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Pandemicity, COVID-19 and the limits of public health 'science'

Eugene T Richardson [1,2]

"No man is an island,
entire of itself;
each is a piece of the continent,
a part of the main.
If a clod be washed away by the sea,
Europe is the less,
as well as if a promontory were,
as well as if a manor of thy friend's
or of thine own were.
Each man's death diminishes me,
for I am involved in mankind.
And therefore never send to know
for whom the bell tolls;
it tolls for thee."

Summary box

- Mathematical models of infectious disease transmission are merely fables dressed in formal language (that therefore create the illusion of being scientific).
- For the most part, such models serve not as forecasts, but rather as a means for setting epistemic confines to the understanding of why some groups live sicker lives than others—confines that sustain predatory accumulation rather than challenge it.
- Pandemicity—which we might conceive of as the linking of humanity through contagion—may bring about the dawning of a relational consciousness in the descendants of colonialists, especially in the Global North.

John Donne wrote these lines in 1624 as part of a series of meditations conducted during a period of what we would now term social distancing, while he suffered from a relapsing febrile illness. Whatever the pathogen, Donne's musings on being part of a greater whole were not conceived during an epidemic or pandemic, since these words did not exist as nouns in the English language until 1674 and 1832, respectively.[1]

In 2020, the quasi-inexorable spread of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has brought the interconnectedness of humankind back to the forefront of many a consciousness. Yet it has not brought clarity to the blurred boundary between epidemics and pandemics. This was made manifest by the WHO's hesitancy over employing the latter designation in March 2020.[2] And while 'expert' epidemiologists have been climbing over themselves to brandish their latest forecasts (a phenomenon I have described as #WillToPunditry), it seems worth asking, are their ways of parsing health phenomena useful? Moreover, if one accepts that the boundaries between disease outbreaks and their political economic determinants/sequelae are blurred,[3] the same question should also be asked of other 'expert' modelers, economists in particular.

The modern epidemiologist is essentially an accountant (and this is a compliment). They tally up data, present graphs and tables, and make suggestions about investments (in intervention measures such as social distancing, for example). When it comes to forecasting epidemic trends, however, their contributions—from specious metrics[4] like the 2019 Global Health Security Index[5] to kaleidoscopic computational models of communicable disease transmission—have limited predictive power (as experience in global health has repeatedly shown).

During the 2013–2016, Ebola virus outbreak in West Africa, modelers devised a dizzying array of forecasts,[6] ranging from the WHO's supposition early on that the outbreak would be contained at a few hundred cases to the US Centers for Disease Control and Prevention's estimate of up to 1.4 million cases by January 2015.[7] Interestingly, this latter model was least consistent with the observed epidemic; at the same time, however, it was claimed to be the most useful (as an advocacy tool to muster a robust international response).[8 9] This is not quite what the statistician George E. P.

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Box had in mind when he wrote his famous dictum, 'All models are wrong but some are useful.'[10]

More recently, suppositious models of the SARS-CoV-2 outbreak in the UK posited that half the country (some 34 million people) might already be infected (as of 19 March 2020)[11] and that the 'herd immunity' approach initially adopted by the UK government was defensible.[12] In the USA, health economists Bendavid and Bhattacharya upped the ante questioning whether universal quarantine measures were worth their costs to the economy.[13] The duo's neoliberal proclivities,[14] coupled with this current offering in the *Wall Street Journal*, underscore the ideological presumptions intrinsic to any modeling exercise. As the Israeli economist Ariel Rubinstein notes: (1) mathematical models are merely fables dressed in formal language (that therefore create the illusion of being scientific) and (2) economics is an academic discipline which tends towards conservatism and helps the privileged in society maintain their dominance.[15]

The same can be said for epidemiology, where bourgeois empiricists[16] build fable-models whose assumptions are usually conjured from the standpoint of dominant interests.[17] In the case of Ebola outbreak in West Africa, epidemiologists attributed amplified transmission to local populations' beliefs in misinformation or their 'strange' funerary practices—in essence, diverting the public's gaze from legacies of the transatlantic slave trade (or *Maafa*),[18] colonialism,[19] indirect rule,[20] structural adjustment[21] and extractive foreign companies as determinants.[14 22 23]

These ways of parsing health phenomena are indeed useful for those in protected affluence, since epidemiologists filter out information vital for demonstrating the Global North's complicity in producing planetary health inequities—weakening the disposition of social resistance to such inequity (and demands for reparations) as a result. For the most part, mathematical models of infectious disease transmission serve not as forecasts,[24 25] but rather as a means for setting epistemic confines to the understanding of why some groups live sicker lives than others—confines that sustain predatory accumulation rather than challenge it.[26 27] Similar to the role philanthropy plays in occulting ecnonomic exploitation,[28 29] the modest improvements in well-being offered by the right hand of public health 'science' often disguise what global elites and their looting machines[30] have expropriated with the left.[31]

That being the case, the field is in clear need of decolonising; however, it is producing some potentially useful, although structurally naïve,[32] work to support the containment of SARS-CoV-2 within countries. But epidemiology's abetting function as an ideological apparatus can manifest at any time.[33] In the *Wall Street Journal* article mentioned above, Bendavid and Bhattacharya, both academics based at Stanford University, may have, unwittingly, given the Trump administration the Stanford imprimatur to trade people's lives for profits. As such, does it make sense to speak of such fabulists—given that their models are fables—as experts?[34] The fable-model I would propose prioritizes people's lives and has radical wealth redistribution as its moral.

Such a model requires expertise in solidarity. The same solidarity that Kwame Nkrumah called for as an antidote to neocolonialism.[35] The same lack of solidarity that allows the descendants of colonialists—those whose power and privilege have often shielded them from pandemicity—to continue proffering conservative fables under a veil of scientism, which for the most part serve to conceal violently seized privilege, thus maintaining transnational relations of inequality.[36–39]

COVID-19 has the potential to change this. Pandemicity—which we might conceive of as the linking of humanity through contagion—may bring about the dawning of a relational consciousness in the descendants of colonialists. As their bubbles of protected affluence are burst by SARS-CoV-2 and TNV (the next virus) and they gain insight into global human interconnectedness, they may also begin to see that the same disproportionate mortality they are seeing around them due to COVID-19 is the quotidian experience of much of the Global South, where nearly 10 000 children die daily from preventable causes.[40]

As they start to sift back through the determinative web of human rights abuses—that is, the pathologies of power[41]—that set the stage for these health inequalities, they may begin to see that they contribute a great deal to the production and reproduction of structural injustice because of the social position they occupy and the violence that has been committed in their names.[42] And with this should come the realisation that every local outbreak is a pandemic,[43] since they are involved in (hu)mankind.

Or they will continue their retreat intro militarisation, xenophobia, necropolitics and fascism, and the bell will be deafening. For as Donne wrote, '…never send to know/for whom the bell tolls;/it tolls for thee.'

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