-political conventions. This article assesses the implications the Anthropocene has for democratic politics, by delineating three challenges; challenges of knowledge, time and boundary. In contrast to the claim that democratic institutions are unable to adequately respond to these challenges, I suggest that they might be strengthened through an engagement with them. Following an 'agonistic' understanding of politics, I argue that the contestation instigated by the challenges of the Anthropocene is key to democratic renewal. Just as democracy in the Anthropocene can be enhanced through an agonistic approach, agonistic theory can be enriched through an engagement with the Anthropocene.

Keywords: Anthropocene, environmental politics, democracy, agonism, science.

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Introduction

Struck by the depth and width of the impact of human forms of life on the planet earth, a number of scientists are proposing the declaration of a new geological epoch (Crutzen and Stoermer 2000). 'The Anthropocene' is a diagnosis and prognosis attesting to the indelible and disruptive legacy of human industry. Geologists of the future, it is said, will be able to

detect a qualitative change in the stratigraphic record as a result of social transformation (Brondizio et al. 2016, X; Bonneuil and Fressoz 2016, 13). The Anthropocene enfolds a bundle of serious and interconnected issues: mass biodiversity loss; ocean acidification; pollution and bio-hazards; the exponentially increasing world population; a rapidly changing climate; and the possible side-effects of proposed technological solutions. The deep embeddedness of social systems within the earth system is revealed and it becomes clear that this is a relation characterised by both dependence and disturbance (Wapner 2014, 39; Baskin 2015; Bonneuil and Fressoz 2016, 33). Although its starting date and scientific status remain contentious (Monastersky 2015) the Anthropocene has generated a great deal of discussion across and beyond the natural and social sciences (Castree 2015; Moore 2015; Purdy 2015). Previous contributions to this journal have thus seen the coining of the new epoch as drawing much needed attention to the unsustainable tendencies of Western capitalist lifestyles (Di Paola 2015, 185).

The starting point of this paper is that just as the Anthropocene indicates a disruption of coral calcification and biogeochemical cycles, it also unsettles any unreflective approval of prevailing social norms, economic conventions and political institutions. My focus is the implications the Anthropocene diagnosis has for democracy. As environmental issues demand and gain political attention, political systems too are coming under environmental critique. There is an emergent literature on the politics and governance of the Anthropocene (Biermann 2014; Clark 2014; Delanty and Mota 2017; Dryzek 2014; Pattberg and Zelli 2016; Wapner 2014) but there are currently surprising few detailed analyses of the challenges it poses specifically for democracy (although see Niemeyer 2014; Eckersley 2017 and Purdy 2015).

As I will show, where there has been reference to democracy in discussions of the Anthropocene, the particular model promoted has tended to be 'deliberative democracy'. In contrast, this article attempts to draw out the possibilities for democracy using an 'agonistic' model. Agonists celebrate the contestatory, pluralistic and unruly character of politics (Mouffe 2000; 2005; 2013; Tully 1999; 2002; Connolly 2005; 2011; 2013; Honig 1993).[1] Following, in particular, Chantal Mouffe's emphasis on the irreducibility of political conflict, I argue that while the Anthropocene poses profound challenges for democratic institutions, these challenges foment political contestation that potentially enlivens and enhance democracy along agonistic lines.

I proceed by delineating three distinct interconnected challenges for democratic institutions brought to attention in the Anthropocene: the challenges of *knowledge*, *time* and *boundary*. These challenges are not in any way completely new, but they are made more prominent and urgent in the Anthropocene. Nor are they, of course, the *only* concerns brought to attention. Yet these particular challenges all seemingly justify the sidestepping or suppression of mechanisms that grant power to the *demos*, limiting policy making to a minority of 'ecological vanguards' (Bonneuil and Fressoz 2016: 80). They are part of a picture in which the urgency and complexity of the new epoch buffers the authority of elites who might 'manage' the problem unrestrained by the structural deficits of democratic politics (Spash 2015, 2).

My argument is that these challenges can also be read as illustrating precisely the opposite; by provoking disagreement and rupturing illusions of consensus, they point towards possibilities for the agonistic renewal of democracy. The Anthropocene diagnosis potentially expands the

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[1] For an overview and comparison of different agonist thinkers see Wenman 2013.

arena of political struggle to incorporate social and geophysical phenomena (Rowan 2014, 448). If democracy in the Anthropocene can be enhanced through engaging an agonistic approach, then agonism can be enhanced through an engagement with the challenges of the Anthropocene.

The Limits of Democracy?

The Anthropocene brings into sharp relief the limits of nature or 'planetary boundaries' (Steffen 2015). Have we come up against the limits of democracy too? Is there an ineradicable weakness with the political mechanisms that allow economic self-interest to trump ecological insight; voices of ignorance to drown out those of scientific expertise; short term gain to win out over long term strategy? Modern democratic institutions of all shapes and sizes seem unable to provide the swift and decisive action required to cope with such environmental risk (Beeson 2010). Designing and sustaining political structures for this epoch is no easy task; as Marcello Di Paola puts it: "the Anthropocene is hard to govern" (2015, 190). Just as democracies are not generically emancipatory nor are they environmentally progressive. If anything, they seem to have been co-opted by reactionary tendencies to simply 'govern unsustainability' (Blühdorn 2015, 165). The palpable danger here is that the necessary actions to safeguard the environment will only come when it is too late.

It might seem, paradoxically, that we have to sacrifice our democratic way of life in order to save it. In a situation of impending ecological disaster in which both the changing climate as well as the strategies to mitigate it produce disorder, some argue that democracy should be 'put on hold' (See Burnell 2012; Niemeyer 2014; Stehr, 2015). The diagnosis of the Anthropocene has indeed been interpreted as paving the way for management by experts, by both proponents and critics of such technocratic management. As Timothy Luke warns, it can

easily serve as "the pretext for declaring a state of emergency" which seems to encourage the assuming of authority by those who "presume to speak for the Earth" (2017, 81; Baskin 2015, 14). This is why Robyn Eckersley asks "should democrats be nervous about the Anthropocene?" (2017, 1). The challenges of the Anthropocene, she argues, are not surmountable by technocracy, rather the opposite: they demand a robust democratic response. For sure, if democracy is narrowly identified with a specific and static set of institutions, then it may well be easy to construe as impossible to sustain in the Anthropocene. But if we understand democracy more broadly as itself necessarily open to continual redesign then it is this very construal that becomes unsustainable. My suggestion is that the Anthropocene and the challenges it poses could actually provoke salutary renewed reflections on democratic possibilities.

Democracy can be redesigned in different ways, but the design that indubitably dominates recent environmental politics research is the 'deliberative' model. Widely accepted as the new orthodoxy in democratic theory (Smith 2003, 53; Dryzek 2000; Wenman 2013, 3), the deliberative model promotes the importance of fair, inclusive and equal discussions in any political system. Crucial to the deliberative model is the idea that preferences are not pre-fixed prior to interaction with others, but are transformed through the exchange of reasons in institutions such as citizen juries, consensus conferences, citizen initiatives, roundtables and focus groups (Smith 2003, 77; Bulkeley and Mol 2003, 150). Many believe, then, that deliberation can render environmental policy-making more 'ecologically rational' (Barry 1999, 230; Dryzek 2000, 147; Smith 2003). Simon Niemeyer suggests that: "deliberation makes salient the environment" (2014, 27) arguing that citizens who are engaged in deliberation are subject to "enlarged thinking" (2014, 28) and thus become more sensitive to environmental concerns: "Authentic and intensive forms of deliberation appear to improve the

ability of citizens to better deal with complex issues such as climate change" (2014, 30). Delanty and Mota baldly state "it is evident" that any sort of measures to combat the challenges of the Anthropocene should be "subject to deliberative processes" (2017, 25). Likewise, Baber and Bartlett ask themselves which form of democracy would suit the political circumstances of the Anthropocene, and they answer, "deliberative democratic practice is prerequisite for the learning, local knowledge, and engagement that enlightened environmental governing requires" (2016, 168).

The deliberative democratic approach to environmental politics has come under extensive critique for various reasons (Machin 2013, 80-86). The most pertinent problem here, however, is the lack of attention it pays to the important irreducibility of plurality and conflict. In Eckersley's recent analysis, for sure, she notices that we should "expect ongoing disagreement…" arguing for "…a cultural disposition to reflect and agonise" (2017, 13). However there is no real recognition in her account of the *value* of such disagreement, rather it is something that must be expected and perhaps also tolerated. Proponents of deliberation appreciate the existence of difference and increasingly acknowledge the difficulties of reaching consensus and the "unfinished and open-ended aspect that serves as the lifeblood of democracy" (Ercan and Gagnon 2014, 7). Nevertheless, in so far as they attempt to bring such differences into alignment they miss an important aspect of politics that is emphasised by agonism; the value of conflict (Wenman 2013, 46).

The agonistic insight is that disagreement between differences is not only *inevitable*, but that rowdiness, ruptures and remainder are *actually constitutive of* a robust democratic politics (Honig 1993, 4). An attempt to remove such agony from the political realm is an attempt to defuse or defame critique of powerful established institutions and to 'displace politics' (Honig

1993, 10). Disagreements stimulate engaged political interaction, reveal the limitations of any one hegemonic position, as well as offering an opportunity for radical alternatives to emerge that "call into question the deeply sedimented background conceptions of nature that block fundamental change" (Tully 2002, 149) and that challenge the very rules of the game (Tully 1999, 169). What is understood to be 'common sense' and 'natural' can always be renegotiated (Mouffe 2005, 18). Agonists are not only concerned with the plurality of already recognised positions, but with the articulation of new ones (Norval 2009: 299). Ultimately, differences are irreconcilable, and any final decision will be contingent: that is precisely what makes it a *political* decision. For agonists, political change is brought not by forging consensus, but through pluralization of the political sphere and by building coalitions around alternatives. The challenge for agonists, then, is to ensure that such political conflict remains recurrent and respectful rather than violent and destructive. For William Connolly this means encouraging the development of an ethos of agonistic respect and critical responsiveness (2005, 123-127). For Mouffe, who is much more attentive to the *antagonism* that cannot ever be fully eliminated from politics, it involves fostering of a 'vibrant agonistic public sphere' and democratic institutions that allow the *legitimate* expression of irreconcilable differences (2005, 3-4).

It is important to notice that there are no limits to what is agonizingly renegotiated. Agonistic disagreement "goes all the way down" (Schaap 2009, 1); the proper composition of a democratic system is itself not immune from contestation. In Mouffe's agonistic conception of democracy, the particularities of a contingent 'democratic framework' are not immutable "They are precarious and pragmatic constructions which can be disarticulated and transformed as a result of the agonistic struggle among the adversaries" (2005, 33). Any agreement will be imperfect, marked by the need to 'begin all over again' (Tully 2002, 162).

At the same time, agonists argue that radical change is possible within the existing institutions of liberal democracy (Mouffe 2005, 33). As Mark Wenman explains, they prefer *augmentation* to revolution (Wenman 2013, 9). Precisely because they are attuned to political conflict, agonists are wary of its destructive potential.

I suggest that the Anthropocene generates opportunities for renewed, creative and lively democratic disagreement. If, as Jeremy Baskin states, the Anthropocene is "a troubling concept" (2015, 10) then it might trouble the very scientific, socio-economic and political institutions that fomented its existence. Approached from an agonist perspective, the challenges it (re)introduces engender democratic contestations that valuably disrupt and dynamize politics and potentially politicize the Anthropocene, just as critical voices have demanded (Bonneuil and Fressoz 2016, 26).

And not only does agonism offer a possibility for enriching democracy in the Anthropocene, but this geological epoch offers an opportunity for agonistic theory. Through an engagement with the challenges of the Anthropocene, and a rooting into some of the insights provided by ecology, I propose that agonism may be affirmed and enlivened. The Anthropocene diagnosis precipitates a shift in thinking about the human condition (Schulz 2017, 127). If political subjects are not only rational calculators but are interconnected to nonhuman nature and technological artefacts then their perspectives cannot be expected to easily align, The new epoch opens potential new seams of disagreement, perhaps as yet unknown, from which agonists can mine.

The Challenge of *Knowledge*

The first challenge posed by the Anthropocene for democracy is the prominent and crucial

role played by science in grasping its implications. Knowledge - particularly expert scientific knowledge - is an essential resource that transforms the structure of society and "creates new politics" (Drucker 1993, 69. See also Jasanoff 2005, 4; Castree 2015, 2; Stehr 2001). In the Anthropocene this general tendency is sharpened. Scientists draw attention to ecological issues and provide models of the future and estimates of risk. The Anthropocene is introduced and framed by the scientific knowledge of various disciplines, and has itself made requisite the emergence of new ones. While scientific predictions of a changing climate, for example, are inevitably uncertain, they are nevertheless a valuable resource in formulating and legitimising socio-economic and environmental policies and in understanding their potentially far-reaching and drastic effects.

It is often difficult, however, to translate scientific claims, results and predictions into accessible literature that non-experts can grasp. This has led some to recommend improving the communication and dissemination of science in an attempt to render science clearer and more accessible. This persistent 'information deficit' model suggests that through cultivating public awareness programmes and science journalism, knowledge can be transferred from experts to policy makers and citizens in an effort to improve their scientific literacy (Suldovsky 2016).

Born of a concern with defending democracy, this very framing of the problem as a matter of an 'information deficit' actually endangers democracy. It forgets the social institutions and political context in which scientific expertise is inevitably immersed and presupposes the complete neutrality and total authority of scientists. As a signifier of a new *geological* epoch, the Anthropocene is commonly regarded as 'owned' by natural scientists (Malm and Hornburg 2014; Lövbrand et al. 2015). In describing her participation in the production of a

UN report about the Anthropocene, Melissa Leach notes that: "the authority of scientific expertise went unchallenged, and indeed was bolstered" (2013). This both illustrates and buttresses the tendency to claim that scientists are better equipped to inform environmental policy and therefore are able, as Crutzen and Stoermer ominously claim, to 'guide mankind [sic] towards global, sustainable environmental management' (2000: 18).

The notion that good policy involves simply following the scientific facts has been widely and convincingly challenged. For Bruno Latour: "It is surely no longer possible to oppose the scientific world of indubitable facts to the political world of endless discussion" (2004, 63). Facts are always the products of the flurry of diverse activity that goes into shaping them (2004, 95). The same knowledge claims can used in different ways in different democratic societies and its impartiality might be questioned (Jasanoff 2005, 255); science is continually politicised and the idea of 'value-free science' is misleading (Brown 2009, vii). This raises questions of who exactly is playing the role of the representatives of scientific expertise (ibid., 6). Thus, to see the challenge for democracy only as a lack of understanding on the part of citizens, which can be corrected by simply informing an ignorant public of 'the facts' is misguided (Bulkeley and Mol 2003, 148; Jasanoff 2005, 252; Castree et al. 2014). Political action, moreover, cannot be motivated by 'facts' alone; statistics and data never by themselves trigger demonstration or remonstration, but must be given meaning within a political discourse (Blühdorn 2015, 159; Bonneuil and Fressoz 2016, xiii).

Numerous voices thus demand the inclusion of other types of knowledge in policy making; social sciences and humanities (Palsson 2013; Castree 2015) local knowledge (Funtowicz and Ravetz 1993) 'civic knowledge' (Galston 2001) and indigenous knowledge (Whyte 2017, Schulz 2017) provide different perspectives to be included alongside natural science. These

perspectives may well be suspicious of any automatic authority given to natural science.

Some regard the incorporation of different types of knowledge as a matter of refining and aligning different perspectives through *deliberation*. Simon Niemeyer, for example, promotes the building of deliberative capacity to "improve the ability of citizens to better deal with complex issues such as climate change" (Niemeyer 2014, 30) and reduce the opportunities for the distortion of public opinion. Noel Castree and colleagues recommend the fostering of "mature deliberation" between decision makers and other stakeholders (ibid., 10-11). But is this enough as a response to what they identify as the "complex and divergent understandings of life" (Castree et al. 2014, 7) and "incommensurable" conceptions of the proper response to scientific claims (ibid.,10)?

I would argue it is not. Rather, I suggest what is crucial for democratic participation is that political institutions are designed to support, enhance and utilize the *critical* capacity of citizens, to not only grasp the scientific data and its limits, but to also determine its implications and, perhaps even more importantly, to contest any claim that there is only one interpretation of a piece of scientific research (Machin 2017). Science might be seen as equipping citizens with the capacity to formulate and articulate their distinct and opposing positions (Galston 2001, 223-4). Catriona Sandilands recommends a "strategy of healthy multiplicity" (2002, 129) in which science does not *tell* citizens the truth, but helps them *clarify* their different opinions, which may not centre upon scientific truth but other sorts of values. Politics can be *informed* by science without being *subordinated* to it (Brown 2009, 3). Science can be valued without attributing to it an incontrovertible certainty (Latour 2017, 46). As Latour's recent work notes, powerful pressure groups, aware of the implications of the scientific claims of climate change, challenge the certainty of those claims and try to replace

them with new ones (2017, 26). An agonist response to this is not to pretend that scientific

claims are indisputable, but to critically assess and utilise them.

Critical capacity, as I understand it here may aid deliberation but it may also aid disruption

and open up a space for passionate, lively dissent alongside quiet, thoughtful inquiry. This

space, agonists counsel, cannot ever be fully inclusive but it can be more pluralistic and

unruly. An agonistic approach to incommensurability would consist of respect for the

diversity it brings and celebration of its fecund potential. An agonistic approach would be

wary of the idea that political change occurs simply through the recognition of different

perspectives, rather than by challenging prevailing ones, just as it would be attuned to the

necessity of struggling against unjust distributions of power rather than simply modifying the

effects of such distributions (Coulthard 2014, 19).

The salutary aim of fomenting of critical capacity would be just as relevant in a world that

had not entered the Anthropocene. But it may be that this fomentation is stimulated by the

Anthropocene diagnosis. Here scientific thought is rendered more important than ever, but its

aura of objectivity and neutrality is unsettled, rendering it susceptible to critique (Machin

2017). The recognition that scientific institutions and research are always instituted within a

particular ecological and political context unpins their automatic authority. So does an

awareness of the ambiguous role of science in installing technologies that propel us into the

Anthropocene (Purdy 2015, 259). Instead a plethora of different types of knowledge become

appropriate for informing policy and offering potential alternatives: "many more narratives,

imaginaries, cosmologies and types of knowledge have an essential role to play in order to

inhabit the Earth in a proper fashion" (Bonneuil and Fressoz 2016, 87).

The challenge of knowledge in the Anthropocene not only exposes the complex connections between science and politics but it also opens the possibility of restructuring this connection. As a concept with too many implications and interpretations to have been completely monopolised by any one discipline or social group, the Anthropocene both highlights the importance of contestation between different types of knowledge and may also instigate it. An agonistic response to the challenge of knowledge would be to defer from any automatic granting of authority to any particular way of knowing, and to use knowledge not to understand the status quo, but to seek for alternatives. To tackle the interconnected problems of the Anthropocene does not require the careful transfer of scientific knowledge to the political realm but rather the ceaseless agonising within that realm between positions equipped by various types of knowing and between diversely located knowers.

The Challenge of *Time*

Switching from the time scale of everyday policy-making to that of geology may arouse a sort of dizziness. A week may well be a long time in politics but it is infinitesimally small in earth history; the 'time-scapes' mismatch (Pahl et al. 2014, 377; Chakrabarty 2014; Runciman 2014). The pace of geological processes that once occurred over huge swathes of time is accelerating; coastal erosion, the melting of ice-caps, changing patterns of precipitation are all speeding up, their trajectories complex and unpredictable. Their changing temporality is precisely what pulls them into the political realm. And yet the rapid political response that is apparently compelled seems difficult to maintain against the huge stretch of temporal horizon performed by the Anthropocene. To grasp hold of the 'deep future' whilst acknowledging the prehistorical past and acting in the present - this is no cinch.

The second challenge the Anthropocene thus poses to democracy is the challenge of 'time

inconsistency'. As Dipesh Chakrabarty explains, in the Anthropocene, the distinction between the calendars of human history and geological time has collapsed (2009, 208) which means that attending to its implications involves thinking on different scales simultaneously (2014). If, as Latour recommends, we understand ourselves as playing a part in the '*geostory*' then how do we reconcile our role as political participants with our role as a geological force (2014, 3)? In deciding policies today, how are the consequences for tomorrow, weighted against their consequences in 100 years, or even 100,000 years? Is democracy necessarily blinkered by immediate concerns? Or, on the contrary, is it blindsided by long-lasting constitutions that impede prompt action?

The difficulty of implementing policy for environmental problems that unfold, unpredictably, over a long period of time is frequently lamented. The uncertain future outcomes of various forms of environmental degradation and hazards are often not considered to be salient issues in contemporary liberal democracies. Future problems are discounted in relation to immediate concerns; long-term strategy is stymied by a narrow focus upon the electoral cycle (Held and Hervey 2011; Eckersley 2017, 9). The changing climate, as one of the dominant themes of the Anthropocene, perhaps most clearly epitomises a class of "long-term policy problems" that confound short-term electoral cycles (Sprinz 2009, 2). Accustomed to the calculations offered by economic cost-benefit analysis, the institutions of policy-making struggle to get a grip upon the radical uncertainties posed by environmental destabilization (Chakrabarty 2014, 5). Voters and politicians, it has been observed, are almost inevitably reluctant to prioritise climate change until it is too late (Runciman 2014, 160).

It is possible, however, to challenge the presupposition that human beings are *essentially* unable to grasp or respond to the long-term implications of ecological degradation. As

deliberative democrats have importantly observed, individual interests are rarely entirely fixed, and can be altered through interaction with others. For example, noting the daunting urgency of the challenges of the Anthropocene, Baber and Bartlett suggest in their particular deliberative account of that through a process of 'collaborative learning' that encourages the reaching of consensus, it is possible to institute 'ecologically rational' policies (2016).

And yet this proposal does not acknowledge the possibility of irresolvable dissent over what exactly constitutes ecological rationality (Machin 2013, 56). As agonists highlight, democratic negotiation may well not produce any agreement on what constitutes the most appropriate long-term strategy. But such disagreement is able to bring into sharp contrast the various temporalities that inform different socio-ecological realities and their multiple concerns. Instead of aiming to replace short-term *economic* rationality with *ecological* rationality orientated towards the longer term, agonists encourage the sustaining of *rational disagreement*. This approach does not deny the legitimacy of, for example, a position that promotes rapid economic development in the hope of alleviating poverty in some regions of the world. But it does aim to juxtapose it with a concern for the creeping rise of sea levels that threaten often those very same regions. Fomenting the agonistic confrontation between such positions may be more fruitful than requiring its suppression.

Again, the Anthropocene *itself* opens up the contestation that might inform an agonistic democracy on the issue of time. For, if nothing else, this epoch of geological time brings alternative temporalities into focus, disturbing social and scientific conventions, producing a "transformation in the temporal horizons of human and planetary life" (Delanty and Mota 2017, 18; Lockie 2014, 95). Uncanny Anthropocenic knots of time entangle threads from the ancient past and the deep future; from human and geological history; from distracting

scenarios of impending catastrophe and from fully absorbing moments of crisis. Such threads loop, stretch out, and criss-cross. These knots of time may alert us to alternative ways of being and becoming (Connolly 2011). Under neoliberal capitalism "our interceded routines of family life, education, investment, work, prayer, consumption, and voting are saturated by concern for the short term" (2013, 51). But alternative forms of life have different tempos to the linear 'clock time' of industrial society (Lockie 2014). Conceptions of time in indigenous societies strikingly contrast to those reproduced by colonialism and capitalism (Whyte 2017, 159). A radical puncturing of short-termism surely demands that these alternative ways of living are offered as valid options alongside the prioritising of industrial expansion that has supported the onset of the Anthropocene in the first place.

An agonistic response to the challenge of time would be to uphold the possibility for disagreement and struggle between a plurality of different perspectives, conditioned in different ecological realities and embodied practices and articulated by political actors who are not determined by any essential predisposition.

The Challenge of *Boundaries*

The environmental concerns of the Anthropocene do not conform to any conventional political borders. The transnational nature of issues such as acid rain, biodiversity loss and climate change were recognised long before the 'age of the humans' was conceived. Yet the Anthropocene diagnosis draws attention to their severity and their interconnection. These problems call for robust policy making as well as highlighting the obstacles posed to it. While unilateral action by states is hardly sufficient to tackle such problems, nor is multilateral action forthcoming. Many have remarked upon the disjuncture between the traditional rendering of the political community and "the global reach of environmental degradation"

(Tully 2002, 156). State centred approaches seem unsuited to cope with the 'contextual, nested, uncertain and dynamic nature of environmental and social conditions likely to arise in the Anthropocene' (Holley et al. 2018, 6). Political boundaries, moreover, can serve to exclude from decisions about environmental concerns those who are most affected by them, making boundaries complicit in the "global landscape of inequality" (Purdy 2015, 46).

A world government of some or other form might have the scope to enforce a coordinated response, but it is unlikely to secure the authority or legitimacy to do so (Wainwright and Mann 2013). Numerous theorists have explained that democracy cannot work at a global level. Democracy, across all of its multiple manifestations, demands and installs the *demos,* the people, who constitute the subject and the source of democratic authority. The *demos*, however, is bounded; only a political collective constituted through a 'moment of closure' (Mouffe 2000, 43) could provide the strong political response that global environmental problems apparently require. But such problems apparently render these boundaries redundant. This is the third challenge that the Anthropocene poses for democracy; the challenge of boundaries that become both necessary and nugatory.

It is not only the boundaries of the *demos* that are challenged by the Anthropocene, but the boundaries of the *human*. On traditional dualist assumptions, 'human' is separate from 'nature' (Hailwood 2016, 57). This dualism is *reaffirmed* by the naming of the new geological epoch after the human species (ibid., 58). Yet it is also undermined in the enfolding of the human into nature. The actors or 'actants' (Latour 2004) who populate the Anthropocene cannot be separated from their ecological situatedness. Humanity has rendered itself a vulnerable species that is defined by 'creatureliness' (Vermeulen 2017) and its entanglement with nature (Holley et al. 2018, 11). As Latour, amongst others, has noticed, it is not that

17

nature and humanity have been reconciled; rather that the presumed clear-cut boundary between the two is 'disaggregated': "wherever we follow human footprints, we discover modes of relating to things that had formerly been located in the field of nature…" (Latour 2017: 120).

Individuals of the Anthropocene are revealed to be attached 'earthlings' (Dibley 2012) or embodied and entangled creatures, guided by a variety of motivations, inspired by a myriad of values, infected and protected by non-human life-forms and buffeted by all types of ecological hazard. The human of the new geological epoch is also *more-than-human*. Connolly writes: "…we could not *be* without the roles numerous nonhuman entities and processes play…" (2013, 49). If the Anthropocene bids self-recognition of the 'creatures' who populate it, it raises difficult questions for democracy by doing so: If and how can 'more-than-human creatures' populate a *demos*? If such creatures share mutual interests and an ecological reality then where lie the boundaries that delineate 'us' from 'them' and who decides? How can these boundaries be maintained when we *are* them?[2]

Some call for a radical extension of the boundaries of the *demos* to include new forms of community and agency (Eckersley 2017; Dryzek 2000, 153). This extension, however, should not be seen as a matter of newly including or representing nonhuman nature, but rather as a matter of acknowledging the nonhuman entities that are *already* play a part in politics alongside the human (Disch 2016).

I suggest that the external or internal expansion of boundaries cannot be unlimited without undermining the very project it is supposed to be in aid of. To seek an alternative to the status

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[2] Thanks to one of the anonymous reviewers for posing this question.

quo is to allow for political plurality and pluralisation. But the terrain of a pluralised political sphere would be populated by collective identifications that are always distinct from 'others'. This was Carl Schmitt's infamous yet valid insight: that politics hinges upon the antagonistic 'friend/enemy' distinction and always involves relations of inclusion-exclusion (Mouffe 2000, 43). To try to overcome the friend/enemy distinction is to suppress politics and to prevent the emergence of alternatives. To champion the possibility of one fully inclusive world order is to delegitimise and depoliticise the expression of differences. As Mouffe points out, the result would not be a world without 'others', but a world in which 'others' were rendered immoral or irrational (Mouffe 2005, 5). For Latour: "we understand nothing about the ecological questions if we don't agree to be divided over them" (2017, 245). This is why Latour suggests that in order for *political* ecology to exist, it is crucial to acknowledge the Schmittian war between enemies.

As democrats, however, we should be wary of the dangers of such a war. Agonists are careful to assert the importance of respect between agonistic opponents. Mouffe for example explains that her agonism involves the *sublimation* of antagonism; the 'other' is not hated as an enemy that should be eradicated but is respected as a political adversary or 'friendly enemy' (2000, 13). But if democracy is going to involve the non-violent expression and contestation of real alternatives, then it requires the existence of collective identifications and the drawing of a frontier between 'us' and 'them' in a way that facilitates rather that endangers pluralism (Mouffe 2013, 7). This is why we might agree with Chakrabarty when he states that the Anthropocene "calls for a global approach to politics without the myth of a global identity" (2009, 222). The call for planetary cooperation and polycentric governance (Holley et al. 2018) should be balanced with an acknowledgement of the role of political identification with a bounded *demos*.

Rejecting a global extension of boundaries, however, is not the same thing as ruling out their reconstruction. Whereas for Schmitt, the *demos* was a preconstituted homogenous unity, for agonists the *demos* is itself characterised by plurality and pluralization. It is crucial to recognise here that an agonistically rendered frontier between 'us' and 'them' is not fixed; drawing the lines of inclusion and exclusion is itself an ongoing political process. For Mouffe, the delineation of the political community is a contingent decision that can always be contested: "Democratic politics does not consist in the moment when a fully constituted people exercises its rule. The moment of rule is indissociable from the very struggle about the definition of the people, about the constitution of its identity" (Mouffe 2000, 56). As Eckersley concurs, it is the *demos* itself who makes the decision about its own composition, and this decision is not pre-determined (2017, 13).

To be clear, then, agonists do not advocate the erection of rigid boundaries, but rather demand the on-going acknowledgement of their existence. The concern of agonists is not (only) that some will be excluded, but that the excluded will either be forgotten or demonised: "the always imperfect closure of political space tends to engender remainders" states Bonnie Honig, and "if those remainders are not engaged, they may return to haunt and destabilize the very closures that deny their existence" (1993, 15). Honig's words here are appropriate for understanding the denaturalisation of nature and its destabilising intrusion into the sphere of politics (Latour 2017, 3).

For Lövbrand et al.: "the Anthropocene imagery works upon our identities and enables new ways of being in and acting upon nature and society" (2009, 12). Grappling with environmental limits, problems and possibilities may allow citizens to see themselves

differently, the excluded to demand inclusion and the *demos* to be understood anew. Collective identifications are up for grabs in the Anthropocene. Climate refugees, indigenous people and future generations may be constructed and othered, or they may be incorporated as an integral part of 'us', an 'us' that may be radically different to previous political collectives. This 'us' may be considered distinct from its ecological specificity; composed of rational disembodied humans existing in 'empty' space. Or it may be seen as situated in an ecological context, and as itself a territorialising entity (Latour 2017, 231). The Anthropocene casts political boundaries as simultaneously arbitrary and requisite and by doing so sets up an irreducible tension that resonates with agonism. This tension helps to prevent political foreclosure, and it encapsulates and engenders the ongoing disagreement that may enliven democracy.

At the same time, situating agonistic politics in the Anthropocene demands the acknowledgement by theorists that disagreements arise not between abstract constructions of political communities, but between embodied creatures (Vermeulen 2017). An agonist response to the challenge of boundaries would be to keep open the possibility of reconstructing the meaning of and between 'us' and 'them', noting that this 'us' is both more *and less than* human.

Conclusion

The reception to the entry of the Anthropocene into popular and academic vocabulary has been mixed. Some critics warn that it obfuscates the significant differences regarding power and responsibility within human societies and too easily leads to a reaffirmation of very economic paradigms responsible for the new epoch (Baskin 2015, 16; Wilke 2013, 70; Crist 2013, 130; Malm and Hornburg 2014). Others caution that its depiction of urgency and

catastrophe can be used to legitimise a vigorous overturning of democratic institutions. Against both these accounts I have argued that the challenges posed by the Anthropocene offer an opportunity for the renewal of democratic politics through agonistic contestation and struggle.

Existing democratic institutions may seem unable to sustain a grip on the nascent reality of the Anthropocene but this suggests their imminent reinvention; it is, as Johnson and Morehouse put it: "a moment pregnant with risks as well as generative opportunities" (2014: 440). How this moment enfolds cannot be predetermined, but precipitating change requires the robust disruption of political sphere by nascent perspectives that have hitherto been marginalised or maligned. It is this disruption that is championed by agonists. As highlighted by theorists of decoloniality, who are wary of contemporary forms of colonialism at work in the Anthropocene, there have always been 'multiple ways of being and knowing' (Schulz 2017, 138) unacknowledged and suppressed by the tendencies of Western modernity (Whyte 2017). Bringing these alternatives to attention, I suggest, is a matter of contestation not consensus; of passionate protest not calm deliberation; of robust opposition not 'collaborative learning'. Yet there is no need to assume that institutions must be totally overthrown, rather it may be to readjust them to encourage a lively political debate and to prevent its premature foreclosure by deference to expert knowledge or linear temporality or rigidly defined boundaries. Agonists recognise the construction and subsistence of democratic institutions as a continuous, creative and contested process.

I have argued that the challenges posed by the Anthropocene not only demand but can provoke the political contestation that constitutes a revitalised democracy. Not only do the environmental issues of the new geological epoch offer new fodder for disagreements, but the

Anthropocene reveals political actors to be embodied creatures of agony. For some, the Anthropocene is a "disaster to end all disasters" (Clark 2014, 21). The Anthropocene, the age of human, may become a place hostile to the human forms of life that brought about its emergence. But it may provoke renewed and hopeful criticism of current unsustainable ways of life. Democracy may not just survive in Anthropocene; it may rise to the challenges to become more democratic.

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