

Zoonotic politics: the impossible bordering of the leaky boundaries of species

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Abstract

Zoonotic pandemics shine an uncomfortable light on how human lifeways facilitate the sharing of pathogens across species. Yet our lack of acknowledgement of our shared vulnerability with those non-human animals we raise or hunt to kill and eat, whose habitats we encroach upon and destroy, whose populations we undermine and threaten, has led us to the current human health crisis. The predominant political response to zoonotic pandemic has been bordering practices of surveillance, securitisation and bodily separation. These practices reflect intra-human and species hierarchies. They also fail to acknowledge the extent to which the boundaries of species are leaky, and are continually breached. A posthumanist zoonotic politics seeks not to attempt to border the leaky boundaries of species, but rather to insist on a *reordering* of species relations towards less exploitative and extractive ways of sharing the planet with the myriad creatures that constitute our world.

Keywords:

Bordering, COVID-19, inequalities, posthumanism, species, zoonoses

Introduction

Human publics are now more aware than ever of the presence and threat of zoonotic pandemics, originating in nonhuman animals; with microbial agents leaping from animal to human bodies. The dominant discourses constituting zoonotic politics have reflected our colonial present. The early stages of the pandemic saw racialized other peoples and practices from the continents of Africa and Asia being demonised and responsabilized.¹ Former US President Donald Trump infamously and repeatedly referred to COVID-19 as ‘the Chinese virus’ and as a ‘plague’ that China had issued in to the world.² This certainly played

¹ John L. Romano, ‘Politics of Prevention: Reflections on the COVID-19 Pandemic’, *Journal of Prevention and Public Health Promotion* 1, no. 1 (2020): 34-57.

² Michael H. Fuchs, ‘Trump’s UN Speech was a Bizarre Feat of Gaslighting and Fantasy’, *The Guardian*, September 24, 2020. Available at: <https://www.theguardian.com/commentisfree/2020/sep/24/trumps-un-speech-was-a-bizarre-feat-of-gaslighting-and-fantasy>.

into, and raised, diplomatic tension.³ From September 2020, different strains of the disease emerged, with national names given to these variants, depending on where they were assumed to have emerged, until the World Health Organization (WHO) adopted letters of the Greek alphabet for these variants.⁴ In addition, we have witnessed ‘vaccine nationalism’, that is, ‘the prioritization of the domestic needs of the country in an outlay of others’.⁵ As rich countries purchased and hoarded supplies of the vaccine for their utilization, this was seen as a threat to controlling the pandemic.⁶ Dominant discourse has also been driven by the demands of the Capitalocene and animal capital, for business as usual.

Zoonotic pandemics shine an uncomfortable light on how the ways we live, and in particular, how we use and interact with non-human animals has facilitated the sharing of pathogens across species. The causes of zoonotic diseases, however, are not addressed in policy responses which focus on medical management and public health. This paper suggests that the predominant political response to the COVID-19 zoonotic pandemic has been bordering and re-bordering practices – restricting travel and mobility for some humans, attempting to limit trades in live animals and curtailment and surveillance of everyday practices. What COVID-19 illustrates however, is that bordering, whether constituted by high politics, or cultural, economic and social activities, is a process to be found in a multiplicity of places; and one which reveals the extent of our bio-insecurity. The zoopolitical necessarily extends Foucault’s biopolitics to include the non-human lifeworld as an object of power;⁷ and in pandemic times, the idea that politics is posthuman rather than a discreet sphere of human activity gains traction. However, rather than opening up to the critical voices demanding a different kind of zoonotic politics, confronting pandemic disease has given a salience to zoonotic discourses of bordering.

In mapping zoonotic politics and its attendant difficulties, this paper begins by considering the ways the current pandemic reflects, and is constituted by, intersected forms of inequality, including those of species. It then examines the relationship between zoonotic pandemics and the human treatment of other animals and the non-human living world. The paper then explores bordering theory as a way of understanding the dominant responses to COVID-19. The final section of the paper considers the inherent problems of such responses in the context of the material entanglements of species, and argues for a posthumanist politics of species reordering.

COVID-19: ‘Not an equal opportunity virus’

³ BBC, ‘UN General Assembly: US-China Tensions Flare Over Coronavirus’, 22 September, 2020. Available at: <https://www.bbc.com/news/world-54253408>

⁴ BBC, ‘Covid: WHO renames UK and other variants with Greek letters’, 31 May, 2021. Available at: <https://www.bbc.co.uk/news/world-57308592>

⁵ James Lagman, ‘Vaccine Nationalism: A Predicament in Ending the COVID-19 Pandemic’, *Journal of Public Health* 43, no. 2 (2021): 375-376.

⁶ Lagman, ‘Vaccine Nationalism’.

⁷ Nicole Shukin, *Animal Capital: Rendering Life in Biopolitical Times* (Minneapolis: University of Minnesota Press, 2009).

While infectious diseases have been understood to be embedded in complex forms of inequality,⁸ a discourse present in the spring of 2020 in some International Organisations, particularly the WHO, was that COVID-19 did not recognise borders as it spread across the regions of the globe at such pace, and with such a devastating impact. In February 2020, the WHO Director General asserted

This virus does not respect borders. It does not distinguish between races or ethnicities. It has no regard for a country's GDP or level of development.⁹

Other international voices insisted however, that the pandemic did discriminate; that it exacerbated existing forms of inequality.¹⁰ Writing for the International Monetary Fund (IMF), Joseph Stiglitz contended that

COVID-19 has not been an equal opportunity virus: it goes after people in poor health and those whose daily lives expose them to greater contact with others. And this means it goes disproportionately after the poor, especially in poor countries and in advanced economies like the United States where access to health care is not guaranteed.¹¹

The impact of COVID-19 has been varied, shaped by the nature of social and political institutions in particular countries and regions, by public policy and government intervention (or the lack of it).¹² As Stiglitz points out however, the exacerbation of social inequalities has been a significant feature. While the US is unquestionably a very wealthy nation, it has suffered by far the greatest numbers of infections and deaths.¹³ However, data from the US shows significantly higher rates of infection and death for black, Hispanic/latinx and indigenous communities.¹⁴ In the UK, a country also scoring highly for overall infections and death, the mortality rate among those hospitalised from ethnic minority groups has been twice that of white British patients; and while Black and Asian staff represented 21% of the workforce of the National Health Service, they accounted for 63% of deaths among health and social care workers.¹⁵ In addition to an increased burden of comorbidities and other social determinants of health, structural racism in the UK has been held responsible, with ethnic disparities in COVID-19 understood as part of an historical trend of poorer health outcomes for marginalised ethnic groups.¹⁶ While undoubtedly, the impact of

⁸ Paul Farmer, *Inequalities and Infections: The Modern Plagues* (Berkeley: University of California Press, 2001).

⁹ WHO, 'Director-General's Opening Remarks at the Media Briefing on COVID-19', 27 February, 2020. Available at: <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---27-february-2020>.

¹⁰ BBC, 'Coronavirus: BBC Poll Shows Stark Divide Between Rich and Poor Countries', 11 September, 2020. Available at: <https://www.bbc.co.uk/news/world-54106474>.

¹¹ Joseph Stiglitz, 'The Pandemic Has Laid Bare Deep Divisions, but it's not too Late to Change Course', *International Monetary Fund: Finance and Development*, Fall 2020. Available at: <https://www.imf.org/external/pubs/ft/fandd/2020/09/COVID19-and-global-inequality-joseph-stiglitz.htm>.

¹² Jonathan Oberlander, 'Introduction to COVID-19: Politics, Inequalities and Pandemic', *Journal of Health Politics, Policy and Law* 45, no. 6 (2020): 905-6.

¹³ Statista, Number and change of coronavirus (COVID-19) cases and deaths among the most impacted countries worldwide as of May 2, 2022. Available at: <https://www.statista.com/statistics/1105264/coronavirus-covid-19-cases-most-affected-countries-worldwide/>

¹⁴ Romano, 'Politics of Prevention', 44.

¹⁵ Mohamad S. Razai, Hadyn K.N. Kanakam, Azeem Majid *et al.*, 'Mitigating Ethnic Disparities in Covid-19 and Beyond', *The British Medical Journal* 372, no. 8277 (2021): 1-5.

¹⁶ Razai *et al.*, 'Mitigating Ethnic Disparities', 4.

vaccination programmes has also had a significant impact on lowering risk of infection and serious illness, the patterns in relation to vaccine take up mirror existent patterns of inequality. In the UK, vaccination rates have been lower in those living in deprived areas, from multigenerational households, working in less skilled occupations and from relatively deprived communities (in under 16s for example, amongst Gypsy Roma and Black Caribbean populations).¹⁷

COVID-19 has also had important implications with respect to gender relations. There is evidence that national and local lockdowns, lack of work and homeworking have led to a significant rise in gender-based violence in the home. This is apparent in the US, South and Central America, across Europe and Africa and is combined with a withdrawal of government support for services; while women's employment and girls' access to education on the Indian subcontinent has been devastatingly affected. This has led to the notion of 'disaster patriarchy' as male domination reasserts itself in the current uncertainty.¹⁸ Naomi Klein's earlier notion of 'disaster capitalism' similarly described how public disorientation in response to a collective shock enabled governments to push through radical pro-corporate measures.¹⁹ Klein has more recently described COVID-19 as a 'perfect example' of a disaster which facilitates 'shock politics'.²⁰

The politics of response to COVID-19 in some ways was a politics of 'shock'. Powers of states to control their populations were exerted very dramatically in many countries responding to COVID-19 through national 'lockdown(s)'. The vast majority of global businesses (with the exception of industries and services deemed essential) were ordered to physically close in the vast majority of countries once a global pandemic was confirmed by the WHO, with rare exceptions (such as Sweden and Hong Kong). Those that could conduct business online were advised to do so, to digitise their processes and/or to develop platforms to offer their products/services online.²¹ From mid-March 2020 in the first national lockdown in the UK, schools and universities were shut, offices deserted and most shops closed. Staff in some organisations were furloughed and the UK witnessed a mass

¹⁷ ONS (Office for National Statistics) Coronavirus (COVID-19) vaccination, Coronavirus (COVID-19) latest insights: Vaccines 21 April 2022. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19latestinsights/vaccines>

¹⁸ V (formerly Eve Ensler), 'Disaster Patriarchy: How the Pandemic has Unleashed a War on Women', *The Guardian*, 1 June, 2021. Available at: <https://www.theguardian.com/lifeandstyle/2021/jun/01/disaster-patriarchy-how-the-pandemic-has-unleashed-a-war-on-women>.

¹⁹ Naomi Klein, *The Shock Doctrine: The Rise of Disaster Capitalism* (New York: Knopf, 2007); *No is Not Enough: Defeating the new shock politics* (London: Allen Lane, 2017).

²⁰ Marie Solis, 'Coronavirus Is the Perfect Disaster for 'Disaster Capitalism'', *Vice*, 13 March, 2020. Available at: <https://www.vice.com/en/article/5dmqyk/naomi-klein-interview-on-coronavirus-and-disaster-capitalism-shock-doctrine>.

²¹ Ben Aram and Ann Dingemans, 'Covid-19 Business as Usual in the New Normal: A Global View', *Kennedys*, 28 July, 2020. Available at <https://www.kennedyslaw.com/thought-leadership/reports/covid-19-business-as-usual-in-the-new-normal-a-global-view/>.

shift to working from home.²² As Andreas Malm surmises, “Never before had the business-as-usual of late capitalism been so utterly suspended”.²³

By the first week in August 2020 however, the UK Prime Minister was encouraging people to return to work and there was a concerted drive to get people back to work to promote productivity and shore up the economies, in particular, of city centres.²⁴ The UK Chancellor of the Exchequer, Rishi Sunak, encouraged people to go out rather than stay at home, sponsoring cheap drinks and meals to support the hospitality industry.²⁵ The predicted spikes in cases prompted the government to impose restrictions on socialising to no more than six people, and autumn saw increasing restrictions followed by a second national lockdown,²⁶ from which the UK, like many other countries at the time of writing, are emerging.²⁷ The vagaries of lockdown also witnessed COVID-19 outbreaks at meat processing factories which prompted localised actions in European countries to increase worker safety and hygiene.²⁸ It is interesting to note, particularly in light of what follows in this paper, that raising, killing and ‘processing’ animals for meat and other foodstuffs was regarded as an essential service and not permitted to close, putting vulnerable workers at further risk and ensuring business-as-usual was perhaps rather more cruel-than-usual for the animals raised and killed.²⁹ In the summers of 2020 and 2021, international tensions attended the adding and removing various countries from lists restricting travel to and return from particular countries; while the travel and aviation industries pushed for relaxing restrictions.³⁰

This suspension and re-assertion of the ‘business-as-usual of late capitalism’ in response to the COVID-19 pandemic has demonstrated that the short-term policy frames of capitalist governments are undone by unexpected events in an increasingly unpredictable world. These policy frames are inadequate when we need think not only about responsibilities to the next generation of humans in a particular place, but about the complex vulnerabilities we may cause for generations yet to come, and in different parts of

²² Jane Parry, Zoe Young, Stephen Bevan *et al.*, ‘Working from Home Under COVID-19 Lockdown: Transitions and Tensions’, *Institute for Employment Studies*, January 2020. Available at: <https://www.employment-studies.co.uk/resource/working-home-under-covid-19-lockdown>.

²³ Malm, *Corona, Climate, Chronic Emergency: War Communism in the Twenty-First Century* (London: Verso, 2020), 5.

²⁴ BBC, ‘Coronavirus: Campaign to Encourage Workers Back to Offices’ August 28, 2020. Available at <https://www.bbc.co.uk/news/uk-53942542>.

²⁵ Georgina Hutton, *Eat Out to Help Out Scheme*, House of Commons Briefing Paper Number CBP 8978, (London: House of Commons Library, 2020).

²⁶ BBC, ‘Covid-19: PM Announces Four-Week England Lockdown’, October 31, 2020. Available at: <https://www.bbc.co.uk/news/uk-54763956>.

²⁷ This process has proceeded differentially across the UK, with media talk of possible future restrictions <https://inews.co.uk/news/covid-when-end-how-long-pandemic-last-will-be-another-lockdown-uk-1550301>.

²⁸ John Middleton, Ralph Reinjes and Henrique Lopez, ‘Meat Plants—A New Front Line in The Covid-19 Pandemic’, *British Medical Journal*, 9 July, 2020. Available at: <https://www.bmj.com/content/bmj/370/bmj.m2716.full.pdf>.

²⁹ A matter discussed in the following section of this paper.

³⁰ Alex Finnis, ‘Green List Update: Amber List Countries that Could go Green at Next UK Travel Announcement, And When it is’ *inews*, 26 June, 2021. Available at: <https://inews.co.uk/inews-lifestyle/travel/green-list-update-amber-countries-added-announcement-review-spain-greece-france-islands-holidays-1062931>.

the globe, alongside our situation in webs of relations with multifarious non-human species. What is currently often referred to as the 'old normal' was/is an era in which mass human poverty abounds, where catastrophic climatic change threatens life on the planet, and in which other species are already experiencing an extinction crisis. Yet it is a normal to which neo-liberal (and other) governments have been encouraging businesses, workers and public sector services to return. These voices are contested within and without the political establishment.³¹ In the UK for example, there is some limited governmental recognition that 'business-as-usual' cannot hope to tackle the environmental 'challenges we face'.³² If responses to COVID-19 exacerbated forms of human inequality, what was its impact on the non-human lifeworld?

There was some expectation, in the first period of national lockdown in Europe, that the non-human living world received a boost in the form of a minor and short-lived decline of carbon emissions – the news media reported an explosion of wildlife activity as flights were grounded and roads were quiet. Scientists argued for the need to re-evaluate our impact on wildlife in response to the curtailing of human activity in the 'anthropause'.³³ The 'anthropause' saw fewer hedgehogs for example, were killed by traffic on the roads of Poland;³⁴ while the reduced shipping and ocean travel reduced the risk to marine mammals, and the disruption to marine life from ocean noise pollution such as fishing sonar.³⁵ Yet many of the immediate positive effects of the pandemic on wildlife — such as reduced road, air, and ship deaths or disruption — have been seen to be reversed with the return of business as usual. The journal *Nature* reported that while CO2 emissions dropped during the early phases of the pandemic, these were less than expected and are now being reversed.³⁶

Disasters not only reflect and exacerbate intra-human forms of hierarchy, they powerfully inscribe the prioritisation of the human. This is an already familiar pattern in contexts of emergency. For example, the lives of animal companions are subject to extreme precarity in situations of emergency. In the aftermath of Hurricane Katrina, 'rescuers forced people to leave their companion animals. Residents faced the choice between leaving animals they considered family members and risking their own lives'.³⁷ This situation was

³¹ Naomi Klein, *On Fire: The Burning Case for a Green New Deal* (London: Penguin, 2020).

³² GOV.UK, 'Business as Usual Won't Tackle the Challenges We Face', *Environment Agency*, July 9, 2020. Available at <https://www.gov.uk/government/news/business-as-usual-won-t-tackle-the-challenges-we-face-warns-environment-agency>.

³³ Christian Rutz, Matthias-Claudio Loretto, Amanda E. Bates, Sarah C. Davidson, Carlos M. Duarte, Walter Jetz, Mark Johnson, Akiko Kato, Roland Kays, Thomas Mueller, Richard B. Primack, Yan Ropert-Coudert, Marlee A. Tucker, Martin Wikelski and Francesca Cagnacci, 'COVID-19 lockdown allows researchers to quantify the effects of human activity on wildlife', *Nature Ecology & Evolution*, 4 (2020), 1156–1159. Available at: www.nature.com/natecolevol.

³⁴ Rafał Łopucki, Ignacy Kitowski, Magdalena Perlińska-Teresiak and Daniel Klich, 'How Is Wildlife Affected by the COVID-19 Pandemic? Lockdown Effect on the Road Mortality of Hedgehogs', *Animals* 11, no. 3 (2021): 1-8.

³⁵ Sharon Livermore, 'Ocean Noise Quiets During the COVID-19 Pandemic', *International Fund for Animal Welfare*, June 14, 2021. Available at <https://www.ifaw.org/people/opinions/ocean-noise-quiets-covid19-pandemic>.

³⁶ Jeff Tollefson, 'COVID Curbed Carbon Emissions in 2020: But Not by Much', *Nature*, 15 January, 2021. Available at: <https://www.nature.com/articles/d41586-021-00090-3>.

³⁷ Leslie Irvine, 'Animals in Disasters: Issues for Animal Liberation Activism and Policy', *Animal Liberation Philosophy and Policy Journal* 4 no. 1 (2006): 1-16.

replicated in the early stages of the emergence of COVID-19. In Wuhan, where the virus was seen to emerge, the first months of the outbreak saw mass abandonment of animal companions as people were evacuated and were unable to return, leaving animals to starve. In other Chinese cities, animal companions seen on the street, were culled.³⁸ Domestic animal rescue centres in the UK were inundated with animals abandoned due to job loss and financial strain but also -- particularly in the early phases of lockdown -- the imagined 'threat' of contamination, particularly from cats (whose movements are less controlled than dogs) in the UK.³⁹ Evidence suggested however, that it was animal companions and not their 'owners' who were more vulnerable, with dogs and cats for example, being shown to catch COVID-19 from their human housemates.⁴⁰

The impact of the COVID-19 disaster on the non-human lifeworld is also, we would suggest, an example of 'disaster anthroparchy',⁴¹ both reflecting relations of human domination and offering new avenues for the intensification of violence against non-human animals and confirming their expendability. In situations of disaster, the lives of millions of farmed animals are seen as expendable. Confinement Feeding Operations (intensive industrial farming units) offer no chance for escape from flood, fire, or structural damage.⁴² In any case, 'rescue' of such creatures would cost more than their lives are deemed to be worth. While the pandemic led to disruptions in meat supply chains and processes globally, the meat industry was supported in many countries as an essential service.⁴³ However, as might be expected, the treatment of farmed animals, in some countries, was even more grim during the pandemic, than the everyday routinized mass violence and abuse that characterises animal agriculture.⁴⁴ For example, in the United States between the end of April and mid-September 2020, pigs and chickens were subject to 'depopulation' by alternative methods deemed acceptable while slaughterhouses were closed but which have been identified, even within the US meat industry, as highly unethical in causing prolonged suffering. Two million 'meat chickens' and 61,000 'laying hens' have been killed by methods including smothering with foam (such as is used in fire-fighting). Up to 10,069,000 pigs are likely to have been killed over the summer of 2020, by various methods including ingesting poisoned food, being suffocated by the closing of ventilators and being subject to 'blunt

³⁸ Allen Kim (2020) 'Cats and Dogs Abandoned at the Start of the Coronavirus Outbreak are Now Starving or Being Killed', *CNN*, March 15, 2020. Available at <https://edition.cnn.com/2020/03/15/asia/coronavirus-animals-pets-trnd/index.html>.

³⁹ Battersea, (2020) 'The Impact of COVID-19 on Companion Animal Welfare in the UK', November 2020. Available at <https://bdch.org.uk/files/BATTERSEA-Covid-Research-Report.pdf>.

⁴⁰ Thomas H.C. Sit, Christopher J. Brackman, Sin M. Ip, *et al.* 'Infection of Dogs with SARS-CoV-2', *Nature* no. 586, (2020): 776–778; Department for Environment, Food and Rural Affairs (2020) 'COVID-19 Confirmed in Pet Cat in the UK', July 27, 2020. Available at <https://www.gov.uk/government/news/covid-19-confirmed-in-pet-cat-in-the-uk>.

⁴¹ Anthroparchy is a concept describing the human domination of the non-human lifeworld which implies that such domination is systemic and involves differentiated and intersected forms of marginalisation, exploitation and oppression. Seeremoved for anonymity

⁴² Irvine, 'Animals in Disasters', 13.

⁴³ Muawuz Ijaz, Muhammed Kashif Yar, Iftikhar Hussain Badar, *et al.* 'Meat Production and Supply Chain Under COVID-19 Scenario: Current Trends and Future Prospects' *Frontiers in veterinary science* vol. 8 660736. 7 May. 2021.

⁴⁴Removed for anonymity.

force trauma'; meaning, for example, piglets being thrown to the ground until they are dead.⁴⁵ In writing of other creatures who were victims of the economic disruption caused by the pandemic -- 'racing' animals such as horses and greyhounds, animals confined in laboratories, zoos or 'wildlife parks' -- and also subjected to an intensification of the culling routine in these industries, or to abandonment, Paula Arcari remarks that

[...] our uses of animals proceed with no regard for back up plans or contingencies. When things go to shit, animals are on their own, which is what makes their entrapment in capitalist political economies so doubly heartless. That this animal-industrial complex is so directly implicated in the COVID-19 pandemic and the climate crisis, with myriad animals being substantial victims of both, only emphasises the cycles of violence that result from capitalist commodification.⁴⁶

The COVID-19 pandemic has exposed the fragility of current systems of social organisation which exclude, consume and oppress, but it has also provided avenues for the intensification of the way in which those relational systems of oppression routinely operate. As Nyamnjoh surmises, COVID-19 operates as a prism through which various intersected inequalities might be examined.⁴⁷ These inequalities need to include those of species hierarchy.

The fast-paced changes in policy discussed here, reflect the tensions of what we consider to be bordering practices. In many countries across the globe, were divided from each other in various ways – through social distancing, working from home or being apart yet together in divided workspaces, through restrictions on travel and on socialising, by avoiding public space and staying home. We are not suggesting that such public health measures should not have been taken in order to control the spread and impact of the pandemic. However, we do consider that policies of bordering in these attempts to retain business-as-usual in capitalist economies -- shoring up our vulnerabilities to the pathogens of other animals, human and not -- are insufficient responses. The tensions between capitalism and public health, environmental and planetary health have been thrown into sharp relief, and the following section discusses the lessons of COVID-19 for understanding our relationship with the natural world and in particular, other species. The final sections of the paper go on to consider bordering as a response to COVID-19 particularly in relation to the separation of species (human and other), and the difficulties bordering politics encounters in ignoring or resisting the zoopolitical.

Zoonotic pandemics and species relations

⁴⁵ Sophie Kevany, 'Millions of US Farm Animals to Be Culled by Suffocation, Drowning and Shooting', *The Guardian*, 19 May, 2020. Available at: <https://www.theguardian.com/environment/2020/may/19/millions-of-us-farm-animals-to-be-culled-by-suffocation-drowning-and-shooting-coronavirus>.

⁴⁶ Paula Arcari, 'COVID-19 Shows Why we Need to "Cease And Desist" from Commodifying Animals', *Age of Awareness*, 11 April, 2020. Available at: <https://medium.com/age-of-awareness/covid-19-shows-why-we-need-to-cease-and-desist-from-commodifying-animals-c042e6eb5be5>.

⁴⁷ Francis B. Nyamnjoh, 'Covid-19 and the Resilience of Systemic Suppression, Oppression and Repression', working paper given to one of the authors, a summary of which is Francis B. Nyamnjoh 'Covid-19: The Humbling and Humbled Virus' *Corona Times*, 20 April, 2020. Available at: <https://www.coronatimes.net/covid-19-humbling-humbled-virus/>.

Animal abuse and environmental issues are linked, and, as both COVID-19 and other zoonotic diseases have indicated, give rise to major public health issues. This is not a controversial nor a radical claim, but one supported by the United Nations (UN), as the WHO has for some time suggested that the live animal trade, eating animals and industrialised animal agriculture have combined to generate zoonoses.⁴⁸ More recently, for the UN Environment Programme, the COVID-19 pandemic was described as a ‘warning that nature can take no more’ and that ‘humanity’s destruction of nature’ must stop.⁴⁹ Well-known conservationist and primatologist Jane Goodall has claimed that the pandemic is directly related to the human treatment of animals: ‘Our disrespect for wild animals and our disrespect for farmed animals has created this situation.’⁵⁰

Zoonoses are not only linked to eating animals, but to human settlement and activities encroaching on their spaces and pushing them to the brink of extinction. Zoonotic diseases ‘jump’ from animals to humans; with the likelihood of this happening increasing when habitats of wild animals are disrupted and animals are farmed intensively. As humanity has become a predominantly urban species, human settlement, work, transport and a range of social practices make the lives of vulnerable creatures more so, encroaching on and eliminating habitats, and thereby driving wild animals into closer proximity with humans. Pathogenic jumping can involve moving through a number of species, such as in the case of the Great Influenza, or what Quammen refers to as the

[...] Spanish influenza of 1918-1919, which had its ultimate source in a wild aquatic bird and, after passing through some combination of domesticated animals [...] managed to kill as many as 50 million people’.⁵¹

Ebola, which originates in bats, has decimated chimpanzee and gorilla populations as well as killing humans,⁵² while HIV-1 emerged from chimpanzees and has killed around 30 million people worldwide.⁵³ Avian flu originated in poultry, while SARS was traced to horseshoe bats.⁵⁴ MERS is associated with dromedary camels and is far deadlier to humans than

⁴⁸ WHO (World Health Organisation) The FAO-OIE-WHO Collaboration Sharing responsibilities and coordinating global activities to address health risks at the animal human-ecosystems interfaces: A Tripartite Concept Note. (2010) Available at: <http://www.fao.org/3/ak736e/ak736e00.pdf>.

⁴⁹ Inger Andersen ‘It is the time for nature: World environment day 2020’, United Nations Environment Programme, 5 June, 2020. Available at <https://www.unep.org/news-and-stories/speech/it-time-nature-world-environment-day-2020>.

⁵⁰ Cited in Fiona Harvey ‘Jane Goodall: Humanity is Finished if it Fails to Adapt After COVID-19’, *The Guardian*, 3 June, 2020. Available at: https://www.theguardian.com/science/2020/jun/03/jane-goodall-humanity-is-finished-if-it-fails-to-adapt-after-covid-19?utm_term=RWRpdG9yaWFsX0dyZWVuTGlnaHQzMjAwNjAz&utm_source=esp&utm_medium=Email&CMP=greenlight_email&utm_campaign=GreenLight.

⁵¹ David Quammen, *Spillover: Animal Infections and the Next Human Pandemic* (London: Bodley Head, 2012).

⁵² A. Alonso Aguirre, (2017). ‘Changing Patterns of Emerging Zoonotic Diseases in Wildlife, Domestic Animals, and Humans Linked to Biodiversity Loss and Globalisation’, *Institute for Laboratory Animal Research Journal* 58, no. 3 (2017): 315–318.

⁵³ Quammen, *Spillover*, 41.

⁵⁴ Peter Daszak, ‘Ignore the Conspiracy Theorists: Scientists Know COVID-19 Wasn’t Created in a Lab’, *The Guardian*, 10 June, 2020. Available at: <https://www.theguardian.com/commentisfree/2020/jun/09/conspiracies-covid-19-lab-false-pandemic>.

COVID-19.⁵⁵ MERS has been flagged as the possible ‘next’ pandemic, particularly as desertification associated with climate change has meant a shift from cattle to camels as ‘livestock’ in parts of Africa, China and Mongolia in addition to existent high camel populations in the Middle East.⁵⁶

COVID-19 highlights the way our dysfunctional and exploitative ‘relationships with animals are [not only] driving the emergence of zoonotic infectious diseases’ but also destroying our life support systems.⁵⁷ The scale of loss of biodiversity is alarming. While human and domestic animal populations increase, wildlife populations plummet such that by 2018, 60% of all mammals on earth were farmed animals, 36% were humans and just 4% were wild animals; 70% of the global bird population was farmed.⁵⁸ We are now experiencing the 6th mass extinction event with it being forecast that a million non-domesticated animal species will become extinct in the next few decades.⁵⁹

The ‘wet markets’ of Asian countries have however, been misrepresented in an attempt to assert that this current zoonotic epidemic is an isolated incident.⁶⁰ The origins of COVID-19 still remain uncertain at the time of writing. In the Spring of 2020, the ‘lab-leak theory’ – suggesting that the virus was accidentally or purposely leaked from the Wuhan Institute of Virology -- was popular in the US with the political right, but came back on the scientific and media agenda in early 2021. The politicisation of the issue led to debate in scientific fora as to whether this was conspiracy theory.⁶¹ The WHO-convened ‘origins report’ in March 2021 considered the ‘lab-leak’ hypothesis to be highly unlikely, and that spillover to humans via an intermediate animal host was the most likely.⁶² Despite uncertainty, it does seem that the emergence of COVID-19 is likely to be related to wildlife crime which enabled the selling of wild animals for food at ‘wet’ (or fresh) food markets in

⁵⁵ John S. Ji, ‘Origins of MERS-CoV, and Lessons for 2019-nCoV’, *The Lancet Planetary Health*, Correspondence, 4(3) March 1, 2020. Available at: [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(20\)30032-2/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(20)30032-2/fulltext).

⁵⁶ Jacob Kushner, ‘Why Camels are Worrying Coronavirus Hunters’, *BBC Future*, 26 January 2021. Available at <https://www.bbc.com/future/article/20210122-the-coronavirus-10-times-more-deadly-than-covid>.

⁵⁷ Thom van Dooren, ‘Pangolins and Pandemics: The Real Source of this Crisis is Human, not Animal’, *NewMatilda.com*, 22 March, 2020. Available at https://newmatilda.com/2020/03/22/pangolins-and-pandemics-the-real-source-of-this-crisis-is-human-not-animal/?utm_campaign=shareaholic&utm_medium=email_this&utm_source=email.

⁵⁸ Yinon M. Bar-On, Rob Phillips, and Ron Milo, ‘The Biomass Distribution on Earth’ *PNAS* 115, no. 25 (2018): 6506-6511.

⁵⁹ Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (London: Bloomsbury, 2014); Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, ‘Nature’s Dangerous Decline is Unprecedented, but it is not too Late to Act’, 25 September, 2020. Available at: <https://ipbes.net/news/special-report>.

⁶⁰ Ben Westcott and Serenitie Wang ‘China’s Wet Markets are not What Some People Think They Are’, *CNN*, April 23, 2020. Available at: <https://edition.cnn.com/2020/04/14/asia/china-wet-market-coronavirus-intl-hnk/index.html>; Dina Fine Maron, ‘Wet Markets’ Likely Launched The Coronavirus: Here’s What You Need to Know’, *National Geographic*, April 15, 2020. Available from: <https://www.nationalgeographic.com/animals/article/coronavirus-linked-to-chinese-wet-markets>.

⁶¹ Mohamad S. Hakim, ‘SARS-CoV-2, Covid-19, and the debunking of conspiracy theories.’ *Reviews in medical virology* vol. 31,6 (2021): e2222. doi:10.1002/rmv.2222

⁶² Smrity Mallapaty, ‘After the WHO Report: what’s next for COVID’s origins?’ 1 April 2021. *Nature* 592, 337-338 (2021). Available at: <https://www.nature.com/articles/d41586-021-00877-4>.

China (Xiao et.al, 2021).⁶³ However, the conditions enabling zoonotic disease, as outbreaks of bird and swine flu have shown, are an endemic condition of the global networks of commoditisation in the industrial systems which turn nonhuman creatures into food. The speed with which zoonoses are emerging challenges us to rethink those practices that encourage their emergence and the way that animals, particularly wild animals and farmed animals, are incorporated into social and economic relations. Or at least, it should do. However, familiar arguments for ‘business as usual’ gain in momentum and visibility, just as the next zoonotic pandemic ‘waits in the wings’.⁶⁴

Bordering as a response to COVID-19

Like a cockroach in the perforated luggage of an undocumented and underprivileged wayfarer at a heavily policed border crossing, Covid-19 has a debilitating ability to neutralise borders (physical, social, cultural, bodily, and ideological) that others hold in awe with norming ease and deadening silence. Notwithstanding its invisibility, Covid-19’s mode of travel and privileged crucibles of self-activation remain human.⁶⁵

COVID-19 has overwhelmingly been understood as a medical issue, the containment of which relies on advances in biomedical research and clinical treatment and public health measures.⁶⁶ Many of those health measures constitute forms of erecting borders and policing these (from restrictions on national and international travel, to restrictions on bodily behaviour in public spaces) and on the maintenance of barriers (through social distancing and wearing face-coverings, for example). The inter and intra-national competition for the creation, patenting, testing and rolling out of vaccines can also be understood in terms of the maintenance and policing of borders. While containment of the spread of the virus through public health and other measures such as travel bans and restrictions on movement and activities was undoubtedly a necessary response, it can also be understood as a form of bordering. This section of the paper draws on bordering theory in order to argue that responses to COVID-19 have been control responses that do not account for the need for prevention of the circumstances contributing to zoonotic spillover. In addition, these responses have been humancentric and human-exclusive and have been shaped by a colonial frame. We will suggest that understanding borders and borderlands as porous or ‘leaky’ is a useful starting point for thinking about human relations with non-human nature, and ultimately, what it means to be human.

Thinking about bordering constitutes a new and expanding field influenced by decolonial theorists, international relations scholarship, migration and gender studies. Bordering theory is constituted by key concepts that include power, inferiority, epistemic difference, hierarchisation and differential inclusion. The early work of Gloria Anzaldúa

⁶³ Xiao, X., Newman, C., Buesching, C.D. et al. ‘Animal sales from Wuhan wet markets immediately prior to the COVID-19 pandemic’. *Scientific Reports* 11, 11898 (2021).

⁶⁴ Evgeny Lebedev, ‘While the World Reels from Coronavirus, the Next Pandemic is Waiting in the Wings’, *The Independent*, 18 April, 2020. Available at: <https://www.independent.co.uk/voices/wildlife-trade/coronavirus-pandemic-china-a9472506.html>.

⁶⁵ Nyamjoh, ‘Covid-19’, 3.

⁶⁶ Oberlander, ‘Introduction to COVID-19’.

examines the US-Mexico physio-political border where she roots her conceptualisation of 'border culture'. Anzaldúa sees borderlands as most likely to be characterised by la mezcla, mixing, or hybridity. Identities and relations are porous, or as we prefer, leaky. Despite the hybridity of borderland, the border, for Anzaldúa, operates to separate 'safe' and 'unsafe' and distinguish between 'us' and 'them' through a dividing line, while powerful discourses operate to demarcate legitimate inhabitants versus the illegitimate inhabitants along racialized lines.⁶⁷ Mignolo and Tlostanova develop such ideas by situating 'border thinking' within both geographic and epistemic discourse. They draw on colonial and earlier histories where frontiers or borders were deployed as means of distinguishing civilisation (and the civilised) from barbarism (and the barbaric people, fauna and flora of 'wilderness'). Mignolo and Tlostanova also use the European Renaissance as the reference point of modernity, noting that the theologically driven 'zero point' of observation ignored and rejected the existence of other cultures and knowledge (that was not white, Christian and European) creating the concept of the epistemic frontier.⁶⁸ In later work, Anzaldúa returns to the mestizo consciousness of the borderlands in valorising subaltern forms of being and knowing that work to undermine the processes of bordering, or border-making.⁶⁹

Discourses regarding the control of national borders have been central to political projects in the West as well as in many other parts of the world, but for bordering theory, the process of bordering is not only political. State borders are only one kind of border amongst many.⁷⁰ Rather, processes of bordering weave together social, political, and economic configurations in complex ways.⁷¹ In the wake of 9/11 Zygmunt Bauman has suggested that the era of when states held territorial supremacy has come to an end, with borders now becoming territorial 'frontierlands'.⁷² Nash and Reid assert that state bordering processes are double edged - related on the one hand to state territorial boundaries and on the other to symbolic social and cultural lines of inclusion and difference.⁷³ Borders have deterritorialized and reterritorialized on a global scale.⁷⁴ Border thinking goes beyond physical-bounded spaces into the dynamics of exclusion and inclusion. These shifts have been described as 'differential inclusion' which entails varying levels of acceptance, segmentation, discrimination and subordination within the same space.⁷⁵ Narratives of the

⁶⁷ Gloria E. Anzaldúa, *Borderlands/La Frontera: The New Mestiza* (San Francisco: Aunt Lute Books, 1999).

⁶⁸ Walter D. Mignolo, and Madina V. Tlostanova, 'Theorizing from the Borders: Shifting to Geo- and Body Politics of Knowledge', *European Journal of Social Theory* 9, no. 2 (2006): 205–221.

⁶⁹ Gloria. E. Anzaldúa, *Light in the Dark: Rewriting Identity, Spirituality, Reality* (Durham, NC: Duke University Press, 2015); for 'border-making' see Vladimir Kolossov and James Scott, 2013. 'Selected Conceptual Issues in Border Studies', *Belgeo: Revue Belge de Géographie*, no. 1 (2013). Available at <http://journals.openedition.org/belgeo/10532>.

⁷⁰ Thomas Nail, *Theory of the Border* (Oxford: Oxford University Press, 2016).

⁷¹ Kathryn Cassidy, Nira Yuval-Davis and Georgie Wymmes, *Bordering* (London: Wiley, 2018), 3.

⁷² Zygmunt Bauman, *Society Under Siege* (Cambridge: Polity, 2002), 90.

⁷³ Catherine Nash and Bryonie Reid, 'Border Crossings: New Approaches to the Irish Border', *Irish Studies Review* 18, no. 3 (2010): 265-284.

⁷⁴ David Newman and Anssi Paasi, 'Fences and neighbours in the postmodern world: boundary narratives in political geography.' *Progress in Human Geography* 22, no.2 (1998):186-207.

⁷⁵ Sandro Mezzadra, 'The Gaze of Autonomy: Capitalism, Migration, and Social Struggles', in *The Contested Politics of Mobility: Border zones and Irregularity*, ed. Vicki Squire (London: Routledge, 2011), 121–143; Sandro

border(land) remain powerful, in spite of a complex array of de- and re-bordering processes. In *Bordering*, Cassidy, Yuval-Davis and Wymmes examine the ways in which we can see borderwork taking place in everyday life and practices, and the ways this is contested, particularly by those human inhabitants of the borderland.⁷⁶ They convincingly evidence that the deterritorialization of borders has seen their relocation in a multiplicity of spaces spread throughout civil society – as Etienne Balibar earlier surmised, ‘borders [...] are dispersed a little everywhere’.⁷⁷ Thus, borders are mobile⁷⁸, paradoxical and invisible, yet impactful.⁷⁹ What has been left out of the bordering literature however, has been human relationships with other species and the ways in which processes of othering, separation and bordering between humans and other animals, between settler and indigenous peoples or colonial subjects and objects have been key to the global cultural politics of nationalism and nation building.⁸⁰ Bordering involves the use and abuse of bodies and the valorisation of the legitimate and illegitimate inhabitants of a space, and it is a project of species domination too.

During COVID-19, we have seen various attempts to border humans – restrictions on travel and on the ways we are able to travel, exclusions due to closures of schools, shops and so on; and practices of biosecurity – from handwashing and mask wearing to testing and tracing schemes. In homes of wealthy countries during periods of national lockdown, homespace was subject to bordering and rebordering as the home becomes a different kind of territory for homeworking or homeschooling.⁸¹ The bodily bordering of social distancing and facial covering are preventative measures shaped by public health discourse, so that rather than seeking to prevent something from happening, measures are designed to control the spread of the disease and targeted at humans only.⁸² Yet the borders and frontiers of bordering theory are highly apposite when it comes to considering the relations implicating other species in the context of COVID-19. While zoonoses demonstrate our kinship with other animals,⁸³ the predominant policy response is not to rethink the problems attending our treatment of other creatures. Rather, separation -- from both human and other animals -- is proposed in the interests of protecting humans from pathogens originating in animals and in gaining ‘mastery’ over zoonotic diseases.⁸⁴ What is interesting in relation to responses to so-called ‘natural disasters’ is that in these cases, considering the cause of a hazard or vulnerability has been important. In pandemics

Mezzadra and Brett Neilson, ‘Between Inclusion and Exclusion: On the Topology of Global Space and Borders’, *Theory, Culture & Society* 29, no. 4/5 (2012): 58–75.

⁷⁶ Cassidy, Yuval-Davis and Wymmes, *Bordering*.

⁷⁷ Étienne Balibar, *Politics and the Other Scene* (London: Verso, 2002), 1.

⁷⁸ Saskia Sassen, ‘When Territory Deborders Territoriality’, *Territory, Politics, Governance*, 1:1 (2013) 21-45.

⁷⁹ Kolossov and Scott, ‘Selected Conceptual Issues’.

⁸⁰ Kathryn Gillespie & Yamini Narayanan (2020) ‘Animal Nationalisms: Multispecies Cultural Politics, Race, and the (Un)Making of the Settler Nation-State’, *Journal of Intercultural Studies*, 41:1, 1-7.

⁸¹ Iossifova, D. (2020). ‘Reading Borders in the Everyday: Bordering-as-Practice’, in *A Research Agenda for Border Studies* ed. John W. Scott (London: Edward Elgar Publishing Ltd., 2020): 89-105.

⁸² Romano, ‘Politics of Prevention’, 35-7.

⁸³ Shukin, *Animal Capital*.

⁸⁴ Steve Hinchcliffe, ‘More Than One World, More Than One Health: Re-Configuring Interspecies Health’, *Social Science & Medicine*, no. 129 (2015), 29.

however, a human-centred managerialism characterises responses. While a food market in China might have been identified as the apparent origin of the current pandemic (albeit that this is contested), interrogation of the specific problematic issues of species encounters has thus far been avoided.

We have already suggested that practices of inappropriate mixing – such as of wild and domestic, live and dead animals in the wet markets of China, have been demonised. In the Western imaginary, such places and spaces of species mixing are associated with the racialized Other.⁸⁵ Thus, wet markets in China and bushmeat hunting in Central Africa have been singled out as sources of zoonotic disease along with the small-scale, mixed farming practised in much of the global south. Not only are these places where there is seen to be dangerous mixing, but the practices which constitute them are seen as ‘backward’ and belonging to traditional societies that have no place in a modern, globalised world.⁸⁶ Yet the bordering processes which set these practices up as exclusive to othered peoples and places are false. Zoonotic diseases are not spread by the intensity and scope of human travel alone, but also by the wild animal trade, and the ways in which ‘bushmeat’ and food originating in wet markets are implicated in global food supply chains.

Wild animals are increasingly subject to bordering by being unable to move due to destruction of their habitat by deforestation by logging, mining and other extractive practices, the spread of urbanisation and the creation of new transport links for humans.⁸⁷ Land-use changes affect wildlife species themselves, and impact the health of both human and nonhuman animals.⁸⁸ The relentless expansion of human populations and dwelling space has had a catastrophic impact on ‘wild’ animals, with their populations dropping an alarming third between 1970 and 2010; terrestrial and marine species having declined by 39% and fresh water species having declined by an average of 76%.⁸⁹ This extermination by settlement has parallels to the impact of colonizing settler populations on indigenous peoples. The bordering of habitat destruction contributes significantly to the emergence of zoonotic diseases because it fragments habitats thereby increasing human contact with wild animals, as people or animals move in on each other’s spaces.⁹⁰ This ensures that wild animals who are under stress come into greater contact with humans and domestic animals creating ideal conditions for the emergence of zoonoses.⁹¹ As David Quammen describes:

⁸⁵ Shukin, *Animal Capital*.

⁸⁶ Nickie Charles, ‘The challenges posed by the COVID-19 crisis for human-animal relations’, *Toxic News*, June 19 2020. Available at: <https://toxicnews.org/2020/06/19/the-challenges-posed-by-the-covid-19-crisis-for-human-animal-relations/>

⁸⁷ Kate, E. Jones, Nikkita G. Patel, Marc A. Levy *et al.*, ‘Global Trends in Emerging Infectious Diseases’, *Nature*, no. 451 (2008): 990–993.

⁸⁸ Rebecca D. Ellis, Todd J. McWhorter, Martine Maron, ‘Integrating Landscape Ecology and Conservation Physiology’, *Landscape Ecology* no. 27 (2012): 1–12.

⁸⁹ World Wildlife Fund Living Planet Index. Available at: https://wwf.panda.org/discover/knowledge_hub/all_publications/living_planet_index2/?

⁹⁰ Bryony A. Jones, Delia Grace, Richard Kock *et al.*, ‘Zoonosis Emergence Linked to Agricultural Intensification and Environmental Change’, *PNAS* 110, no. 21 (2013): 8399–8404.

⁹¹ Anne Seltmann, Gábor Á. Czirják, Alexandre Courtiol *et al.*, ‘Habitat Disturbance Results in Chronic Stress and Impaired Health Status in Forest-Dwelling Palearctic Bats’, *Conservation Physiology* 5, no. 1 (2017): 1–14.

We invade tropical forests and other wild landscapes, which harbor so many species of animals and plants—and within those creatures, so many unknown viruses. We cut the trees; we kill the animals or cage them and send them to markets. We disrupt ecosystems, and we shake viruses loose from their natural hosts. When that happens, they need a new host. Often, we are it.⁹²

Rather than re-think our attitude to other species and spaces, when it comes to the politics of zoonotic disease, separation and strict biosecurity are seen by health-related international organisations such as the WHO, as a means of preventing or stopping outbreaks at source.⁹³ Such practices of biosecurity are those which operate in the intensive farming systems characterising the global north. Steve Hinchcliffe argues that this sets the ‘virtuous’ bio-secure global north against the ‘interspecies intimacy’ and ‘contingency’ characterising the global south⁹⁴ – thus we have a bordering discourse between the civilized practices of the West and the more intimate and leaky species boundaries in the spaces of Africa and Asia.

Bordering practices are also seen when we consider the search for animal hosts and the idea that ‘singular animal species’ bear ‘the burden of epidemic blame’.⁹⁵ An ultimate form of bordering is killing - and one key response to zoonotic disease is to extinguish members of the host species. Millions of farmed animals are killed, supposedly in the interests of protecting human health, in a zoonotic outbreak. All the chickens in Hong Kong, over 1.2 million animals, were killed in response to the 1997 avian flu outbreak and, before horseshoe bats were identified as the host species for SARS, civet cats were suspected and thousands were killed in China⁹⁶. In November 2020, the Danish government rushed through a specious plan to cull up to 17 million farmed mink due to concerns that a mutated form of COVID-19 found on mink farms could hamper the impact of a vaccine for humans.⁹⁷ This is an imperial human response which suggests the lives of animals are expendable and ‘portraying animals as incubators, carriers, reservoirs, or spreaders of human infection [...] grounds the scientific study of zoonosis on hard anthropocentric ground’.⁹⁸ Certainly, the science suggests such culling is “unwarranted vilification” of a host species.⁹⁹ As Nail points out, borders function to mark divisions, to leave a limit or mark a boundary in order that these boundaries are breached.¹⁰⁰ On the other hand, in the haste to develop a vaccine for humans, macaque monkeys ‘prized test subjects, considered particularly useful for studying lung diseases and vaccines because their pulmonary and immune systems are physiologically similar to humans’ were in high demand internationally and subsequently

⁹² David Quammen, (2020) ‘We Made the Coronavirus Epidemic’, *New York Times*, January 28, 2020. Available at: <https://www.nytimes.com/2020/01/28/opinion/coronavirus-china.html?smtyp=cur&smid=tw-nytopinion>.

⁹³ Hinchcliffe, ‘More Than One World’, 29.

⁹⁴ Hinchcliffe, ‘More Than One World’, 30.

⁹⁵ Frédéric Keck and Christos Lynteris, ‘Zoonosis: prospects and challenges for medical anthropology’, *Medicine Anthropology Theory* 5, no. 3 (2018), 7.

⁹⁶ Quammen, *Spillover*.

⁹⁷ Adrienne Murray, ‘Coronavirus: Denmark Shaken by Cull of Millions of Mink’, *BBC*, 11 November, 2020. Available at <https://www.bbc.co.uk/news/world-europe-54890229>.

⁹⁸ Keck and Lynteris, ‘Zoonosis’, 10.

⁹⁹ Xiao Xiao, Chris Newman, Christina D. Buesching *et al.*, ‘Animal Sales from Wuhan Wet Markets Immediately Prior to the COVID-19 Pandemic’, *Scientific Reports* no. 11, Article 11898 (2021).

¹⁰⁰ Nail, *Theory*, 36.

exempted from China's (the largest macaque supplier) wildlife trade ban as part of its lucrative biomedical research trade.¹⁰¹ Animals are also highly expendable it seems, as test subjects for the prevention and treatment of COVID-19 in humans, and international borders can be permeable when the (ab)use of animals might enable corporate gain. In our treatment of other animals during COVID-19, predominant policy reactions have been to attempt to shore up various kinds of borders: of individual humans and their kin, between species, between objects, spaces and territories. When it comes to the treatment of non-human animals, those bordering processes are particularly violent.

Zoonotic politics and the leaky boundaries of species

One might regard Covid-19 as the first boomerang from the sixth mass extinction to hit humanity in the forehead.¹⁰²

The politics of biopower as a technology centred on life¹⁰³, can be clearly seen in the COVID-19 crisis – human population patterns, characteristics and behaviour are embedded in decision-making and the practice of daily life is governed with new regimes of bodily discipline such as hand washing and sanitising. Yet COVID-19 is also a powerful illustration of the problem of humancentric bias in Foucault's original formulation. There is a need for an extension of bio to zoo – as Nicole Shukin suggests. For Shukin, there is an “inescapable bleed” between human social life and the politics of animality, but this is denied by a politics of pandemic biosecurity.¹⁰⁴ What Shukin calls “zoonotic origin stories” are racialised and involve entangled bodies and matter across species. As we have seen above, the stories we tell, matter.

Stoeltzer and Yuval Davis argue that borders are fixed in our imaginations, only.¹⁰⁵ They are characterised by plasticity and permeability. This is why much of the bordering literature suggests that attempts -- often violent and highly exclusionary -- to shore up borders cannot secure populations on the 'inside'. Rather, borders are porous and constantly subject to change. In relations with other species, bordering practices are constantly breached and shown to be shaped by the tension between exclusions and expulsions on the one hand, and leakage and entanglement on the other. Donaldson and Kymlica consider that the historical development of our relationships with other creatures has been inherently exploitative, but key for them is that huge varieties of species exhibit complex relations of interactivity with humans:

¹⁰¹ Rosemary Collard, 'More-than-human frontline carework' in in the collective paper 'More-Than-Human and Deeply Human Perspectives on COVID-19', Elizabeth Lunstrum, Neel Ahuja, Bruce Braun, Rosemary Collard, Patricia J. Lopez, Rebecca W.Y. Wong, *Antipode* 35 no.2, 1515.

¹⁰² Malm, *Corona, Climate, Chronic Emergency*, 104.

¹⁰³ Foucault, Michel, 'Governmentality', in *The Foucault Effect*, ed. Graham Burchill, Colin Gordon and Peter Milet (London: Harvester Wheatsheaf), 1991, 87-104.

¹⁰⁴ Shukin, *Animal Capital*, 28.

¹⁰⁵ Nira Yuval-Davis and Marcel Stoeltzer, 'Imagined Boundaries and Borders: A Gendered Gaze', *European Journal of Women's Studies* 9, no. 3 (2002): 329-344.

In fact, wild animals live all around us, in our homes and cities, airways and watersheds. Human cities teem with non-domesticated animals -- feral pets, escaped exotics, wild animals whose habitat has been enveloped by human development, migrating birds -- not to mention the literally billions of opportunistic animals who gravitate to and thrive in symbiosis with human development [...] We are part of a shared society of innumerable animals.¹⁰⁶

As a result, there are a 'dizzying array of relationships' with diverse origins, different spatial dimensions and levels of dependency, interaction and vulnerability.¹⁰⁷ This makes our attempts to border species highly problematic. It implies that we might usefully critique the conditions that give rise to 'border generating categories'.¹⁰⁸ In part, this is Donaldson and Kymlicka's *Zoopolis* project in questioning the forms of relations and associated practices that currently constitute human relations with nonhuman animals, where they develop existent political concepts of sovereignty, rights and citizenship to include creatures in different kinds of relationship with humans. Ultimately however, the human remains the architect of the possible lives of others and is not subjected to scrutiny. This is insufficiently radical – in reimagining species and re-ordering species relations, reimagining what it means to be human is crucial.

In moving away from liberal humanism, posthumanism can help us to think about the qualitative and quantitative shifts needed 'in our thinking about what exactly is the basic unit of common reference for our species, our polity and our relationship to the other inhabitants of this planet'.¹⁰⁹ Better relations with non-human animals do not require the extension of liberal citizenship and its baggage of rights and obligations. Such moves would fall at the first (syntactical) linguacentric hurdle. Posthumanism is a contested concept and been understood in a variety of different ways, but a clear common thread is that it represents a reaction against the view of human exceptionalism.¹¹⁰ This view understands humanity to be marked off from the huge diversity of non-human animal life due to apparently exceptional characteristics. Rather, posthumanism understands relationships between different forms of life as co-constituted and interdependent. It understands, therefore, that our boundaries are inevitably leaky. Posthumanist critique raises vital questions for human being in the world and demands a more profound shift.

In previous work we have suggested that our posthumanist politics needs to be critical - is a politics *for* all that lives, and *for* the purpose of eliminating multiple forms of oppression.¹¹¹ Such a critical posthumanism has its foundation in complexity thinking – an analysis of the world which perceives reality as composed of myriad systems interacting in ways which are co-constitutive and unpredictable. Humans are immersed in an interconnected web of human and non-human systems. From this perspective it is impossible to perceive of the human world separate from the more than human worlds. Yet

¹⁰⁶ Sue Donaldson and Will Kymlicka, *Zoopolis: A Political Theory of Animal Rights* (Oxford: Oxford University Press, 2011), 8.

¹⁰⁷ Donaldson and Kymlicka, *Zoopolis*, 68.

¹⁰⁸ Kolossov and Scott, 'Selected Conceptual Issues', para. 7.

¹⁰⁹ Rosi Braidott, *The Posthuman*, (Cambridge: Polity, 2013), 2.

¹¹⁰ Bruce Braun, 'Querying Posthumanisms', *Geoforum* 35, no. 4 (2004): 269-73; Cary Wolfe, *What is Posthumanism?* (Minneapolis MN: University of Minnesota Press, 2010), xi.

¹¹¹ Removed - anonymity

this is not a flat ontology, complexity thinking permits the analysis of hierarchies of power, and forms of inequality. Humans act in systems and forms of domination, both over much of the rest of nature, but also with other human communities. The social sciences have generally fixated on the human, and a central concern of this approach is to de-centre the human, to challenge hierarchies, and to depict human activity as inseparable from our inter-relations with the rest of nature.

All that lives is incredibly vulnerable in our times. In arguing for posthumanism as an emancipatory project, we suggested the need for a 'creaturely politics' which stresses the bodied nature of the human and our bedding in vital networks with other beings and things.¹¹² This does not only imply a critical perspective on the human centred organisation of our economic life, our social practices and our ways of doing politics, it also requires a shrinking of the idea of 'the human' as we know it, and a transition to a more embodied 'animal' condition in which the shared vulnerabilities with other creatures and living things are understood. Second, we wish to see the development of ways of flourishing in our precarious times, in particular through posthuman communities and commoning practices. A creaturely politics involves both a critique of existing society, and the celebration of a pre-figurative politics of entangled lives. In other words, an exploration of the multiple forms of existence where humans and other species co-exist in non-hierarchical relations. Our critique of human-centred and human-defined concepts of the political led us away from the notion of 'zoopolis' in which non-human creatures are included to various degrees in an (albeit radically different) polity, and towards a notion of community that works from the bottom up. The context of COVID-19 illustrates our bodied, vulnerable condition and our precarity as human animals, particularly vividly.

The recognition of shared vulnerability and imperilled condition however, is nothing short of a revolutionary process. If our task is to try and learn to live and die well together, in our troubled present on a damaged earth, then we need to consider what relations we might choose to make or retain and those we also choose to sever in trying to promote multispecies flourishing. Rejecting a culture that equates the eating of animals with social status and elite power, with heteronormative masculinity, and which reproduces colonial cultures, would seem a relatively painless way of humans, particularly in wealthy worlds, to live less wrongly. As for all the strategies which might be advanced for living less badly, this does not presume a cross cultural or overarching change, but rather, a consideration of contextual and relational eating practices with respect to both plant and other animal life and means of producing human food that are situated.¹¹³

With this in mind, how might COVID-19 teach us to live less wrongly? There are concrete and immediate steps that might be taken to lessen the vulnerability of humans and other animals to viruses. This is not only the view of those academics and activists working in critical environmental and animal studies, but of those investing in agricultural developments. As Jeremy Collar, director of the FAIRR global investment network asserts:

¹¹² Removed - anonymity

¹¹³ Greta Gaard, 'Critical Ecofeminism: Interrogating "Meat", "Species", and "Plant"', in *Meat Culture* ed. Annie Potts (Leiden: Brill, 2017), 279.

Factory farming is both vulnerable to pandemics and guilty of creating them. It's a self-sabotaging cycle that destroys value and risks lives [...] Covid could be the straw that breaks the meat industry's back.¹¹⁴

The global meat industry needs breaking. The necessary challenge of COVID-19 is to force us to rethink the exploitation of other animals that underpins human societies in different ways and to different extents across the globe. The 'necropolitical feedback loops' of the animal industries, which put both human and non-human animals at such risk, are illuminated, exposed by COVID-19.¹¹⁵ The exploitation of other animals must be replaced with systems which promote their flourishing – and whether any kind of farming of animals is compatible with that is highly unlikely. Concerted action to reverse the tide of industrial animal farming is crucial, as the avoidance of meat and dairy products is being hailed as the "single biggest way" to reduce human impact on the environment.¹¹⁶ Despite our criticisms above, Donaldson and Kymlica's *Zoopolis* has many strengths. Indeed, one wonders if the recommendations of its conclusions were adopted, a zoonotic pandemic such as COVID-19 would be possible. Domesticate animals would not be farmed or eaten, wild animals and their habitats would be given a range of protections as 'sovereign nations', domesticate populations would be hugely reduced and live as citizens and liminal populations living alongside humans but never with them, would be respected. However, ways of being human in the world require fundamental re-thinking too and not only in relation to other species but in relation to intra-human differences and relations of power, and also in terms of shared vulnerability. The anthropause has indeed been just that, a pause in the extractivism and exploitation of non-human natures. But might it be otherwise? Might it be a portal¹¹⁷ to a different kind of relational landscape.

Conclusion

Our lack of acknowledgement of the lives of other animals whom we raise or hunt to kill and eat, whose habitats we destroy and encroach upon, whose populations we squeeze to the point of breaking, has led us to the current situation of crisis in human health and wellbeing. The worlds of high politics are so resistant to recognising this that it is no wonder that engaging with the enviro-socio-politico-economic causes of COVID-19 has been avoided thus far.¹¹⁸ Addressing the causes of zoonotic pandemics requires that climate change and species extinction are understood for what they are - emergencies. We have seen that zoonotic 'spillover' is linked to climate change, pressured wild animals and destruction of habitat – particularly tropical forest. Malm asks the deceptively simple question as to why the states of the global north deployed the rhetoric of warfare and acted on COVID-19 (however effectively, or not), but not in response to climate change. His answer is that the

¹¹⁴ Quoted in Harvey 'Jane Goodall'.

¹¹⁵ Neel Ahuja's contribution to the discussion in the collective paper 'More-Than-Human', 1517.

¹¹⁶ Joseph Poore and Thomas Nemek, 'Reducing Food's Environmental Impacts Through Producers and Consumers', *Nature* 360, no. 6392 (2018): 987-992.

¹¹⁷ Arundhati Roy 'The pandemic is a portal', Haymarket Books, 23 April 2020. Available at: <https://haymarketbooks.org/blogs/130-arundhati-roy-the-pandemic-is-a-portal>.

¹¹⁸ See also Rosemary's Collard's contribution to the discussion in 'More-Than-Human', 1521.

order of victimhood matters -- immediate victims of COVID-19 come from wealthy states, whereas the poorest people in poorer countries are first to be hit by the effects of climate change.¹¹⁹ Furthermore, “ecologically unequal exchange” drives deforestation and human impoverishment, commoditisation and accumulation; while powerful interests resist political action on climate change.¹²⁰

Our relations with other species are co-constituted with intra-human exploitations, exclusions and vulnerabilities that are tied in to ways of living which involve animal killing, displacement and exploitation. Challenging this would be radical change indeed. The very notion of species is bound up with the Western idea of what it means to be human, and is gendered, racialized and colonial; such categories are leaky too. In advancing a critical posthumanism we echo Donna Haraway’s call for ‘Cyborgs for Earthly Survival’, with the concept of cyborg being used here to reflect our symbiotic relations with all the other ‘critters’ with who we share the planet.¹²¹ A creaturely politics, one that challenges the imperial human, acknowledges our animal vulnerability and interconnections with the rest of nature, shifts the priority to all that lives. In making the case for respect and response-ability,¹²² we need a situated perspective that takes account of different kinds of relations and possibilities rather than a ‘one-size-fits-all’ model. We also need to move away from bordering in both senses of the term: the bordering practices of securitisation and violence and the epistemic bordering that enables the exclusion of certain people and nonhuman animals. Anzaldúa suggests we require the third perspective, the Coatlicue state, a consciousness of the borderlands, wherein opposites are fused.¹²³ In the mestizo, we can acknowledge that the boundaries of species are leaky – our relationships with other creatures indicate the ways in which we engage in biomotility. We live among other creatures, and zoonoses are illustrations of biomotility – *their* pathogens can make *us* up, in the flesh.

The sticking plasters of bordering practices are not fit for a time of pandemics. We need a posthumanist zoonotic politics which seeks not to attempt to (re)border the leaky boundaries of species, but rather to insist on a *reordering* of species relations and an opening up of the polis to considering the wellbeing and life needs of the myriad creatures that constitute our world, and on which human life ultimately depends. Until concerted action to reorder our relations with other living beings and things is taken seriously, the politics of attempting to border the leaky boundaries of species will ensure that pandemics are here to stay (such as swine flu) or that we will face new and potentially far more deadly viruses (a new and more internationalised outbreak of MERS, perhaps). These will be carried in by exploited and increasingly pressured populations of bats, birds, boar, camels,

¹¹⁹ Malm, *Corona, Climate, Chronic Emergency*, 12, 23.

¹²⁰ Riley E. Dunlap and Robert J. Brulle, ‘Sources and Amplifiers of Climate Change Denial.’ in D. C. Holmes & L. M. Richardson, L. M. (Eds.) *Research Handbook on Communicating Climate Change*. (Cheltenham: Edward Elgar, 2020): 49-61

¹²¹ Donna Haraway ‘Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin’, *Environmental Humanities* 6, no. 1, (2015), 161.

¹²² Donna Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham, NC: Duke University Press, 2016)

¹²³ Anzaldúa, *Borderlands*, 78-9.

monkeys, mosquitos, possums and others; and nurtured by human poverty and the impacts of climate change.¹²⁴ A radical politics is required for genuine prevention, which after all, is often said to be better than the cure.

¹²⁴ BBC, 'Stopping the next one: What could the next pandemic be?', *BBC Future*, Available at <https://www.bbc.com/future/article/20210111-what-could-the-next-pandemic-be>.