Covid-19 has shone a spotlight on another, potentially global, threat: biological warfare. By highlighting the dangers and consequences of pandemic disease, Covid-19 raises questions about what it would mean if a virus like this were used deliberately as a weapon. While there is a long-standing fear that actors would use bioweapons, biological warfare has frequently struggled to find a place on the political agenda. The reason for this lies in what we know about the threat – or rather, what we don’t.

Biowarfare is a highly speculative risk. Aside from a few alleged incidences of weapons use – such as claims that Germany used anthrax and glanders to infect military livestock during World War I (Roffey, Tegnell, and Elgh 2002) – bioweapons have not been widely employed. Consequently, while biological arms are typically classified as weapons of mass destruction (see Bentley 2013 for further details on definition), there is little evidence as to whether they actually warrant such a dangerous label.

Furthermore, it is not possible to sufficiently test these weapons to find out – where this would require a type and level of human experimentation that exceeds what is considered ethically permissible and/or would risk triggering an international pandemic on a scale of Covid-19, or worse. As a result, actors cannot fully comprehend the physical effects of these weapons – not only in terms of public health and mass fatalities, but also the social disruption that they can cause.

Such uncertainty has major implications for how policymakers and military officials deal with the biowarfare threat. Specifically, there is a lack of consensus on what the risk is, which creates policy debates that are plagued by disagreement and speculation.

Critically, this is not to say there have not been achievements within those debates. There have been multiple advances in terms of arms control, not least the 1972 Biological Weapons Convention (BWC). The convention is the main international agreement controlling biological arms, which bans the ‘development, production, and stockpiling’ of these weapons. Generally speaking, however, political progress has been hindered by the hypothetical nature of the threat. How do you deal with the monster under the bed when you do not even know what it looks like?

**Known Unknowns**

Covid-19 could change this situation by making biowarfare more ‘known.’

In 2002, former US Secretary of Defense, Donald Rumsfeld, expressed the concept of known and unknown threats. In response to media questions concerning US foreign policy interests in Iraq and controversial claims that Saddam Hussein was engaged with international terrorist organisations, Rumsfeld replied:

There are known knowns. There are things we know we know. We also know there are known unknowns. That is to say, we know there’s things we do not know. But there are also unknown unknowns. The ones we don’t know we don’t know.

In addition to Rumsfeld’s model of threat, there is also the unknown known – a threat that is likely to occur, but is
effectively ignored as if it did not fully exist. This concept has been applied to Covid-19 and the ways in which the previous SARS outbreak was overlooked as a warning sign of potential future pandemics (Lowry 2020).

Unknown threats attract a great deal of speculation, whereby the inherent uncertainty creates something of a vacuum in relation to threat calculations.

On one hand, this situation can generate a high level of fear, leading to the construction of worst-case scenarios and threat exaggeration. Paul Slovic (1987) has developed the concept of ‘dread risk’ in order to comprehend this process of thinking. Dread risk is a reference to ‘low-probability, high consequence’ events – things that may not happen, but would kill vast numbers of people if they did. The uncertainty that surrounds such a threat, combined with the horrific implications, means that people assess that threat in disproportionate ways. For example, Slovic (1996) demonstrates that the threat of even peaceful and controlled nuclear radiation can become inflated, where this is associated with the fear surrounding the more dangerous and villainous use of nuclear weapons.

In discussing this, he and others put forward the idea of the ‘affect heuristic’ – which argues that we make judgements based on our affective assessment as opposed to a purely objective understanding (Slovic et al in Gilovich et al (eds) 2002). The fear related to nuclear war shapes comprehension of ‘related’ threats, especially where these other threats are uncertain. Jessica Stern (2002/03) and Sonja Kittlesen (2009) have already applied the concept of dread risk to bioterrorism i.e. terrorist use of biological arms.

On the other hand, speculation can lead to an uncertain threat being ignored or downplayed because it cannot be wholly conceptualised – as Sam Nicol et al (2019) have recently demonstrated in respect to the issue of biodiversity. Uncertainty effectively creates a sense of distance between the actor and the threat, which causes them to take the risk less seriously.

This distance can be understood as one of temporality. In the same way that, say, the threat of climate change has frequently been dismissed on the basis that the consequences would not be felt for decades (Kluger 2018), so the unknown threat is experienced as an issue that may or may not happen, where this too is framed by the future. The unknown is not ‘something’ that is happening now, whereby this means that there is none of the immediacy or direct fear associated with what is known in the present.

‘Knowing’ Biowarfare

Within this context, biological warfare is a known unknown. Yet Covid-19 has the potential to shift that understanding towards the known known. The current global pandemic demonstrates what a biowarfare attack could mean and look like. We can see the effects: the tragic fatalities, the international spread of disease, and the lockdowns. As such, the threat of biowarfare can now be related to real and tangible evidence.

Critically, this conceptualisation does not transform biowarfare into a known known. The situation does, however, a) stop pushing the understanding of biological weapons into a future context, whereby this creates an immediacy of threat that did not exist previously, b) provide a basis for political consensus about what biowarfare could look like, and c) provide more compelling evidence that policymakers can respond to.

In relation to this last point, the need for compelling evidence is especially important in respect of biological weapons. While the threat of global disease may seem to be an obviously scary issue, biowarfare is not actually a topic that lends itself well to vivid imaginings – despite graphic Hollywood movies such as 28 Days Later (2002) and Contagion (2011). Not least in the absence of quantifiable evidence, biowarfare can frequently be reduced to statistics i.e. how many would die in an attack. This numerical reduction obscures the human element of pandemic disease – which has been all too evident in respect of Covid-19.

Slovic (2007) refers to this situation as ‘psychic numbing,’ where – in discussing mass fatality events such as genocide – he demonstrates that statistics, ‘no matter how large the numbers, fail to convey the true meaning of such atrocities.’ The same sentiment is also evident in Judith Butler’s (2004) conception of ‘grievable life.’ Here, Butler
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shows that certain lives are valued more than others, not least when they become lost in mass body counts. Consequently, Covid-19 can bring a deeper and more human aspect to the debate on biowarfare that has previously been absent.

Admittedly, there are issues with a comparison of biowarfare and Covid-19. Clearly, a pandemic is not identical to the use of biological arms. People respond to different threats in different psychological ways. The means by which we comprehend a natural disease outbreak vary from what it would mean to deal with a deliberate and vicious attack against us – possibly made within the context of a wider conflict, or even a terrorist strike – where this involves a fear of being actively and maliciously targeted.

Interestingly, there are allegations that Covid-19 is the consequence of a biological weapons attack, or a biowarfare experiment gone wrong – although such claims have been written off as conspiracy theory (Kaszeta 2020). Moreover, much of the political rhetoric surrounding Covid-19 reflects a highly militaristic narrative, whereby our response has been constructed as a ‘war’ against the disease (Hyde 2020). Yet this comparison of Covid-19 and biowarfare is still not a perfect parallel.

There is a further issue in that, as the reference to SARS above indicates, pandemics are nothing new. The threat that these outbreaks represent, however, has had limited impact on the debate concerning biological weapons, including where this relates to arms control. Significantly, this is not to suggest that such ‘evidence’ is irrelevant to policy construction in respect of biowarfare. Policymakers have frequently referred back to previous pandemics in order to indicate the risk that biological arms pose. Yet this issue has never been central to policy discussions.

This situation is perhaps understandable in the case of the 1918 Spanish Flu, which occurred before the development of biological weapons became a significant political concern (the US only initiated a biowarfare programme in 1942, over 20 years after the pandemic (Bernstein 1987)).

SARS and the 2014 Ebola outbreak could have influenced political understanding, but that impact was contained by the limited experience both events had on the Western experience. Largely confined to geographical areas outside the ‘West,’ such outbreaks did not pervade the Western experience to the same degree Covid-19 has. Consequently, Covid-19 is unprecedented, and as such, new attention is being paid to biological warfare in a way not seen before.

Covid-19 and Arms Control

This new attention could potentially reinvigorate policy debates on biowarfare, especially in relation to arms control. While agreements such as the BWC have taken arms control provision forward significantly, this has also been mired in controversy and a lack of political momentum.

One major problem has been an international difference of opinion on verification – that is, the measures taken to ensure that no signatory is developing biological weapons in violation of the convention. This disagreement is a long-standing bugbear of the BWC that has precluded more effective restrictions on bioweapons development (Littlewood 2005). Covid-19 could put new pressure on policy-makers to strengthen this agreement – or at least to engage in new policy conversations concerning verification procedures.

As an example of what this new progress could mean, 9/11 and the anthrax attacks that followed inspired a comparable shift in thinking on bioterrorism. In response to the strikes, the UN Security Council passed Resolution 1540 – which is designed to promote international cooperation around preventing terrorists from acquiring weapons of mass destruction, including biological arms.

In making the threat more ‘known,’ these events effectively changed an unknown risk into one that appeared more concrete, leading to more substantial action in order to prevent it. While the work of Kittlesen and Stern suggests that bioterrorism still falls within the uncertainty of dread risk, this example demonstrates how new knowledge can shape threat perception and how feeling that we ‘know’ a risk can encourage policymakers to act.
The critical issue here will be to not forget about Covid-19 if and when this crisis is ever over. The pandemic has brought the threat of bioweapons into the realm of the known, with potentially positive implications for the control of these armaments. Policy needs to continue to engage with this new ‘known-ness’ – otherwise political debate could fall back into the uncertainty and speculation of the unknown.

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