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More-than-Human and Deeply Human Perspectives on COVID-19

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Abstract

This multi-authored contribution explores what the COVID-19 pandemic demands of critical inquiry with a focus on the more-than-human. We show how COVID-19 is a complex series of multispecies encounters shaped by humans, non-human animals, and of course viruses. Central to these encounters is a politics of difference in which certain human lives are protected and helped to flourish while others, both human and animal, are forgotten if not sacrificed. Such difference encompasses practices of racialization and racism, healthcare austerity, the circulation of capital, border-making, intervention into non-human nature, wildlife trade bans, anthropocentrism, and the exploitation of animal test subjects. The contributions highlight how COVID-19 provides a needed opportunity to unite new materialist and anti-racist, anti-colonial scholarship as well as reimagine more radically sustainable multispecies futures. This requires embracing anti-colonial humility, confronting debts owed to lab animal frontline workers, and rethinking economic systems that helped unleash COVID-19 and ensured it became a disaster.

Keywords: COVID-19, more-than-human, racialization, wildlife trade, BLM movement, global capital

Introduction

In late 2019, a novel coronavirus—severe acute respiratory syndrome coronavirus 2, or SARS-CoV-2—began to spread globally, leaving the disease COVID-19 in its wake. At the time of writing, the SARS-CoV-2 pandemic has led to over 2.5 million confirmed deaths and 116 million confirmed cases across the globe (Our World in Data 2021). The emergence and spread of the virus, its impacts, and how we understand and work to address these are intimately shaped by more-than-human encounters. Here humans, non-human actors, and viruses mingle to reshape the world. In this multi-authored contribution, we ask what the pandemic requires of critical inquiry that foregrounds the more-than-human with the aim of helping build a more profoundly just and sustainable world for humans and our more-than-human counterparts.

Our contributions illustrate that COVID is a complex series of multispecies encounters shaped by humans, non-human animals, and viruses. The human body is core to COVID’s path, emerging as a generous host given our cellular physiology but equally our global transportation infrastructure, itself a more-than-human artifact, which has allowed the virus to travel at extraordinary pace, hitchhiking on routes built to facilitate the movement of global capital. The path of zoonotic viruses—that is, viruses that spillover from animals to human hosts—is also by definition shaped by non-human animals. With COVID-19, as with the 2002-2004 SARS outbreak, this includes wild animals along with how their complicity is narrated to authorize certain responses (such as banning the wildlife trade) and non-responses (such as Orientalist moves that displace blame on “strange” Chinese cultural practices). More hidden are the animal test subjects actively given the virus in hopes of finding a cure. The treatment of non-human animals in both realms raises profound questions of human intervention into more-than-human worlds, animal welfare, and the politics of blame and sacrifice. Then, of course, there is the virus itself, which takes advantage of austerity-provoked and discriminatory gaps in our healthcare and early response systems to wreak a deeply racialized havoc. As we show, these more-than-human encounters are shot through by power relations, inequalities, acts of border-making (between human and animal, nations, etc.), and broader politics of difference unfolding across different human and more-than-human communities alike. Here some lives are protected and helped to flourish while others are forgotten if not sacrificed.
While these contributions in many ways fit comfortably with more-than-human or post-human inquiry that sees more-than-human actors and constellations having agential power to shape the world (Barad 2007; Haraway 2008), they also rub up against its limits. We resist centering the human in shaping COVID’s paths given that human desire, intervention, and failure have shaped these paths at every turn. The contributions equally show COVID’s human element cannot be understood as an undifferentiated, massified category. Rather, different groups stand in starkly different relation to the virus given varying access to power, decision-making, and protection. We equally reject the ways in which the more-than-human and post-human turns have sidelined the theory and experiences of Black and Indigenous communities and communities of color (Jackson 2015, TallBear 2015, Todd 2015) and, in fact, see in COVID the need to unite new materialist and anti-racist, anti-colonial scholarship.

In the spirit of critical inquiry, we also ask questions aimed at provoking deeper understanding of COVID’s many paths—ones that are at once more-than-human, deeply human, and profoundly unequal—and how best to move forward. As we show, this requires rethinking exploitative economies and more-than-human relations and in turn embracing more radically sustainable futures for humans and non-human animals alike, anti-colonial humility, and test animals as frontline care workers.

Rather than writing as a collective with a shared voice and set of conclusions, we have kept our contributions distinct. The complexity of COVID-19 and its more-than-human and deeply human qualities demand a diverse set of perspectives rooted in multiple theoretical and empirical frames of reference. Ahuja, Lopez, and Braun bring expertise in the geopolitics of disease and epidemiology and work across cultural studies, political ecology, and health and development geography. Lunstrum, Wong, and Collard approach COVID-19 from their expertise on the international wildlife trade where they draw from political ecology, political economy, and green criminology. Keeping our voices distinct allows us to examine sites of commonality and draw connections while respecting differences including exploring diverse angles of the pandemic. This allows a more complex and nuanced investigation into the main question posed to each author: When it comes to the more-than-human nature of COVID-19, what does the pandemic demand of critical inquiry? After replying, we close by reflecting on the cross-cutting themes that have emerged through the conversation.

Neel Ahuja: Race, Health, and the Inequalities of Viral Governance

The intersection of anti-racist activism with COVID-19 emergency measures points to the need for collective strategies that, on the one hand, center attention to race, national, and class inequalities in pandemic response and, on the other, refuse oversimplifications of human-environment relations evident in critiques of viral governance as a kind of technocratic dehumanization.

We began sharing our contributions during June 2020, when the police murder of George Floyd in Minneapolis set off a wave of anti-racist uprisings. If COVID-19 emerges from a form of globalization that entangles capitalist production in deepening transport and labor flows centering Chinese manufacturing in the world system (Aksan and Bailes 2020), the emergent politicization of state violence amidst the pandemic indicates other geographies of stasis and segregation that have emerged as the persistent underside of capitalist environmental destruction. These widely dispersed protests demonstrate that compliance with health lockdowns is being weighed against needs for community defense and resistance. As such, they give the lie to Giorgio Agamben’s lament that bare life trumps all social connection, that “life is being reduced to a purely biological condition in which the social and the political – even the human and emotional – dimensions are lost” (Dean 2020).

The biology of pandemics cannot be separated from the politics of difference. In New York City, the death rate for COVID-19 has been twice as high for Black residents compared to whites, and substantially higher for Latinx residents as well (CDC 2021). In Ruth Gilmore’s famous definition, racism thus marks the capacity to create “group-differentiated vulnerability to premature death” (Gilmore 2002). The overrepresentation of people of color in service and logistics jobs, as well as in prisons, exacerbate unequal exposures. And reports of the unequal police enforcement of physical distancing measures against Black Americans build on Willie Wright’s observation that spatial control sutures environmental racism to processes of capitalist valuation (Wright 2018). The declarative statement “Black Lives Matter” must not – in this context commingling police violence, unequal health precarity, and mass economic dislocation – be read as a simple statement of the political primacy of the bare life of Black people, but rather a critique and challenge to the reality, described by Denise Ferreira da Silva (2017), of massively structured devaluation of Black life.
From this vantage, Agamben’s statement that we lose humanity by accepting lockdown as the normalized state of exception is one that requires further analysis. Such recourse to the figure of the human who must be saved from an overzealous emergency state fails to address the unequal cuts that disease interventions make across both social and biological fields. Critics of colonialism and racism have long stressed the unequal distribution of the benefits of speciation as human. Taking such a concern about inequalities that cut across the figure of the human, scholars who track the aesthetics and politics of viral fear reveal the limits of the human as a guarantor of security. Chen (2012), Cohen (2011), Wald (2008), and other queer theorists and feminist science studies scholars who work on contagion argue that microscopic figures of risk catalyze expansive surveillance of race, class, and gender attributes in viral governance. The resulting outbreak narratives suture human exceptionalism to forms of social and national exceptionalism that obscure how health institutions are unable to contain biological risks. Anthropocentrism offers little insulation from the unpredictability of biological life. In the coming forms of environmental surveillance, we are likely to see attempts to segregate human and bat habitats, a phenomenon that will likely reinforce stereotypes of rural and agrarian spaces as sites of contagion (Braun 2008). Scaling up of research and vaccine production may simultaneously invigorate new extractive enterprises for the gathering of animal research subjects.

Such technical interventions reinforcing a human-animal binary are central to neoconservative forms of health security, which may at first glance seem to confirm the necessity of Agamben’s criticism of emergency measures. The model of viral warfare has become a dominant public health approach in the U.S. and Europe with the intermingling of health and security in the past two decades. In chapter four of my book (Ahuja 2016), I was highly critical of the calls to pandemic defense on the model of warfare. The long United States war in Iraq became a site for suturing warfare to vaccine and outbreak planning. The overemphasis on racialized geographies of bioterrorism; overinvestment in emergency technical solutions rather than basic health and economic provisions; and idealization of policing and militarization demonstrate some of the pitfalls of the current state responses to the pandemic in many countries.

One of the challenges we face is to build responses that combine recognition of violences exacerbated by the pandemic with a social and ecological critique of public health. Agamben’s criticism of the Italian lockdown as state of exception is too blunt for such a task, but we must take seriously the devastating costs of crisis measures – affecting key health indicators including child development, rates of psychosocial disability, access to nutrition, and housing precarity – as well as imprecise or incorrect public health advice that has created obstacles to collective action supporting human and interspecies flourishing.

Finally, COVID-19 interventions in the US and Europe tend to focus more on individual responsibility rather than large-scale infrastructural responses – such as digital contact tracing and rapid expansion of hospital capacity – which have been more effective in areas of China, Korea, Hong Kong, and Taiwan. The conscription of society into a kind of viral warfare based on the atomized household, deployed in the service of staid nationalism, is not the only inevitable response to the pandemic. But moving away from commodity animal agriculture, carbon- and migration-dependent manufacturing processes, and privatized health are not easy tasks. Without transitions away from such formations at scale, the likely paths forward are intensifying inequality and massifying resistance along localized horizons of action. If the uprisings for Black Lives constitute one form of response to the limited, anthropocentric state-vision of national lockdowns, one lesson might be that in the pause on business as usual we may find more sustainable ways of embodying our vulnerability to other bodies, human and otherwise, and to the institutions that connect us.

**Patricia (Tish) Lopez: A Microbe by Any Other Name**

THE PRESIDENT: “I said the other night, “There’s never been anything where they have so many names.” I could give you 19 or 20 names for that, right? It’s got all different names. “Wuhan.” “Wuhan” was catching on. “Coronavirus,” right?”

AUDIENCE MEMBER: “Kung flu!”

THE PRESIDENT: “Kung flu,” yeah. [Applause.] Kung flu. “COVID.” “COVID-19.” “COVID.”

(President Donald Trump, June 23, Phoenix, AZ)
SARS-CoV-2 carries in its microbial existence a confluence of racialized anxieties—from its origin myths to its weaponization—laying bare, yet again, the materiality of racializing a disease, even as the disease itself disproportionately impacts BIPOC (Black, Indigenous, and People of Colour) and BAME (Black, Asian, and Minority Ethnic) people—medically, economically, socially, and politically. This disease has made plain the need to take seriously the calls to address race and racism within new materialist scholarship.

In May 2015, the World Health Organization put forward Best Practices for the Naming of New Human Diseases with the “aim to minimize unnecessary negative impact of disease names on trade, travel, tourism or animal welfare, and avoid causing offence to any cultural, social, national, regional, professional or ethnic groups” (WHO 2015). Naming a disease for a place, people, or host animal has had immense repercussions for those named. And indeed, as we have seen since the disease was first announced in January 2020, attacks against Asian people (regardless of their ethnic origin) have risen across the globe, subjecting people to increased verbal, affective, and physical assaults, reduced patronage, and property damage.

In the U.S., racial stigma has stretched further than Sinophobic violence. White supremacist and neo-Nazi groups have implicated Jewish and Israeli people in funding the creation of the coronavirus in Chinese labs while simultaneously encouraging followers who contract the coronavirus to spread it to Jewish people, Black people, and police and FBI through such diverse tactics as spitting, spraying saliva from bottles into faces, leaving saliva on door handles and elevator buttons, and spending time in public places with their targets (USDHS 2020). This tiny microbe holds for its beholders potential action, becoming a “meaningful collaborator” with which to think and act (Neimanis 2016)—a co-conspirator of white supremacy. Spit is weaponized, flinging bio-material that expels microbes (or maybe not) beyond the (white) body (it is always white spitters) becoming an act of defiance against illiberality (“not only will I not wear a mask, but I willfully spread the disease”). In the white carrier, these are the “polluted fluids of the immigrant, nonwhite, or generally impoverished body [becoming] the polluted fluids of the body politic” (Wald 2008:82-83).

Microbes, themselves, the very coronavirus which emerges materially, discursively, and intimately, are racialized—a racialization that not only constitutes the ground against which unfounded (and unscientifically-supported) fears emerge, but in turn, rescript who is or is not (who gets to be or doesn’t) fully human, co-mingling and entangling with racializing assemblages. There is in both the stubborn misnaming and the weaponization of the disease a materiality beyond the material outcomes of stigma toward a monstrous materiality of the microbe itself, conferring to it qualities of the less-than-human / more-than-human that hint at the haunting remnants of medicalized nativism, belying “the almost superstitious belief that national borders can afford protection against communicable disease” (Wald 2008:6). “This experience shows how important borders are—without borders, you don’t have a nation!” the president declared on March 24, 2020. As has become the mantra since the 2005 Homeland Security Council’s National Strategy for Pandemic Influenza, disease “does not respect geographic or political borders” (Homeland Security Council (U.S.) 2006:7); nor does it respect race, jumping as it does across the permeable boundaries of racialized subjects into the bodies of white citizens of the U.S. That the morbidity and mortality rates among BIPOC in the U.S. and BAME (Black, Asian, and Minority Ethnic) people disproportionately impacts BIPOC (Black, Indigenous, and People of Colour) and BAME (Black, Asian, and Minority Ethnic) people—medically, economically, socially, and politically. This disease has made plain the need to take seriously the calls to address race and racism within new materialist scholarship.

It is here, however, that I pause to gesture toward these mobilizations of racialized anxieties as an opening to respond to Zakiyyah Jackson’s well-earned rebuke about the “resounding silence in the post-humanist, object-oriented, and new materialist literatures with respect to race” (2015:216). The coronavirus, scripted as it is, with agential qualities conferred by its racialization is not “beyond” conceptions of “the human,” but rather, is intimately entangled with the very formation of humanness. Indeed, new materialists have long argued that materials are agential—active agents in knowledge production and entangled in “interlocking systems and forces” (Coole and Frost 2010:9). COVID-19 has laid bare this entanglement, “disclos[ing] the fictionality of sovereignty as such in a material world in which every being is relationally constituted in and through the being of others” (Ellis 2018:155).

This relationality hints at an aliveness—an “aliveness” that is contested. Viruses are made up of biological material yet unable to replicate without a host cell; capable of affecting the behavior of the host, “killable” with the right application of disinfectant (Koonin and Starokadomskyy 2016). The RNA of a coronavirus is unstable (although more stable than the RNA of a virus), mutating as it attempts to replicate itself, helping it to emerge in new hosts while making it that much harder to vaccinate against (Duffy 2018). The microbe is an abject more-than-human entity that threatens to varying degrees to wreak havoc on individual bodies, has thrown life-work balance further out of balance,
deinvisibilized care labors, brought economies to a near standstill, has fostered a global moment of civil protest, ignited as it was by the murder of George Floyd—yet another in an endless history of extrajudicial execution of Black people in the US—and helped spur on an insurrection in the U.S.

The micro-bios of the microbe known as SARS-CoV-2, in carrying the weight of racialized anxieties, also carries the possibilities of thinking race and materiality together. Where materialism and post-humanism have mostly abated race and racism (except as parenthetical), this microbe centers a political ontology of race, raising it to the forefront of my thinking as I attempt to imagine worlds otherwise. How might a racialized more-than-human / materialist conceptualization of the virus help us move forward in decentering “the human” without bypassing or leapfrogging past the ever-present and inescapable realities of racialized ontologies? As this clumsy virus has stumbled beyond its zoonotic confines, it disallows the stubborn overdetermination of humanness as an ontological gate against otherness, “arbitrating epistemological questions about the meaning and significance of the (non)human in its diverse forms” (Jackson 2015:216), to insist, instead, upon a destabilization of the unbearable whiteness of being.

Bruce Braun: Governing the “Human-Animal Interface”

From the putative origins of SARS-CoV-2 in bat populations in rural China to its effects on tigers at the Bronx zoo, its circulation through meat-packing plants in the U.S. Midwest, and widespread testing on lab animals to develop a vaccine, COVID-19 is a multispecies and interspecies happening shot through with the politics of difference. It is also a problem of government, understood as orderings of mutable matter and porous bodies. What forms of knowledge and modes of government take these interspecies “crossings” as their concern? What valued forms of life are imagined and secured in doing so? And what do efforts to govern interspecies encounters tell us about the racial and environmental formations in which we live?

The story told about SARS-CoV-2 is that it originated in rural China, “spilling over” to humans there or crossing the species boundary in Wuhan’s live animal markets. Origin stories matter, insofar as they identify “dangerous intimacies” and name potential targets of scientific inquiry and state intervention, drawing non-human animals and specific interspecies relations into new domains of knowledge, practices of surveillance, and modes of economic and geopolitical calculation (Braun 2007).

Indeed, since the SARS crisis of 2002-2004, the “human-animal interface” has become an urgent matter of concern. This takes multiple forms, from pressing concerns over encroachment, habitat change, and industrial agriculture, to technical interventions, such as intensive viral discovery efforts and increased surveillance of animal and human behavior. In the past decade, researchers have collected and categorized thousands of coronaviruses found in animal populations, mapping zoonotic risk across every continent (Drexler, Corman and Drosten 2014; Phelps et al. 2019). “Next generation generation sequencing” has made viral discovery ever more efficient and cost-effective, promising a new era of virus genomics. Scientists and health professionals have begun to imagine future interventions after the identification of novel viral sequences, including “targeted” biological behavioral surveillance in areas with “high spillover potential,” such as in rural China (Li, et. al., 2019). In turn, large-scale functional screens have been proposed to facilitate transmission and pathogenesis studies, enabling further interventions at the molecular level, including vaccination of humans and/or reservoir species and intermediary hosts, or at the macro-ecological level, such as restricting certain local environmental practices to reduce the risks of contact and prevent viral transmission between animals and humans (Letko et. al. 2020).

Technical efforts to govern spillover deserve scrutiny. To begin, they are often based on the fantasy that spillover from animals to humans can be contained, despite the porous nature of bodies and boundaries, drawing non-human animals and certain human-animal relations ever deeper into the “government of species” (Ahuja 2016). Zoonotic diseases are as old as humans, written deeply into our genes. And spillover may be more common—and at times less threatening—than imagined. Recent serological studies suggest that rural populations in parts of China interact frequently with bats and the viruses they carry, leaving behind antibodies and varying levels of immunity (Wang et. al. 2018).

Such efforts can also mask the conditions that produce the enhanced risks which serve as their warrant, from habitat destruction to the interdependencies and vulnerabilities generated by neoliberal globalization. After all, the global spread of COVID-19 is a direct result of accelerating global interdependencies. The commercial analytics firm Dun and Bradstreet (2020) estimates that 51,000 companies around the world have one or more direct suppliers in Wuhan, where the virus was first detected. In 2019, Wuhan Tianhe International Airport served over 27,000,000 passengers,
up from 3,000,000 travelers in 2003, with direct flights to cities around the world. Not long before SARS-CoV-2 emerged, the Chinese government, in a bid to further expand commerce in the region, began to allow business travelers and passengers in transit to third countries to enter the country through Wuhan without a visa for up to 144 hours.

To be sure, the pathogenesis of the disease initially made its spread across global networks difficult to detect. Yet, this merely points to another transformation that has made ordering the “human-animal interface” elsewhere so critical to securing valued forms of life in the Global North, namely the decline in public health institutions and capacities in countries like the U.S., where budget cuts at the CDC and the rationalization of health care across public and private institutions left the country unprepared for a pandemic. Across the U.S. testing capacity was limited, while hospitals had limited ICU capacity, inadequate PPE, and too few ventilators, the deadly effects of achieving “efficiencies” in a privatized health system. Moreover, once the virus arrived in the U.S., political and economic elites sought to link well-being to the continued circulation and accumulation of capital. This laid bare the ideological core of (neoliberal) capitalism—that capital is seen as the source of life and whatever stands in its way stands against life—and exposed its racial and necropolitical logics, as wealthy white urbanites fled to countryside retreats or safely worked from home, while “essential” workers—disproportionately BIPOC and precarious—were left exposed, employed in dangerous jobs, and often burdened with pre-existing conditions that reflect the slow violence of racial capitalism.

Governing the “human-animal interface” through ever-increasing technical interventions is not inherently wrong. But it must be seen as an historically and geographically specific mode of managing risk, tied to a globalized mode of production that not only magnifies vulnerabilities, but in which non-human and human life alike is differentially fostered, abandoned, or killed. What analytical tools do we need to invent and which tools already exist to understand this conjuncture in which, among other things, the “government of species” and the suffering of Black, Indigenous and Latinx communities are co-present elements of a decentred, global totality? What changes must we make to how we produce our food, provide housing, organize work, value lives, and give care, so that our multispecies assemblages are no longer predicated on either?

**Elizabeth (Libby) Lunstrum: The Actors Shaping COVID’s Path and the Need for Anti-Colonial Humility**

Critical inquiry into COVID-19 must follow the virus including its emergence, spread, and impacts. At every turn, this is a path shaped by humans in our power-laden relationships with each other and more-than-human actors. It is useful here to begin with viruses themselves. As packages of genetic material wrapped in a protein capsule, viruses are peculiar creatures. Neither plant nor animal, bacteria nor fungi, it is debatable whether viruses are even alive given they need a host to reproduce, drawing into question what constitutes life in the first place (Koonin and Starakadomskyy 2016). Viruses hence extend the traditional scope of the more-than-human beyond living beings and inanimate objects to entities that blur this very distinction. In addition, humans are exceptional hosts to viruses, which commandeer both our cellular functions and global infrastructure to reproduce, mutate, and spread. While devastating with regard to HIV, Ebola, and SARS/COVID-19, viruses equally sustain life. Some offer protection against disease and other viruses. And as viruses entered our ancestors’ DNA, some mutations were passed on. Today these relics, called endogenous retroviruses, constitute 8% of human DNA, with some vital for human reproduction and likely human consciousness (Letzter 2018). As critical scholars, what are we to make of this?

First, this recognition yet again debunks the myth of human exceptionalism. Our outer-organs are less limits that contain our existence and more permeable membranes that enable intimate exchanges, both life-giving and life-threatening. And with viruses written into our DNA, the human is, at its genetic core, more-than-human. So the assumption we stand apart from the natural world is inaccurate, arrogant, and dangerous, a point Indigenous thinkers have long stressed (e.g., Kimmerer 2013; McGregor 2018). Such recognition demands humility. But, as I suggest below and inspired by Indigenous thinkers (ibid; Todd 2015), such humility must be anti-colonial.

Second, in giving and taking life, viruses are world-transforming but never entirely of their own accord. We need only reflect upon how European colonization of the Americas was facilitated by smallpox-induced Indigenous genocide but only once capitalism and fictions of white supremacy unleashed Europeans rife with the virus and their hidden immunity (Crosby 2003 [1973]). COVID-19 is also remaking the world with humans shaping its parameters through intensifying forms of human/non-human encounter that likely sparked its emergence. In addition, early-response and healthcare austerity along with systemic poverty, racism, and colonialism have ensured efficient spread and ensured already marginalized communities have been disproportionately impacted as my coauthors have shown. Hence to see COVID-19 as natural, or even Malthusian revenge (Hultgren 2020), is deeply misguided. COVID has been made a disaster. As critical scholars, we must uncover how.
The more-than-human world of COVID also encompasses non-human animals. The majority of infectious human diseases emerge from animals, or what are known as zoonoses, with virus spillover playing a large role (UNEP 2020). And while there is much debate about the precise roots of the coronavirus, there is agreement it is likely of bat origin and early speculation (verging on hysteria) it emerged in a live animal or “wet market” in Wuhan, China or as part of the broader wildlife trade. The wildlife trade story is one we must unpack.

It is true that viruses have made us, but we too have made viruses. We have done so through interventions into animal lives and habitats where we’ve expanded paths for at times dangerous intimacies (UNEP 2020). While neither previously untouched nor pristine, the scale of such human intervention has intensified substantially. This has happened through the expansion of live animal markets and the wildlife trade but more significantly through intensive agriculture and related deforestation, mining concessions, settlements, other infrastructure expanding into animal habitat, and factory farms, with many of these practices provoked by the circulation of capital. In each of these, the space between animals and between humans and animals is reduced, allowing more opportunities for viral mutation and spillover (ibid.). Citing particular concern with how live animal markets and the wildlife trade force intimacy, along with concern for animal welfare, several hundred conservation organizations early in the pandemic called for an end to live animal markets, the wildlife trade, or key aspects of the trade (e.g., Lion Coalition 2020). Whether or not these are the smoking gun of COVID’s emergence, they are legitimate areas of concern on these grounds. They also remind us of the need for humility as certain types of human-environment encounters can harm our more-than-human counterparts and equally ricochet back to harm us. But calls to end the wildlife trade and live animal markets also require profound humility.

Such calls often smack of Orientalism, for example of presumed Chinese strangeness, reinforcing hierarchies of cultural worth that spin on judgements of “proper” human engagement with animals, highlighting another more-than-human aspect of COVID. These calls equally overlook Western demand behind the wildlife trade along with its complexity as Rebecca’s work insightfully shows (Wong 2016, 2019). More broadly, myopically focusing on the wildlife trade and related markets leaves us ill-equipped to confront pandemics that are more likely to emerge elsewhere (Roe and Lee 2021).

Such calls for bans additionally fit too comfortably in a history of Western conservation that has incited mass evictions and surveillance and the upending of lives, livelihoods, and more-than-human ontologies in the name of a “greater good.” These new demands risk pushing the trade underground and equally harming rural people especially across Africa and Asia who depend on it, dismantling ways-of-life and further entrenching poverty. And with poverty a key driver on the supply side of the wildlife trade (Lunstrum and Givá 2020), blanket bans can intensify the trade and potentially provide more paths for zoonoses. In addition, an important lesson for COVID rests in the fact that attempts to shut down the bushmeat trade to prevent Ebola outbreaks failed for insufficiently considering local perspectives (Bonwitt et al. 2018), a hallmark of Western conservation. In short, COVID demands our humility in recognizing the ways our actions have shaped not only the path of COVID-19 but likely its emergence as well. This humility, however, must be anti-colonial. It must work to restructure those human-environment relations and underlying economic structures that offer new paths for zoonosis but do so in a way that challenges rather than reinforces colonial practices of othering and colonial patterns of dispossession, especially the dispossession of the poor who, in this case, are dependent on wildlife.

Rebecca W.Y. Wong: Looking Beyond the Science of the COVID-19 Pandemic

As a green criminologist, I argue that the origins of COVID-19 should not only be traced scientifically; its social, political, and cultural aspects must also be considered. Outbreaks of zoonotic diseases are not caused by animals but rather by human exploitation, interference, and destruction of wildlife and ecosystems. Zoonotic outbreaks resulting in significant animal and human suffering such as Variant Creutzfeldt Jakob Disease, H5N1 Influenza, and Swine Flu are direct consequences of industrialized factory farming (Wallace 2009), whereas the Ebola virus is a byproduct of the wild meat trade (Karesh et al. 2005). Those who organize and benefit from these practices are always humans.

Extending beyond discussions of critical geography, I would like to reflect upon the deeply-rooted problem of speciesism, where non-humans are deemed to have a lesser moral status, justifying the idea that human interests triumph those of non-humans (Singer 1975). This idea has allowed humans to dominate, intervene in, exploit, and destroy natural habitats and ecosystems. Yet, when a pandemic such as COVID-19 occurs, we rarely investigate and learn from our actions (or in some cases, inactions).
Industrial agriculture demonstrates the everyday application and consequences of speciesism. Swine flu in Mexico and Bovine Spongiform Encephalopathy (mad cow disease) in Britain are byproducts of factory farming (Gallardo 2015; Pluhar 2010). These two pandemics have resulted in millions of animals culled and unimaginable levels of animal suffering, yet these losses are measured in terms of profit, revenues, and implications for human health. What is lost in these calculations is animal suffering. Reflecting Bruce’s contribution, capital is seen as the source of life, and all else is irrelevant.

Decades on, we have learned little from these lessons and choose to continue with such inhumane and dangerous practices. Growing demand for cheap meats has resulted in problems such as excessive use of fertilizers, antibiotics, and pollution (Walker et al. 2005). Expansion of agricultural land is contributing to large scale deforestation and global diversity loss that forces wildlife from their natural habitats, which can also drive the spread of zoonosis (Symes et al. 2018).

Further, the problem of reverse zoonosis, when human beings infect other living species, is often downplayed. Non-human animals can be infected with COVID-19 by human hosts (Enserink 2009). In fact, over a million minks were culled on a Dutch farm in July after a farmworker likely passed the virus on to the animals (Kevany 2020). In addition, tourists and visiting scientists are responsible for bringing human pathogen agents such as Campylobacter jejuni (a cause of diarrhea and food poisoning) and Salmonella (a cause of fever, diarrhea, and cramps) to Antarctica. This puts severe stress on previously-unexposed seabirds native to Antarctica, leading to calls for stricter biosecurity measures to protect wildlife from humans (Cerda-Cuellar 2019).

There is also a problem of placing excessive blame on China. We must recognize that previous zoonotic pandemics have emerged outside China. What’s more, most people in China, especially the younger generation, are becoming more aware of and embracing animal welfare issues (Wong 2019). Those who tend to consume wildlife products tend to be middle-aged, and their consumption is often motivated by ungrounded beliefs, for instance, that tiger bone can cure arthritis (Wong 2016). Although beliefs regarding consuming wild animals for medicinal and aesthetic purposes are deeply rooted, it is not a cultural norm nor way of life for the majority in China. The concept of an “Asian Super Consumer” is prejudicial and presents a narrow understanding of illegal wildlife trade (Margulies et al. 2019). To fully understand COVID-19, effectively address it, and prevent future pandemics, we must think more critically about where we are placing blame.

Will COVID-19 awaken us to the biodiversity and climate crises we are faced with? Swift responses are needed to address both, but again it appears we are still too egocentric to recognize the threats. One critical lesson to take away from COVID-19 is the need to reconsider our interference into natural environments including the lives of non-human animals. The responsible agent is not the “wet markets” nor any particular ethnic group but the globally shared greed of excessive human consumption and continuing interference into non-human environments.

**Rosemary Collard: More-than-Human Frontline Care Work**

Amid allegations that wildlife trade in China sparked COVID-19, and against China’s consequent new wildlife trade ban, some scientists are urging the Chinese government to permit a specific kind of international wildlife trade: non-human primates for biomedical research (Vanderklippe 2020). In the scramble to understand COVID-19 and develop a vaccine, monkeys are prized test subjects, considered particularly useful for studying lung diseases and vaccines, because their pulmonary and immune systems are physiologically similar to humans. So this spring, the Chinese government exempted biomedical research trade from its wildlife trade ban. In this brief essay, I consider what this “other” wildlife trade reveals about the more-than-human nature of COVID-19.

Global North countries regularly displace the wildlife trade as a problem elsewhere; places where people are framed as consuming and relating to animals inappropriately (see Margulies et al. 2019)—a longstanding white supremacist narrative. Meanwhile, the US, the world’s top consumer of legal and illegal wildlife, largely for the exotic pet trade, flies under the radar and avoids demand management within its borders, despite its own scientists’ red flags about the zoonotic disease risks the thriving exotic pet trade poses (Smith et al. 2017). Wildlife trade for biomedical research also receives scant attention. China, the biggest global supplier of primates for research, exports 70,000 monkeys per year, largely to the US, which is the world’s top importer and user of primates. By conservative estimate (based on CITES Trade Database records), in the last decade the US imported at least 97,000 non-human primates for research. Thousands of these monkeys were designated wild-caught. Of the more than 100,000 primates living in US biomedical
facilities, most are macaques. The world’s most traded primates, tens of thousands of macaques per year circulate worldwide for medical and scientific testing. Some macaque populations have been decimated by over-exploitation for research combined with habitat loss and degradation due to logging and plantation agriculture (Eudey 2008).

Macaques are not alone in experiencing these threats. Colonial and capitalist processes of ecological imperialism, enclosure, extraction, and domestication have produced a world of intensified human-animal encounters and have profoundly re-ordered the distribution of life. Humans and domesticated animals now account for ninety-six percent of all mammalian life on the planet. This re-ordering of life has brutal effects: Indigenous genocide, extinction, factory farms. And it has created “a playground for the emergence and host-switching of animal viruses” (Morens et al. 2020). The animals who have the highest “spillover risk” of passing infectious diseases to humans are domesticated animals and wild animals threatened by habitat loss and/or over-exploitation (Johnson et al. 2020).

Zoonotic disease outbreaks have not so far been addressed by curbing industrial farming, habitat loss, and over-exploitation. Rather, as the New York Times reports, “We get diseases from other animals, and then we use more animals to figure out how to stop the diseases” (Gorman 2020). The wildlife trade blamed for causing disease—trade for food or traditional medicine—is often framed as anachronistic, irrational, cultural, and unnecessary. The biomedical wildlife trade mobilized in response is by contrast cast as modern, rational, free of cultural assumptions and biases, and necessary—adjectives contested by scientists who oppose animal testing. Regardless of one’s position on animal testing, there is no denying that some wild lab animals embody a tragic irony: they are violently enlisted as band-aid cures for diseases like COVID-19 that are caused by the same processes that are destroying their homes, kin networks, and capacity for socio-ecological reproduction. Lab animals are also overlooked in virus stories, which tend to feature animals as vectors, not “as sites of successful immune optimization,” which “obscures the commonplace ability of pharmaceutical markets to effectively transform animal bodies into immune biovalue” (Ahuja 2016:10). How can and should these animals’ contributions be understood?

A spotlight currently shines on care work. This work, which supports others’ well-being, is primarily done by women, especially racialized women, for poor pay or for free. In the pandemic, the essential nature of this long-devalued work is obvious. A lot of care work is now called frontline work, as it carries increased viral exposure risk, and it is cheered daily in many parts of the world. Without diminishing this work, I wonder: are the lab macaques whose existence is reduced to serving others’ needs and well-being, who are tasked with “living out our nightmares” (Raffles 2010:120) of viral exposure, a kind of more-than-human frontline care worker? Animals have historically been excluded from the category of worker, as have human test subjects—but both exclusions are contested (see Clark 2014). Coulter (2016) shows how animals assume multiple caregiving roles for humans, which often impede animals’ caregiving practices for each other. Lab animals, though, have largely been understood as receivers of care work (albeit care mixed with violence and control—see Giraud and Hollin 2016). But theorizing these animals also as workers highlights their subjectivity and “challenges the paradigm of human exceptionalism that justifies so much violence against animals” (Clark 2014:157). If lab animals are admitted as uncompensated, nonconsenting workers, then we are forced to ask: how will we recognize their work and what are they owed for it? For monkeys, more meaningful than wages would be reparations paid in space and freedom from exploitation. Conveniently, this would also reduce the chance of future zoonotic disease outbreaks.

**Discussion**

**Neel Ahuja**

I’ll begin with Rebecca’s key observation that zoonotic pandemics feed back into crises for animal industries, where states and corporate entities in turn attempt to disentangle humans from other species. Events such as the mass culling of minks on a Dutch fur farm or chickens during COVID-related slowdowns of processing plants in the US indicate the pandemic’s challenge to the geographically distributed systems of capitalist production that place humans and other animals in necropolitical feedback loops. But this does not seem to portend a future in which interspecies violences of these industries appear to be subsiding. At risk of both contracting disease and experiencing workplace injuries and exploitation, migrant farm laborers and workers in food processing plants demonstrate how the border is not a simple line between two geopolitical units but a spectacle that masks its own management of hierarchies of value; the “spectacles of illegality” that produce migrant labor as devalued and excludable emerge in tandem with processes that systematically accumulate and incorporate racialized labor into production (De Genova 2013). Here the border is one site at which the interspecies management of life and death becomes most directly articulated. Agricultural enterprise both threatens to spread the virus and faces its own inability to transcend workers through
mechanization or other post-slavery fantasies of free labor (Atanasoski and Vora 2019). And yet the racial sorting of those workers who are exploitable during the crisis (the “essential worker”) and those who are disposed in the face of it expresses some of the difficulty in formulating a politics around COVID that attends to the interspecies and social dimensions simultaneously. This speaks to a key challenge in forging an anti-racist, interspecies alternative to the current state politics around COVID: the contradictions between the requirement of social solidarity and physical distance; the entanglement of species and reality of their biocapitalist segregation; the requirement of labor and the necessity of abolishing it.

**Patricia Lopez**

These pieces, read together, highlight how scalar entanglements from the micro(bial) to the macro—an entity so small that it cannot be seen by the naked eye (.12 microns)—have thrown global economies, international relations, local socialities, and individual lives into disarray, and worse. Traveling, as many of the authors here have noted, along the grooves worn by globalization, the virus has left in its wake a path of destruction and death. It is not only that the coronavirus has been made a disaster, as Libby so cogently put it, but also that the pandemic is being used to perpetuate more disastrous impulses at destruction: the abject failure of U.S. leadership, the gross exercise of white supremacy, the militarized responses and the mobilization of federal protective services to quell Black Lives Matter protests (even as militarized anti-mask protestors were given a free pass), the mass murder of pigs and chickens (colloquially referred to as “depopulation”) in response to meat processing slowdowns, the culling of laboratory mice (because of a lack of ‘care’) even as there is a push to import more monkeys as Rosemary shows, the propping up of the fracking industry with money meant for “Main Street,” the whole-sale destruction of the Amazon in Brazil, and so on. It is also forcing us to take stock of the ways in which the scales of many processes are willfully misrepresented, as shown by Rebecca and Rosemary, in the overrepresentation of consumption of wildlife products in China, and of wild animals for research and for personal enjoyment in the U.S., respectively.

Importantly, these pieces offer us a coalescence of the multi-scalar ways in which global capitalism functions through deathly processes, as Bruce points out; specifically, the ways in which certain lives are made disposable or even killable in the service of capitalism (from essential workers denied PPE or sick leave, to the destruction of more-than-human lives for their lack of “value”) (c.f.: Lopez and Gillespie 2015). Neel and Bruce point to, in the first instance, new apparatuses of surveillance and technical interventions being trotted out in the attempt to manage the “unpredictability of biological life.” At the same time, global inequality and the precarity of billions of people’s livelihoods and lives, the toll of centuries of racism (structural, violent, pointed, genocidal), and the local and global circulation of animals for food, research, and personal enjoyment have all been brought into greater light. And in my moments of hope, I see here and across popular media, the possibilities for new moral frameworks that take seriously the necropolitical machinations of neoliberal, white supremacist, settler colonial capitalism—a hope, as Libby offers, stemming from an anti-colonial humility that begins with the self and extends to a more-than-human ontology of relationality.

**Bruce Braun**

Any focus on interspecies crossings must attend to the ways in which forms of life are constituted in and through them, organized around particular imaginings of risk and a figure of the human that is called into being in the very act of securing it. As Tish and Neel explain, efforts to separate the human from the non-human simultaneously rescript who is and is not fully human. No surprise, then, that racialization is a common theme, from the racialization of the virus to its uneven effects on racialized populations. Tish astutely notes that COVID-19 provides an opportunity to wed new materialist and anti-racist scholarship. Political agency is an emergent effect of multispecies crossings; for its white supremacist holders, SARS-CoV-2 holds potential action. While Tish notes individual actions (white spit), we need to consider whether the racial state also understands the virus as “a collaborator with which to think and act,” in this case refusing to act knowing that those abandoned to premature death are more likely to be Black, Latinx, and Indigenous than white.

Of course, the political geographies of COVID-19 are global. Libby’s call for anti-colonial humility in order to attend to how efforts to regulate trade in wildlife can lead to the “upending of lives, livelihoods and more-than-human ontologies” complements Rebecca’s guide to the complex social geographies of the wildlife trade in China. In turn, Rosemary’s analysis of which wild animal lives quality for protection, and which do not, helps us see that our responses to COVID-19 not only produce transnational cuts into the non-human world but confront us with an aporia: to immunize humans we must violently and lethally enlist non-humans. How do we repay this debt?
Finally, COVID-19 is imbued with political possibility. That the police murder of George Floyd exploded into righteous anger and political uprising may be, in part, because in the context of COVID-19, Floyd’s murder was able to signify more than the brutality of anti-Black policing: it was able to signify Black suffering as *constitutive of the social body as a whole* (Wilderson 2020) This reckoning with racism and white supremacy, reflected simultaneously in the nation’s health statistics and police violence, may be one of the most important legacies of the COVID-19/George Floyd conjuncture. COVID-19 has also revealed the urgent need to re-organize our economies, food production, and care work to achieve interspecies flourishing. And if COVID-19 is a ‘dress rehearsal’ for the coming climate emergency, we’ve learned that any response to the world-forming and world-destroying qualities of CO2 must grapple not only with the uneven effects of climate change, but also with the exercise of sovereign power—the often violent “cuts” into the fabric of multispecies assemblages—that will invariably accompany attempts to govern the crisis.

**Libby Lunstrum**

One of the key insights from above is that COVID is a great unequalizer rooted in racism, colonialism, and economic exploitation. I would add this includes racialized and Indigenous communities in the Global South due to healthcare austerity and ongoing histories of white supremacy and colonialism including how Western countries are currently hoarding COVID supplies and vaccines (Ghebreyesus 2021), what amounts to a lethal form of suturing biopolitics and nationalism (c.f., Stinson and Lunstrum 2021). And with wildlife bans, it will be members of these communities who will most acutely feel the impacts. The contributions also make clear that overly technical approaches to viral containment are misguided as they overlook the need to restructure economies that allow viruses to spillover and wreak racialized havoc. As we set out on new COVID-related research paths, a vital step will be to add empirical detail to the precise ways these economies facilitate viral emergence and spread and their uneven impacts while avoiding overly reductive analyses. Key here will be better understanding of how capitalism articulates with other power structures, from racism, colonialism, and nationalism to anthropocentrism to shape global trends and local lived experiences.

One of the most difficult questions for me is how to restructure economies and related human-environment encounters in ways that avoid potentially dangerous intimacies seen in industrial agriculture, the wildlife trade, etc. but without reproducing colonial patterns of dispossession and related fantasies that separate human and non-human realms (think “wilderness”). Keeping these caveats in mind, and inspired by Rosemary’s call for animal test subject reparations in her call to move away from animal testing in ways that avoid potentially dangerous intimacies seen in industrial agriculture, the wildlife trade, etc. but without reproducing colonial patterns of dispossession and related fantasies that separate human and non-human realms (think “wilderness”). Keeping these caveats in mind, and inspired by Rosemary’s call for animal test subject reparations in environment relations to stem viral outbreaks are where we are likely to see these practices converge. We must be alert to the possibility and actively seek anti-colonial alternatives.

Finally, COVID forces us to confront a growing militarization of life itself. Neel (Ahuja 2016), Tish (Lopez 2015), and Bruce (Braun 2007) have shown how viruses and disease are militarized, securitized, and weaponized, practices with deep colonial roots. My own work examines green militarization or how similar practices of militarization have reshaped biological conservation (Lunstrum 2014). Attempts to curtail the wildlife trade and other interventions to alter human-environment relations to stem viral outbreaks are where we are likely to see these practices converge. We must be alert to the possibility and actively seek anti-colonial alternatives.

**Rebecca W.Y. Wong**

Building on these thoughtful contributions, I would like to expand on the role of the media in reproducing discriminatory ideas surrounding COVID-19. It seems that the Western media, especially in the US, has painted Chinese and Southeast Asians as merciless bat-eaters. This is entirely inaccurate, and the majority of us living in East and Southeast Asia were shocked when we saw images splashed across social media of restaurants serving bats. The comments posted in relation to those images were also insulting and disrespectful. It reminded me of when I was asked at a conference by a European professor whether I eat dog.

What’s more, in my line of research on the wildlife trade, I have met countless people from China who are passionate and deeply concerned about animal welfare. The majority of Chinese people are in favor of legislation safeguarding animal welfare and banning animal testing for cosmetics and beauty products, here linked to Rosemary’s important contribution. I would add that the media is irresponsible in a double sense. While the Western media almost entirely ignores this perspective, discussions on social media forums in Asia contain and spread inaccurate beliefs about the benefits of eating wild animals. Fake news moves in many directions.
Similarly, racism arising from COVID-19 also goes both ways. In Asia, there has been great (and ongoing) discrimination against Westerners who refused to wear face masks early in the pandemic when their efficacy wasn’t yet clear. Since the outbreak of COVID-19, face masks have been seen as essential across Southeast Asia (Leung et al. 2020), a commitment shaped by the 2003-2005 SARS outbreak. It has not been uncommon in Hong Kong to see people hurrying past foreigners not wearing masks or deliberately avoiding the same elevator. More regionally, the Thai Health Minister announced that Western tourists not wearing masks are not welcome (Agence France-Passe 2020). In short, to better grasp the ways in which COVID-19 unleashes discrimination, it is necessary to look at both sides of the Pacific.

**Rosemary Collard**

Governing bodies appear systemically averse to addressing the pandemic’s root drivers. Instead we see a doubling down on those roots. Refuge is sought in the racist name and blame games Tish describes; in capital, “seen as the source of life,” as Bruce writes; and in technical attempts to restore the fiction of human exceptionalism, attempts that paradoxically frequently involve intensifying human-animal contact. But as Neel cautions, “anthropocentrism offers little insulation from the unpredictability of biological life.” Technical efforts are at best techniques of spatial or temporal displacement: zoonotic disease hot potato. More than that, “technical” is often fetishistic. Bruce notes that technical efforts “mask the conditions that produce the enhanced risks which serve as their warrant.” Technical efforts also hide their own messiness. Technical efforts sound bloodless, unafflicted. The animal testing being marshaled as one technical response to COVID is anything but. I take back my band-aid metaphor; it’s too generous for these technical solutions. Band-aids at least contain the blood; they do not inflict their own wounds.

Where does the status quo’s inertia come from? Some of it no doubt comes from the capitalist imperative to work for wages to survive, all the more urgent today given escalating indebtedness and social safety nets in rags. But the inertia comes as powerfully and with vastly greater culpability from the status quo’s beneficiaries: those who grow their wealth and exert power through processes and ways of thinking that led to the pandemic and will lead there again. Who benefits from wildlife trade, deforestation, industrial animal agriculture? When it comes to wildlife trade, studies consistently find that trappers make by far the least money in the chain; final sellers capture the most profit (see Collard 2020). Trade flows are highly demand-driven, suggesting the need for demand management in countries like the US, rather than a crackdown on and criminalization of trappers, which has been the dominant response to wildlife trade. Libby’s call for anti-colonial humility is therefore crucial.

Anti-colonial thinking involves indexing the globality of the pandemic’s roots, as all the essays here do. But as the essays here also show, an undifferentiated global view will not do. Our essays—differentiated accordingly, tracking both causes of and responses to COVID-19—as a whole illuminate how global capitalism is constituted by multiple modes of devaluation that intermingle but are not reducible to each other: the devaluation of Black lives, care work, Indigenous lands, non-human animals, and so on. Racism, patriarchy, anthropocentrism, colonialism—these modes of devaluation “enshrine” the inequality that capitalism needs (Federici 2004; Gilmore 2020). Critical inquiry involves fine-grained and empirical attention to who benefits and who loses—those classic political ecology questions—with particular attention to enduring, intersectional patterns of devaluation. And as Rebecca urges, this must be answered in a multispecies register, where beings beyond but entangled with humans are among those bearing the costs.

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