## 6. Time Machine

The process begins by identifying forces of change in the world, then combining those forces in different ways to create a set of diverse stories—or scenarios about how the future could evolve.

> —Rockefeller Foundation, "Scenarios for the Future Of Technology and International Development Area"

We could have stopped here with the question of primitive times, poised at the fork in the road, one way pointed towards inevitable progress and the other towards impending disaster. Except that it now seems clear that the two are intertwined and there is no simple bifurcation—which is not to say that irrevocable turning points haven't happened and are not happening. Cutting that knot, making a stand and aligning oneself, is a decision with its own risks and opportunities. All the available evidence must be sifted before that commitment is made, and that takes time.

We have been tracking what H.G. Wells called his "fantasias of possibility" in which 'each one takes some great creative tendency, or group of tendencies, and develops its possible consequences in the future' (1921: np.). This speculative, imaginative exploration of the future is part of the public use of reason. Documents enacting scenario planning are central to the public use of reason. According to The Rockefeller Foundation, scenario planning exercises are part of 'a creative process ... explor[ing], through narrative, events and dynamics that might alter, inhibit, or enhance current trends, often in surprising ways' (2010).

Indeed, such texts 'are thoughtful hypotheses that allow us to imagine, and then to rehearse, different strategies for how to be more prepared for the future—or more ambitiously, how to help shape better futures ourselves' (9). The 'process of creating narratives about the future' (4) is the product of thinking 'creatively and rigorously' (6) about creativity and innovation. Such an exercise is also a performative and imaginative act, inventing tomorrow. Hypotheses are interpretations, and the world must be interpreted before it can be changed.

Book DOI: <a href="https://doi.org/10.29086/978-0-6397-0950-5/2022/AASBS10">https://doi.org/10.29086/978-0-6397-0950-5/2022/AASBS10</a>/chapter DOI: <a href="https://doi.org/10.29086/978-0-6397-0950-5/2022/AASBS10/chapter6">https://doi.org/10.29086/978-0-6397-0950-5/2022/AASBS10/chapter6</a>

The art of interpretation, turning possibilities into probabilities, signals the political lineage of the following simulations. Narrating a range of 'plausible' (9) future possibilities is at once a descriptive and a prescriptive exercise melding fiction and likelihood: 'Engaging Your Imagination' (11). It is also, as we shall see, a normative and regulative pedagogical-political process as well as an aesthetic genre. This new paradigm of political discourse returns us to the past by way of an imaginary future.

## **Human Augmentation**

Using scenarios offers the possibility to describe many different possible and plausible futures.

—DCDC, Human Augmentation—The Dawn of a New Paradigm.

A strategic implications project

The authors of *Human Augmentation—The Dawn of a New Paradigm. A strategic implications project* (May 2021) are the Development, Concepts and Doctrine Centre (DCDC), a department within the UK Ministry of Defence (MOD) and the German Bundeswehr Office for Defence Planning (BODP). While this text is different to the historical, literary and philosophical texts we have looked at in previous chapters it is no less political. Many of the subjects we have been considering converge here.

I propose to take up the (conditional) offer implicit in the claim that 'scenario analysis can be used to test assumptions about the future or even find and warn against critical developments' (DCDC 2021: 74). The stakes of this exercise in imagination are perhaps not immediately obvious, but it takes us to the heart of primitive times. Ostensibly concerned with soldiers or military personnel, this document drifts into social and moral theory.

The first notable thing about this publication is the statement of authorship. Or rather, we should say, the disclaimer of authorial responsibility: Disclaimer

The content of this publication does not represent the official policy or strategy of the UK government or that of the UK's Ministry of Defence (MOD). Furthermore, the analysis and findings do not represent the official policy or strategy of the countries contributing to the project. It does, however, represent the view of the Development, Concepts and Doctrine Centre (DCDC), a department within the UK MOD, and Bundeswehr Office for Defence Planning

(BODP), a department within the German Federal Ministry of Defence. It is based on combining current knowledge and wisdom from subject matter experts with assessments of potential progress in technologies 30 years out supporting deliberations and deductions for future humans and society.

Despite bearing the insignia of the UK's Ministry of Defence, we are assured that nothing contained in the document is official policy. The official status of the document appears to be that it is not official. Or rather, it is semi-official since it represents the view of a department within both the UK MOD and the German BODP—which raises the question of the politico-juridical status of the DCDC. Is it both British and German, although it claims not to speak for either national government? Is the document offering advice to both British and German defence departments? Or does it have no connection, despite the MOD insignia and the statement of filiation? If it is simply an internal discussion document (which it never claims to be) why is it published on the UK government publications site?

The text is signed by Major General Wolfgang Gaebelein and Major General Darrell Amison CBE, and initialled by the latter.<sup>1</sup> Although the Ministry of Defence is responsible for administering the defence policy of Her Majesty's Government, this publication's opening claim is that it does not represent the official policy or strategy of the UK government. Yet under the subheading "Copyright' we read: 'This publication is UK Ministry of Defence © Crown copyright (2021).'

It seems that, according to Wikipedia, crown copyright applies '[w]here a work is made by Her Majesty or by an officer or servant of the Crown in the course of his duties.' A Ministry of Defence document initialled by a servant of the Crown is claims not to be official government policy. Authority figures, but with the link to government policy disavowed. Attenuation of the link to government policy proves a cover for invention but, as we shall see, this link is never entirely surrendered.

Consider the following declaration regarding authorisation:

Authorisation

The Development, Concepts and Doctrine Centre (DCDC) is responsible for publishing strategic trends, joint concepts and doctrine. If you wish to quote our publications as reference material in other work, you should confirm with our editors whether the particular publication and amendment state remains authoritative. We welcome your comments on factual accuracy or amendment proposals. Please send them to: DCDC, Ministry of Defence Shrivenham,

Swindon, Wiltshire, SN6 8RF E-mail: DCDC-DocEds@mod.gov.uk Telephone: 01793 31 4216/4220

The signature designating a singular historical reference is incorporated into the defensive head of the body politic. A gesture that empties the current text of individual responsibility and defers authority while claiming it. Inviting comment, the right of deflection is reserved. Problems of responsibility and intentionality arise before we get to the communication proper. A few comments on this invitation to comment.

The attenuation of accountability that frames this text is certainly defensive, as one might expect from the Ministry of Defence (even if it does not represent the views of that ministry). But the implied reader is of equal interest. The inaugural guarded precautions presume an indulgent, trusting reader willing to take at face value an official government document. A reader who is non-combative is from the first engagement met with what might be termed a guarded, even combative attitude on the part of the implied author(s). In this asymmetrical communicative exchange the friend/enemy distinction is weighted to the latter. One can trace this construction of limited liability or deniability to either insecurity or authoritarianism, perhaps both.

Either way it is a strange way to 'enable a multidisciplinary conversation' (11) and suggests a document that is designed not to be critically engaged with. Or rather, it is to be read in the most telegraphic sense of signals and directions, but not interpreted critically. There is sharp divide between formulation and reception:

A very important advantage of scenario analysis is the possible involvement of decision-makers and stakeholders in the scenario process. This promotes a high level of understanding for the various possible future developments and achieves a high commitment to the actual work. (DCDC, 74)

The narrative form, the genre (from *genus*: family, kind), is potentially inclusive at the point of production but the destination narrows down the ideal reader. Presumably 'decision-makers' is not quite a solecism but really means *important* decision-makers, consequential people whose decisions matter (i.e., carry authority, and are authorised).<sup>2</sup>

The language of business indicative of what is inadequately termed the military-industrial complex and its 'stakeholders' by definition does not include the general public (who might be thought to have an interest in their own security and well-being), although they are ostensibly the readers and ultimate beneficiaries. The important thing is that it can be claimed it was offered to be

read, that input and conversation were invited (if not facilitated). Why else would it be posted on the government website?

It seems that the general public is and is not the addressee of this text that invites participation and filters and mutes at the same time. The public are at once onlookers and recipients of the decisions taken by participants in the techno-military-biomedical-industrial complex. While military decisions are—beyond a certain point—necessarily immune to direct democratic intervention, something else is happening in this text. We shall see that this conceptual distinction cordons off the public as spectators, potential victims and potential enemies, and raw material. The public is extrinsic and yet central to the decision-makers and stakeholders concerned to control the set of diverse stories about how the future could evolve. This politics of reading and writing, of language, and the world picture it presents is noteworthy for a number of reasons.

In the context of the present study we are back to Thomas Clarkson's account of primitive times. The claim that *Human Augmentation* is 'based on combining current knowledge and wisdom' recalls Clarkson's 'wisdom, justice, prudence, and virtue' (1788: 53). These are the qualities that Clarkson listed as belonging to the authoritative individual distinguished by 'authority or rank' and 'pre-eminence' (51), and we are certainly concerned with military and bureaucratic ranking here. More importantly, the primacy of the defensive structuring of society which requires the 'important sacrifice' (52) of individual and collective freedom sets the scene for a political axiomatic keen to disavow politics. In the realm of what Clarkson described as that general knowledge of subordination and liberty, and the grand principles of preservation and defence, questions of power or pre-eminence and authority and subordination are inescapable.

The keystone of Clarkson's anti-slavery argument was that 'magistratical pre-eminence' (1788: 51) is necessary for laying down the law and protecting property. Security of property and person only arise if defence against outside threat is maintained. Clarkson relays the version of this story that has the arrangement based on consent rather than coercion. 'Magistatical' signifies magisterium, the authority which provides correct interpretation, clarifying doctrine and/or the administration of law. Magister can denote a public functionary, teacher, or craftsman; and, of course, a master who has power over another.

The historical-conceptual parable claiming that those who have power over us must have it granted by our consent can now be upgraded. The argument against the sustainability of the violent seizure of power can be completed. In so far as the threat of violence—the external threat to the community—is ever-present, and so not merely external or contingent, it is a permanent origin. As necessary condition of society, the violence from outside has its counterpart in internal violence.<sup>3</sup> The violent exclusion of violence from story and concept of society betrays the work of coerced consent required to found and maintain the order and organisation necessary for self-preservation. The documents before us value compliance over consent and free speech.

It should come as no surprise that a recognisable model of human development that includes 'the grand principles of preservation and defence' is reproduced by the Development, Concepts and Doctrine Centre. Concepts such as 'the human' and technology are as integral to dogmatic statements of principles and beliefs. In military terms tactical doctrine concerns theoretical discourse concerned with the relationship between concept and reality, with testing the logic of our thinking. It is essentially a philosophical exercise in imagination.

Are we not here witnessing an exercise in teaching authority, for it is precisely the official status or ritualised performance of these official/unofficial texts that is at issue. Which is nothing less than a question of representation denoted by the root *officialis* (attendant to a magistrate or law officer). Authority and authorisation, duty, fabrication (*facer*), production, technology, truth, and the capacity to resist—are all at stake.

Let us return to the Development, Concepts and Doctrine Centre, a think tank floating ideas, and examine which ideas are selected and how they are presented. Observe the following passage:

Thinking of the person as a platform and understanding our people at an individual level is fundamental to successful human augmentation. <u>Industrial Age warfare saw people as interchangeable components of military units or the material with which to operate the platforms—vehicles, aircraft and ships. These platforms are routinely monitored and analysed but it is remarkable that our ability to understand our most critical capability—the human—is so underresearched. Successful application of human augmentation demands a more sophisticated approach to understanding our people and their capabilities. Defining the key elements of the 'human platform'—physical, psychological and social—provides a conceptual baseline to enable a multidisciplinary conversation. (DCDC, 11; underlining added)</u>

This passage is considered by its authors to be important enough to repeat almost in its entirety:

Central to the approach of this project is the idea that each person must be understood at the individual level. Successful application of human augmentation demands a more sophisticated approach to understanding our people and a way of achieving this is to define the key elements that collectively represent the human platform; these are physical, psychological and social in nature. It is recognized that it is impossible to neatly separate the human into three distinct areas and that this model is a conscious oversimplification. (19)

The immediate difference between the two passages is the omission of the underlined sentences regarding 'people as interchangeable components of military units', and the disappearance of scare quotes around 'human platform.' The implication is that 'our ability to understand our most critical capability—the human' will be enhanced by the document. With the military-biotechnological beachhead to the humanities established, ethical and political logic can be mobilised. After all: 'War is, by its nature, a human endeavour' (21).

Putting aside the question of why 'conscious oversimplification' has been embraced, and the inclusiveness of 'our people' posited as unproblematic, one can wonder about the compatibility between the central idea 'that each person must be understood at the individual level' and 'the key elements that collectively represent the human platform.' We are back, if ever we left it, to the intricate relationship between the individual and the collective. And with the capacity to resist understood 'as the sum of material means along with the moral will to resist the enemy' (Caygill 2013: 16),

'Platform' can mean a computing operating system, hardware and software, on which other technologies are run. It can also mean policy or programme, in the sense of a party-political platform, scheme, ground-plan or design. The first passage above indicates most clearly in what sense 'platform' is used: 'the material with which to operate the platforms—vehicles, aircraft and ships.' Personnel are materiel, equipment, and instrumentalisation of the human signifies the meaning of platform as design. It should come as no surprise that this view of 'the human,' both individual and collective, will extend by definition from the field of military discourse. At once stating 'current knowledge and wisdom from subject matter experts,' and feeling out the opposition/enemy, the target audience is us. The document is itself a vehicle involved in manoeuvres.<sup>4</sup>

The most significant doctrinal operation is pedagogical and involves the acknowledgement that 'The most significant challenges, however, are ethical and social in nature' (29). Beyond the military application of technological advances in neuroscience and cybernetics, lies the ultimate horizon of interpretation, the globalised world:

There <u>may</u> be a moral obligation to augment humans where it promotes well-being ... The notion of moral enhancement <u>may</u> require using human augmentation in the future. Our moral psychologies evolved when our actions only affected our immediate environment, but recent advances in technology mean that actions can have <u>almost</u> immediate global consequences. Our moral tendencies to look after our kin and immediate future <u>may</u> no longer be fit for the modern, interconnected world. (47; underlining added)

In this narrative of development, what Equiano called the familial, 'tender connexions' of our immediate environment have been supplanted by a planetary context. Recent developments in technology have changed the moral universe itself. This story of development begs a number of questions.

What or who obligates? On whom does the obligation fall? On 'decision-makers and stakeholders' in the private sector and the State? What is one to make of 'the notion of moral enhancement'? Will human augmentation/prosthesis increase morality? What exactly is meant by 'morality' here?

Usually understood as referring to principles of right and wrong, here morality is condensed into a psychological thumbnail sketch of how 'Our moral psychologies evolved;' a genetic, historical hypothesis that postulates that our moral psychologies are not initially formed by 'our immediate environment.' The drive here is to stress a movement away from a prior state, an evolving behavioural momentum. The concept of morality is clarified:

There are universal aspects of morality that underpin the basic functioning of all societies, but their interpretation varies. The idea of helping your family and group, respecting others' possessions and returning favours are deep-rooted altruistic tenets that helped our ancestors form successful social groups. But behind these factors are a myriad of local factors and interpretations, hence concepts of morality vary across cultures. (45)

Does the interpretation of universal aspects of morality that underpin the basic functioning of all societies vary or do their universal aspects vary? Whose interpretation varies? Do the members of different societies interpret the universal aspects of morality differently?

The final sentence of the above paragraph suggests that the universal aspects of morality that underpin the basic functioning of all societies are indeed matters of interpretation; 'a myriad of local factors and interpretations.' And this includes, of course, that of the DCDC itself regarding the functioning of all societies.

What concept of morality is being advanced here when morality is functional to survival which requires the formation of 'successful social groups'? This interpretation of morality is fundamentally historical:

Throughout history the number of entities that have moral 'value' has been growing: a trend known as the 'expanding moral circle.' People of different nationality, ethnicity, gender, religion and sexual orientation, even animals, are increasingly 'in the circle' as moral perspectives change. The information revolution—from print press to tweet—is also accelerating the speed and scale of moral change as different behaviours and attitudes become normalised through exposure. (45)<sup>5</sup>

Morality, it seems, is changed by 'behaviours and attitudes' which are normalised through exposure, and conditioned through repetition as reinforcement. Morality is malleable.

Such a conception of morality has its own history and context, its own local factors and interpretations, disciplinary network, and academic-institutional genealogy. Evolutionary psychology is the product of a particular culture and epistemological environment rooted in theories of adaptive behaviour and natural selection. Individual morality is a matter of behavioural psychology and social norms. The basis for this interpretation is a methodological tenet: "The terms "morality" and "ethics" are used interchangeably here. Some disciplines use ethics to refer to societal codes or principles, and morality to refer to an individual's own moral beliefs, but this distinction is not used in this publication' (DCDC, 45, note 23).

However, 'morality' and 'ethics' are not used interchangeably, and it is ethics understood as societal codes or principles that is dominant. Individual morality is subordinated to the collective, ethical norms. Since the overriding ethical imperative is competitive advantage (survival) morality is secondary: 'changes to morality are often caused by legislative changes' (46). As are ethics, if they get in the way: 'Defence, however, cannot wait for ethics to change before engaging with human augmentation, we must be in the conversation from the outset to inform the debate and understand how ethical views are evolving' (45-46). The concept (and practice) of defence asserts its right to

participate and grasp how ethical views are evolving, presumably because those views may diverge from, or even undermine, defence which, as such, is a metaethical imperative. It is also a political claim to transcend politics (and ethics) by maintaining the survival of society.

What conception of politics is contained in the phrase 'Our moral tendencies to look after our kin and immediate future may no longer be fit for the modern, interconnected world' (47)?

Setting aside the question of whether or not 'Our moral tendencies' were ever limited to 'our kin,' the appearance of this category confirms the operationality of an ethico-political discourse. Kin can refer to family, race, stock (*genos*; also gender or sex, and rank) and its presence links this document to central texts of the western tradition of political thought.

Recall that Aristotle's *Politics* opens with argument that the family is prior in terms of 'growth and origin,' a natural association, on which the subsequent village ('a colony from the family'), community and state are built (1252a24, 1986; 1252b18-19, 1987). The power relations of the family include man and woman, and slave. This natural progression towards 'self-sufficiency' realised in the state shows 'that man is by nature a political animal' (1253a3-4, 1987). Movement away, or rather growth, from the family is thus the most classical political gesture. This archeo-teleological narrative is also reversible from the point of view of logic for 'the state is by nature prior to the family and the individual' (1253a19, 1988); not just because the state provides the conditions (primarily security) necessary for the family (*oikos*) (see Bennington 2017: 14-27).

According to Aristotle, the power relations of the family, between men and animals, and masters and slaves are based on authority and subordination and "this principle, of necessity, extends to all mankind" (1254b14-15, 1990). Homeland security is the precondition of security of the home, and Aristotle discusses weapons and violence. In addition, since things are defined by their function, we can see that the natural progression of association leads from the first from family to the state where man achieves individual as well as communal independence (*autarkia*), and administration of justice is realised. This classical version of moral enhancement throws into relief some of the interesting twists that this conceptual reserve takes today.

Firstly, it comes as no surprise that the argument of *Human Augmentation* stands in a tradition that is identifiable, culturally specific, as is the idea of culture (*nomos*) and its specificity. From its inception, supposing we grant

Aristotle's texts that privilege, the realm of kin and consanguinity and filiation is seen as originary and such primitive associations marks the beginning of the move away from the primitive. Recall that for Aristotle the umbilical link between equality of birth (*isogonía*) into equality of rights (*isonomía*) is never broken and it feeds into the notion of filiation and brotherhood associated with the nation (*natio*: birth, origin, stock, race: *ethnos*). The question of the basis of association—common ancestry, language, allegiance—is critical for the viability of community. Independence is economic and military, and generation via gender difference is at the heart of household economy and the economy of the polis breeding producers and consumers and soldiers.

Of necessity, given this seniority of this sedimented tradition, *Human Augmentation* also touches on gender and reproduction: 'People of different nationality, ethnicity, gender, religion and sexual orientation, even animals, are increasingly 'in the circle' as moral perspectives change.' 'Foetuses are already screened for an array of diseases' (DCDC, 47) and genetic engineering is key to human enhancement. The only other time women feature in this text is:



Societies may seek to gainfully employ the elderly, but this could impact on the young and jobless

Life extension. People are living longer, putting stress on health, social and economic systems. Human augmentation may exacerbate this issue by helping people to live even longer or it may alleviate pressure by improving health and productivity in old age. Most industrialised societies will face this challenge in the coming decades and Japan is at the forefront. Japan's strategy has been to focus investment on medical technologies such as regenerative medicine and cell therapy and to keep the elderly in the workforce, reducing pressure on health and social care – the areas where human augmentation could have a significant impact. Even if significant life extension remains elusive, it is likely that human augmentation will increase the number of years lived in good health, with huge implications for society. Societies may seek to gainfully employ the elderly, but this could impact on the young and jobless; will the elderly be seen to take more than their 'fair share' of resources and opportunities?

(DCDC, 59)

The possibility of a gerontological drain on the community is imaged as a frivolously happy old woman. But this image and its text is anything but accidental. Rather it illustrates the inner core of the world view, the ideology or horizon of expectations, framing the various scenarios.

Gender is tacked onto the subject of an aging population. This generic grandmother image is used to underline a central presupposition. Shutterstock gives this stereotype portrait the tag 'Concepts of seniority' and the concept floated here is longevity leading to parasitism. Where there is gender there is economics (resources). The either/or choice that may be faced is repeated when the meaning of the phrase 'Societies may gainfully seek to employ the elderly, but this could impact on the young and the jobless' is clarified as 'Societies may gainfully seek to employ the elderly, but this could impact on the young and the jobless: will the elderly be seen to take more than their 'fair share' of resources and opportunities?'

Such a casuistic argument and its prodding bias reveal more than callousness, underlined rather than concealed by the veil of the hypothetical. The claim to be moving beyond our immediate environment, 'family or group' (kin) carves out an identifiable track and moral psychology, and possible practical consequences. The concept of the elderly as useless mouths is enlisted, registered and deflected onto 'the young and jobless.' Under the scientific guise of efficiency and neutrality a familiar logic is affirmed.<sup>7</sup> From the point of view of economics, which now takes the place of mechanical causality, and with purposiveness narrowed down to survival, what is such a person good for?

What are we to make of this appeal to prejudice? According to Aristotle, rhetoric turns on what seems plausible to the audience, and plausibility is tied to what an audience believes to be true. The conditionality of 'may' and 'almost' in this passage and throughout the document (and 'possible,' 'might,' 'could' and 'perhaps') is a rhetorical ruse.<sup>8</sup> Its purpose is to veil assertion of probability over possibility; to shield problematic propositions from the need for proof. Provisionality of judgement conceals the delimitation of alternatives and criteria of selection. Why are these particular possibilities presented and not others, and why these examples? Is the old woman a less inflammatory example than an impoverished child wherein the saving grace of potential is severely curtailed?

It is not merely that the claim that 'Using scenarios offers the possibility to describe many different possible and plausible futures' (74) also offers the possibility of not realising such a possibility. The only thing that is tentative

about this document is an insistent and regimented deflection and peddling of stock concepts and doctrines; the regurgitation of hackneyed tropes mixing with an insistent claim to be confronting an unprecedented situation. This strategy has implications for the covert ethico-political agenda being advanced. Images and scenarios are being implanted, brutal possibilities disseminated as likelihoods, and passed out to the public, if not as cordials, then as remedies.<sup>9</sup>

What if the 'what if' logic of scenario planning contained a moralising tendency, a reader-affective nudge toward imagining certain possibilities to the exclusion of others?<sup>10</sup> According to Aristotle, a probable impossibility is always preferable to an impossible possibility (*Poetics* 1460a26, 2337), and similitude rests on shared assumptions about reality. That this rationality, shared by the imitator and the audience, is cultivated is what we shall now attempt to verify.

Under the heading 'Scenario-Dark clouds in the evolution of human enhancement' we read:

The adoption and development of human augmentation technologies was characterised by three major technological steps that happened in parallel in both the West and in the East from 2020 until today. The first disruptive step was the development of enhanced DNA modification technology in around 2035 which led to increased investment in research and development and growth in the human augmentation market. The second disruptive step, which occurred around 2040 was related to the development in artificial intelligence. The third disruptive step around 2045, saw the development of, what was in effect, a universal vaccine for all diseases. This led to global acceptance of human augmentation. (DCDC, 81)

Remember that the scenarios are, fictionally at least, retrospective: 'to explore implications out to 2050' (8). What has (fictionally) happened is merely what might happen (in the near future), that is, a probable possibility given what we know about the present. The future scenario is anchored in the interpretation of the present. Like Wells's futuristic fiction, our future is viewed retrospectively. Predictive power is intertwined with the sense of inevitability as what might have been becomes what was. The openness and freedom of the present is circumscribed by grim necessity that has a determining genetic component.<sup>11</sup>

Apart from when the past is invoked to attest to the malleability of morality, the past is barely mentioned. Or if it is mentioned it is consigned to redundancy, and in one case (the only case of an historic predecessor) the protagonist serves as a useful example of a familiar mode of idiocy. That person is Immanuel Kant who was not as clever as he thought:

The history of vaccinations demonstrates how proven, and seemingly uncontroversial human augmentation technologies can take many years to become globally effective and accepted by societies. The discovery of the smallpox vaccine at the end of the 18th Century saved millions of lives but was condemned by some of the world's leading thinkers. Emanuel [sic.] Kant, for example, warned that humans would be infected with 'animal brutality' in the vaccine process, which used secretions from cowpox to provide immunity. Notwithstanding the effectiveness of the vaccine, it took 130 years for smallpox to be officially eradicated in 1979. (DCDC, 46)

Kant refers to the smallpox vaccine in *The Metaphysics of Morals* under the heading "Casuistical questions:"

Anyone who decides to be vaccinated against smallpox puts his life in danger, even though he does it *in order to preserve his life*; and, insofar as he himself brings on the disease that endangers his life, he is in a far more doubtful situation, as far as the law of duty is concerned, than is the sailor, who at least does not arouse the storm to which he entrusts himself. Is smallpox inoculation, then, permitted? (1797: 548)

Kant is pointing to the risk of smallpox vaccination and the relative departure from duty to the moral law represented by voluntary vaccination. If suicide is murder, as it for Kant, then to endanger one's life by choosing vaccination is to be responsible for an action that departs from 'Man's duty to himself as an animal being' which 'is to preserve himself' (564).

Kant's concluding question—Is smallpox inoculation, then, permitted?—appears to be rhetorical. It is part of the other question Kant raises, such as: Is it right to kill oneself to save one's country? Is martyrdom heroism? Is it morally permissible to kill oneself to avoid an unjust sentence of death? The point seems to be that such actions, however understandable, are not in strict accord with duty to oneself. One cannot claim the moral high-ground.

To my knowledge Kant didn't say or write anything equivalent to 'animal brutality' in relation to vaccination. It seems likely that the authors of *Human Augmentation* at the UK Ministry of Defence are confusing Kant with his student, Marcus Herz who did object to compulsory smallpox vaccination. Herz referred to *Brutalimpfung*, brutish inoculation, and appealed to Kant's formulation of the moral finality of man: a doctor has no right to put an individual patient at risk for the general good. While Herz's *über die Brutalimpfung und deren Vergleichung mit der humanen* (On Brutish Inoculation and its Comparison with the Humane, 1801) argues against infecting humans with cowpox, it does not seem that he was opposed to inoculation itself. It was the

shift from variolation to vaccination, bovine material instead of human material, that was cause for concern.

The only other occasion on which I can see that Kant refers to vaccination is one of his posthumously published notes. Responding to a query regarding his comment regarding smallpox vaccination in *The Metaphysics of Morals*, Kant argues that only states with small of diminishing populations will need the 'germ [*Keim*]' of the smallpox vaccine (Kant 1922: 498). Natural increase in population will cancel out the fatalities from the disease. <sup>12</sup> Smallpox is not a threat to the survival of nation states nor the human race. Presumably the question of the morality of getting vaccinated for the sake of protecting others from infection would depend on proof that vaccination prevented contagion, or at least that lethal infection and transmission correlates with unvaccination. Ideally, long term vaccine efficacy needs to be verified. According to Andreas-Holger Maehle: 'Kant himself regarded smallpox inoculation as morally questionable, although he was apparently ready to accept it, if it was made obligatory by the state' (1995: 217). <sup>13</sup>

The DCDC's erroneous use of the example of Kant and smallpox is designed to drive home the point about vaccine resistance, to shape your judgement in the present about the present. The Ministry of Defence authors' eagerness to place Kant in the anti-vaxxer camp indicates the brutal teleology of their own ostensibly conjectural discourse. It is appropriate that Kant features in a text concerned with moral qualities and biological characteristics. And if it is surprising to see the sage of Königsberg hauled before a fictional pandemic preparedness tribunal, what is more telling is the blurring of medical countermeasures with military countermeasures. This conjunction has an immediate ancestor in another scenario document.

## Echo Chamber

POSSIBLE FUTURE IN 2025: THE "ECHO CHAMBER" UNBRIDLED GLOBAL ACCESS TO INFORMATION COUPLED WITH SOCIAL FRAGMENTATION AND SELF-AFFIRMING WORLDVIEWS

—JHCHS, The Spars Pandemic 2025-2028. A Futuristic Scenario for Public Health Risk Communicators

The Spars Pandemic 2025-2028. A Futuristic Scenario for Public Health Risk Communicators (2017) is authored by The Johns Hopkins Centre for Health Security. This document's 'scenario matrix' is another imaginative exercise that presents a futuristic narrative.

In 2025 a novel coronavirus emerges from Southeast Asia. With flulike symptoms and an extended incubation period (seven to ten days) compared to its latent period (four to five days), infected persons could spread the virus for up to nearly a week before showing symptoms of the disease themselves:

Through August 2026, anti-vaccinators, Muslims, and African Americans remained largely isolated from one another. By early September, however, continued anger over EHR [Electronic Health Records] use and growing concern over Corovax's side effects spurred these once-disparate groups to join forces with the alternative medicine proponents ... Japan's refusal to accept Corovax was widely covered in the international media. (JHCHS 2017: 46)

By 2027 adverse effects from the vaccine were amplified by social media, and health authorities were 'caught off guard by the new round of negative publicity':

They were pressured by the public and media to award compensation to those claiming long-term effects from Corovax despite having no data to support these claims. Displaying a fundamental misunderstanding of scientific research, many demanded proof that the vaccines did not cause long-term effects. (61)

The Johns Hopkins Centre for Health Security conclude that demanding 'proof that the vaccines did not cause long-term effects' displays 'a fundamental misunderstanding of scientific research:'

A widespread social media movement led primarily by outspoken parents of affected children, coupled with widespread distrust of "big pharma," supported the narrative that the development of SPARS MCMs [Medical Countermeasures] was unnecessary and driven by a few profit-seeking individuals. Conspiracy theories also proliferated across social media, suggesting that the virus had been purposely created and introduced to the population by drug companies or that it had escaped from a government lab secretly testing bioweapons. (65)

For the Johns Hopkins authors, anti-vaccination resistance to the 2015 measles outbreak rather than smallpox is the example of fundamental misunderstanding among sections of the public. A mental health security issue, one might say, concerning hostile or ill-informed critics. The point made by *Human Augmentation* regarding the proverbial gullible populace susceptible to disinformation has a discernible lineage. Infowars best describes this conjuncture.

In these scenarios enemies are not simply outside the borders, but rather are inside the domestic space, and the biomedical battle lines are drawn. This involves erasing the past, except in so far as it bolsters the current fight.

The history of predecessors meditating on military strategy, technopolitical possibilities and threats, etc., is too long to mention and too well known to summarise here, and would include Sun Tzu, Clausewitz, Schmitt, Mao, etc., and Kant, not least because of his reflection on the impossibility of perpetual peace. For Thomas Hobbes, self-defence is the first natural right. It seems that today there is no need to engage with the various articulations and decomposable and specific contextual intricacies of those who have written on the same topic. Whatever else changes, the threat of annihilation and subjection is a constant origin.

Such willed textual and historical amnesia, such resolute presentism and conscious oversimplification, signal dependence on these ancestors. That the traditional is erased and framed out indicates not only a profound teleological intent to stress the unprecedented nature of the current threat—which is itself a repetitive rhetorical trope of such texts—but also what has been called 'the law of the ultimate conformity of the law to the origin' (de Man 1979: 81). For the sake of brevity let us refer to the origin as the paradigmatic war of all against all. At once more than a historical hypothesis, it is the very condition of history and its presiding reality: it was and it is, and will be. Axiomatic and irrevocable, this dogma is not open to question and has the authority of nature: 'In such a system, history and interpretation coincide, the common principle that mediates between them being the genetic concept of totalization' (81). Modernity as diagnosis of one's present is an attempt at self-definition for the purpose of orientation.

Apparently fixed on the future, such texts are transfixed by the gaze of posterity from the future made possible by winners (and losers), where those who have survived because of our resolute sacrifice owe us a debt. This prospective vindication calls for a decision, what must be done, that is ethical or more precisely ethico-biological. We are in the presence of the man of action who forgets everything in order to do something and technological man as an incarnation of modernity. <sup>15</sup> Relying on differences to produce identities is integral to the campaign for unity as the pre-requisite for effective historical action.

The generative power of origination inseparable from the political appeal to decisiveness is linked to the generative power of technology. The concept

of nature as self-production is now anthropomorphised and subject to human will. The natural substance or organic life is now at our disposal. But it is also a threat, the working of death, which can be used against us. This means that ethics is not really the ultimately determining factor. *Human Augmentation* explains:

The imperative to use human augmentation may ultimately not be dictated by any explicit ethical argument, but by national interest. Countries may need to develop human augmentation or risk surrendering influence, prosperity and security to those who do. This possibility is encapsulated by investment in artificial intelligence and gene editing. (DCDC, 47)

This clarifies and resolves the tension highlighted in the Foreword:

Our understanding of the technical, ethical, legal and societal implications of these technologies will be decisive in how transformative they prove to be for Defence. Our potential adversaries will not be governed by the same ethical and legal considerations that we are, and they are already developing human augmentation capabilities. Our key challenge will be establishing advantage in this field without compromising the values and freedoms that underpin our way of life.

Our understanding of the technical, ethical, legal and societal implications of these technologies is ultimately irrelevant if it gives the advantage to our adversaries. Ethical superiority is at once presumed and relegated to a dangerous conceit, a vulnerability. Not exactly beyond good and evil, but certainly on the side of necessity; and justifiable so in light of our ethical and legal superiority, upon which, however, we must not rely.

Any temptation to caricature such anti-Blimpism must be tempered by the undoubted force of the logic mobilised. Recall Hobbes:

To this war of every man against every man, this also is consequent; that nothing can be unjust. The notions of right and wrong, justice and injustice have there no place. Where there is no common power, there is no law: where no law, no Injustice. Force, and fraud, are in war the two cardinal virtues. Justice, and injustice are none of the faculties neither of the body, nor mind. (1651: 85)

Hobbes was writing during civil war to redefine the nature of state power and the mutual relation between protection and obedience.<sup>16</sup> The obedience of citizens is predicated on being provided with security by the state. Hobbes also goes out of his way to stress the supersedence of that time when 'men have lived by small families, to rob and spoil one another ... And as small families did then; so now do cities and kingdoms which are but greater families (for their own security)' (111). The same applies, of course, to nations.

It is no coincidence that on his first page Hobbes characterises Leviathan as an artificial being, an *animal artificiale*, an *automaton*, or a *machine*. As machine-like, the state is concerned with 'salus populi' (the people's safety)' (7). The right of necessity is affirmed by the necessity of the right to self-defence. The state is obligated to act under constraint that may not be legal for necessity of survival precedes, de jure and de facto, legality.<sup>17</sup> Necessity grounds law, and thus right, because the foundation of the state is itself not lawful. Before the law, temporally and logically, those sworn to uphold the law also have a duty that can render them outlaws whereby they appear regressive or primitive. This is the secret of the state, its origin and its self-contradictory perpetuation. Social cohesion is there only in the brute history of domination of the weak by the stronger.<sup>18</sup>

What appears to be happening today is that the professed weakness of the nation states vis-à-vis private corporations serves a number of requirements of governmentality. First, consider *Human Augmentation*'s profession of weakness:

Economic forces will have a strong influence on human augmentation development and they may not be in the best interests of society. The private sector can employ more resources and have greater organisational agility than state institutions, meaning that they will remain at the cutting edge of human augmentation research. Enhancements will be highly profitable, and companies are likely to focus on human augmentation that is lucrative, rather than that which is of most benefit to humanity. The tension between states, societies and market forces is nothing new, but the consequences of mismanagement could be more severe in the case of powerful human augmentation technologies. (DCDC, 14)

The protectors of the national security are hamstrung by the power of private companies.<sup>19</sup> The system to be defended breeds its own vulnerability: 'The private sector invests more in research and development and has greater organisational agility than state institutions, meaning it can employ the best researchers to stay at the cutting edge of human augmentation research' (57).

Economic necessity is the overriding necessity that dictates room for manoeuvre. The private sector is the originator of technological innovation. Under the heading "Scenario—Globalised world, national tensions:" 'Nevertheless, human augmentation technology is very expensive and it is created and controlled by private organisations beyond the reach and control of the governments' (81). Picture to yourself this scenario as reality: the future is now.

Behind the fiction of authority is dependency on the private sector. Is the secret of national security that there really is no secret except the open secret

of capitulation to non-state, unelected actors? 'Similarly, enormous funds are being invested in gene editing by countries with citizens who are more accepting of the technology. Countries that invest in artificial intelligence and gene editing now are likely to reap significant returns.' (47) What ensures the loyalty of the private sector on which so much depends, etc.? And where do the enormous funds invested come from? From the private sector itself, or the state effectively subsidising companies and investors on the behalf of its citizens who 'profit' in terms of security from the synergy of 'public and private sector' (71)? Other questions multiply regarding this slavish self-presentation, but I would like to make one observation.

Are we not here looking at a double manoeuvre and rhetorical sleight of hand? The premise of international rivalry, the basic principle behind national security and the professed telos and source of authorial authority and legitimacy, serves as a bridge to what might appear to be its opposite. The elite scenario players, the nation's defenders, reveal their hand by way of a two-pronged attack:

The need to use human augmentation may ultimately be dictated by national interest. Countries may need to develop and use human augmentation or risk surrendering influence, prosperity and security to those who will. National regulations dictating the pace and scope of scientific research reflect societal views, particularly in democracies that are more sensitive to public opinion. The future of human augmentation should not, however, be decided by ethicists or public opinion, although both will be important voices; rather, governments will need to develop a clear policy position that maximises the use of human augmentation in support of prosperity, safety and security, without undermining our values. (DCDC, 13)

We have noted the recurrent concern with ethical or democratic matters—'our way of life' (48)—and the susceptibility of 'public attitudes' (41) to fundamental misunderstanding.<sup>20</sup> This internal suspicion dovetails with a second element contained by the spectacle of national competitiveness. Nowhere is it mentioned, but that does not mean that its presence does not exert a pull on the key threads of the SPARS scenario.

Locked into nationalist rivalry—what Kant called a state of nature among nations like a state of nature among individuals<sup>21</sup>—beholden to the private sector (with no guarantee of their patriotism), the spectre of trans-national capitalism (the global private sector) points to one destination. If the private sector is trans-national, who then can control or profit from it? Presumably any equally global institution. Such an organisation ought to have the well-

being of each nation as a priority, but we know that the ideal yields to sectional interests.<sup>22</sup>

In this scenario national self-interest is best served by alignment with global power that reflects and interacts with the global capital that ultimately controls technological innovation. The narrative of national security has formed a bridge to world government. National security, and the sovereignty of those fundamental misunderstanders, is to be surrendered to a global elite in whose image the present authors model themselves. The jargon of self-preservation wrapped in the flag of national security transmutes statism into world statism. Again under the sway of emergency measures to secure the ruling order, the question arises: Which (or whose) order? The one accountable to the people or the one ruled by experts emancipated from the tyranny of the random majority of a national parliament?

The purportedly new paradigm seems, if not exactly uncanny, since, despite all the talk of innovation and the unprecedented, because then mundane in its predictability. Viewed through the lens of colonialism, a sense of déjà vu intensifies. When the disciplinary gaze is trained on one's own people, the psychological profile of the comprador elite collaborating with the colonisers suggests itself. Closer to rhetoric's concern with psychology and judgement, a course is plotted: from the behaviourist reduction of morality to 'behaviours and attitudes,' to the spectre of generational competition over limited resources, from the inconvenience of 'ethicist or public opinion' to the prevalence of 'fundamental misunderstanding.' The people must be saved from themselves.

Ritual genuflection to 'our values,' which may in fact be a source of weakness, signals that the topic of the military application of human augmentation has overflowed the frame of military doctrine.<sup>23</sup> . We are in the realm of moral philosophy, or better still, moral anthropology and the destiny of the human race. A race determined by internal divisions and progressive and regressive forces and protagonists; the state of nature (and politics) as the war of all against all.

What, then, is the purpose of such texts and their scenarios? It seems that the rationale is training through imaginations, the rehearsal of responses to possible situations, whereby simulation hones behaviour:

The following narrative comprises a futuristic scenario that illustrates communication dilemmas concerning medical countermeasures (MCMs) that could plausibly emerge in the not-so-distant future. Its purpose is to prompt

users, both individually and in discussion with others, to imagine the dynamic and oftentimes conflicted circumstances in which communication around emergency MCM development, distribution, and uptake takes place. While engaged with a rigorous simulated health emergency, scenario readers have the opportunity to mentally "rehearse" responses while also weighing the implications of their actions. At the same time, readers have a chance to consider what potential measures implemented in today's environment might avert comparable communication dilemmas or classes of dilemmas in the future. (JHCHS)

In so far as this involves increasing the probability of certain interpretations and certain judgements and action, the examples and scenarios are devices to shape behaviour. As Aristotle notes in *Rhetoric to Alexander*. 'It is a probability when one's hearers have examples [paradigmata] in their own minds of what is being said' (1428a27, 2283).

It is tempting to conclude that the extension of instrumentality from the military conception of personnel and equipment to society and ultimately the world that frames 'a whole range of possible futures, from the perfect utopia to the disastrous dystopia' (JHCHS, 80) may be the disease rather than the cure. But what of the inexorable movement of increasing technological dependency? We are, after all, a species caught in an irreversible process and no amount of moral finger wagging will change that reality.

# **Advancing Digital Agency**

The world is experiencing something of a mistrust pandemic when it comes to people's engagement with the data ecosystem. This global "trust gap" or "trust deficit" is a barrier to economic growth, digital innovation and social cohesion.

—World Economic Forum, Advancing Digital Agency: The Power of Data Intermediaries INSIGHT REPORT

These generic discursive features are to the fore in *Advancing Digital Agency: The Power of Data Intermediaries INSIGHT REPORT* (February 2022) by the World Economic Forum (WEF). Once more the question of authorship stands guard at the opening of this text.<sup>24</sup> In place of a Disclaimer we now have a Preface that issues a disclaimer:

Disclaimer

This document is published by the World Economic Forum as a contribution to a project, insight area or interaction. The findings, interpretations and conclusions expressed herein are a result of a collaborative process facilitated and endorsed by the World Economic Forum but whose results do not necessarily represent the views of the World Economic Forum, nor the entirety of its Members, Partners or other stakeholders. (WEF 2022: 2)

Published by, but not necessarily representative of, the views of the World Economic Forum; nor, for that matter, of its Members, Partners or other stakeholders. Whatever differences and distinctions distinguish the organisation from the entirely of its Members, or the category of Partners from lower case stakeholders remain implicit. But none of their views are necessarily represented. Nor are the views of the World Economic Forum.

Whose views, then, might be represented? What then of the 'Lead Author' Anne Josephine Flanagan (Data Policy and Governance Lead, World Economic Forum) and the twenty-four 'Task Force on Data Intermediaries (Co-authors)' listed on page 41? A list that does not include Sheila Warren (Deputy Head, Centre for the Fourth Industrial Revolution Network) listed on page 42 under 'Acknowledgements,' although she is mentioned (and pictured) as co-author of the Preface along with Anne-Josephine Flanagan. Organisational titles suggest, if not Membership or Partnership, then employee status or at least affiliation.

However, it would be a mistake to attribute meaning and intention to even these authors. Under the subtitle "Towards Trusted Digital Agency" the Preface concludes with the following words:

Finally, although any views expressed do not represent the views of any individual taskforce member or their organizations, we invite you to join us on this journey of exploration as we unearth and build a picture of where consensus may or may not lie in unleashing the power of data intermediaries leading to trusted digital agency – and where and when these types of policies could potentially be deployed. (3)

We have noted such attenuation of authorship and blurring of responsibility, this hedging and limiting of liability, as a deflective heuristic and politico-legal strategy; a *technê* or technique designed to achieve a definite end. It is an invention (*ergon*) often found in legal documents and distinctive of corporate reports. And, of course, the World Economic Forum is a private company with no public mandate. This is made clear in the Disclaimer:

© 2022 World Economic Forum. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, including

photocopying and recording, or by any information storage and retrieval system. (2)

A strange and forbidding caveat with which to stamp the invitation 'to join us on this journey of exploration.' And somewhat in tension with the following profession of intention issued under the heading "Assumptions:" 'Indeed, it is intended that this paper be made available to contribute to future work by others in this space' (8).

No reproduction or transmission of this paper allowed. Perhaps the answer to this inconsistency lies in the meaning of 'others in this space,' which may not include everyone in the public space. 'This space,' presumably the space of public debate, has restrictions. Indeed, that 'this space' or forum (agora) is limited to those who share certain assumptions may be the operative, unstated assumption here. The forum in World Economic Forum is a private club, reserved for members (and certified guests) only.

At once an insight into the political-rhetorical structure at work, this framing is a mechanism designed to shape the reception and circulation of the text. That is, the problems identified and the solutions offered are packaged to avoid or pre-empt certain readings and possible challenges. Possibility is repackaged as probability. The mix of various elements indicative of this argumentative scheme (*topos*) and simulation can begin to be disaggregated. We shall see that the rhetorical goal of this exercise is the classic one of eliciting empathy.

The "Executive summary"<sup>25</sup> provides an overview of the insight report. A summary rather than an abstract, it is formally a representation of the report that follows, its main point and findings, in the language of its target audience. It is designed to save busy executives the time it would take to read the full document. In terms of such a protocol, how the problem is stated is of the greatest importance for if readers agree with the framing of the problem, they are likely to agree with the solution. Hence the following categorical exordium:

The challenge

Everyone is familiar with the paradigm of going online and clicking on terms and conditions they don't understand (or take time to read). No one knows (nor follows) what happens to their data. This status quo creates a reliance on companies to be responsible but can lead to mistrust in the data ecosystem as a whole. Further, mistrust between people and technology becomes amplified the more complex the data ecosystem becomes over time. (WEF 2022: 4)

The inclusive example of the ignorant or inattentive reader appeals to a common experience or opinion (doxa). A generalisation that covers particular

experiences has as its corollary an epistemological conclusion: ignorance leads to ignorance for 'no one knows (nor follows) what happens to their data.' Such is the existing state of affairs. At best they (we?) simply don't have the time, are too busy or occupied; too diligent to be diligent and too hard working to do this work. Just like the generic, corporate audience for whom the Executive Summary is designed.

This time misreading is counter-productive and creates 'reliance on companies,' a dependency on the responsibility of companies. The problem with this trust or confidence is that it 'can lead to mistrust.' Who is responsible for such mistrust? Presumably, one might reasonably conclude, the companies who have failed to live up to the trust placed in them. Yet there is no mention here of failure of duty or accountability, the flouting of an obligation, on the part of companies. Rather, pervasive 'mistrust between people and technology' is identified as the challenge:

Where once people had screens to navigate, new ambient data collection methods with their many benefits create nervousness and resignation when people don't have the full picture. In some cases, individuals may opt out of interacting with technologies that would be of huge benefit to their lives. But what if it were possible to outsource these decision points to a trusted agent acting on an individual's or even a group's behalf?

The challenge boils down to 'nervousness and resignation' on the part of individuals who decide not to use technologies 'that would be of huge benefit to their lives.' Not the misuse of data by irresponsible companies, but the subsequent mistrust and withdrawal from technologies is the problem. People must be saved from the choices they make 'when people don't have the full picture.' Lack of information is the cause of uninformed choices, according to those who presumably have the full picture.

The crucial issue is what can be done about it, that is, the need 'to outsource these decision points.' The challenge contains the solution: delegate decisions regarding data privacy to a (responsible) 'trusted agent.' If people have the full picture then they will not be nervous and resigned, at once apprehensive and passive, actively resigned. The act of disengaging from technology is the same as succumbing to fear and submissiveness, trapped in a self-affirming world view. Such an activity is—when the full picture is taken into account—nothing less than dangerous inactivity. And yet it presents an opportunity:

The opportunity

Now that screenless technology is a part of everyday life, there is an opportunity to rethink the human-technology interaction paradigm and reposition the debate to focus on roles and responsibilities beyond the person. How can the use of data intermediaries help people navigate technologies and data ecosystem models without losing sight of what it means to be human, in terms of agency and expectations? How can people think beyond that given that, as they move towards the complexity of screenless metaverse issues, their understanding of "humanness" is transforming? Data intermediaries—especially digital agents—represent a new policy lever through and around which individuals can potentially navigate the challenges of the growing data ecosystem.

Paradigm in 'the human-technology interaction paradigm' means something more than example, and is closer to idea, model, or plan. Perhaps a set of coordinates or decision points for orientation in thinking; a programme or machine for turning possibilities into probabilities.

Indeed, the appeal to paradigms seems to be paradigmatic of such generic rhetorical exercises. As is the appeal for trust:

This report seeks to shed light on an alternative method of mediated human–technology interaction whereby data appears to travel seamlessly from people to technology in a human-centric<sup>[26]</sup> and, crucially, trusted manner. By communicating shared incentives, establishing reputation or receiving third-party verification, as well as having assurance structures to mitigate risk to both the intermediary and the rights holders, data intermediaries can increase trust between people and the technology they interact with.

Predictably the WEF puts itself forward as a facilitator of third-party verification of data intermediaries, and an honest broker between public and private entities:

The solution

This report explores the opportunities and risks of data intermediaries and, specifically, third-party digital agents. From data trusts to trusted digital agency, the report paints a picture of a world that is more empathetic to people and to companies, providing greater certainty for data sharing as a foundation for innovation through the introduction of a trusted third party. Crucially, it suggests levers of action for both the public and private sector to ensure a future-proof digital policy environment that allows for the seamless and trusted movement of data between people and the technology that serves them. (underlining added)<sup>27</sup>

Why the world needs to be more empathetic to companies is not made explicit but is everywhere implied as the WEF positions itself between the private and the public sector. Recall that by 2001 fifty-three of the world's hundred largest economies were corporations and only forty-seven were nations (see Stites

2003). The impotence of nation states is a matter of economics rather than democratic consensus. As users of 'lever of action,' activity is on the side of WEF working for the common good, making a positive difference, rather than nervous and resigned individuals or groups who disadvantage themselves and the rest of us.

Dissent or scepticism is recoded as mental imbalance or neurosis; antisocial torpor, hopelessness, depression—a lack of rational capacity. Such lack of common sense threatens everyone's general prosperity and security:

Effective trustworthy data intermediaries, which opt in or out on behalf of people, might ease the subjective need for strict legislation in specific industries and for specific use cases and instead allow for a more harmonized and holistic approach with multiple applications. (32)

Lest, that is, under-performers pull the data eco-system towards underachievement, a sub-optimum outcome that is bad for everyone, etc. Our innovations become, in the eyes of reactionary conservatives, rash innovations. The conservative instincts of the people, and their indifference to the general good, constitute and almost insuperable barrier to rapid progress.

The pose of honest intermediary, despite the WEF being an NGO lobby group for corporations, is key to a text making the case for honest intermediaries. <sup>28</sup> Begging the question of why people don't trust big tech (i.e., they have not shown themselves to be trustworthy), the problem is located in the behaviour of people and governments.

What if there was a better way? What if you could outsource the decision-making fatigue to a trustworthy third party? What if you could pre-consent to your preferences so that you did not need to continuously opt-in? What if technology allowed you to outsource your decision-making even further—to a digitally automated agent, potentially using artificial intelligence (AI), which could actively make those decisions for you? All such scenarios require the enlisting of an intermediary. (7)

'Pre-permissioning using digital identity' (12) based on 'a decentralized exchange system such as blockchain' (30) 'then can be the key to unlocking a less ethically concerning but arguably equally impactful scenario as an AI-enabled digital agent' (24). Take, for example, 'so-called vaccine passports ... whereby the trusted data intermediary verifies that the data subject is vaccinated but does not share any other information.' 'This avoids unwanted secondary effects of the establishment sharing the data any further,' such as mistrust, etc. 'However, at a collective level, vaccine data is an incredible public health asset.'

Vaccine passports are, of course, legislated by governments. But the technology that made the digital ID possible was the result of innovation in the private sector, however heavily subsidised out of public funds: Standards:

The private sector has a crucial role to play in the adoption of standards: what industry as a whole uses ultimately becomes endorsed at a systemic level. A government, in turn, may endorse it later, either explicitly or implicitly; at the very least standards are passively tolerated. (36)

It is the private sector that innovates, despite constraints, and governments that endorse, 'either explicitly or implicitly.' Which appears to mean that governments follow the market and passively tolerate its standards. This passivity, or secondariness, is what people and governments share.

What could go wrong is that people may find 'that they have or perceive to have reduced spectrum of choices or agency. This is due to the echo chamber effect of group think' (37). Setting aside the (unintended?) echo of the *SPARS Pandemic* document's criticism of self-affirming world views, the way out offers opportunities:

On the flip slide, a lot could go right:

—A balance of control for *any* user to understand the decision they are making as to voluntarily providing their data or withholding it, thanks to their understanding of the policy of the application and the accountability of the host company OR the scaling of the user's permission sets according to skill set on understanding technology. (37)

A lot rides on the understanding of the user. Non-compliance or resistance is recast as a matter of perception (rather than knowledge or understanding); subjective rather than objective. As Aristotle puts it in book seven of *Nicomachean Ethics*, such people are guilty of incontinence (*akrasia*); lack of mastery of their emotions. The echo chamber of group think signals misinformation, a psychological phenomenon of conformity of interpretation and decision-making.<sup>29</sup> Self-deception is the first step on the road to ruin whereby certain subjective limitations and hindrances threaten to pull us all down.

Balance of control to understand suggests that the control may not be unconditional and may need to be balanced. Balanced by whom (or what)? The understanding of the decision you are making as to voluntarily providing your data or withholding it will be determined by your understanding of the policy of the application and the accountability of the host company or the scaling of the user's permission sets according to skill set on understanding technology.

Who, then, will assess such understanding? And what is it to 'scale', i.e., calibrate or reset, 'the user's permission sets according to skill set on understanding technology'?

If you don't understand the technology, then your permission sets—the range of your freedom to make decisions—will be measured in accordance with your understanding of technology. Your understanding will be measured by *our* understanding of your (and our) understanding of technology. Only our understanding is not open to question. If your decisions are not satisfactory, then clearly you do not understand, and therefore 'your permission sets' must be modified.<sup>30</sup> Your consent has been informed. Ethics (the possibilities of individual agency) effectively reduced to a taxonomy of behavioural reflexes or compulsions, and resistance reduced to nativist distrust.

Such behavioural insights could only originate in group think. A peculiar mixture of evasion and dogmatism that, setting aside issues of literary competence and bad editing, reveals an all too familiar agenda. Predictably, the qualification and effective negation of autonomy is followed by a ringing endorsement of democratic participation: 'In developing the rules of the game for trusted data intermediaries ... it is the voice and presence of the people that matter most' (38). But again, the participatory, deliberative ethos is qualified and attenuated in another ritual genuflection:

It is only by listening—to people to understand their experience and desires, to businesses to understand their innovations and constraints, to scholars who can isolate commonalities between models, and of course to governments who aim for evidence-based policy-making from a unique vantage point—that it is possible to start to understand the rich tapestry of the implications of data intermediaries, especially trusted digital agents, in different scenarios. (38)

The division of labour is clarified: evidence is produced by private businesses, scholars analyse models, and governments determine policy 'from a unique vantage point.' A vantage-point that is presumably neither that of private business nor academia. That the vantage-point is supposed, in a democracy, to be reflective of 'the people's voice' is left unstated.

This ellipsis fulfils a statement made earlier in the document regarding the relative roles of businesses and governments:

Driven by the recognition of the importance of the data economy, it is clear that many governments understand the significance of making data available for innovation; at the same time, policy ambitions to promote data sharing are coming to light. However, because that often involves the sharing of personal data, data protection and privacy issues continue to be important. But data

protection and privacy are highly evolved areas of policy-making, so it will be interesting to see how policy in the area of trusted data intermediaries evolves to take account of this tension. (17)

Governments are 'driven' by evolving circumstances to recognise the importance of making personal data available to the sector that innovates, the private sector. The government's role is to provide information for businesses to innovate with, and which will then come back to benefit government (and society). That is, if governments do not contribute to the constraint that impedes business innovation. Since that constraint can only originate in 'policy-making,' it is at the level of legal regulation that the virtuous circle of growth and innovation can be impeded. And *Advancing Digital Agency* is explicitly concerned with policy, and thus with politics, despite the note of impatience with governments. Policy as 'the policy of the application and the accountability of the host company' (37) is still policy.

Thus a document purportedly concerned with data privacy policy and regulation locates data privacy and regulation, in so far as it is determined by governments, as a problem: 'the subjective need for strict legislation' (32). A problem concerning the balance between individual rights and the data economy that the authors invite us to view with interest, as if it were a curiosity or its outcome a foregone conclusion.

From this perspective, the real tension is between 'data sharing' and 'data protection and privacy;' that is, governments sharing data with non-governmental organisations. The actions of some governments can 'stifle innovation' (16) by tending to the side of people and their subjective perception which may be based on a misunderstanding of technology and the regulative framework.<sup>31</sup> Democratic accountability may be a constraint.<sup>32</sup>

We are here once more in the presence of a deliberative (or political) argument concerned with exhortation and dissuasion about future events—aiming to impress on the audience what is advantageous and what is harmful. Scenarios deploy conventions instituted by performative acts in texts that are mechanisms of self-formation. Imagined worlds are not, it seems, merely imaginary.<sup>33</sup> The figural dimensions of such texts are brutally real. What is being policed is nothing less than an exclusive interpretive community with real-life exclusions. Reason is at stake, for the rational scholar is all of us where the public use of reason is concerned for all enjoy the unrestricted freedom to make one's own reason and speak in one's own person (see Kant 1784).

Your choice, assuming you do not identify with those who make socially undesirable choices, is no choice. History, progress, technology, survival etc., have already made the decision for you. Texts as pedagogical devices concerned with the art of invention and technology of the self have brought us a long way from celebrating creativity and imagination to demonising dissent and dictating coordination. The set of diverse stories in circulation must be vetted and controlled. But isn't that just what the situation demands?

## Conclusion

Finally, the use of a data intermediary, to overcome the limitations of notice and consent, does not do away with the core components of notice and consent but merely displaces them.

—World Economic Forum, *The Power of Data Intermediaries INSIGHT REPORT* 

With individual rights curtailed, and the presence of 'trusted intermediaries,' such as fact checkers, to whom decisions regarding truthfulness and freedom of expression have been outsourced, plus a delinquent corporate media falling in line, one might think that the tensions referred to above has been resolved.

We are far removed from empathy and impartiality of judgement, at some remove from military and medical strategies, and appear to have wandered into the territory of demagoguery. Generalising the doctrine of the centrality of the survival instinct in human development, one can wonder if it extends to organisations and their personnel, and their thoughtful hypotheses. What is abandoned is any caution regarding the grading of human beings in terms of character traits and the profiling of types capable of dragging us all back to primitive times. Prognostications of the future are a technic for shaping the present in which similitude and emotion shape behaviour and judgement.

Scenarios working under the principle of the law of concession combine imagination and understanding with the aim of shaping judgement. Shaping the future also involves reinterpreting the past in a way that erases revolutionary struggles against oppression. Practical usefulness and historical necessity are anchored by the transcendent force of progress and development. Predictions are designed to produce and experience that may guide concepts and behaviour and the injunction *sink or swim!* is eminently political, hence it

must be quarantined from any direct contact with government policy. Such political distancing—again, the most political manoeuvre of deniability—is part of the DNA of social engineering. An aesthetic operation that is integral to *realpolitik* secures the claim to be beyond ideology and performs that most ideological act of domination and scapegoating.

The conception of technology aimed at controlling internal as well as external enemies, combined with the obsession with surveillance and biometric and financial centralisation, recalls the colonial matrix. Emergency measures signal a system that emerged from the combination of 'the colonies, the national debt, the modern tax system, and the system of protection. These methods depend in part on brute force, for instance in the colonial system. But they all employ the power of the state, the concentrated and organized force of society, to hasten, as in a hothouse, the process of transformation' (Marx 1867: 915). Officials with their knowledge about knowledge about your culture, history, traditions, society, and possibilities make the necessary decisions. The tendency of bio-technological scenarios to interpret humans as essentially biological code can slide from bios to animality: humans are hackable animals. The brute animality that habituates the mind to slavery, causing a certain class of humans to be viewed in a despicable light and as greatly inferior to the human species, is a constant threat. In this inhospitable world, Equiano's natural, familial connections violated by slavery are superseded by that most natural connection, the survival instinct.<sup>34</sup> Are you future-ready?

Texts that invite misreading and/or vociferous rejection pre-emptively position potential critics as those who don't understand or those who react subjectively and emotionally. Both are at once personal failings and an objective danger to other people and to the well-being of the polity. The truth of our subjectivity is revealed, and the aesthetic power of judgement that constitutes enlightenment proper foreclosed.

The genetic conception of humans, concerned with origin and descent (genos), is dominated by the teleological principle of perfectibility and its corollary the survival instinct, an irreducibly formative drive or force observable in living things. Beyond mechanical explanation, genetic engineering accounts for the connection between cause and effect, illuminating what has happened, what is happening, and what will (and ought) to happen. Scenarios, fantasias of possibility, reveal the normative mode of the latter,

which like all normative arguments originates in psychological processes. It is this latter subjective element that is defensively projected onto others under the pretext of self-preservation, a concept whose affective narcissistic birthplace is certain.

When hope takes the form of tomorrow's authoritarianism today, the protocols of a communicative strategy designed to curtail communication begin to replicate. Debate and consultation and consent are precisely what are to be constrained and managed along the lines of an open conspiracy directed against agents of degeneration. Past and future converge in the modern interconnected world distinguished by the genetic concept of totalisation. How long before a definitive environmental factor and/or genetic predisposition will be found to account for such recidivism that must submit to development as the law of concession/expendability applied to this dying out race?

With biotechnology in the form of genetic engineering the 'telos of technology' (Kenny 2021: 134) becomes natural purposiveness, legislated with all the authority that inevitability and universality demand. The final end as the realisation of freedom involves unfreedom, sacrifice and subjection as dictated by the condition of freedom and survival of the human race as final cause. Genetics as the transmission of inherited characteristics includes metaphysical concepts that 'make reason fantasize and wonder among chimeras' (Kant 1790: §78, 296). Under the heading of the determination or destiny of humanity, the seeds of the concept of race are preserved. What are such people good for?

#### Notes

<sup>&</sup>lt;sup>1</sup> 'Major-General Darrell Amison, Director of the United Kingdom's Development, Concepts and Doctrine Centre, provided an overview of the main drivers of insecurity ... He also pointed to climate change and sustainability as cross-cutting, amplifying threats that interact with one another. "We need to think of societal resilience in a much broader sense than simply defence resilience," said Amison.' (SIPRI 2021)

<sup>&</sup>lt;sup>2</sup> This conception of participation is important enough to trigger repetition: 'If used in the initial stages of policy formulation or when developing long-term corporate strategies, scenario analysis can have a significant impact on decision-making. The method provides a set of plausible and possible futures for which decision-makers should consider [sic.]. It is also useful as a tool for confronting decision-makers and stakeholders with alternative futures which they should make plans for. Engaging stakeholders and decision-makers in the

scenario analysis process can generate commitment for the projects, save time and produce more useable results' (DCDC, 74)

- <sup>3</sup> See Aristotle on '[what] share insolence and avarice have in creating revolutions:' 'When magistrates are insolent and grasping they conspire against one another and also against the constitution from which they derive their power. Making their gains either at the expense of individuals or of the public' (*Politics*, 1302b5-10, 2068).
- 4 'Such is what all governmental policies on modern science and culture attempt when they try-and how could they do otherwise?-to program invention. The aleatory margin that they seek to integrate remains homogeneous with calculation, within the order of the calculable; it devolves from a probabilistic quantification and still resides, we might say, in the same order and in the order of the same. An order where there is no absolute surprise, the order of what I will call the invention of the same.' (Derrida 1987: 39) See Cassidy (2020). <sup>5</sup> The reference to the phrase 'expanding moral circle' is given in a footnote as: 'Singer, P., (2011) The Expanding Circle: Ethics, Evolution, and Moral Progress' (DCDC, 45, note 26). The original title of Singer's book was The Expanding Circle: Ethics and Sociobiology (1981). Singer: 'So it may seem that if we want to discuss human ethics we must shift our attention from biological theories of human nature to particular cultures and the factors that have led them to develop their own particular ethical codes. Yet while the diversity of ethics is indisputable, there are common elements underlying this diversity. Moreover, some of these common elements are so closely parallel to the forms of altruism observable in other social animals that they render implausible attempts to deny that human ethics has its origin in evolved patterns of behavior among social animals' (2011: 29).
- <sup>6</sup> 'Ethics will be a critical aspect when considering whether to adopt human augmentation, but national interest will also inform, and may even fundamentally shape, the moral calculation. There is likely to be a fine balance between upholding the ethics that underpin our way of life and avoiding ceding an unassailable national advantage to our adversaries.' (DCDC, 48)
- <sup>7</sup> According to psychologists, educationalists and an economist: 'the finding that people with higher levels in Emotionality/Neuroticism reported more worries and risks fits meta-analytic results linking Emotionality to various domains of insecurity or Neuroticism to anxiety ... With regard to age, there were different patterns across criteria. In line with the fact that older people are actually more likely to suffer from COVID-19 health-wise, older people reported more risks concerning their own health, close others, and society. With regard to their work/study life, however, younger people reported a higher tendency of perceiving COVID-19 as a risk, arguably due to their greater susceptibility to a potential economic recession due to the pandemic' (Zettler et al 2020: 307).
- <sup>8</sup> According to Aristotle's *Rhetoric*, probability is not evidence and is often based on similarity, moving from what is familiar to what is less familiar. His example is that of a leader asking for a bodyguard, which indicates a general principle: 'that a man who asks for a bodyguard is scheming to make himself a despot' (1357b36-1358a1, 2158).
- <sup>9</sup> Aristotle explains that probabilities, likelihoods, are plausible because they resemble truths (realities); there is a perceived similarity, likeness, between what is plausible and what is true. But what is plausible and what is true are not necessarily the same thing (see *Rhetoric to Alexander*, 1428a27, 2283).

<sup>10</sup> Such modality of judgement is what Kant in the *Critique of Practical Reason* calls assertoric. expressing only logical possibility that can be false and yet, if taken problematically, can lead to truth '(like the designation of a false path among the number of all those one can take)' (1788: B101, 209).

<sup>11</sup> According to Robert Ulin (2001: 44-45), functional anthropology, informed by instrumental rationality, produced knowledge that was technically utilisable. It worked together with the goal of indirect rule as the application of Durkheimian sociology to the requirements of colonial administration.

<sup>12</sup> In his account of the work of Edward Jenner, Stefan Riedel (2005) notes that although 2% to 3% of variolated persons died from the disease, became the source of another epidemic, or suffered from diseases (e.g., tuberculosis and syphilis) transmitted by the procedure itself, the fatality rate for the naturally contracted disease was 14%. Jenner was specifically interested in natural immunity. In 1771 Jenner curated the objects from Cook's first voyage, and declined an invitation to go with Cook on his second voyage.

<sup>13</sup> Martin Davies (1995, 138-139) points out that Kant paid no attention to Herz's writings. Peter Fenves speculates that 'Kant's surprising contempt for his former student and apparent friend ... has something to do with his ambivalence toward the Jews-Palestinians, which seemed to have intensified with age' (2003: 185). Fenves claims that Kant changed his name from Emanuel to Immanuel to distance himself from the Jews of his day. This possibility makes all the more poignant Herz's gratitude to Kant expressed in a letter of 1770: 'It is you alone that I must thank for my change of fortune, and to you alone am I indebted for what I am; without you I would still be like so many of my kinsmen, pursuing a life chained to the wagon of prejudices, a life no better than that of any animal' (in Kant 1990: 109-110).

<sup>14</sup> As Kant put it in *Critique of Practical Reason*, such pedagogical devices seek to 'make objectively practical reason *subjectively* practical as well' (1788: 261). Examples are condensed into images that give rise to maxims and 'this machinery, these leading strings' (262) can enlighten or manipulate, sometimes both.

<sup>15</sup> 'But it is not proposed that the professors, or rather investigators, should refashion the world—only that they should provide the men of action with a scheme, a forecast, a chart of the waters of the future, which should save them from battling with irresistible currents, running on shoals, or drifting hopelessly into whirlpools of blood ... The object is precisely to correct the blindness of the Real-Politicians' (Archer 1912: 116).

<sup>16</sup> 'Hobbes himself had experienced this truth in the terrible times of civil war, because then all legitimate and normative illusions with which men like to deceive themselves regarding political realities in periods of untroubled security vanish.' (Schmitt 1927: 52)

<sup>17</sup> Locke's Second Treatise of Government addresses the 'power to act according to discretion, for the public good, without the prescription of the law and sometimes even against it': 'nay, 'tis fit that the laws themselves should in some cases give way to the executive power, or rather to this fundamental law of nature and government, *viz*. that as much as may be, all the members of the society are to be preserved' (1689: 198, 197). 'The secret of the law is that necessity knows no law, whereas all law must know necessity.' (Bennington 2017: 142)

<sup>18</sup> The world of Eloi and Morlocks is revealed first as devolutionary and then as one of predator and prey, of *homo homini lupus*. This must have a political, not merely a biological

significance. No society, Wells is saying, can escape the brutish aspects of human nature defined by classical bourgeois rationalists such as Machiavelli and Hobbes.' (Parrinder 1976: 272)

- <sup>19</sup> 'The state, in other words, continues to dominate and organise society. But the source of its authority ceases to be distinct from those who exercise that authority. It is no longer conditioned by the existence of a prior source of authority relayed by mediating institutions like the church, the commune, the corporation, and the family, but instead emerges spontaneously out of the acts and leadership of those who lead the state.' (Drolet 2013: 42; see also Brown 2010: 25)
- <sup>20</sup> 'Successfully exploiting human augmentation will require Defence, and society, to face up to uncomfortable ethical and legal dilemmas. So far, Defence organisations in liberal democracies have adopted a "wait and see" approach, choosing to let ethical debate and technical developments play out. This passive stance will cede momentum to our adversaries and cause Defence to miss opportunities to improve the well-being and effectiveness of our Armed Forces.' (DCDC) 'Thanks to the factor of self-preservation, which has blown itself up into totality, the following happens: what man is anyway once more becomes his goal.' (Adorno 1973: 37)
- <sup>21</sup> 'Since a state of nature among nations, like a state of nature among individual men, is a condition that one ought to leave in order to enter a lawful condition, before this happens any rights of nations, and anything external that is mine or yours that states can acquire or retain by war, are merely provisional. Only in a universal association of states (analogous to that by which a people becomes a state) can rights come to hold conclusively and a true condition of peace come about.' (Kant 1797: 487, §61)
- <sup>22</sup> 'National security properly refers to the relationship of the state to its environment, and becomes profoundly confused to the extent that the state is insecure within itself. In other words, the concept of national security can only be applied sensibly to the external side of the state's Hobbesian security functions. Unless the internal dimension is relatively stable as a prior condition, the image of the state as a referent object for security fades into a meaningless blur.' (Buzan 1983: 69)
- <sup>23</sup> Recall Kant's criticism in "Toward Perpetual Peace" of the political moralists who insistently point to the predictable mechanical behavior of people as evidence that moral goals are mere habit or custom: 'such a pernicious theory itself produces the trouble it predicts, throwing human beings into one class with other living machines, which need only be aware that they are not free in order to become, in their own judgement, the most miserable of all beings in the world' (1795: 345).
- <sup>24</sup> This report has two, possibly three, titles. The Internet address reads "Advancing towards Digital Agency," the title page reads *Advancing Digital Agency: The Power of Data Intermediaries INSIGHT REPORT*, and the footer on page two reads *Advancing towards Digital Agency: The Role of Trusted Data Intermediaries*.
- <sup>25</sup> According to Lauren Brodsky (nd.) of the Harvard Kennedy School of Government Communications Program: 'An executive summary is a concise document, demonstrating the problem, findings and recommendation of a longer policy report ... [in which] the writing is concise and clear.'

<sup>26</sup> 'Autonomy and agency are core tenets of human-centricity and fit in with the aims of restoring trust to human-technology interaction.' (WEF, 18)

<sup>27</sup> 'A data trust is a repeatable framework of agreements based on trust or contract law, allowing data rights holders to delegate control of their data to a trustee.' (WEF, 14)

<sup>28</sup> Liability: Under certain limited circumstances it may be appropriate to establish a special regime for reduced liability for those entities that voluntarily accept the fiduciary duties of care, loyalty and confidentiality vis-à-vis their customers or patrons, and adhere to strict human-centric criteria.' (WEF, 35)

<sup>29</sup> 'Humans, often suffering from self-control problems, are simply following other Humans. Inertia, procrastination, and imitation often drive our behavior.' (Thaler and Sunstein 2008: 239 note) See Aristotle, chapter four of *The Poetics*, on the human instinct for imitation.

<sup>30</sup> 'For instance, empathic behaviors (e.g., social trust and social responsibility) were associated with greater adherence to measures such as isolation, hygiene, and less hoarding, while individualism was associated with less social distancing and hoarding. Studies also suggested that people with higher levels on dark triad traits (machiavellianism, narcissism, and psychopathy) and lower levels of agreeableness were less likely to accept restrictions and comply with isolation measures. These traits are frequently referred to as antisocial traits, as they are typically present in people diagnosed with Antisocial Personality Disorder.' (Miguel et al 2021: 1) This essay is published by PubMed which was developed and is maintained by the National Center for Biotechnology Information, at the U.S. National Library of Medicine, located at the National Institutes of Health (NIH).

<sup>31</sup> 'We found that the way people perceived the situation explained more variance in compliance than personality traits which is in accordance with the hypothesis that strong situations, such as the COVID-19 pandemic, leave less room for dispositional tendencies in predicting behaviors than situational cues. Moreover, people scoring low on agreeableness and high on aspects of the Dark Triad traits (i.e., Machiavellianism, psychopathy Factor 1, and narcissistic rivalry) were less likely to comply with the restrictions.' (Zajenkowskia et al 2020)

Those who dissent are diagnosed as manifesting antisocial 'Dark Triad Traits (narcissism, Machiavellianism, psychopathy)' (Nowak et al 2020). However, 'communal narcissists helped in more ways because they were motivated by concern for others' (Freis et al 2022). And other psychologists 'found that individuals reporting high levels of antisociality engage in fewer social distancing measures: they report leaving their homes more frequently (p=.016) and standing closer to others while outside' (O'Connell et al 2020). The present and previous note consist of journal articles published by Elsevier. The parent company of Elsevier is the RELX Group: 'a global provider of information-based analytics and decision tools for professional and business customers, enabling them to make better decisions, get better results and be more productive' (RELX 2022). RELX is involved in digital agency authentication and 'has helped US agencies, especially during the continuing pandemic, shift from identity verification to authentication. Front-end identity authentication is central to how the government dispenses hundreds of billions of dollars in entitlements, stimulus, benefits and contracts to people and businesses' (15).

<sup>33</sup> 'The [2021 Tabletop Exercise] scenario portrayed a deadly, global pandemic involving an unusual strain of monkeypox virus that emerged in the fictional nation of Brinia and spread

globally over 18 months. Ultimately, the exercise scenario revealed that the initial outbreak was caused by a terrorist attack using a pathogen engineered in a laboratory with inadequate biosafety and biosecurity provisions and weak oversight. By the end of the exercise, the fictional pandemic resulted in more than three billion cases and 270 million fatalities worldwide.' (Yassif et al 2021:6) See Happi et al (2022).

<sup>34</sup> "Sometimes it seems as if modem humanity is rushing headlong toward this goal of producing itself technologically. If humanity achieves this, it will have exploded itself, i.e., its essence qua subjectivity, into thin air, into a region where the absolutely meaningless is valued as the one and only "meaning" and where preserving this value appears as the human "domination" of the globe. "Subjectivity" is not overcome in this way but merely "tranquilized" in the "eternal progress" of a Chinese-like "constancy" [Konstanz]' (Heidegger 1939: 197). Derrida (2021: 33) speculates that Heidegger's interpretation of modern technology was influenced by his awareness of research and findings in genetics and zoology.

#### References

- Archer, William 1912. The Great Analysis: A Plea for a Rational World Order. New York: Charles Scribner's Sons. The Great Analysis: A Plea for a Rational World-order: William Archer Gilbert Murray: Free Download, Borrow, and Streaming: Internet Archive
- Aristotle. *Poetics*. In: *The Complete Works of Aristotle*. Bollingen Series LXXI. Volume 2. Edited by Jonathan Barnes. New Haven, CT: Princeton University Press, 1995, 2316-2340.
- ---- Politics. In: The Complete Works of Aristotle. Bollingen Series LXXI. Volume 2. Edited by Jonathan Barnes, 1986–2129.
- ---- Rhetoric. In: The Complete Works of Aristotle. Bollingen Series LXXI. Volume 2. Edited by Jonathan Barnes, 2152-2269.
- ---- Rhetoric to Alexander. In: The Complete Works of Aristotle. Bollingen Series LXXI. Volume 2. Edited by Jonathan Barnes, 2270-2315.
- Bennington, Geoffrey 2017. *Kant on the Frontier: Philosophy, Politics, and the Ends of the Earth.* New York: Fordham University Press.
- Buzan, Barry 1983. People, States and Fear: An Agenda for International Security Studies in a Post-Cold War Era. Brighton: Wheatsheaf Books.
- Brodsky, Laura N. nd. "How to Write an Executive Summary." Harvard Kennedy School of Government, how to write an exex summ to use 4 18 18.pdf (harvard.edu)
- Brown, Wendy 2010. Walled States, Waning Sovereignty. New York: Zone Books.
- Cassidy, Kerry Lynn 2020. Rebel Gene: Secret Space and the Future of Humanity. www.projectcamelot.tv
- Caygill, Howard 2013. On Resistance: A Philosophy of Defiance. London: Bloomsbury.
- Davies, Martin L. 1995. *Identity or History: Marcus Herz and the End of the Enlightenment*. Detroit: Wayne State University Press.
- De Man, Paul 1979. Allegories of Reading: Figural Language in Rousseau, Nietzsche, Rilke, and Proust. London: Yale University Press, 1979.

- Derrida, Jacques 1987 [2007]. *Psyche. Inventions of the Other. Volume 1.* Edited by Peggy Kamuf and Elizabeth Rottenberg. Translated by Catherine Porter. California: Stanford University Press.
- ---- 2021. "A Conversation with Jacques Derrida about Heidegger." Oxford Literary Review 43, no. 1 (July 2021): 1-61.
- DCDC (Development, Concepts and Doctrine Centre) 2021. Human Augmentation—The Dawn of a New Paradigm. A strategic implications project. Gov.UK. May 31. <a href="https://www.gov.uk/government/publications/human-augmentation-the-dawn-of-a-new-paradigm">https://www.gov.uk/government/publications/human-augmentation-the-dawn-of-a-new-paradigm</a>
- Drolet, Jean-François 2013. "Nietzsche, Kant, the democratic state, and war." Review of International Studies 39, no.1 (January): 25-47.
- Fenves, Peter 2003. Late Kant: Towards Another Law of the Earth. London: Routledge.
- Freis, Stephanie D., and Amy B. Brunell 2022. "Narcissistic motivations to help during the COVID-19 quarantine." *Personality and Individual Differences* 194. *ScienceDirect.com*Narcissistic motivations to help during the COVID-19 quarantine ScienceDirect
- Happi, Christian et al 2022. "Urgent need for a non-discriminatory and non-stigmatizing nomenclature for monkeypox virus." June 10. <a href="https://virological.org/t/urgent-need-for-a-non-discriminatory-and-non-stigmatizing-nomenclature-for-monkeypox-virus/853">https://virological.org/t/urgent-need-for-a-non-discriminatory-and-non-stigmatizing-nomenclature-for-monkeypox-virus/853</a>
- Heidegger, Martin 1939 [1998]. "On the Essence and Concept of φύσις in Aristotle Physics B, 1." In: *Pathmarks*. Edited by William McNeill and translated by Thomas Sheehan, Cambridge: Cambridge University Press, 183-230.
- Hobbes, Thomas 1996. [1651] *Leviathan*. Edited by J.C.A. Gaskin. Oxford: Oxford University Press.
- JHCHS (The Johns Hopkins Centre for Health Security) 2017. *The Spars Pandemic 2025-2028*. A Futuristic Scenario for Public Health Risk Communicators. Baltimore, MD: Johns Hopkins Center for Health Security. https://www.centerforhealthsecurity.org/our-work/Center-projects/completed
  - https://www.centerforhealthsecurity.org/our-work/Center-projects/completed-projects/spars-pandemic-scenario.html
- Kant, Immanuel 1781/87 [1998]. Critique of Pure Reason. Translated and edited by Paul Guyer and Allen W. Wood. Cambridge: Cambridge University Press,
- ---- 1784. [1996]. "An Answer to the Question: What Is Enlightenment?" In: *Practical Philosophy*. Edited and translated by Mary J. Gregor. Cambridge: Cambridge University Press, 11–22.
- ---- 1788 [1996]. "Critique of Practical Reason." In: *Practical Philosophy*. Edited and translated by Mary J. Gregor. Cambridge: Cambridge University Press, 1996, 133-271.
- ---- 1790 [1987]. Critique of Judgement. Translated by Werner Pluhar. Indianapolis: Hackett.
- ---- 1795 [1996]. "Toward Perpetual Peace. A Philosophical Sketch." In: *Practical Philosophy*. Edited and translated by Mary J. Gregor. Cambridge: Cambridge University Press, 1996, 310-351.
- ---- 1797 [1996]. "The Metaphysics of Morals." In: *Practical Philosophy*. Edited and translated by Mary J. Gregor. Cambridge: Cambridge University Press, 353-603.
- ---- 1922. Kant's Briefwechsel. Band IV, Anmerkungen und Register. Collected Works. Volume 13.

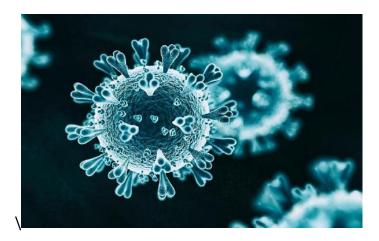
  Kant's Briefwechsel. Band IV, Anmerkungen und Register: Kant, Immanuel, 1724-1804
  : Free Download, Borrow, and Streaming: Internet Archive

- ---- 1990. "Marcus Herz. Letter to Immanuel Kant, September 11, 1770." In: Immanuel Kant, *Correspondence*. Edited and translated by Arnulf Zweig. Cambridge: Cambridge University Press.
- Kenny, Bridget 2021. "The New 'Arcadia'? Racial Capitalism, Technological Histories, and the 'Utopian' Future of Labour." In: *The Fourth Industrial Revolution: A Sociological Critique*. Edited by Trevor Ngwane and Malehoko Tshoaedi. Auckland Park: Jacana Media, 133-146.
- Locke, John 1689 [1993]. Two Treatises of Government. Edited by Mark Goldie. London: J.M. Dent.
- Maehle, Andreas-Holger 1995. "Conflicting Attitudes towards Inoculation in Enlightenment Germany." In: *Medicine in the Enlightenment*. Edited by Roy Porter. Amsterdam: Rodopi, 198-222.
- Marx, Karl 1867 [1976]. *Capital. A Critique of Political Economy Volume 1*. Translated by Ben Fowkes. London: Penguin Books and New Left Review.
- Miguel, Fabiano Koich, Gisele Magarotto Machado, Giselle Pianowski and Lucas de Francisco Carvalho 2021. "Compliance with containment measures to the COVID-19 pandemic over time: Do antisocial traits matter?" *Personality and Individual Differences* 168 (January 1). *PsyArXiv Preprints*. PsyArXiv Preprints | The role of personality in COVID-19 related perceptions, evaluations, and behaviors: Findings across five samples, nine traits, and 17 criteria
- Nowak, Bartlomiej, Pawel Brzóska, Jarosław Piotrowski, Constantine Sedikides, Magdalena Żemojtel-Piotrowska, Peter K. Jonason 2020. "Adaptive and maladaptive behavior during the COVID-19 pandemic: The roles of Dark Triad traits, collective narcissism, and health beliefs." National Library of Medicine. PubMed. Elsevier, July 15.
  - Adaptive and maladaptive behavior during the COVID-19 pandemic: The roles of Dark Triad traits, collective narcissism, and health beliefs PubMed (nih.gov)
- O'Connell, K., K. Berluti, S.A. Rhoads and A. Marsh 2020. "Reduced social distancing during the COVID-19 pandemic is associated with antisocial behaviors in an online United States sample." *PsyArXiv Preprints*.
  - PsyArXiv Preprints | Reduced social distancing during the COVID-19 pandemic is associated with antisocial behaviors in an online United States sample
- Parrinder, P. 1976. "News from Nowhere, The Time Machine, and the Break-Up of Classical Realism." Science-Fiction Studies 3: 65–274.
- Riedel, Stefan 2005. "Edward Jenner and the history of smallpox and vaccination." https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1200696/
- RELX 2022. Annual Reports and Financial Statements, 2021. relx-2021-annual-report.pdf
- Rockefeller Foundation 2010. "Scenarios for the Future of Technology and International Development Area."
  - Scenarios For The Future Of Technology and International Development (2010) AND The Spars Pandemic 2025-2028 A Futuristic Scenario for Public Health Risk Communications (2017): Rockefeller; GBN; Johns Hopkins School; Emily K. Brunson; Tara Kirk Sell; Gigi Kwik Gronvall; Matthew P. Shearer; Sanjana Ravi; Hannah Chandler PDF: Free Download, Borrow, and Streaming: Internet Archive
- Schmitt, Carl 1927 [2007]. The Concept of the Political. Translated by George Schwab. Chicago:

University of Chicago Press.

- Singer, Peter 2011. The Expanding Circle: Ethics, Evolution, and Moral Progress. Princeton: Princeton University Press.
- SIPRI (Stockholm International Peace Research Institute) 2021. "2021 Stockholm Security Conference opens, a human-centric approach to addressing complex battlefields." Stockholm International Peace Research Institute (SIPRI). November 8. https://sipri.org/
- Stites, Tom 2003. "How Corporations Became Persons." *UUWorld*. May/June. https://www.uuworld.org/articles/how-corporations-became-persons
- Thaler, Richard H., and Cass R. Sunstein 2008. Nudge: Improving Decisions About Health, Wealth, and Happiness. New Haven: Yale University Press.
- Ulin, Robert 2001. Understanding Cultures: Perspectives in Anthropology and Sociology. London: Wiley Blackwell. Second edition.
- WEF (World Economic Forum) 2022. Advancing Digital Agency: The Power of Data Intermediaries INSIGHT REPORT. February. WEF Advancing towards Digital Agency 2022.pdf
- Wells, H.G. 1921 [1910]. *The Sleeper Awakes*. In: *The Sleeper Awakes and Men Like Gods*. London: Odhams Press Limited.
- Yassif, Jaime M., Kevin P. O'Prey and Christopher R. Isaac 2021. Strengthening Global Systems to Prevent and Respond to High-Consequence Biological Threats. Results from the 2021 Tabletop Exercise Conducted in Partnership with the Munich Security Conference. Nuclear Threat Initiative. <a href="https://www.nti.org/wp-content/uploads/2021/11/NTI">https://www.nti.org/wp-content/uploads/2021/11/NTI</a> Paper BIO-TTX Final.pdf
- Zajenkowskia, Marcin, Peter K. Jonason, Maria Leniarska and Zuzanna Kozakiewicza 2020. "Who complies with the restrictions to reduce the spread of COVID-19?: Personality and perceptions of the COVID-19 situation." *Personality and Individual Differences* 166 (June). *PubMed. Elsevier*. Who complies with the restrictions to reduce the spread of COVID-19?: Personality and perceptions of the COVID-19 situation PubMed (nih.gov)
- Zettler, I., C. Schild, L. Lilleholt and R. Böhm 2020. "Individual differences in accepting personal restrictions to fight the COVID-19 pandemic: Results from a Danish adult sample." *Social Psychological and Personality Science* 13, no. 1: 299-310. *PsyArXiv Preprints*. PsyArXiv Preprints | The role of personality in COVID-19 related perceptions, evaluations, and behaviors: Findings across five samples, nine traits, and 17 criteria

# Suppressio Veri



It is not unusual for vaccination to be the vector of bitter controversy. When there is unclear information and general distrust and secrecy, confusion reigns (see Camero 2021).

In this scenario the unvaccinated are blamed for outbreaks and vaccine hesitancy characterised as selfish and irrational. Amid accusations of statistical fallacies and exaggeration of deaths, one doesn't have to look far for reasons to dissent. Firstly, one is forced to rely on unverified official statistics:

As an example of the number of cases occurring all over the country, Mr. Charles Fox, a medical man residing at Cardiff, has published fifty-six cases of illness following vaccination, of which seventeen resulted in death ... Among those who survived, several were permanently injured in health, and some were crippled for life ... And if one medical man can record such a mass of injury and disease in which vaccination was the palpable starting-point and certainly a contributory cause, what must be the total mass of unrecorded suffering throughout the whole country? Considering this and other evidence, together with the admitted and very natural concealment by the doctors concerned, "to save vaccination from reproach" ... is sufficient to demonstrate ... that ... both doctors and Government officials, however highly placed, however, however eminent, are utterly untrustworthy ... Let this always be remembered in any discussion of the question. The facts and figures of the medical profession, and of Government officials, in regard to the question of vaccination, must never be accepted without verification. And when we consider that these misstatements, and concealments,

and denials of injury ... we are driven to the conclusion those responsible for these reckless misstatements and their terrible results, thoughtlessly and ignorantly, but none the less certainly, have been guilty of a crime against liberty, against health, and against humanity. (19-21)

# Secondly, critical engagement is demonised:

Why this effort at secrecy in such a matter if there is nothing to hide? Surely it is to the public interest that official statistics should be made as correct as possible; and private persons who go to much trouble and expense in order to correct errors should be welcomed as public benefactors and assisted in every way, not treated as impertinent intruders on official privacy, as is too frequently the case. (27)

Thirdly, rational debate is disfigured by callous moralising:

So late as 1892 (Jan. 16) the *Lancet* declared in a leading article: "No one need die of small-pox; indeed, no one need have it unless he likes—that is to say, he can be absolutely protected by vaccination once repeated." (90, note 1)

These quotations are from Alfred Russel Wallace's Vaccination a Delusion; its penal enforcement a crime proved by the official evidence of the reports of the Royal Commission, published in London in 1898. Wallace, who was credited by Darwin with formulating the theory of evolution, and notorious for suggesting Darwin use Herbert Spencer's term 'survival of the fittest,' was writing about the nineteenth-century legislation of the compulsory smallpox vaccination.<sup>1</sup>

With variolation prohibited in England in 1840, by 1871 compulsion was backed up by monitoring and sanctions for refusing the vaccine. After a couple of decades of vaccination outbreaks, with milder symptoms, began to occur among the vaccinated: 'Hence a new disease arises—"small-pox of the vaccinated" ("varioloid," "hornpox," &c.)' (Edwardes 1902: 51). The era of revaccination began and lead to the recommendation that a second vaccination be given at the age of twelve.<sup>2</sup>

Wallace focused his criticism on the misleading and partial statistics issued by the Government, arguing that there was a lack of oversight and an inbuilt tendency to bias on the part of government officials and doctors that rendered statistics suspect even before they could be used as the basis of interpretation. Wallace lamented that 'such *suppressio veri* is no new thing' (1898: 18) when mistakes are being covered up in the hope that they will be ultimately buried by claims to have succeeded. The cost of that success will (hopefully) be forgotten, as people will want to move forward and not revisit what cannot be changed.

In response Wallace carefully sifted official documents and revealed inconsistencies and contradictions. Often the sample groups were too small, lacked a control group, monitoring and testing practices inadequate, or figures represented as misleading averages. He stressed the importance of environmental factors in causing epidemics. Lack of information, as well as inadequately tested vaccines, fuelled delusions and stifled debate.<sup>3</sup> The burden of proof rests with those subjecting healthy people to a medical procedure. Professions of good intentions and expert knowledge are not enough.

Looking back on the history of smallpox, medical historian Stanley Williamson concludes:

The phenomenon continued to remain inexplicable until the complexities of the body's immune system began to be unravelled early in the twentieth century, but in the absence of any understanding or even a plausible explanation of the physiological process on which the whole moral justification for compulsory vaccination depended, the medical profession, with the wholehearted backing of the legislature, pressed on cheerfully and relentlessly, with results summarized years later [in 1962] by a former Director of the Public Health Authority [Sir Graham S. Wilson]: 'Smallpox vaccine has probably been followed by more complications and been responsible for more deaths than any other vaccine. The practice of vaccination was carried on for about a hundred years before the nature and causation of its attendant risks began to be appreciated.' (2007: 195-196)

Smallpox has been eradicated by vaccines with serious side effects in only 1% to 2% of recipients. Although modern smallpox vaccinations are not without risk—a one in a million fatality)—they have been replaced with safer non-replicating virus vaccines. These are a far cry from the hurried, experimental procedure that so troubled Wallace and which few people now remember (see Henderson 2009; and Christiansen 2020).

Challenging those with a monopoly on information and who control the gathering, recording, and verification of data and certification of competence presents its own problems. Outside of the institutions of legitimation, dependent on the public use of reason with its obstacles and sinuousities, the challenge to free and open debate is a weapon of the weak, but a vital and telling one. Requiring incontrovertible evidence reinforces inequality because the powerful in a dominant position are not to be granted the presumption of innocence.<sup>4</sup> Such a presumption (equity) in an unequal fight reinforces asymmetry of power and provokes a feeling for justice. Appealing to legality alone, and disregarding this feeling, discredits the law (though people still follow it) which is merely the machinery of its police.

Today the very success of smallpox vaccination forms the basis of the most recent threat: "You say, OK, what if a bioterrorist brought smallpox to ten airports?" (Gates in Clarke 2021).

## Notes

<sup>1</sup> 'His [Equiano's] son [Sancho], who is expert in bibliography, became assistant librarian to Sir Joseph Banks, and is also secretary to the commission for vaccination.' (Gregoire 1808: 129) See also Armistead (1848: 239).

- <sup>2</sup> "The Third Lesson of the Great Epidemic [1870-75] ... The most impressive lesson of all was in the fact that in a severe epidemic once-vaccination in infancy did not prevent numerous attacks and numerous deaths amongst the vaccinated in a well vaccinated country as far as vaccination in infancy is concerned—like Bavaria, where practically the whole population was once-vaccinated ... "It only showed" (said Dr. Koch before the German Commission of 1884, of which he was a member) "that the vaccination which we formerly had was insufficient, and that it must he made complete by revaccination." And Dr. von Kerchensteiner: "that is the very reason why we introduced compulsory revaccination." (Edwardes 1902: 83-84)
- <sup>3</sup> Edwardes notes of the early strong opposition to vaccination: 'After a year or two, and especially when small-pox began to attack successfully vaccinated persons, vaccination encountered the bitterest opposition in England ... The abuse of vaccination was scurrilous in the highest degree; it was said that a new generation was growing up with bovine proclivities in general, and pictures were made of children with horns growing out of their heads' (1902: 44). Edwardes provides the counter-argument to Wallace's critique of the Royal Commission (1902: 114-134). See Webers (2010); Heberden (1818: 396-7); and Carpenter (2010) chapter 5. <sup>4</sup> "We didn't understand that it's a fairly low fatality rate and that it's a disease mainly in the elderly, kind of like flu is, although a bit different than that." (Gates 2022) See Fauci (2020); and Clarke (2021). See Stefan Oelrich (2021), member of the Board of Management of Bayer AG and head of the Pharmaceuticals Division, on vaccines as gene therapies.

### References

Picture of Corona Virus. Gov.UK.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/image\_data/file/97727/s960\_COVID\_960x640.jpg

Armistead, Wilson 1848. A Tribute to the Negro: being a vindication of the moral, intellectual, and religious capabilities of the coloured portion of mankind; with particular reference to the African race.

Manchester: William Irwin. https://archive.org/details/tributefornegrob00armi

Camero, Katie 2021. "Why did CDC change its definition for 'vaccine'? Agency explains move as skeptics lurk." *Miami Herald*, September 27. Why did CDC change definition for 'vaccine'? Agency explains | Miami Herald

- Carpenter, Mary Wilson 2010. Health, Medicine, and Society in Victorian England. California: Praeger.
- Christensen, Jen 2020. "Past Vaccine Disasters Show Why Rushing vaccine would be 'colossally stupid'." CNN, September 1.
  - https://edition.cnn.com/2020/09/01/health/eua-coronavirus-vaccine-history/index.html
- Clarke, Aubrey 2021. "Bill Gates Tells WHO to Do 'Germ Games' to Prevent Another Pandemic, Smallpox Outbreak." *sciencetimes.com*. November 4. <a href="https://www.sciencetimes.com/articles/34332/20211104/bill-gates-tells-who-to-do-germ-games-to-prevent-another-pandemic-including-smallpox.htm">https://www.sciencetimes.com/articles/34332/20211104/bill-gates-tells-who-to-do-germ-games-to-prevent-another-pandemic-including-smallpox.htm</a>
- Clarke, Christopher A. 2021. Dispatches from the Vaccine Wars: Fighting for Human Freedom During the Great Reset. New York: Skyehorse Publishing.
- Davies, Martin L. 1995. *Identity or History: Marcus Herz and the End of the Enlightenment*. Detroit: Wayne State University Press.
- Edwardes, Edward J. 1902. A Concise History of Small-Pox and Vaccination in Europe. London: H. K. Lewis.
- Fauci, Anthony S., H. Clifford Lane and Robert R. Redfield 2020. "Covid-19—Navigating the Unchartered." New England Journal of Medicine, March 26. https://www.nejm.org/doi/full/10.1056/NEJMe2002387
- Gates, Bill 2022. "Bill Gates explains COVID is 'kind of like the flu,' and vaccines are 'imperfect'." Daily Wire News. Youtube, May 9. Bill Gates explains COVID is 'kind of like the flu,' and vaccines are 'imperfect' YouTube
- Gregoire, Henri 1808 [1996]. On the Cultural Achievement of Negroes. Translated by Thomas Cassirer and François Brière. Amherst: University of Massachusetts Press. https://archive.org/details/onculturalachiev00greg/page/104/mode/2up?q=equiano
- Henderson, D.A. 2009. Smallpox: The Death of a Disease. Amherst, NY: Prometheus Books.
- Heberden, William 1818. Commentary on the History and Cure of Diseases. Boston: Wells and Lilly. <a href="https://archive.org/details/2556044R.nlm.nih.gov">https://archive.org/details/2556044R.nlm.nih.gov</a>
- Oelrich, Stefan 2021. "Speech by Stephan Oelrich (World Health Summit [24/12] 2021)." European Commission, Speech Repository.

  <a href="https://webgate.ec.europa.eu/sr/speech/speech-stefan-oelrich-world-health-summit-2021">https://webgate.ec.europa.eu/sr/speech/speech-stefan-oelrich-world-health-summit-2021</a>
- Wallace, Alfred Russel 1898. Vaccination a Delusion. Its Penal Enforcement a Crime. Proved in the Evidence of the Official Reports to the Royal Commission. London: Swann Sonnenschein and Co. <a href="https://archive.org/details/b21356336">https://archive.org/details/b21356336</a>
- Webers, Thomas P. 2010. "Alfred Russel Wallace and the Antivaccination Movement in Victorian England." *Emerging Infectious Diseases* 16, no.4 (April). *Centres for Disease Control and Prevention*. https://wwwnc.cdc.gov/eid/article/16/4/09-0434 article
- Williamson, Stanley 2007. The Vaccination Controversy: The Rise, Reign and Fall of Compulsory Vaccination for Smallpox. Liverpool: Liverpool University Press.