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Situating the Biology of Covid-19

A Conversation on Disease and Democracy

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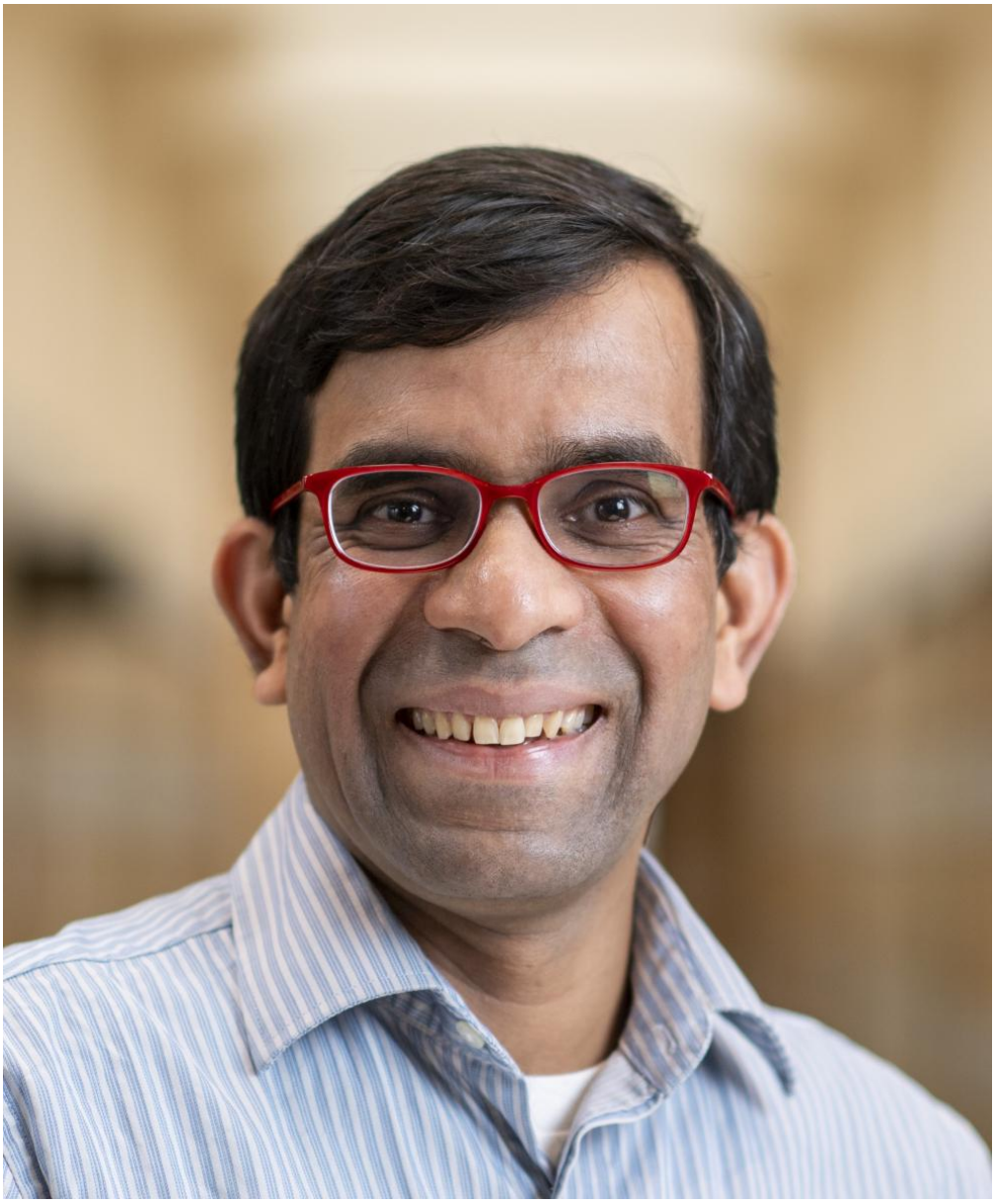
'Struggles for a more just, fair, inclusive, or caring politics in the time of Covid-19, need to be grounded in the everyday work of building institutions, supporting the vulnerable amongst us, and cultivating a deeper ethic of mutuality.'

What have been the epidemiological and political responses to Covid-19, and what have been their implications for democracy? Four diasporic scholars, living and working in three continents examine, in a comparative perspective, how the pandemic has revealed relationships between disease, technocracy and governmental accountability, and argue for community-driven approaches rather than authoritarian interventions.

Kaushik Sunder Rajan:



This conversation examines the relationship between the epidemiological and political responses to Covid-19 and democracy. This relationship operates at two levels.

First, at the level of *governmental response and accountability*. In what ways have governments shown a concern for democratic norms and values in their responses to the Covid-19 pandemic? How have they balanced public health interventions with administrative restrictions, police actions and surveillance? To what extent have they foregrounded concerns with social welfare? What mechanisms exist to hold governments accountable to their obligations to respond adequately to a public health crisis without impinging excessively upon the rights of the people whose welfare they are entrusted to protect?

> We argue that a community-driven approach provides a more democratic mechanism, which leads not only to more salutary political outcomes, but also to better epidemiological ones.

Second, at the level of the *relationship between technology and society*. The "end point" to the pandemic is no doubt the development of an effective vaccine, and there is no question that we need massive ramp-ups in testing capacities worldwide. However, we emphasize the difference between *technocratic* approaches to public health, which place faith in top-down approaches to public health intervention, and *community-driven* approaches. We argue that a community-driven approach provides a more democratic mechanism, which leads not only to more salutary political outcomes, but also to better epidemiological ones.

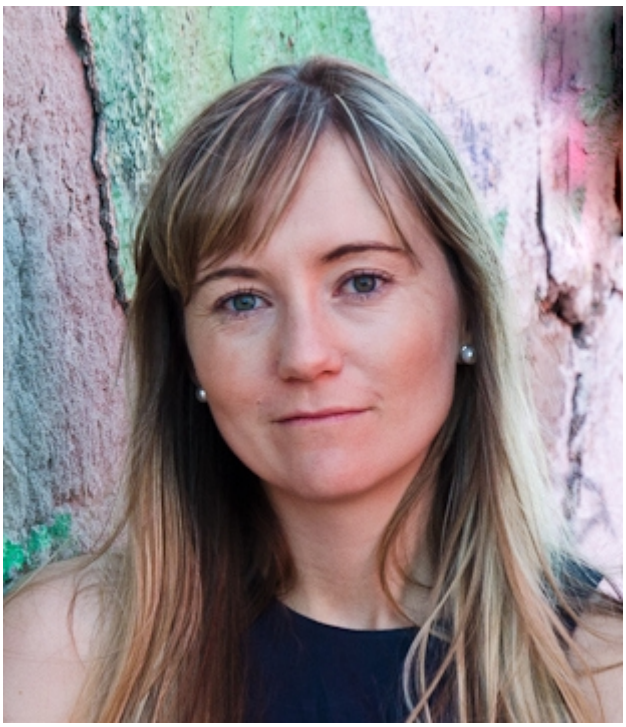
The Covid-19 pandemic is marked by the imperative to respond to a situation in the absence of full knowledge about the virus, the disease, or the public health or political consequences of different scientific interventions or policy responses. Any response can only be provisional, based on the best available knowledge and information at any given time, in relation to situations that are rapidly evolving. There is no possibility of a singular pronouncement about our contemporary condition. We wish thus to *situate* the biology of Covid-19 in a comparative perspective, in order to show how its epidemiological trajectories are being co-produced with political ones. Our challenge is to think of the possibilities of transnational epidemiological, political and civic solidarity from a position that understands the different ways in which this co-production happens in different places.

The four of us are humanistic social science researchers who study the political economy of the life sciences and biomedicine. We have worked on global efforts to link and integrate biological and biomedical data (Sabina Leonelli), public health and nutritional interventions in HIV/AIDS in South Africa (Thomas Cousins and Michelle Pentecost) and issues concerning access to essential medicines and unethical clinical trials in India (Kaushik Sunder Rajan). Dialoguing with each other, we adopt a comparative approach to writing about the relationships between the pandemic and democracy from within this situation of uncertainty, focusing primarily (though not exclusively) on South African and European examples that we are familiar with from our research and personal experiences.

We are all diasporic scholars. I am Indian, living in the United States and beginning a research project in South Africa; Cousins and Pentecost are South African medical anthropologists who live and work between the United Kingdom and South Africa; while Leonelli is Italian and Greek, also living and working in the UK, and collaborating closely with international scientific communities and the European Union. All of us, therefore, are attuned to the differentiations and striations in the public health, political and economic conditions in which Covid-19 has developed, as well as responses in different parts of the world.

With this preface, let me begin our conversation with a broad question for each of you. What are the structures and situations that condition the emergence of and response to Covid-19 in the places you know, such as Italy, South Africa, the UK and the EU? How do you think about the relationships between public health and democracy in each of these contexts?

Michelle Pentecost:



Simukai Chigudu, a Zimbabwean medical doctor and political scientist who documented the cholera outbreak in Zimbabwe in 2008, has noted that "every phase of an epidemic– origins, pattern of unfolding, who lives and who dies, response and rehabilitation, aftermath in civic life – is largely a social calculus. This matters a great deal for how we understand the Covid-19 pandemic and imagine possible futures". This is a simple but powerful statement. We are already witnessing the differential outcomes in this pandemic in countries across the world, shaped in part by the political decisions that different governments have taken on how to manage it.

A hugely complex path lies ahead, filled with social, political and economic questions concerning how we reconstitute life, the implications for how we choose to approach this question, and perhaps most foundationally, who the "we" are who will contribute towards the making of such decisions.

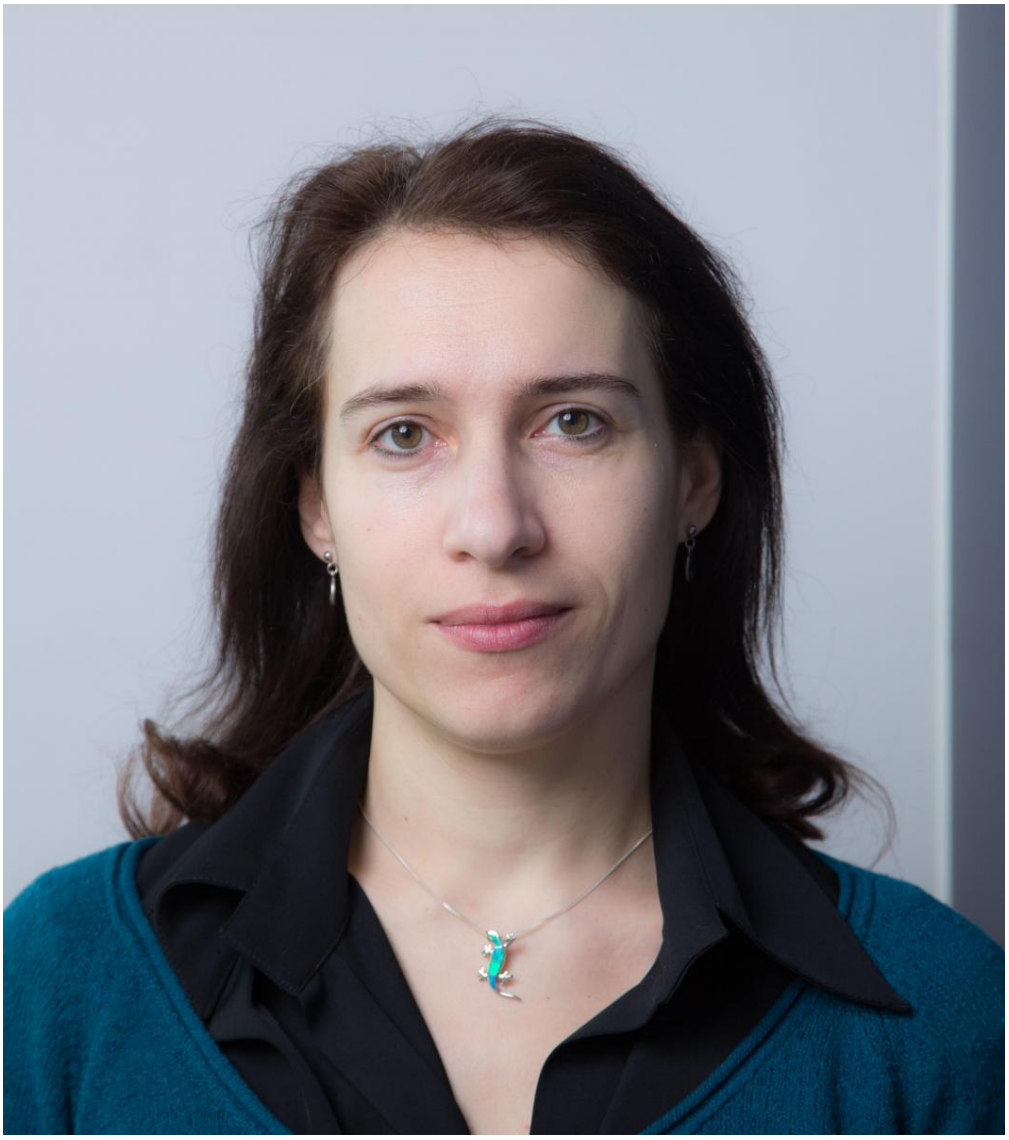
As social scientists and humanists, we must try to make sense of how social contexts *situate* the biology of this pandemic in different places, even as different biomedical contexts reveal different social, political and economic tensions and pressure points.

> Yet even as we might respond in the mode of scholarship, we are in fact foremost called to be engaged citizens who demand democratic accountability from our respective governments.

In trying to make sense of the current situation, I have found it useful to think of myself as beginning fieldwork in a strange land, with little to hand but a notebook to observe and note what is unfolding around me. Perhaps one day I will have the necessary distance from the event to make meaning of it, if I have been able to adopt something of an ethnographic sensibility. I reemphasize Kaushik's point about how much this is an exercise in writing our uncertainty. Our conversation ought to be read as raw field-notes: observations that will later reflect a particular moment in the pandemic, and will be quickly overlaid by new developments in the weeks and months to come.

Yet even as we might respond in the mode of scholarship, we are in fact foremost called to be engaged citizens who demand democratic accountability from our respective governments.

Sabina Leonelli:



Even as I agree that we cannot confine our understanding of the pandemic to biology or epidemiology, it is with biology and epidemiology that I begin my response. This is because, in order to articulate a politics of knowledge, it is important to understand its *itineraries*. What do we know about Covid-19? What remains uncertain or contested? How does the emergent knowledge that we have, generated across different disciplines, travel? What are the data practices that underlie this movement? Which data are attended to, by who, and which are ignored? Understanding the journeys of emergent data is vital to understanding the relations between knowledge, value and politics that your question, Kaushik, is getting us to ponder.

Multiple research trajectories have rapidly engaged in an investigation of Covid-19. Our understanding of the SARS-CoV-2 virus, its movements and structure, and above all the effects of its intersections with human populations is all evolving, though not always with consensus. The efforts of microbiologists, epidemiologists, immunologists, clinical researchers and environmental scientists, to name but a few of the disciplines involved, are grounded on widely different approaches and conceptualizations of life, health, disease etiology and transmission. Different findings, as they emerge, can therefore be difficult to reconcile. This contributes to the biomedical uncertainty that still surrounds many aspects of the disease.

The virus defied initial promises of containment and it followed patterns of transmission that remain puzzling to researchers, with debate raging over key issues such as the possibility of aerial transmission, the role played by pollution levels in the atmosphere and the speed with which the virus will mutate and adapt to its human hosts. The reproduction number R – a deceptively simple way to estimate the number of people infected by anyone testing positive for a disease, which in turn indicates how contagious the disease is - also remains contested. There are vast differences across sites in the number and type of people tested to verify whether they have Covid-19, which make it difficult to compare data across countries. These differences are exacerbated by political expediency, with the British, American and Brazilian governments in particular exploiting uncertainty to minimize the extent of the emergency and

underinvesting in testing equipment and related infrastructure. This reinforces poor data collection.

There are also different *modes* of research on the pandemic: some focused on population modelling and predictions over transmission, others focused on clinical experiences and analysis of observations from experimental labs and the medical front line. Political cherry-picking of scientific advice, too often geared towards shielding politicians from accountability, has hampered constructive triangulation between these biomedical approaches.

> [I]nitial impressions of the disease, depicted by prominent politicians such as the British Prime Minister Boris Johnson as "a mild form of flu", have proven to be misleading, even as they are still being reiterated in public discourse.

In the midst of this uncertainty, some epistemic and constitutive to the practice of science, and some driven by agendas that prioritize the image of the political elite over scientific accuracy and public interest, robust knowledge has nonetheless started to emerge over the mechanisms of infection, the characteristics of the agent and, most importantly, the effects of human exposure. Clinical evidence has demonstrated how for many people, including some not previously thought to be at risk, Covid-19 turns out to be a vicious disease which can affect not only the respiratory system as initially surmised, but also the circulatory, lymphatic and nervous systems impacted by oxygen deprivation. The severe toll that Covid-19 exacts on some of its victims tends to remain hidden until requiring very lengthy – and in many cases ineffective – hospitalization, as numerous observations of silent hypoxia have recently revealed. This in turn is causing unprecedented pressure on wards overwhelmed with infectious, severely ill patients.

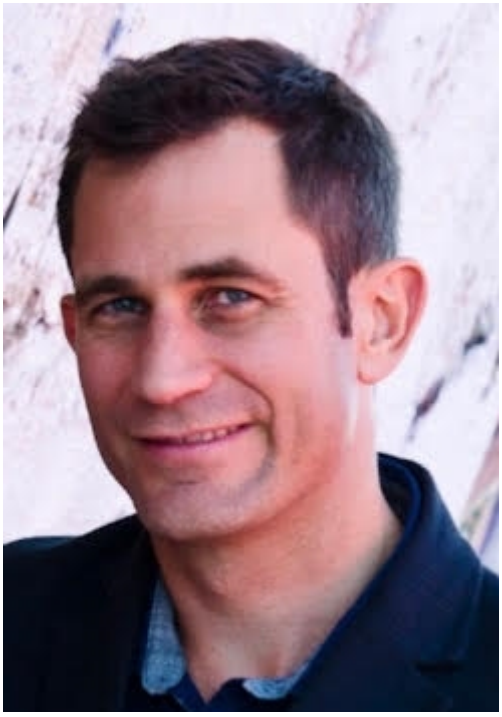
Thus initial impressions of the disease, depicted by prominent politicians such as the British Prime Minister Boris Johnson as "a mild form of flu", have proven to be misleading, even as they are still being reiterated in public discourse. It is not only the *biological* pedigree of SARS-CoV-2 that distances this virus from known influenza agents: *clinical* parallels to influenza have failed too. This is consequential to many European pandemic preparedness plans that were modelled on influenza, as the WHO has confirmed. Arguments were made in the UK, the Netherlands and Sweden that building "herd immunity" by allowing the disease to sweep through the population would be the best way to respond to the disease. These were arguments *against* a containment strategy based on physical distancing and contact tracing, which in February already constituted the dominant epidemiological consensus. Given the enormous social and economic costs of lockdowns, appeals to herd immunity and against enforced physical distancing are understandable. Yet they presumed a biology and epidemiology for Covid-19 that is "influenza-like", a presumption that is proving to be increasingly simplistic and untenable.

This became shockingly evident in the Italian experience, in which the richest and best serviced parts of the national health service found themselves quickly overwhelmed. The data that emerged from Italy provides tragic factual insight into the material consequences of containment failure in the early stages of disease outbreak.

Balkan countries like Greece and Slovenia, strongly attuned to the experiences of other Mediterranean countries and aware of the relative weaknesses of their own medical systems, were quick to act on such knowledge, resulting in early lockdowns and very low numbers of fatalities. In other words, *we know from the comparative experience of different parts of Mediterranean Europe (and similarly Taiwan, South Korea, Senegal and New Zealand, among others) that early lockdown has saved lives and avoided a systemic crisis such as experienced in the UK and the United States*. The fact that this question continues to be debated, including in the United States, shows the willful, parochial ignorance of existing data from parts of the world we would do well to learn from.

Perhaps nowhere has this hubristic disregard for existing knowledge been in greater evidence than in Great Britain, which delayed its lockdown by at least three weeks while remaining oblivious to clinical data from Southern European countries. This inattention is itself a function of the nationalistic, inward-looking focus of the current Johnson regime, with the rejection of "Europe" extending to the dismissal of vital knowledge from the continent at a critical juncture of the outbreak. This has arguably resulted in the tens of thousands of deaths – and unworkable debates over steps to recovery – that we are witnessing even as I write this piece.

Thomas Cousins:



The South African experience with Covid-19, like elsewhere, has been full of contradictions, providing reasons for both anxiety and hope. The first cases in the country were all wealthy travellers returning from exotic holidays. The first cases of community transmission were probably domestic or service workers employed by those wealthy travellers. This was crucial to the course of transmission for the first few weeks, mainly in the major metros of Cape Town, Johannesburg and Durban. The immediate governmental effort was to detect all cases before the disease affected HIV-positive and poor people in overcrowded urban slums and under-resourced rural areas.
Two months into lockdown, it now seems that the curve has been somewhat flattened. As Sabina has noted for Mediterranean Europe, early lockdown in South Africa has saved lives. The effectiveness of such a blunt instrument however remains highly debated as brutal and tragic 'side-effects' begin to emerge.

From a biomedical as well as public health perspective, the Covid-19 pandemic in South Africa cannot be uncoupled from the recent history and ongoing reality of HIV/AIDS. The lessons learned and capacity built from 25 years of fighting HIV/AIDS allowed public health experts and the state to develop a sophisticated test-and-track system that was quickly rolled out across the country, in stark contrast to so-called "developed" nations like the US, where capacity building for testing remains patchy, and contact tracing virtually non-existent.

South Africa's response has been strong on the epidemiology side, but weaker on the social mobilization so central to the struggle for access to HIV treatment. The initial mass screening and testing programme undertaken by community health workers was possible only because of that social infrastructure developed through the social mobilization around HIV and tuberculosis over the past two decades. In the fight against HIV, empowering nurses and community health care workers (not just specialist doctors), building local treatment support groups as part of a national social movement that drew on the vocabulary and style of the anti-apartheid struggle, and education (citizen science) were crucial. In addition, a crucial role was played by the provision of free antiretroviral therapy (ART) through the public health system and the ban on quack cures. These are essential elements to a strong testing and tracking system for Covid-19, and they have as yet not been fully instituted or mobilized, the government's impressive public health response to the pandemic notwithstanding,

Additionally, South Africa confronts its own particular epidemiological uncertainties, also a legacy of HIV/AIDS. The presence of the largest HIV positive population in the world, and the most people on antiretroviral treatment, brings with it new unknowns. Little is known about the vulnerability of HIV positive people to Covid-19, or how HIV co-morbidity might impact the course of the disease or response to treatment, even as there is speculation that those currently on antiretrovirals might benefit immunologically. Therefore, adding to the complexity of all the biomedical knowns and unknowns about the virus and the disease that Sabina alludes to is the specific and deeply important epidemiological question of co-morbidity with HIV, which acquires particular salience in the South

African public health context.

Michelle Pentecost:

We cannot underestimate the importance of the history of the HIV epidemic in South Africa that Thomas has just touched upon and the fatal denialism of the Thabo Mbeki administration that led to tragic delays in the availability of antiretrovirals through public health channels in the early 2000s. A huge amount of work was done by civil society activists and social scientists in South Africa to secure antiretroviral treatment at the time, and massive public mobilization was needed to make the government accountable to its people. There are already concerns being voiced about the impact of the Covid-19 response on our global response to the HIV pandemic, and how we need to pay careful attention to ensure that this does not derail management of HIV and other diseases.

> The central tension at the heart of governments' variable responses to the Covid-19 pandemic, similarly, is their *accountability to democracy*.

The HIV epidemic in South Africa was not just a public health emergency. It put into question the very legitimacy of the post-apartheid democratic state. Was this a state that could be held accountable to the health needs of its populace in the midst of a devastating crisis? The central tension at the heart of governments' variable responses to the Covid-19 pandemic, similarly, is their *accountability to democracy*.

Experiencing the crisis as a South African medical doctor and an anthropologist currently in the UK, and observing the unfolding situation in South Africa from this vantage point, it is in this register of democratic accountability that the stark difference between the two countries' responses is most apparent to me. The South African response *must* route itself through the Constitution, and is discussed in public discourse in terms of the *constitutionality* of the response i.e. its upholding of the rights of the people and adherence to an agreed set of principles that govern South Africa's democracy. This normative imperative consolidated itself through social mobilization, civil society advocacy and community health activism on the one hand, and via a seminal verdict by the South African Constitutional Court on the other, during the HIV epidemic. The state was held accountable through the mobilization of a language of rights and a spirit of constitutionalism, a language and spirit that are being reiterated today in response to Covid-19. In the UK, in contrast, the question of democratic accountability has barely entered public discussion.

This is not to say that there are no British commentators calling out the myriad problems for the rights and protections of the vulnerable that the UK's pandemic response provokes, but is rather to highlight the legal language of constitutionality as an explicit framework for such arguments in South Africa. Instead, there has been a successful mobilisation of the nation to “clap for the National Health Service” every Thursday, and little commentary that this clapping is itself a profoundly political act that focuses our attention on the “healthcare worker as hero”, deflecting our gaze from the abject failures of the government to supply adequate provisions of protective equipment to those workers. In India too, there seems to be a lack of legislation behind the state's emergency actions, coupled to a more cautious response to this in academic and public domains than we are used to seeing in years and decades past. South Africa’s democratic journey has over the years been inspired by a strong spirit of constitutionalism that has resonance with India in relating to matters of social welfare, and I wonder, with apprehension, whether the expression of that democratic and transformative spirit has been curtailed in India’s current political climate.

Sabina Leonelli:

In countries such as Italy, the UK, Spain and France, political effectiveness and national pride have long been associated with the protection of national health systems. Yet the toll exacted by the pandemic in these countries has been among the highest in the world so far. The existence and functioning of national health services, and the capabilities for centralized, governmental response that such services afford, has never been more significant and prominent in political and public discourse. While doctors, nurses and care workers are routinely hailed as heroes, an interpellation that as Michelle suggests is itself a profoundly political act that personifies (and individualizes) the human response to the pandemic, the extent to which each country is “prepared” and “able” to withstand the brunt of Covid-19 and its economic consequences is evaluated in terms of hospital capacity and number of beds available in intensive care units. This places countries who have slashed their public health budgets in response to austerity measures in a difficult position.

This is arguably the tip of an iceberg where the key component to containing contagion is not the availability of hospital beds as much as it is the ability to identify and support patients before their symptoms worsen and track their contacts. This is a particularly demanding task among vulnerable groups (the homeless, asylum seekers, unregistered workers) not typically prioritized in contemporary

European politics and excluded from the ways in which "the nation" is typically counted. Ultimately, a successful containment strategy that intervenes to prevent disease transmission depends upon effective and universally accessible everyday medical and social services, including and especially to migrants and otherwise marginalized populations. Within some of the wealthiest countries in Europe, there are infrastructures, relevant expertise and public support for such services. Yet these forms of public health intervention have been devastated over decades by economic concerns and budgetary policies that have privileged capital accumulation and financial growth over social welfare.

> As populist politics and social unrest threaten to rise in response to prolonged lockdowns, democratic institutions are under attack for their perceived inability to tackle the crisis.

The biomedical and economic challenges I have alluded to, having to do with incomplete and still evolving knowledge about the etiology and transmission of the disease on the one hand, and the uneven infrastructural effects of decades of neoliberal austerity in European countries on the other, have implications for the imagination and practice of democracy on the continent. As populist politics and social unrest threaten to rise in response to prolonged lockdowns, democratic institutions are under attack for their perceived inability to tackle the crisis. Much of their credibility is likely to depend on their ability to marshal medical and social services towards an effective handling of Covid-19 in the longer term. In turn, and in apparent agreement with epidemiological calls for "tracking and tracing" infections, this is understood as primarily involving the control and policing of population movements. Hence the political emphasis on extensive surveillance programmes, which in Britain and Italy alike are taking attention away from the development of detailed guidance and support for crucial institutions such as schools, social services and local councils.

At this stage, as in many other countries in the world, the fight in Europe concerns the reopening of services after the first wave of infections, and the extensive controls involved in avoiding multiple waves depend entirely on strengthening the network of support, testing and guidance offered to the population, particularly its most vulnerable members. These efforts are not helped by consistently xenophobic policies, as exemplified by Britain's anti-European and anti-immigration stance that has led to medical staff shortages (consequent to xenophobic political campaigns leading many foreign-born doctors and nurses to leave the country) and serious deficiencies in protective equipment for key workers (with the UK government consistently avoiding opportunities for pan-European collaboration around procuring such items).

Thomas Cousins:

Here, it seems clear that political regimes matter. In the early days of the response, many South Africans expressed relief that it is President Cyril Ramaphosa, and not former President Jacob Zuma, who is in office. Zuma is identified by many as the condensed symbol of "state capture" by corporate capital and the hollowing out of state capacity in the name of "Radical Economic Transformation" during his tenure from 2008-2018. We are therefore recovering in South Africa not just from the structural impacts of neoliberal austerity, but also from a brutally corrupt decade of crony capitalism, involving the highest levels of government. Ramaphosa received an explicitly anti-corruption electoral mandate in 2019. Yet his political power within the ruling African National Congress (to which Zuma also belongs) is weak. The fragile project of the current administration to restore the rule of law, root out corruption, and build state capacity had barely begun and was already under siege by those who have the most to lose when the pandemic arrived.

> [A]s the lockdown drags on, public support is fragmenting, the rationality of the state is being questioned, and a growing sense of panic is creeping across various publics about political and social stability.

In this precarious context, Ramaphosa's leadership in quickly forming a world-class team of medical and public health experts, and the quick and hard lockdown (which was announced on the same day as the UK's but with three days' notice, thus starting on March 27), has been seen as crucial to the so-far successful "flattening of the curve". Whether it strengthens his hand in the internal factional battles of the ANC remains to be seen. Certainly, as the lockdown drags on, public support is fragmenting, the rationality of the state is being questioned, and a growing sense of panic is creeping across various publics about political and social stability.

The obvious economic concern in the South African context is poverty. By the time the lockdown was extended on April 15, the underlying vulnerability of the poor to extreme hunger was already proving to be devastating. While ordinary citizens and civil society organisations mobilized to distribute food parcels and soup, it was evident that this would be vastly inadequate without massive state intervention.

It is important to emphasize the extent to which the South African state has been able to provide social welfare to all its citizens in the post-apartheid era, which reflects, as Michelle mentioned, the imperatives of a Constitution that is foundationally oriented towards the provision of socio-economic rights. These imperatives have not been consistently reflected in economic policies over the past two decades, which have seen the vexed, fragile, simultaneously antagonistic and respectful dialogue between the governmental prerogative to set economic policy in response to the demands and realities of global capital on the one hand, and its obligation to uphold Constitutional values oriented towards social welfare and substantive economic transformation, on the other. Privileging the latter orientation, the state announced a massive stimulus and welfare plan in response to Covid-19. One cannot predict how successful it will be, given how quickly the politics of lockdown has been changing in South Africa over the past weeks. However, an understanding of such an ambitious social welfare intervention must be predicated on a recognition that, as Michelle has already suggested, the relationship between disease and democracy is foundational to the story of post-apartheid South Africa.

> [T]he fundamental problem with the Indian state's response is that *it has treated the pandemic as a law and order problem.*

This is the context within which we must situate the initial euphoria over the Ramaphosa Administration's relief measures, and the subsequent shock when the limitations of the relief packages started becoming clear. As Jonny Steinberg has noted, no South African government in the last 50 years has been able to acknowledge or respond to the steady disappearance of jobs, itself a complex combination of increasing mechanization of mines and plantations, shifts towards financial services and disinvestment in a lumpen, de-skilled poor, and the mercurial forms of globalized capitalism. Massive inequality continues to split the nation, with wellbeing, housing, education, and health care still severely conditioned by enduring legacies of class and race, 25 years after the end of apartheid. The vast majority who are desperately poor must rely on the public health system, which struggles in the most resourced provinces and is practically non-existent in the poorest parts of the country; an unsurprising legacy of decades of of "separate development" under apartheid.

The ongoing bifurcation of urban space into middle-class suburbs and peripheral slums means that the poor are crammed into overcrowded shacks with limited access to water, space, and food. What we see here therefore is a structural economic precarity, consequent to decades of racialized monopoly capitalism followed by post-apartheid neoliberal economic "reform", which decreases overall state capacity to adequately respond to the social consequences of a pandemic such as this, in spite of good intentions and resource mobilization.

Kaushik Sunder Rajan:

Thank you all for this initial set of reflections, which helps me situate my understanding of state response to the pandemic in India in comparative perspective. Like all of you, I am observing developments in my home country from afar with considerable anxiety. I discern that the fundamental problem with the Indian state's response is that *it has treated the pandemic as a law and order problem*. Thus, lockdown was instituted with four hours' notice, not three days'. The model of lockdown is literally that of the curfew. One hears repeated accounts of police brutality towards those who violate the lockdown, but also towards those who are suspected to have Covid-19 – the kind of state response that provides perverse disincentives for the afflicted to make themselves known, when it is precisely such knowledge that is required for an adequate epidemiological response.

This leads me to a series of questions having to do more specifically with the intercalations of the "political" as opposed to the "police" functions of the state. How do the different responses you are aware of balance these functions? What technological and political resources are brought to bear upon the navigation of this balance?

Sabina Leonelli:

Each European country has its own priorities for easing the lockdown. While lockdowns by and large succeeded in preventing medical services from being completely overwhelmed, particularly in the countries where contagion was initially allowed to spread, it is acknowledged that an indefinite lockdown is unsustainable, and the time has now come to think of what should follow. This raises questions of social priorities, revealing implicit norms and value-systems that go beyond contesting biomedical prescriptions, into the realm of society, culture and kinship.

The expectations and assumptions underpinning strategies for exiting the lockdown can be seen in approaches to school reopening, which has been postponed in many countries despite increasing evidence of the devastating impact of school closures on children and

carers.

> Such social imaginaries are ever more problematic considering the heavy policing that accompanied the implementation of lockdown measures in Italy, as well as in Spain and France.

Gendered and familial roles entrenched in Italian society are coming to the fore through the refusal of the government to even discuss alternative arrangements for working parents and the apparent privileging of blood relations over other forms of affect. In his much-awaited April announcement over modalities for the much awaited "Phase II", Prime Minister Giuseppe Conte stressed that only family members (literally the "conjoined" in Italian) would be allowed to meet in person. While he replaced this formulation with a more ambiguous reference to "stable affects" the next day in response to strong criticism, it was understood that he was emphasizing heterosexual or blood relations over other forms of social bond. Unsurprisingly, these decisions were supported by all-male scientific advisory boards and accompanied by a strong emphasis on the economic and social primacy of male-dominated sectors such as construction and manufacturing.

Such social imaginaries are ever more problematic considering the heavy policing that accompanied the implementation of lockdown measures in Italy, as well as in Spain and France. In these countries, the police state took the form of Kafkaesque documentation rather than outright brutality (though episodes of violence were recorded among more deprived communities). Lockdown meant venturing out of the house with the right kind of self-certification, which changed every week and differed across regions and sometimes even cities.

Kaushik Sunder Rajan:

Thomas, I am particularly struck by your account of the mobilization of social welfare programmes on the part of the South African state. Could you situate the question of policing the lockdown in South Africa in relation to some of the initiatives and debates in this regard?

Thomas Cousins:

As a developing country, South Africa has a very strong social assistance programme, distributing 18 million means-tested social grants monthly, which indirectly supports another 14 million, on a limited tax base with progressive taxation. The national register that makes the disbursement of these grants possible has long been an object of concern and contestation. Under the Zuma administration, the private company contracted to disburse grants abused that privilege by forcing recipients into high-interest loan schemes and "bundling" with "financial inclusion products". The potential collapse of the grant payment system was only recently very narrowly avoided. The grants are the single most important economic policy mechanism keeping the majority of poor South Africans alive, and concerns about their distribution remain.

To cushion the economic blow of the Covid-19 pandemic, President Ramaphosa announced a R500bn ($26bn, INR 200,000 crore) rescue package, amounting to 10% of national GDP. Included in this laudable stimulus is an increase in the value of existing social grants, the implementation of an additional new grant, and delivery of food parcels to poor households, all to last for six months. The package amounts to R230 billion in actual spending, or 4.5% of GDP: R20 billion each to health expenditures and municipalities, R50 billion to social grants, R100 billion towards job support, and R40 billion to wage guarantees, in addition to R200 billion in the form of loan guarantees, and R70 billion in the form of tax deferments or deductions.

Is this enough? Will it be implemented adequately?

The grant increases existing child support grants by R500 ($26) per month per household (not per child, as initially hoped). Other grants (such as old age pensions, disability grants, and foster grants) increase by R250 ($13) per month per household. A new special Covid-19 grant, of R350 ($18) per month has been introduced to benefit those "who are currently unemployed and do not receive any other form of social grant or UIF payment". Nonetheless, the queues of hungry people at payment points and supermarkets continue to lengthen.

> The excellent public health response and massive injection of welfare stimulus has been accompanied by the deployment of 70,000 soldiers on the streets.

It is in this context that one must consider the relationship between lockdown and policing, which has become an increasingly contentious matter in South Africa. The excellent public health response and massive injection of welfare stimulus has been accompanied by the deployment of 70,000 soldiers on the streets, resulting in accusations of abuse and intimidation. At least nine deaths allegedly at the hands of police are currently under investigation. The largely white, centre-right party, the Democratic Alliance, claims there has been a 32% increase in police abuses. It is clear that the police and military are not at all uniformly present or active across the various striations of racialised urban South Africa. Rubber bullets at a shopping centre in a poor, black neighbourhood; white middle-class surfers arrested at a beach. Some incidents go viral, straight into the social media echo-chamber of race, others go ignored.

By the second half of May 2020, the rationality of lockdown regulations were being questioned across the country, with public debate split along increasingly racialized lines. Cape Town has emerged has an infection hotspot, one of the driving factors for which might have been the closing of informal 'spaza' shops, many of which are owned by immigrants, thus forcing many of the poor into crowded supermarkets. Intensified policing, even if purportedly in the cause of public health, has very quickly resolved into, revealed and heightened long-existing social hierarchies and cleavages.

Kaushik Sunder Rajan:

Michelle, given what you have brought up about the importance of constitutionalism in the South African state response, I was hoping we could think about the "political" and "policing" functions of the state specifically in relation to the question of rights. What are the implications of the Constitution becoming an important resource through which public health response can and must be imagined, given that the ongoing project of constitutional decolonization in South Africa is itself fraught and contested? To put it more crudely, does a constitutionalist investment potentially promise better public health outcomes in the time of a pandemic, and if so how?

Michelle Pentecost:

We have seen governments make human rights infringements with alarming speed in the name of responding to the threat of the virus. Already in February, South African activist Mark Heywood warned that "protecting human rights matters in pandemics". Such concerns are now at the forefront of the South African conversations, as after an initial period of general goodwill towards the lockdown, the constitutionality of many of the government's restrictions are being called into question. The impacts of the on-going lockdown on citizens' access to food is a salient issue in this regard.

The Constitution is the instrument by which we measure our democracy in South Africa, and the instrument by which we hold our government to account. The initial relief felt when the government's response to this pandemic was swift and informed by WHO guidelines (a stark contrast to the country's fatally delayed response to the HIV pandemic in the late 1990s and early 2000s) has quickly reverted to a need for robust engagement from civil society, the media, political parties, and a wider public to argue for democratic accountability in the state's response.

It is significant that the South African government declared the Covid-19 pandemic as a national *State of Disaster* rather than a State of Emergency. There are important distinctions between the two, as the latter allows for much greater restrictions on civil liberties. As legal scholar Pierre de Vos has explained, a "state of disaster must still comply with the (Constitution's) Bill of Rights, while steps taken during a state of the emergency may derogate from most of the rights in the Bill of Rights". From a constitutional perspective, therefore, limits have been placed on the state to engage in arbitrary forms of policing that might violate fundamental rights.

> The discussion of priorities in this pandemic - in the US, UK, South Africa, India and elsewhere, has generally centred on a simplistic binary of 'health versus the economy'. What has been less privileged as a priority for pandemic response is the safeguarding of democracy.

However, constitutional ideals are seemingly belittled by arbitrary administrative restrictions that operate purely under the logic of policing rather than of politics. South Africans now find themselves under curfew, prohibited from purchasing cigarettes or alcohol, and can only exercise outside between the hours of 6 and 9 am, which means that all would-be exercisers are hitting crowded pavements at the same time. It is little wonder that South Africans are questioning how such restrictions fulfil the requirements of justifiable regulations under the 2002 Disaster Management Act, under the rubric of which the State of Disaster was declared. In the face of this, 'constitutionalists appear to have fallen silent'. Ironically, the government invoked the language of constitutionality, solidarity, and the protection of the vulnerable as key reasons why South Africans should adhere to these regulations. Those behind this know that a "constitutionalist investment", as you put it Kaushik, is a necessary component of an effective public health response, because it not

only legitimates the requests of the state to place unusual constraints on its citizens, but also manifests goodwill and solidarity, and protects against the forms of discrimination that tend to return in the face of novel disease.

The discussion of priorities in this pandemic - in the US, UK, South Africa, India and elsewhere, as far as I can see - has generally centred on a simplistic binary of 'health versus the economy'. What has been less privileged as a priority for pandemic response is the safeguarding of democracy. In South Africa, this is playing out through the interactions between constitutional obligations and imperatives, and administrative arbitrariness, in ways that both re-emphasize the importance of government accountability and test its limits.

Kaushik Sunder Rajan:

Sabina, I was wondering if you could talk us through the question of infringement of rights, and "policing" functions of the state, in relation to a technology that you have worked on extensively, and one which is central to pandemic response, *data*. In what ways and to what ends has data been used democratically in European contexts, and what salutary imaginaries of data use are being written out of the current context? I am interested in this, especially, in the context of the UK, which does not have a written Constitution but places great stock in a normative ethos of democratic constitutionalism, and in light of growing authoritarianism across the Continent.

Sabina Leonelli:

Let me respond to your question not with a European example, but by discussing the Indian government's contact tracing app Aarogya Setu. Developed as a public health intervention in response to the pandemic, this app dovetails with the digitization of citizenship via the national ID system Aadhaar, whose use has already, effectively, been made mandatory by the government for large categories of workers. This kind of technology sees the placement of a technocratic faith in the potential of Big Data, leading to the prioritization of *surveillance*. It is grounded in the expectation that Big Data can solve the epidemiological problem of tracking and tracing virus carriers, as the means to contain disease transmission, and subsequent outbreaks once physical distancing is eased.

Three key assumptions about data on population movements ground this faith in a quick technological fix, which has informed the development of tracing apps by European states as well (in spite of cautionary advice from the EU commission): (1) that the data is reliable and unambiguous in the information it conveys, (2) that it is easily transformed into social and medical intervention (e.g. by testing and isolating contacts found to be at risk) and (3) that it is harmless in its long-term implications for democratic governance. All these assumptions are problematic. These data do not speak for themselves. There is no uniform way to produce, visualize, evaluate and standardize data around contagion and transmission from different sources, which places limits on the ease and reliability of data comparison and analysis. Robust data interpretation would involve comparing the different conditions under which data are produced and collected, including the different testing strategies adopted by each country (and sometimes each region and municipality), the ways in which deaths and infections are counted, and the resolution at which individuals' movements are tracked and shared. In other words, data are deeply *contextual*. They only become meaningful when they are evaluated in relation to specific purposes and situations in which it is possible to combine data collection with manual interventions, for instance by interviewing putative contacts and verifying the potential for further transmission in each case. In the absence of the contextual interpretive and intervention capabilities that would allow epidemiologically-relevant meaning to emerge across situations, all we will be left with is surveillance. This is the danger of data, purportedly generated in the cause of public health, playing, as you put it Kaushik, a purely policing function.

> The fetishisation of specific data forms in public and political discourse, without a corresponding attentiveness to the consequences of the absences that exist alongside, leads both to unreliable epidemiological knowledge and to authoritarian possibilities.

Aside from the unevenness of data sources, having real-time, reliable information on transmission involves having data about the whole population. This is an impossible goal given the many people who do not possess a smartphone with reliable internet connection (over 90% of Italians have smartphones; less than 30% of Indians do). It is also a dangerous one, given its alignment with surveillance and policing. Data are always ambiguous in the information they can convey, and a decontextualized uptake of data risks reifying underlying ideological assumptions that may or may not be epidemiologically reliable. The value of data stems from the capacities to interpret them in a thick, contextualized manner, and requires *sociological* capacity that far exceeds the ability to simply track a person's movements. The fetishisation of specific data forms in public and political discourse, without a corresponding attentiveness to the consequences of the absences that exist alongside, leads both to unreliable epidemiological knowledge and to authoritarian possibilities. It is not even a tradeoff, where one gives up civil liberties in exchange for public health.

The long-term potential of extensive data collection to exploit masses of personal data is a matter of serious concern for democratic governance. High-resolution data documenting individuals' movements, social networks and interests has long proved valuable to government and industry alike (as demonstrated by the long history of the census). Taxation systems such as Bolsa Familia in Brazil, which rely on extensive data collection from the most vulnerable parts of the population, are seen as enormously valuable assets by powerful actors ranging from the current Brazilian leadership to international corporations, which could easily use the data to develop discriminatory policies or products. Such exploitation is avoided through careful governance systems, such as the Centro de Integração de Dados e Conhecimentos para Saúde (CIDACS) in Salvador de Bahia, which manages access to Bolsa Familia data. Such examples notwithstanding, and despite copious assurances (by the secret service no less) that comparable governance systems are being set up, there is precious little detail on what this would look like for the UK tracing app at the time of writing. The impression is that rather than constituting the backbone of the whole enterprise, responsible governance – and relatedly, public trust - is too often, in too many national contexts, including Britain and India, being treated as an afterthought.

Neoliberal economic regimes impose further constraints upon the transformation of data into actionable medical information. Even in high-income countries such as Italy and the UK, social services have been decimated by austerity measures. The UK still has an extensive network of local public health officials, but they were not consulted on contact tracing, despite being by far the best equipped workforce to implement it effectively. Instead, the British government hurriedly hired a "small army" of untrained personnel to support and implement indications emerging from tracking technologies. Such implementation risks being patchy and discriminatory, with a great degree of confusion around who will "monitor the monitors" and how oversight will operate. It is not a given that surveillance and monitoring of movements should take priority in this way in order to generate the kinds of epidemiological knowledge that will contain the pandemic. Other types of data and data analysis can help to identify sources of vulnerability and need in the population in ways that will support widespread transmission control, while also fostering the engagement and understanding of marginalized communities. *In other words, there are more democratic and accountable ways to imagine and implement data use*, but it requires eschewing the technocratic mindset that underlies the emerging testing and tracking regimes in too many places today.

> [A] conversation about alternative applications of data science, and the ways through which data should be sourced in the first place, is occupying a vanishing space as a specific kind of technocratic imaginary takes hold.

Mathematical and epidemiological models cannot deliver useful predictions in the absence of robust evidence and data samples. The best way to obtain robust knowledge about the social impact of Covid-19 is to incorporate the experiences and insights of the communities involved in the pandemic response. This can involve comparisons between data extracted from social media and data collected from local volunteering groups that provide mental health support; or complementing mortality data across regions with testimonies from local medical services and transparent information about which key workers have had access to protective equipment (a seemingly obvious approach, except in the UK medical staff was explicitly barred from complaining about lack of equipment on public platforms). These forms of data and data analysis can document the differential impact of lockdown restrictions on women and ethnic minorities, and inform policies explicitly geared towards supporting these groups. Yet, a conversation about alternative applications of data science, and the ways through which data should be sourced in the first place, is occupying a vanishing space as a specific kind of technocratic imaginary takes hold, which strongly aligns with the autocratic, exceptionalist and nationalistic narratives currently favored by prominent public figures.

Kaushik Sunder Rajan:

You are arguing for a modality of democratic, bottom-up, participatory engagement with science and technology that is at the heart of the ethos and praxis of People's Health and People's Science Movements in India, Sabina. Democratic ideals for science that have come under serious attack, both from xenophobic authoritarianism and from technocratic neoliberalism.

Thomas Cousins:

The absolute importance of actively incorporating community involvement is, as I have already mentioned, clear from South Africa's experience with HIV and TB, where systems of epidemiological tracking only worked when rolled out in ways that involved and facilitated community participation. Such participation is crucial not only because of the education and empowerment it builds through collective action; it is also the only means by which public health programming can learn anything about the complexities of people's social conditions that cause illness and limit access to health services. Such participatory and pedagogical structures were not based on top-down models of information dissemination or passive consumption of data and technology by community members, but rather

sprung from grassroots democratic praxis around health. Such participatory models are vital to revivify in response to Covid-19.

> In the current moment, India and South Africa continue to pioneer new surveillance tools that provoke acute anxieties about the reinvention of categories of inclusion and exclusion.

I wish also to draw attention here, as a technocratic contrast to these participatory epidemiological modalities, to the complicated South African history of the national register, which Keith Breckenridge has excellently documented, and around which privacy concerns still build. Since the late 19th century, South Africa has been the experimental laboratory for developing biometric surveillance technologies, which were then exported to India by the British, and back to Europe, a trend which continued long into the20th century. In the current moment, India and South Africa continue to pioneer new surveillance tools that provoke acute anxieties about the reinvention of categories of inclusion and exclusion, such as race and caste, along with the erosion of democratic oversight. The apartheid state's pass laws (the infamous "dompas") segued into the post-apartheid identity book and then smart ID card, with each generation of technological solution fuelling new dreams of population measurement, control, and profit.

Kaushik Sunder Rajan:

To summarize, then: the critical issue that we are wrestling with is the relationship between the response to a pandemic disease and democracy. Disease response takes multiple forms across many disciplinary and professional arenas, and has involved the generation of knowledge of disease etiology, transmission, epidemiological data and modelling, knowledge about the virus, co-morbidities and other factors influencing treatment outcomes and response, and so much more.

The question of "democracy" is also complex, polymorphic and contradictory. It operates in relation to violent histories that continue into the present, governmental interventions that are both welfare-oriented and brutal, and languages and value-systems that articulate both social solidarity and xenophobia. Even within particular national contexts, we contend with the ambiguous coexistence of national health systems with neoliberal austerity measures; of racialized histories of segregation and crony capitalism with rights-based constitutionalism; of arbitrary policing with ambitious social grants schemes; of technocracy with demands for state accountability.

> How might we build a *transnational pedagogy* for responding to the disease that opens the possibility for more democratic collective futures across our different locales?

Our itinerant speculations suggest that different concerns around disease, democracy and their intercalations have come to be objects of concern in the different parts of the world we are familiar with. The question I would like to end with is both an analytic question of synthesis and a political question of solidarity: how do we think through these differences across location and situation and their consequences, *together*? How might we build a *transnational pedagogy* for responding to the disease that opens the possibility for more democratic collective futures across our different locales?

Michelle Pentecost:

The virus (as people have come to refer to it, even in South Africa, where that shorthand has referenced HIV for so long) has been described as a mirror, an X-ray, a spotlight, "the great revealer". For a time, it was "the great equalizer", but the stark differences in how this crisis is experienced by rich and poor, and the observation that it is, again, people of colour in the UK (and the US) who suffer the highest rates of morbidity and mortality, reflecting longstanding racialised health inequalities, has quickly given the lie to that description.

> If we are to enact solidarity, we need to imagine, forge and proliferate forms of effective protest that can uphold a democratic engagement with governments gone rogue...

The notion that the virus will herald a "great realization" about our interconnectedness and dependence on each other seems tragically naive. We need to craft a new language for what solidarity means in this moment. How "I", "we", "ours" and "yours" is being framed is always something to think through anew.

Our ability to mobilise in the ways we might have in the past, by putting our bodies on the streets, is compromised (though we are seeing thousands of people take to the streets in the United States and elsewhere in protest against the murder of George Floyd, with unknown consequences for the spread of the disease). If we are to enact solidarity, we need to imagine, forge and proliferate forms of

effective protest that can uphold a democratic engagement with governments gone rogue: UK exceptionalism from following WHO advice and failure to provide PPE; South Africa's largest deployment of the army in democratic times; not to mention the flabbergasting failures of the US.

Much has been written about how the pandemic has made clear that particular bodies move easily across borders (read Adia Benton's and Francis Nyamnjoh's respective pieces on this for example). The virus has also been quickly framed as a rebuke to globalisation and its attendant effects on the planet, a forerunner of the larger horrors that the climate crisis will wreak on humanity. Less has been written on how our interconnectedness allows for learning lessons from our neighbours fast, if we are open to that. As Sabina has noted, the UK disregarded lessons from the continent with tragic consequences. The nature of the spread of the virus across the globe, and the variable measures put in place by different governments, means that nations may be at different stages of the crisis for some time to come, perhaps even see-sawing between levels of restriction. It is for these reasons that there is tremendous value in, as Kaushik puts it, thinking different histories, trajectories and concerns, together.

Kaushik Sunder Rajan:

Thanks, Michelle. My abiding sense of alienation as an immigrant in (and now citizen of) the US, after having lived here for two decades, comes from being constantly confronted with American parochialism. Across the political spectrum in the US, it is easy to imagine Africa as a place of lack and hardship. It sometimes feels beyond the conceptual horizon to consider that Africa might be a place from which we might learn how to respond to a public health crisis. The language of constitutionalism, which goes well beyond the formal text of a Constitution, seems so important in this regard, even as it is, as you have suggested, fragile, manipulable and appropriable. This language has life in India as well, even as it is under threat, as evidenced in mass demonstrations against the Citizenship Amendment Act in the months leading up to the pandemic, which quite literally saw thousands marching in the streets in the name of the spirit embodied by the Indian Constitution.

The challenge, it seems to me, is to think about modes of reinvigorating an inclusive politics of health, in the time of this pandemic, with some of the spirit and ethos this language signifies, but it is hard to do in situations where dissent is increasingly less tolerated and more dangerous.

The American failures are indeed flabbergasting. But even in this context, there are discursive and political possibilities emerging, even in the midst of a complete absence of federal governmental accountability. There are everyday examples of social solidarity, there is good governance at state and local levels, and there are tangible, progressive policy ideas emerging. I think for example of the Essential Workers' Bill of Rights, drafted by Sen. Elizabeth Warren and Rep. Ro Khanna, an excellent piece of legislation that brings considerations of health and labour together. Something like this is unlikely to ever see the light of day as long as Republicans control the US Senate, but it provides a basis for imagining the grounds of what a transformative politics might look like. I am not suggesting, in any reductive or positivist sense, that insisting upon health as a human right will solve the democratic deficit we are seeing around the world in this pandemic. But I am inspired by your provocations to wonder whether a language and spirit of constitutionalism mightn't be one thread through which transnational imaginaries of social transformation could be imagined. Of course, among many others. The ongoing anti-racist protests in America are in the first instance about police brutality, but they are also about the structural racism that results in racialized differences in pandemic spread.

Sabina Leonelli:

I agree with Michelle that the challenge is not the failure of globalisation as much as it is the varied effectiveness of international communication and diplomacy, which poses questions around which forms international solidarity should best take in the future. In addition to grassroots solidarity through popular mobilization, non-imperialist, transnational solidarities need to develop at the level of international governance.

Seemingly well-established supranational institutions and forums such as the World Health Organisation and the European Commission, whose very purpose is to make transnational dialogue and agency less dependent on the whims of national (and particularly nationalist) politics, have both proven their worth and revealed their limitations during this time. The European Commission has been slow to react to the demands of Mediterranean countries struck most violently by the pandemic. It has not managed to sketch a common line of action, with national politics dominating debates over public health and over whether the European agency should focus solely on economic relief. The WHO has found itself at the crucible of strongly opposing forces, understandings and reactions to the pandemic, even as it took bold steps to assert its significance.

Many of the issues that we raise here exemplify a lack of constructive exchange between realities that may seem distant, but are in fact intimately linked through their coexistence on this doomed planet of ours. I hope against hope that this crisis will bring lasting awareness of the interconnected nature of the Earth's ecosystem, and the inescapable dangers posed by selfish, inward-looking politics. What motivates hope are the many cases of effective international communication, which we have spent less time reflecting upon in our dialogue: for example, the low mortality rates in Eastern Europe, the promising innovations in cheap testing and candidates for vaccines emerging from Senegal and Ghana, the emphasis on citizens' wellbeing exemplified in New Zealand's proposal to tackle the economic crisis by instituting a four-day working week. Such responses offer a demonstration of the capacity for creativity, care and responsiveness born of a certain kind of humility. The capacity to view one's role in a broader context.

Most important is carving out a space for transnational learning that is not marred by prior assumptions of "Northern" hegemony and/or superiority, especially at a moment where the so-called Global North is itself highly fragmented and uneven in its administration of resources and expertise. Paraphrasing Boaventura de Sousa Santos, it is possible to "build an expanded commons" – indeed, an expanded political and social ethos – "on the basis of Otherness". In my current work on the management of plant data to support global agriculture, I witness the destructive power of black-boxed ideas around market-driven development, leading to corporate appropriation of indigenous plants and top-down decision for what counts as "the best" cultivation standards and related technologies. But I also witness extensive efforts, supported by international agencies like the Food and Agricultural Organization and by breeders, farmers and researchers around the world, to enrich and diversify agronomic knowledge through the harnessing and communication of local expertise. These are examples of transnational pedagogies being built among scientists, communities and governance institutions that allow for more collaborative and less imperialist imaginations of globalisation than that we have endured through the Washington Consensus.

Thomas Cousins:

What has become clear for me over the past few months is that struggles for more just, fair, inclusive, or caring politics in the time of Covid-19, need to be grounded in the everyday work of building institutions, supporting the vulnerable amongst us, and cultivating a deeper ethic of mutuality. That is, politics in its most ordinary senses. This presupposes a certain foundational understanding that each of us is profoundly dependent on the wellbeing of others. Covid-19 has forcibly redistributed this awareness: I am because you are. This is the African ethics of 'ubuntu', thinned out through easy invocation, overuse and much abuse.

> [D]o the demands of the day call forth a new spirit of collective action and mutual concern? Or do they further amplify the divisions and logics of what Achille Mbembe calls 'wall-ing'...

Several decades of neoliberal economics and anti-state libertarianism have eroded the foundations of the social compact in many parts of the world. Eroded, but not obliterated. Certainly, to speak from South Africa, a strong civil society commitment to a redistributive and democratic ethic is alive, as is a very ordinary, grassroots, basic civic care for neighbours and communities who are desperate. A lively and independent judiciary and press are also, crucially, full of life. Struggles for improved social welfare grants, and access to healthcare, education and housing were already front and centre before Covid. These struggles continue, as does the effort to extinguish corruption and state capture.

So: do the demands of the day call forth a new spirit of collective action and mutual concern? Or do they further amplify the divisions and logics of what Achille Mbembe calls 'wall-ing', of selfish disregard for one's own and others' interrelated vulnerabilities as the very basis for any kind of social life? Personally speaking, I have drawn great solace, hope, and inspiration from this dialogue with each of you, Kaushik, Sabina and Michelle, not least because it has been comparative, cautious, and compassionate, but also because it has been critical and rigorous, searching for a *worldly* ethics and a politics through which to build - slowly, skeptically, doggedly - a more habitable world in the midst of the ruins of the old one.

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