# Virtually Lost

This book examines the connections between the psycho-social difficulties and challenges faced by children and younger people in their online lives; the structure, character, and motivations of the corporate system 'behind' the screen; and the possibility that the digital technostructure may come to form the backbone of a new post-democratic system of technocratic governance.

Much of the originality of this book lies in its blending of subjects that are not often combined, thereby offering a fresh perspective: 'generation studies'; the philosophy of technology; the history of the idea of technocracy; the technologically enhanced merger of corporate–governmental power in the U.S. system; the society-shaping goals and capabilities of the big tax-exempt American foundations over the last hundred years; the elite 'superclass' gaming of formally constituted transnational and global institutions; and the way the United Nationscentred SDG–ESG system is itself developing in the direction of a technocratic system of economic and population management.

The book will appeal to readers interested in relationships between our contemporary global power elite, the structures it has created and processes it has set in motion, and how these affect young people whose development is already being over-determined by the activities of the big Silicon Valley entities and their associates.

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# Virtually Lost

Young Americans in the Digital Technocracy

Garry Robson



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# Introduction

This book has two core themes, which turned out to more connected than its author understood in the initial phases of doing the research for it. These themes are (a) the various difficulties faced by the first children and teenagers to have grown up online, since the advent of the smartphone era in particular and some of the most significant psycho-social effects of these and (b) the arrival in awareness of more people than hitherto, prior to 2020, of the concept of 'technocracy', or a system of non- or post-democratic governance and population management steered not by elected, professional politicians but by 'disinterested' experts such as scientists and engineers.

The first of these, of course, has been a serious issue in public discussion since, perhaps, sometime around 2010, with the waning of much of the initial optimism about what the internet and the devices attached to it might do to empower or otherwise improve the lot of humanity – especially, as it was frequently asserted in the early years of this century, the 'digital natives' who were growing up in a new, immersive reality; this has been an ever-present and somewhat concrete set of issues – despite its virtual aspects – for most people to grasp and reach their own conclusions on. The second issue, that of 'technocracy', was until recently a less recognised and more recondite topic in broader public discussion – until, perhaps, official responses to the COVID-19 pandemic of 2000–2021 made visible the outlines of the ways in which the platforms and devices to which we have become so quickly accustomed could with ease be used to form the backbone of something like a 'track and trace'-based global biosecurity system.

This eventuality was, for many, an eye-opener that begged a number of troubling questions: to what extent might the system built to serve us and make our lives more convenient and give us access to information and pleasures our grandparents never dreamed of when young be turned *against* us? Under what sort of circumstances, and for what reasons, 'health emergencies' aside, could we find ourselves coming under more surveillance and algorithmically powered, top-down management and control as a matter of course? What would this mean for the personal liberties that the majority of Americans have long taken for granted, or explicitly cherished, depending on the individual concerned? Who benefits from the development and installation of this system? Is all this connected to something that has

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become clear in recent years to many of us, in the United States and elsewhere: that the giant internet entities and the culture they have built have become too powerful and overbearing – to the point that they are now widely evoking parallels with the first 'Gilded Age' of out-of-control plutocratic wealth and the social and political as well as economic influence that wealth underpinned. Does all of this have anything to do with the relative immiseration of large swathes of the population while a small and numerically shrinking number of super-rich, 'elite' global players seem to have pulled away from the rest of us and now inhabit a parallel reality?

It is the argument of this book that these two areas are in fact closely interlinked, insofar as a digital system of technocratic surveillance and management of populations can be shown to be emerging at the global scale, with members of Gen Z, especially, having been used as the experimental raw material for the identification and development of techniques of online psychological persuasion pioneered by the practitioners of 'social physics'. These particular experts are learning how to move beyond mere propagandistic or rhetorically persuasive commercial, political, and social messaging to 'automating', as Shoshana Zuboff puts it, the responses and behaviours of device users at the screen interface. In this view, the emerging digital technocracy system will not merely be one in which the movements, opinions, and lifestyle-and-consumption preferences of individuals and the groups into which they can be aggregated, monitored, categorised, and turned into metadata for a variety of commercial and security purposes but also one in which swarm- or herd-like online collectivities can be nudged, unawares at the individual level, towards the acceptance of what Alex Pentland of MIT calls 'social universals'. This kind of 'super-nudge'-based strategy and much more like it will, on our current trajectory and if perfected, play a central role in the attempt to shape the responses of populations according to the desired outcomes and preferences of the entities and system requirements driving the transformation of formerly liberal and at least notionally democratic societies into technocracies.

That much has been clear to many observers, including the author of this book, for some time; but the questions raised by the recent global upheavals centred on the pandemic have required, for the purposes of this work at least, an accelerated phase of research over the last couple of years into the nature of the new kind of global power elite that has come into view in the 2020s – a merged grouping comprising the older Big Money entities and more recently emerging ones like the Silicon Valley giants and consultancy firms like BlackRock Inc., which at the time of writing has over \$10 trillion in assets under management. It is argued throughout the book that what we are now witnessing is effectively a massively expanded instance of something that has happened before, including in U.S. history. This is the rise to unimaginable wealth, political power, and sociocultural influence of a small group of men, and the tax-exempt foundations and other financial entities they built towards the end of the nineteenth century and into the twentieth. We are talking here of J.D. Rockefeller, Andrew Carnegie, J.P. Morgan, Henry Ford, and the other 'giants' of the period, whose careers and impacts on American society

bring into sharp focus the perpetual tension and struggle between representative democracy and monopoly in the U.S. system.

This struggle, for those who care to examine it, has always been about more than money. It has also been about overall influence and the ability to shape and direct long-range economic, political, military, and social agendas in ways which governments staffed by elected representatives cannot. At this level, it is argued at length here across multiple fields and with numerous examples, the exemplar of the money-disbursing, network-building, research initiating, trend shaping, nonstate actor is the Rockefeller Foundation, along with its associated organisations (such as for example the Council on Foreign Relations, the Population Council, or the Trilateral Commission - and there are many others). This is not to suggest that the Rockefeller interest is the only driver of the kinds of processes mentioned, but to note that it sits still at the centre of a now-expanded, globalised network of corporations, foundations, formally constituted transnational and global organisations, and NGOs which are working to transform the world according to the principles and practices set out by the Rockefeller Foundation a hundred years ago. All of these kinds of players have one fundamental thing in common: they know best where the world needs to go next (and will radically transform economic arrangements, social structures, and cultures to make it happen), and they will manage the human population along the way as they see fit.

This concerns the will-to-power and control of a tiny cluster of networked individuals and entities, which is now wealthier, more concentrated, and more managerially secure in a range of highly significant global entities than even the 'Superclass' that David Rothkopf identified in his 2009 work of the same title. While it is the technology that has made this possible – see the discussion of Black-Rock's 'Aladdin' platform in Chapter 1 – the *technology* is not the primary driver of the *technocracy*; but it is facilitating a very old tendency. The Rockefellers, as we will see in the following pages, transformed and shaped much of twentieth-century American and international life in a way which, when surveyed from our current vantage point, is astonishing. They were able to do this because they had unprecedented economic clout and social influence, limitless ambition, and because of the conviction that *they knew best*, as 'elites' always do. The inheritors of their original strategies and mission are now attempting to do much the same, only at a larger scale, and this time with the near-magical power and still-increasing potential of a global communications infrastructure behind them.

This position and material is fleshed out in the first chapter, which is organised in four sections. First, that the early promise of an open and democratic internet and the emergence of the 'digital natives', widely believed by some commentators in the early part of the 2000s to be socially and intellectually 'empowered' by it, have both, broadly speaking, proven to be false hopes – in the context of a concentration of corporate economic and managerial control of the largest and most significant online entities such as Google and Amazon – and the trend towards the psycho-social distress of a substantial number of American children and teenagers in terms of their mental health, as revealed in numerous studies, most

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notably perhaps Shoshana Zuboff's The Age of Surveillance Capitalism; second, that older strains of thinking and analysis in the twentieth-century philosophy of technology can underpin an account of our current situation in terms of (a) Martin Heidegger's suggestion that, over time, 'technology'- considered to be a largescale socio-economic, philosophical, and ultimately civilisational process that cannot be reduced to any particular forms of machinery- tends towards treating human persons, and in fact all the earth's beings, as thing-like 'standing reserve' to be marshalled and exploited and (b) Jacques Ellul's contention that the 'technological society' would end up producing a situation in which humans would have, of necessity, to assimilate themselves to all-encompassing and increasingly autonomous technological systems rather than such systems merely being tools for human use; third, that disempowered younger people are now being largely formed and framed by the contemporary practitioners of 'social physics' (after August Comte) as Big Data-derived fodder for the production of a 'hive mind' on the basis of their being 'nudged', unawares, towards acceptance of certain 'social universals', as part of an increasingly 'automated' manipulation of their online perceptions and behaviours in the interests of the advancement of what Zuboff calls 'instrumentarian power'; and fourth, and as already noted, that the extraordinary and unprecedented concentration of economic wealth that the internet has made possible may be understood as the latest example of the old struggle in the United States between monopoly and democracy, with the former now strongly in the ascendant - most significantly in the form of entities such as BlackRock. At issue here are the enormity of the financial resources and political influence such firms are able to wield and the merging of these with the government into a further consolidated public-private power block, driven - and, increasingly, actually managed – by financial interests at the expense of what remains of an independently functioning executive and American democracy more broadly. These unfolding new arrangements, it is argued, are now also being refined by corporate-state actors and transnational institutions in the direction of a technocratic system that merges intensified profit generation with a closer, top-down management of populations, largely on the basis of the expanding dataveillance capabilities of the digital technostructure.

In the second chapter, the question of what constitutes 'technocracy' is considered in an extensive historical overview of the idea as a potential system of actual, comprehensive government-by-experts and the linking of this with the concerns of the previous chapter: that the development of twenty-first-century digital communications infrastructure has now reached a point at which older ideas – originating in the modern context, arguably, with the insights made by Sir Francis Bacon in the seventeenth century – about the perfectibility of scientific governance and management of populations through non- or post-democratic means are now close to realisable, perhaps at the global or at least 'Western' scale. It is contended that the coming together of these technologies and the powerand-control imperatives at work among an increasingly wealthy, interconnected, and concentrated network of elite groups across a merged corporate–national government-international institution landscape are likely to lead, to say the least, to an increase in attempts at more top-down managerial control through the dataveillance-based regulation of the movements and activities of citizens. The discussion in this chapter is organised in three sections: first, a survey of main strands in the history of the idea of scientist- and engineer-driven governance; second, the 'open conspiracy' adumbrated by the utopian science fiction visionary H.G. Wells in 1928, which set out a number of now-relevant arguments about the desirability of the formation of an elite, educated international group to lead a world government in the interests of global stability - and, given Wells's enthusiasm for the eugenics movement that was also widely popular at the time among his peers, one must assume also in the interest of the better long-term shaping and controlling of populations-at-large; and third, the recent rise to prominence, at least as far as the general public awareness is concerned, of the World Economic Forum, understood here to be the public-facing showcase for the ideas and ambitions of our contemporary corporate and political global elite. This organisation's continuous promotion of the notion of The Fourth Industrial Revolution (Klaus Schwab, 2016), shows it to be an exemplary, unelected technocratic institution, and it is placed here in a line of development that begins with the Rockefeller Foundation.

The analysis goes further in Chapter 3 into the origins, contours, and continuing influence of some of the processes through which key social, economic, and technological facets of the twentieth-century U.S. were, as the argument has it here, 'engineered' - by similar forces, and for similar reasons, to those identified in the preceding chapters. The central themes are as follows: first, the emergence of 'philanthropy' out of the Rockefeller Foundation, and the vast sums of money it disbursed across an extraordinarily wide range of initiatives, building from the ground up such things, for example, as the university-based social science system – designed to produce information and analysis to be put to use in the Foundation's society-shaping projects - or early molecular biology, connected as it was to the American elite's early century interest in controlling the population via eugenics, that having crossed the Atlantic from Britain; second, the place occupied by the big tax-exempt foundations in general in the broader American 'power structure' examined by C. Wright Mills in the late 1950s, shortly before the outgoing President Eisenhower's famous 1961 message of warning about the growing menace of the 'military-industrial complex'; and, third, the role of the military in particular the Air Force - in driving two key transformative processes forward in the mid-century period: the initiation of a new, extensive, and 'game-changing' culture of technological and social forecasting and trend identification through the setting up of the RAND Corporation and the beginnings of the process of real and effective functionally integrated human-machine systems, with the former part regarded as a necessary but 'sub-optimal' element.

After further discussion of the relationship between the Social Darwinist values and enthusiasm for eugenics of the elite American society in the early twentieth century, Chapter 4 focuses on two core themes in the Foundation's structuring, through the United Nations, of political globalisation through the activation of two

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of its key concerns: population control and environmentalism. It is argued that the Rockefeller- Carnegie work on population surveillance and management had - after the Nazis, working on the basis of and extending the principles and practices of Rockefeller-Carnegie eugenics - pushed the subject beyond the bounds of civilised discussion and had to be redefined as 'population control'; the key players here were John D. Rockefeller III and his 'Population Council'. Second, it is contended that the elite-corporate capture of the green movement at the Rio de Janeiro 'Earth Summit' in 1992 led to the setting up of the present U.N. Agenda 21/30 system, in which the SDGs (Sustainable Development Goals) effectively act as a cover for the top-down, corporate takeover of the world's resources under the banner of climate alarmism and increased influence in setting the energy policies of nation states (through, e.g. highly questionable 'Net-Zero' interventions). More recently, the emergence of the ESG (Environment, Social and Corporate Governance) framework, also pushed through the United Nations by high-level corporate interests, has established an enforcement system in which businesses and other institutions must demonstrate their enthusiastic compliance with the SDGs or be punished financially via credit rating systems. It is argued that these arrangements are now core elements of rapidly consolidating, corporate-technocratic system building at the highest level. The ability of this system to externally dictate to and control financial entities, political and social institutions, and individuals is arguably unprecedented in the democratic countries outside of wartime, and it is argued that this now lies at the centre of the attempt to build a technocracy capable of encompassing the Western world.

In Chapter 5 the 'inevitability' of widely accepted transhumanism or the Fourth Industrial Revolution (4IR) is challenged; these notions and others like them are more akin to the ideologically motivated 'predictive programming' of people's understandings and expectations as regards technological development. It is argued here that technocrats have a clear vested interest in nudging people towards the acceptance of a more deeply embedded human-machine future - if for no other reason than the fact that more augmentation means more surveillance and control, not to mention profit – rather than have them questioning the premises of the discussion. Beyond this, as is shown here, there is actually scant evidence that any form of 'mind uploading' to the cloud or anywhere else is going to be possible within the parameters of what we now call science for a very long time, if ever. This is because the model of the person, mind, and cognition that the futurological visionaries and the industries they are used to front are working with an absurdly reductive and unrealistic account of the nature of consciousness and the facts of embodied existence and self-awareness. These two sets of ideas are opposed to one another and discussed in this chapter. This is followed by a presentation of much more persuasive research evidence and philosophical reflection than the technocrats have at their disposal, which reveal the truth that the transhuman chimeras being paraded before the eyes of the public are at this point fantasies and nothing more. The priority of those who would better understand what is happening and resist the blandishments of the transhumanism-4IR lobby, whether these come from the hard-headed corporate persuader or the starry-eyed dreamer, must rather reflect on the reality, and

the necessity, of human embodiment, and all the deeply meaningful and fulfilling experience that this condition – and only this condition – makes possible.

Chapters 6 and 7 focus on the experiments conducted on children in the name of education in recent decades and their consequences. The first of these concentrates on the 'self-esteem' movement of the 1980s, originating in California, which had grown by the 1990s to be a nationwide effort, focused on schools. The idea was – in an attempt to mitigate an array of expensive-to-remedy social problems by retuning or recalibrating the socialisation of young people in a more positive direction - to seek to artificially boost the self-esteem of school children by ascribing it to them rhetorically in class rather than expecting them to build it through application and the overcoming of difficulties. This intrusion into schools of a 'liberation psychotherapy' ethos derived from the ideas of Abraham Maslow and Carl Rogers led, it is argued, to a decline in the seriousness of education and a refocusing of the children's attention, to generally deleterious effect, on themselves and their problems. This, it is further argued, was part of a larger social pattern in which, rather than making children stronger and more resilient, their experience of education made them more self-preoccupied and accessible to the manipulative emotional messages emanating from the market. The 'therapeutic turn' in U.S. culture at large, visible in the emergence of what James L. Nolan famously called the 'therapeutic state' led, according to critics like Philip Rieff and Christopher Lasch, to children becoming drawn into more 'narcissistic' selfunderstandings and habits. The growth of a utopian desire to transform American society through the reshaping of pupils and the reconstruction of school curricula is argued to have exacerbated the longer-term decline in the quality of public education which was the subject of the 1983 report 'A Nation at Risk'. Time and again, over the last 40 or 50 years, school pupils have been experimented on in ways which have not been, on the whole, to their advantage and has likely made it more difficult for many of them to develop the resilience and self-awareness with which to face the challenges and complexities of life in the late-modern world.

Chapter 7 examines two significant trends, one older and longer-term and one very current, that are coming together at the present time to take the technocratic experimental use of children and young people in the classroom to a new level. The first of these concerns the arrival in schools and colleges of the kinds of computerised educational technology which has now become normal. In the 1980s, however, and as Douglas Noble showed, it was explicitly introduced to shift the focus away from a commitment to providing pupils with a rounded, content-rich education of the kind proven to be successful and valuable by the educational theorist E.D. Hirsch, to a process- and skills-based one that prioritised efficiency of information processing and problem-solving. This was a natural outcome of the expanding military–corporate requirement for personnel who could be more effectively embedded in increasingly powerful computerised information systems. This, it is worth noting, was happening as a broad process at around the same time the self-esteem culture was on the rise. More recently, pupils are having to contend with two overlapping sets of 'innovations': first, the arrival in the

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classroom and elsewhere of increasingly sophisticated and corporatised educational technologies designed both to data-mine them continually for a range of reasons discussed here and, perhaps even more fundamentally, to place them into a relationship with the technology at the screen interface that is characterised by John Klyczek as a form of 'cybernetic conditioning', in which the older behaviourist dreams of B.F. Skinner are actualised in the interests of profit, population management, and the requirements of the machine learning project. The second, more recent development working against the best interests of young people and their families has been the emergence of a radicalised version of Social Emotional Learning, in which educational institutions become sites for the circulation of a revolutionary neo-Marxist doctrine derived from Paolo Freire's Pedagogy of the *Oppressed.* This project is aimed at the indoctrination of pupils and the turning of them into political activists in the name of a conception of 'social justice' that merges with the requirements of the U.N. sustainability goals, particularly under the 'diversity and inclusion' rubric and, it follows, the ESG enforcement framework. Education in the United States is in danger of being transformed into a purely technocratic enterprise on two fronts, the mechanical and the ideological.

The book ends in its concluding chapter with a return to the work of Philip Rieff, in particular his suggestion that the modern, Western 'Third World', in his own typology, has wound up producing an 'anti-culture' as a consequence of its rejection of any external transcendent spiritual reality that could act as an extrahuman reference point, and the concomitant near-deification of the wilful human subject. It is argued here, on this basis, that only such an 'anti-culture' could have produced ruthless, anti-human instrumentarian entities like the World Economic Forum and its fetish for transhumanism. The latter, it is argued, is logically connected to transgenderism, a point made very clear by Martine Rothblatt, who connects the two both philosophically and in terms of personal experience, in what can only be described as a metaphysical rebellion against any suggestion of the existence of not only any form of creative divinity but also any physical limitations arising from the material plane of existence. The self therefore becomes a kind of pseudo-god. The circulation and enforcement of ideologies such as this from across the 'woke' political spectrum is argued to be the practical preserve of a managerial elite which is now networked at the global level and pursues the technocratic agenda according to the original Rockefeller-style principles and practices as discussed in earlier chapters of the book. Since this push for technocratic dominance is being driven not only by the obvious Big Money power and control imperatives but also by the zealotry of a near-religious belief system, or humanistic pseudo-religion, which combines metaphysical, techno-utopian, environmental, and bogus but sentimentality effective humanistic elements, it follows that any attempt to roll back the emerging technocratic system will need to be rooted in very deep and at least equally powerful spiritual sources of resistance and the affirmation of the sanctity of the individual, organically embodied human life. The demands and intentions of the elite technocrats are non-negotiable; so must this be.

# **CHAPTER 1**

# Big Nihilism<sup>1</sup>

How the Silicon Valley Culture Hurts Young People

## The Digital Natives, Then and Now

The research evidence is now well in, and it does not make for a happy reading; a substantial proportion of young American people belonging to Generation Z (i.e. those born between 1996 and 2012; see Twenge, 2017) are experiencing far greater rates of anxiety and depression than the millennials who preceded them (Lukianoff and Haidt, 2018; Twenge, 2017: 93; Zuboff, 2019a: 417). This mental health crisis, which according to the authors cited earlier, began around 2011 – four years after the release of the first Apple iPhone - can now be taken as a given by virtue of the weight of research evidence concentrated in these headline studies. It is most tragically visible in a dramatic increase in suicide in this age group: though boys are still more likely to end their own lives than girls, the "suicide rate of adolescent girls has doubled since 2007" (Lukianoff and Haidt, 2018: 155). The latter is explicable, according to Jean Twenge, in terms of two features of adolescent social life that have been turbo-charged by social media in particular and the online life in general: first of all, girls are more adversely affected than boys by the never-ending social comparisons that are the mainstay of this medium, especially where physical looks are concerned. Second, they may be more distressed by the kinds of relational aggression amplified by online emotional disinhibition (Suler, 2004) – the emotional extremes previously kept in check by the limitations on expression imposed by the dynamics and ethics of embodied, face-to-face interaction (Berger and Luckmann, 1966; Levinas, 2007 [1969]). The studies of Lukianoff and Haidt, Twenge and Zuboff – and, as we will see, the many similar ones that have emerged in recent years - identify the immersion in the online life as one of the most significant causes of this spike in childhood-adolescent misery.

Since the control of the behind-the-screen levers and shaping of digital interfaces can now be understood as a new form of corporate–governmental power, it is assumed to be operating on individuals and societies in a top-down, increasingly deterministic manner that has already produced 'surveillance capitalism', a new form of 'instrumentarian power', and the unfolding emergence of a digital 'technocracy'. In this sense, the technology itself – though it is difficult now to think of a smartphone in the hand of a 14-year-old as simply being *their* 'tool' – is not the most important element of the discussion. We should focus instead on the motivations and practices of the new Big Data- and Tech corporations and their absorption into an older global private–public sector "superclass" (Rothkopf, 2009). The corporate sector of this formation has greatly concentrated its wealth and power since the publication of Rothkopf's book (Phillips, 2018; Dayen, 2020; SPERI, 2020), with the United States in particular having perhaps descended, as Lewis Lapham has said, into a condition of "stupefied plutocracy" (2018: 17). This newly concentrated elite comes into view most visibly in the power-show casing and global agenda-setting manipulations of the likes of the World Economic Forum (Sennett, 1998; Garsten and Sörbom, 2018) and the ways in which the interests it represents now aspire to reshape not only the global economic system but also fundamental social norms and behaviours – beginning with children and adolescents.

One of the anchor points of the enthusiasm for the technologically empowering transformation of life in the Web 2.0 world as we entered the twenty-first century was Marc Prensky's speculative contention that a generation of "Digital Natives" (2001) (which we will use here synonymously, if not entirely accurately, with 'Gen Z') would lead the way in generating new, liberating forms of networked communication and social relations (see also, for example, Veen and Vrakking, 2006; Palfrey and Glasser, 2008; Tapscott, 1997). This generation would, in short, do some things very differently to the ways in which they had been done before. Their experience would represent a watershed in the relationship between humans and communications technology, being creatively empowered as it was by their deep, formative immersion in the new digital landscape. They would become the vanguard of a new twenty-first-century techno-humanity.

But that was then, and this is now. The widely expressed utopian belief in – or, rather, a set of largely marketing-derived assertions about – a coming age of tech-driven human efflorescence at the new digital frontier might in retrospect be seen to have begun, where the promise of ubiquitous computing is concerned, around the mid-1980s (Turkle, 1984) and lasted, in its unambiguously hopeful form, until perhaps the early years of the second decade of this century (Shirkey, 2011; Zuckerman, 2013). Serious questions began to be asked in that period about the assertions of Prensky and other technophiles who supported the idea of the Digital Native – or terminological variations thereof – which turned out in any case to be an overly generalised and empirically questionable concept to say the least (Bennett et al., 2008; Herring, 2008; Selwyn, 2009).

The gradually emerging corpus of studies expressing such concerns grew into an avalanche around the tipping-point moment of Nicholas Carr's seminal *The Shallows: What the Internet is Doing to our Brains* (2010), which was followed in short order by the likes of Andrew Keen's *Digital Vertigo: How Today's Online Social Revolution Is Dividing, Diminishing, and Disorienting Us* (2012), which as its title suggests covers a similar terrain; Elias Aboujaoude's *Virtually You: The Dangerous Powers of the E-Personality* (2012) and Larry Rosen's *iDisorder: Understanding Our Obsession With Technology and Overcoming Its Hold on Us*  (2013); Jaron Lanier's You Are Not A Gadget (2011), in which the early prophet of virtual reality bemoans the corrosive effects on the person of life in Web 2.0; and Douglas Rushkoff's Program Or Be Programmed: Ten Commands for a Digital Age, a title almost – but not quite – as alarming as this self-defence manual's contents (Rushkoff, 2010). Even Ethan Zuckerman – a proselytiser of the potential benefits to globalised humankind of the digitalisation of social organisation and connectivity – was forced to concede in his Rewire: Digital Cosmopolitans in the Age of Connection (2013) that the utopian vision of the Republic of the Internet had not yet quite been realised. But the most striking example of this shift in tone is to be found in the work of Sherry Turkle. Her journey from prophet of the emergence of a potentially liberated and digitally enhanced 'second self' to writer of Alone Together, one of the most powerful jeremiads on the unintended and catastrophic consequences of the dissociative, emotional wastes of asocial internet addiction (Turkle, 2011a), traces a trajectory in which the broader shift can be discerned.

These studies, and the near-countless books and articles in the same vein that have come after them, have both mirrored and, to some extent, helped shape the emergence of the current zeitgeist, which may be expressed as something like this: Big Tech has transformed our lives, in both positive and negative ways; now it should somehow be held to account and take responsibility for the psychologically negative and socially corrosive impacts it has had, particularly on the young. A brief survey of more recent contributions that take this kind of position might include Richard Seymour's The Twittering Machine (2019), in which the poisoning of both the personal and political spheres is said to be caused by endless cycles of addictive and depressive engagement with social media; Robert Wigley's Born Digital: The Story of a Distracted Generation (2021), which recasts Palfrey and Glasser's original 2009 title and optimism as a social catastrophe; Matthew B. Crawford's The World Beyond Your Head: How to Flourish in an Age of Distraction (2016), which examines the way in which the Big Tech-social media complex has invaded and degraded not only the space of calm and measured personal reflection at the individual level but also the 'attentional commons'; Yasha Levine's Surveillance Valley: The Secret Military History of the Internet (2019), which contends - plausibly, as this book will go on to argue at length - that the American military (particularly ARPA [Advanced Research Projects Agency] and its successor DARPA [Defense Advanced Research Projects Agency]) developed the early internet out of an ambition to create a system of mass surveillance and cybernetic social control, decades before the rebranding of computers and computing as democratically empowering in the 1980s and the blithely unfounded optimism of Prensky et al. that followed; and Shoshana Zuboff's hugely important and already-classic Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power (2019a), of which more in the following.

It is a central argument here that a key difficulty in all of this – whether it is explicitly addressed in any given study or not – is the radically new type of disembodied and remote social interaction now routinely experienced by many young

people in their formative years. The normalisation of a new form of physically disengaged solitude – brought into focus, for example, by the dramatic decline in unsupervised outdoor play (Lukianoff and Haidt, 2018) and the marketing lie sold to young people that one form of (virtual, disembodied) 'connectivity' is as good as another (i.e. the actual, face-to-face, empathy-building, full-spectrum communication variety) – has been a key factor in the development of the alienation and disorientation that so many feel as they drift through the "frictionless" reality (Crawford, 2016: 48) that has been built around their imaginations. Suffice to say here that the evidence for embodied social interaction as the fundamental prerequisite for the establishment of healthy social personhood is now extensive and compelling, from the research on the "social brain" (Dunbar et al., 2010; Graziano, 2015; Keysers, 2011) and "embodied mind" (Fuchs, 2016; Johnson, 2017; Varela et al., 2016) to Thomas Csordas's insistence that "intersubjectivity is intercorporeality" on the basis of his ethnographic work in cultural phenomenology (2008; see also Kögler, 2012).

But nobody, to date, has given us a more insightful account of the destructive effects on adolescents of their largely manipulated assimilation into a digital "hive mind" (2019a: 453) than Shoshana Zuboff, in a way that takes us well beyond the potential of the 'Nudge' strategies for the manipulation of individuals that entered the public discourse via behavioural economics with the publication of Richard Thaler and Cass Sunstein' book of that name in 2008. Noting that while there is nothing entirely novel in the twenty-first century in the basic struggle adolescents face to develop for themselves stable and coherent social identities through social interaction with their peers, the online life has destabilised the process in profound and troubling ways.

Beginning with the psycho-social difficulties experienced by young people revealed by the 'World Unplugged' international survey, led by the University of Maryland in 2010 (https://theworldunplugged.wordpress.com), Zuboff explores the system of behaviour modification in which young social media users are enmeshed, and the "emotional anguish" that expresses itself in the six categories of "addiction, failure to unplug, boredom, distress, confusion, isolation" caused by their experimental disconnection as part of the study, producing the kinds of "cravings, depression, and anxiety that are characteristic of clinically diagnosed addictions" (2019a: 417).

But how did it come – or was it brought – to this? A good place to start in search of explanation, Zuboff contends, is the now-famous 2017 interview with Sean Parker, erstwhile colleague of Mark Zuckerberg and one-time Facebook president, who declared that the platform was designed early on to consume the maximum possible amount of users' time and attention by manipulating the brain's reward centres. The idea was to send them "a little dopamine hit every once in a while" (in Zuboff, 2019: 451; and see Solon, 2017) in the form of psychologically validating 'likes' and comments. Thus were users drawn, unawares, into a system of behaviourist 'variable reinforcement', a part of the operant conditioning approach designed in the mid-twentieth century by Burrhus Frederic Skinner. The

goal of this strategy was "to keep users glued to the hive, chasing those hits while leaving a stream of raw materials in their wake" (Zuboff, 2019a: 451).

Eventually – and following Google's lead in gradually understanding what the accumulation of unimaginable amounts of new kinds of personal information could make possible in terms of 'behavioural surplus' – the growing depth of this data allowed Facebook to pinpoint the moment in which a user was, depending on their mood and emotional state, "most vulnerable to a specific configuration of subliminal cues and triggers", used to "match each emotional phase with appropriate ad messaging for the maximum probability of guaranteed sale" (Zuboff, 2020). The explicit aim here was to produce

planned behavioral outcomes with methods of behavioral modification that operate through unprecedented and proprietary digital architectures, while carefully circumventing the awareness of human targets. It is no longer enough to automate information flows *about us*; the goal now is to *automate us*.

(Zuboff, 2019b: 19)

This, of course, was by no means the first time in the history of marketing and consumer manipulation that attempts had been made to get people to 'stick' to a product by shaping their psycho-affective responses to stimuli through the circumvention of their conscious awareness (for the originating, 'Freudian' version of this, see Bernays, 1928), but it likely represents a technological turning point, as we will soon see, in the development of technocracy, in which the old but pragmatically unfulfillable dreams of some scientists and engineers to assume hands-on, post-political control of socio-economic systems has finally become possible.

The real key to the success of this new strategy was, essentially, to be able to place people, according to their own apparent volition, into the trance-like states perfected, prior to the emergence of Google, in casino gambling technology (Zuboff, 2019: 422; Schull, 2014). This involves the immersing of players into a mental state known as the 'machine zone', a condition of altered subjectivity in which the user is very near literally played by the machine. This rested on the establishment of a connection between user and device that invokes a loss of self-awareness, automatic behaviour, and a "total rhythmic absorption carried along on a wave of compulsion" (Zuboff, 2019a: 449). In Facebook rhetoric this was put, rather more gently, in terms of providing users with a "sensory experience of communication that helps us connect to others, without having to look away" (456).

The effects of this shaping of pleasurably immersive behaviour, though it will be characteristic of most if not all users of social media and gamers at the screen interface, have been most impactful among younger people via its deployment in the realm of the interactions upon which vital processes of personality formation and social development impinge in their teenage – and, increasingly, pre-teen – years, with controversial plans currently afoot on the part of Facebook and Instagram to reach further down the age range and assimilate into the system children as young as six, to be

baptised to Zuckerberg's panopticon, through Instagram, then at 13 they will graduate to Facebook, having already been harvested, programmed, and assimilated to Facebook's needs. Freedom of free will, self-determination and the ability to discern of these minors would be massively diluted.

(Gauci, 2021)

Again, the consequences of the transition to a physically ungrounded, disembodied, remote sphere of experience – "a watershed-like shift in the human condition and cultural history" (Bauman, 2014: xv) – come to the fore. All of the foundational work in, for example, the long-influential Symbolic Interactionist perspective emerged from the study of the concrete, embodied ground upon which the everyday, interactive development of stable, integrated personality – with its capacity for empathy, social adaptation, repertoire of face-to-face social skills, etc. – is achieved, on the basis of the profoundly social "looking glass self" (Cooley, 1965 [1902]), with the individual self considered in these terms as a microcosmic, embodied social structure in its own right (Mead, 2015 [1934]).

Zuboff, drawing on the work of Danah Boyd (2014), contends that the shift from real-world contexts for socialisation and identity-shaping peer interactions to online performances in 'networked publics' radically instrumentalises and psychologically disrupts young people's "perennial desire for social connection and autonomy" (Boyd, 2014: 8). For it is not only the case that new mechanisms of social pressure and influence, including the fixed and uncompromising belief systems of others, may have an undue impact on young people struggling to make sense of who they are and where they fit in. If we take it as a given that the developmental work of the achievement of a mature self rests upon the long-term, interactive, trial-and-error cultivation of inner resources, what happens in this context to young people still at a problematically formative phase of this process? Zuboff's answer to this question is troubling: the development of an internal locus of control and self-understanding is shifted to "an externally sourced identity for the work of self-construction" (Zuboff, 2019a: 426, citing Erikson, 1994: 130).

Further to this, the notion of 'networked publics' is itself paradoxical. For while it is true that the traumas and complexities of young life are exposed to and shared with a greater number and variety of others than previously, users' visibility is

magnified and compelled not only by the public-ness of networked spaces but by the fact that they are privatized. Young life now unfolds in the spaces of private capital. . . . These private spaces are the media through which every form of social influence – social pressure, social comparison, modeling, subliminal priming – is summoned to tune, herd, and manipulate behavior in the name of surveillance revenues. This is where adulthood is now expected to emerge. (Zuboff, 2019a: 427) We can see now how these processes are embedded in and express Zuboff's broader definition of surveillance capitalism (2019a: 8): it is a "parasitic" and "rogue" mutation of the system that is facilitating an unprecedently dramatic concentration of power, knowledge, and wealth into fewer and fewer hands in such a way as to enable the emergence of a new form of "instrumentarian power" that seeks to assert "dominance over society and presents startling challenges to market democracy". In this sense, it is best understood as a "coup from above" that aims at nothing less than the imposition of "a new collective order based on total certainty" (2019a: 8).

As far as understating the dynamics of this still-consolidating enterprise when it comes to the position of young people as core resources of this 'extractive', perpetually data-mining system, the following are of particular significance: the new order "claims *human experience as free raw material* for hidden commercial practices of extraction, prediction, and sales"; and in this new economic logic "the production of goods and services is subordinated to a new global architecture of *behavioral modification*" (emphases added).

Instrumentarian power, then, is in the business of seeking to turn persons - and when it comes to many members of Gen Z, persons still in the process of formation-into behaviourally conditioned, system-integrated, post-agential exploitable resources or things. This finding necessitates, before going further into the threat posed to human self-determination and freedom by the Big Data/Social Physics revolution (Pentland, 2014a), a short detour into the philosophy of technology; the social-psychological distress and other difficulties now being experienced by many young people are set more broadly in a context in which their reduction to exploitable things rather than dignified and potentially autonomous beings lies at the centre of their experience. Since such an 'eclipse of being' is the essence of Martin Heidegger's definition of nihilism, and since it accords also with Jacques Ellul's vision of the system of Technique as an increasingly technologised and autonomous operating system to which humans are effectively forced to assimilate, we will consider the pertinent arguments advanced by these two foundational twentieth-century thinkers on technology before returning to look further at what is now being experienced by members of Gen Z, whom Zuboff calls "our canaries in the coalmine" (2019a: 417).

# Turning Persons Into System-Assimilable Things: Martin Heidegger, Jacques Ellul, and the U.S. Military

Note on terminology:

During the same period in which Heidegger was formulating his ontological questioning of *Technik*, Ellul was developing a systematic analysis of *la Technique* as the most important societal phenomenon of the modern world. In English, both Heidegger's Technik and Ellul's Technique (with an anomalous capital T), become "technology" . . . which he [Ellul] defines as "the

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totality of methods rationally arrived at and [aiming at] absolute efficiency (for a given stage of development) in every field of human activity".

(Jeronimo et al., 2013: 2)

Martin Heidegger's work on Technik can, it has to be admitted, be difficult to access for the non-specialist reader – the present author is just such a non-specialist when it comes to the Heideggerian world view, the German language, and in particular the highly specific and customised terminology that Heidegger developed to convey his thinking. But since Heidegger is so important in this area, it will be necessary to connect some of the essentials of his argument with the plight of the young people now being manipulated and 'enframed', to use his concept, by the instrumentarian power of which Zuboff writes.

Perhaps the single most important thing to appreciate about Heidegger in this regard is his core purpose: an attempt to shift the focus of Western philosophy away from the various approaches to epistemology (knowledge) that had long characterised it (Dostal, 1993), towards the more ontological question of "being" – as "being in the world", or "Dasein" in Heidegger's terminology (Watts, 2001; Steiner, 1978). Of central interest here for the purposes of our discussion is Heidegger's thinking on the relationship between Technik and 'Dasein', and the instrumentalising processes whereby *beings*, such as though by no means restricted to humans, become reduced to the status of things and exploited as such. In The Question Concerning Technology (Heidegger, 1954), he makes it (reasonably) clear that Technik is not defined by the making and presence of machines. It is not primarily a way of making or doing things, but of the revealing of things - a very Heideggerian concept (Heidegger, 1954: 329) - that precedes the making and therefore constitutes a larger category, within which 'technology' itself is set. This may perhaps be most usefully thought of as a fundamental set of assumptions and categorisations and the world-shaping goals and activities that flow from them: "The primary phenomenon to be understood is not technology as a collection of instruments, but rather technology as a clearing that establishes a deeply instrumental and, as Heidegger sees it, grotesque understanding of the world in general" (Stanford, 2011).

Technology's revealing of beings as measurable and manipulable entities in the end eliminates any sense of awe and wonder at the natural world and the presence of the beings that dwell in it. The concept of the 'enframing' of human awareness, or what Heidegger calls 'gestell',

describes our narrow, restricted understanding of ourselves and all things in existence in terms of "resources" to be organized, enhanced and exploited efficiently. This has resulted in our viewing the whole planet and all it contains as merely a vast stockpile of potential products available for extraction and manipulation for the benefit of our desires and goals. . . . The process of "enframing" seeks to make everything more accessible for utilization in the pursuit of our objectives.

(Watts, 2001: 84)

This is why Heidegger is important in our current moment, in which the instrumentalisation of young people – whether in terms of the unacknowledged harvesting of the fruits of their online attention and behaviour, or, more importantly, the cybernetic enframing through which they are coming to understand themselves and others – has reached alarming and psychologically destabilising heights. The very struggle of young people to develop and maintain social relationships and develop a balanced and integrated sense of self is increasingly being framed by instrumentarian efforts to reduce them to nothing more than exploitable resources to be perpetually data-mined.

Jesse Bailey (2014), in a very thought-provoking piece on this point, discusses the way in which the enframing process defines and sets up humanity – along with rest of the world's creatures and natural resources – as a 'standing reserve' awaiting categorisation, marshalling, and utilisation. This, Bailey contends, quoting Iain Thomson (2005), is an illustration of the essence of Heidegger's interest as being not primarily concerned with particular technological devices or processes but rather with "ontological technologization, that is, with the disturbing and increasingly global phenomenon . . . by which entities are transformed into intrinsically meaningless resources standing by for optimization" (Thomson, 2005: 45).

This situation of exploitative dehumanisation and the affront to being, to which Generation Z in particular now stands nakedly exposed, would constitute for Heidegger a "fatal continuity between the assertive, predicative, definitional, classificatory idiom of Western metaphysics and that will to rational-technological mastery over life which he calls nihilism" (Steiner, 1978: 39; see also Conway, 1992). This definition of nihilism is central to Heidegger's thinking in this sphere, as it equates the setting up of this enframing of humanity with a forgetfulness or abandonment of being itself, which we might in this context understand as a mysterious phenomenological 'event'; the forgetting of the existential mystery of being might therefore be thought of as a profound form of self-estrangement (Bartky, 1967). It almost goes without saying in this context that the immersive, distracting, trance-like experiences associated with intensive social media use are likely to amplify a kind of nihilistically manipulated self-estrangement or forgetfulness of being to levels that Heidegger could barely have imagined.

This brings us to an obvious question: to what extent can a young person, addictively "tethered" (Turkle, 2011b) to a digital device and using it to try and meet a variety of urgent social and psychological needs, really be thought of as someone merely using a 'tool'? In addressing this question, Bailey argues that it is a mistake to limit our ethical response to the dangers of technology to encouraging its 'responsible use'. If Heidegger is right, he contends, we are way beyond that now, and "the phenomenological changes effected by technological developments cannot be addressed at the level of autonomous subjects choosing either to use or not use them" (Bailey, 2014: 47). We can, in short, no longer naively think of the products of Technik, in their contemporary manifestations, as being merely neutral objects and services to be bent to our will. It seems far more likely that twenty-first-century people, and particularly the younger generations amongst us,

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have become "the tools of their tools" (Thoreau, 2004 [1854]: 37) and the increasingly technocratic systems and interests that develop, deploy, and manage them as such from behind the screen.

Jacques Elull, who along with Heidegger is a foundational figure in the midtwentieth-century philosophical confrontation with technology, made perhaps the most powerful case in support of this latter view. Though they appear to have been in no way connected, Ellul's *The Technological Society* was originally published in French in 1954 (ten years before its English translation appeared), the same year Heidegger's *The Question Concerning Technology* received its first full publication. These two benchmark works have both a number of differences and a good deal in common (Harris and Taylor, 2005). Only the essential similarities need concern us here: Heidegger's Technik is mirrored, to a significant extent, by Ellul's Technique. As with Heidegger's thinking, Ellul's use of this term takes us far beyond 'technology' as machine-device, into a totalising control system of human perception and activity across multiple domains.

Ellul goes much further than Heidegger into the detail of the mechanics of these processes and focuses on the various ways in which this totalising system does not merely set up the earth's beings as a 'standing reserve' (he does not use the term) of resources to be marshalled and exploited but over time becomes increasingly autonomous – to the point that, in a taken-for-granted and naturalised way, it comes to dominate and determine the shape and character of human existence. In this sense, Technique – an idea reminiscent of Max Weber's ever-tightening "iron cage" of rationality (1978) – can be placed alongside the arguments of other twentieth-century figures as diverse as Lewis Mumford (1963: 274), Herbert Marcuse (1964: 21), and Jurgen Habermas (1979: 117) and in their identification of the

dominance of instrumental-rationality, or technical rationality, as the preeminent mode of thought. This results in the neglect of any comparable consideration of values, and indeed to the determination of ends by default. It is technique which determines not only the means but the ends themselves. And it is in this sense among others that Ellul, for example, is able to write of the domination of technique. Moreover, in the tradition of Max Weber, the supremacy of technique is seen as the major source of "unfreedom".

(Cotgrove, 1975: 60)

But a concern with the predominance of instrumental rationality is only a part of Ellul's vision of the all-encompassing, autonomous process of human-assimilating Technique; he sets out the seven key characteristics of the nexus that characterises it – 'nexus' because, as we see later under the feature of 'self-augmentation', a key element of the rise to domination of Technique is the process of synergistic, aggregative cross-pollination of processes that lie at its core and, of course, that of the rise of the instrumentarian power that has emerged since Ellul's death: *Rationality* is the systematisation and standardisation of Technique in society. *Artificiality* is the subjugation and destruction of nature in the name of perpetual innovation.

Automatism is the process of technical means asserting themselves according to mathematical standards of efficiency. Self-augmentation is the process of technical 'advances' multiplying at a growing rate and building on each other while the number of technicians also increases. Wholeness is the feature of all individual techniques and the various uses sharing a common essence. Universalism is the fact that Technique and technicians are spreading worldwide. Autonomy is the phenomenon of Technique as a closed system – a reality unto itself with special laws and its own determinations (Boyles and Kline, 2018: 60).

As a concrete and specific example of this, consider the military origins of Silicon Valley and the long-term relationship between these two entities: originating in WWII (Dembosky, 2013; Broze, 2020: 45; Webb, 2021b), this relationship has evolved into a symbiotic one through a circular system of, for example, army, navy, air force, DARPA, CIA, NSA, FBI, DEA, State Department contractual agreements with Google (Levine, 2019: 164). Eric Schmidt, the latter's exchairman, now a board member of Google's parent company Alphabet, sits at the time of writing on a Pentagon advisory board (Ingram, 2018), thereby personally exemplifying the extensive system of state seed-funding of promising start-ups, the fruits of which are fed directly back into the military and Alphabet-agency infrastructure. As Leslie Berlin, historian for the Silicon Valley Archives at Stanford University, was quoted as saying in 2013,

All of modern high tech has the US Department of Defense to thank at its core, because this is where the money came from to be able to develop a lot of what is driving the technology that we're using today.

(in Dembosky, 2013)

Even more fundamentally, the networking backbone that supports the internet as we now know it was itself first built by researchers funded by ARPA (Noble, 2018: 122; Levine, 2019: 13), the forerunner of today's DARPA. As Levine makes clear, the underlying motivation for this was the desire, initially as a Cold War command-and-control system and part of a strategy for confronting the 1960s insurgencies happening across the world against US-allied governments and, later, the domestic sociopolitical upheavals of the same era, to expand the military and state capacities for social control via the categorisation of eitizens through a desire to build a system of extensive surveillance (Jacobson, 2015: 282). In this regard, surprisingly little scholarly research had been done to date on the exact nature of the relationship, if there was one at all, between DARPA's "LifeLog" 2004 initiative, an experimental project aimed at encouraging citizens to maintain online, profile-building media "diaries" so as to effectively surveille themselves, and the emergence of Facebook almost immediately after that project was formally discontinued (IPTO, 2003; Wired.com, 2004).

Ultimately, then, it is the logic and requirements of this system of top-down, synergistic, military--corporate research and development and consumer-product development and marketisation that has driven the naturalisation of the

never-ending stream of technological innovations to which we must adapt – for pragmatic reasons, if nothing else – as the hive develops in complexity and reach, to the point where the deployment of 'social physics' becomes possible as an instrument of the large-scale manipulation and management of populations (see the next section).

The link between these processes and Ellul's argument here is clear, if we care to see it: Douglas D. Noble, in his sharply insightful and underrated book *The Classroom Arsenal* (2018 [1991]), which probes the relationship between military research and development and public education in the United States and which we will consider at more length in later chapters, demonstrates the ways in which the long history of research into computer-based education (CBE) has been conducted not only by computer scientists but also by systems engineers and experimental psychologists, all of them supported primarily by the military. From a basic pragmatic desire to eliminate the need for fallible human instructors in military training programmes, this field developed into a project for understanding – and ultimately changing the definition of the role of – the human factor in an advanced informational economy and the "development of sophisticated manmachine systems" in which the 'man' component needed to be absorbed into as a secondary element. In fact, Noble says,

CBE research, and cognitive research on learning, taken to their logical conclusions, through artificial intelligence, "expert systems" and "autonomous weapons", contribute to the ultimate dispensability of humans altogether in military operations and decision-making.

(Noble, 2018: 188)

It is clearer now than ever that Ellul was years ahead of his time with this conception of a totalising and increasingly autonomous system of Technique. His detractors and opponents, whose most frequent criticism of him is his alleged technological determinism (e.g. Wyatt, 2008), must now contend with the fact – at the very least – that a profoundly technological, capital- and power-concentrating, and increasingly manipulative economic system has emerged, whether this be discussed in terms of "surveillance", or "cognitive" (Boutang, 2011; Dyer-Witheford, 2015), "cybernetic" (Robins and Webster, 1999; Strom, 2019), or "algorithmic" (Parisi, 2016; Peters, 2012) capitalism. This, arguably, makes the old arguments about technological determinism secondary: this system is real, pervasive, and controlling more and more of our behaviours and understandings, in such a way as to make simplistic for-or-against arguments in relation to the emerging technocracy all but redundant. Must we once again reiterate the dictum of Marshall McLuhan's contemporary John M. Culkin, that "We shape our tools, and thereafter our tools shape us" (Culkin, 1967: 70).

Having said this, it is our purpose here to look critically – regardless of the innumerable benefits and conveniences that may be ascribed to the refinement of certain technological processes and products – at the effects of what amounts

to Generation Z's entrapment in a system of psychologically corrosive, socially problematic, economically exploitative, and agency-weakening behaviour modification and their assimilation into a hive-like structure in which they find it difficult to gain access to the grounds of their own experiences as individuals; or, to return once more to Ellul, to consider their plight – and the plight of all of us – as an ongoing process it is often difficult to see, let alone properly understand or resist.

# **Social Physics as Technocratic Control**

Technocracy is starting to look a lot like an idea whose time has come -for both its aspiring architects and practitioners, as they edge ever-closer to realising their perfect system, and in public and intellectual discourse since the official description of and global response to the COVID-19 pandemic have made it difficult to ignore. Take for example MIT's Alex Pentland, the latest in a long line of utopian would-be re-engineers of society, who declares that it is "time to drop the fiction of individuality" (2014b) and bring insights from 'social physics' to bear on the creation of a new realm of collective experience based on top-down, Big Data-enabled perception management and behaviour modification. Put simply, the historical dreams of full-spectrum surveillance, social control, and the management of 'human resources' advanced by technocrats of various kinds are becoming realisable, thanks to the technological stage we have reached with the advent of social physics. The contemporary attempt on the part of the Big-Tech and Data interests, and the economic-political elite into which they have been absorbed, to create among "the people of the screen" (Rosen, 2008) automatic, non-reflexive responses to carefully prepared stimuli must be set in the historical context presented in the following chapter. All of the key players mentioned therein were, in a sense, born before their time – their scientistic dreams of technologically controlled societies were far less realisable than they are now, in an age edging ever-closer to the full-spectrum, integrated surveillance-and-control technocracy now being touted as our near-future, when the 5G-driven Internet of Things (Cirillo et al., 2019) and Bodies (Matwyshyn, 2019; RAND Corporation, 2020) begins to come, depending on where we live, out of our screens, and into an everyday material world of constant surveillance and data streaming through not only smartphones but everything from our wearables (Dian et al., 2020) and eventual implants (Ray et al., 2016), refrigerators (Mohamed, 2021), and the sensor-impregnated paint our buildings will be coated with (Saccone, 2018). And this is not to go into the future prospects of the "spatial web" or "web 3.0" now being dangled before our eyes by corporate visionaries who assure us that, in due course, we will dwell and work in an "ecosystem of seamless and nearly inseparable physical-digital experiences" (Deloitte, 2020).

It is fitting, then, that a more contemporary, and highly influential, version of technocratic thinking has emerged in the work of MIT's Alex Pentland and his promotion of the forces and strategies of manipulation now wearing away at the self-determination of the autonomous, self-aware, and *choosing* individual. Pentland is best known for his attempt to build a computational theory of human behaviour: in a "light-speed hyperconnected world", he suggests, we have little or no time for near-obsolete processes and behaviours – a form of democracy based on measured collective deliberation, embodied face-to-face negotiations, and so on – as we "can no longer think of ourselves as only individuals taking carefully considered decisions" (Pentland, 2014b: 2–3). It follows, on the basis at least of the reasoning exemplified by Pentland and in his celebration of Big Data scient-ism triumphant, that the trick henceforth will be to better understand and shape social processes via computational governance, using the 'laws' of social physics that run parallel with those to be found in the sphere of machine intelligence, the public mind.

Zuboff, to return to her, is witheringly critical of this perspective, taking Pentland to be a key enabler of the instrumentarian project through his refinement of the deployment of continuous streams of human data to super-nudge populations towards the adoption and enactment of "social universals" on the basis of the collective intelligence in a "coordinated manner" (Pentland, 2014: 143). Pentland's social influence algorithms are designed to steer a critical mass of people in a given human population towards a hive-like existence through the management of their collective choices. Humans, being less individually autonomous and more bee-like than they like to believe (Pentland, 2014: 71), can be trained through their screens to absorb and act upon cognitive behavioural 'universals' on the basis of a shaped and directed form of heightened collective consciousness. We can live, henceforth, in a world of maximally stable, secure, and efficient environments and systems - as long as the older autonomous, rational and self-aware forms of individualised decision-making are re-engineered in the direction of a more fluid and automated sense of hivebelonging. The potential long-term consequences of this not only for individuals but also for liberal-individualist, participatory, representative, or deliberative democracy are obvious (Haidt and Rose-Stockwell, 2019; Maschewski and Nosthoff, 2020).

John Gray (2019), in a review of *Surveillance Capitalism*, argues however that Zuboff over-estimates the novelty of Pentland's vision, which he suggests is entirely continuous with the history of technocratic thinking; in particular, Pentland et al.'s 'internet utopias' come not from a radically new perspective but from the nineteenth-century positivism of Auguste Comte and the idea of a society ruled by scientific experts in the then-emerging social sciences.

Positivism's attack on both the idea of free will and the intrinsic value of the individual person sets the tone for a vision of social order little different, in its essence, from that proposed by Pentland and his acolytes. Comte, Gray argues, "presented his theory of society as an explicit attack on liberal values and, though less overtly expressed, Pentland's ideas replicate Comte's at practically every point" (Gray, 2019).

Turning to B.F. Skinner, Gray locates the origins of his behaviourist attack on the belief that a human being is not so much an autonomous subject as an environmentally created "complex chicken" (Nutbrown and Clough, 2014: 68) in the utilitarianism of Jeremy Bentham; it is he, Gray suggests, we have to thank for the early stirrings of the modern surveillance system, with its notions of panoptic prisons and the remote control of subjects' behaviour on the basis of their responses to and internalisation of the authority of unseen but powerful forces of control. Bentham's model panoptical prison, made so famous by Michel Foucault's (1977) discussion of it, was based on constant observation, the separation of inmates, and, essentially, behavioural modification via proto stimulus–response conditioning, Skinner-style. The panopticon itself was "intended as a prototype for many other institutions, including workhouses, factories, asylums, hospitals and schools . . . Bentham's model prison strikingly anticipates Skinner's model of society" (Gray, 2019).

In Gray's argument, then, Zuboff's hyper-critical account of surveillance capitalism, which is also in part a call for a return to 'true' Enlightenment values, does not reach deeply enough into the dark heart of the impulse towards the technocratic vision of the management and control of populations that, along with many other things, was at the heart of the Enlightenment project itself:

Comte and Bentham, together with their unwitting disciples such as Skinner and Pentland, exemplify an illiberal tradition of Enlightenment thinking in which individual autonomy is dismissed as an obsolete fiction. What matters is collective welfare, and this is best achieved in a society governed by a scientific elite that re-engineers human beings by eradicating anything in them resembling an autonomous self.

(Gray, 2019)

Gray's reference to the Benthamite, utilitarian idea of people-shaping and controlling modern institutions, exemplified in a new kind school as well as prisons, asylums, and the rest, signals the point at which we must return the focus to the travails of Gen Z. In addition to the challenges this generation faces already mentioned they must now, in all likelihood given the extremely fortuitous – to say the very least - and "unprecedented opportunity to reimagine our world" (Schwab and Maleret, 2020: 17) afforded by the COVID-19 pandemic, prepare themselves for still more educational screen time via the expansion of distance learning envisaged by the World Economic Forum's Schwab and his ilk as essential components of their bio-tech converging "Fourth Industrial Revolution" (Schwab, 2016; Schwab and Maleret, 2020: 108). This latter can be reasonably construed as the latest iteration not only of elite transhumanist ideology (Emmons, 2018) but also of an older programme pursued by the robber-barons-turned-philanthropists of the late nineteenth and early twentieth centuries, who largely built the culture out of which the World Economic Forum emerges, on the basis of a "technocratic discourse of human engineering, aiming toward an endpoint of restructuring human relations in congruence with the social framework of industrial capitalism" (Kay, 1996: 8). Applied social physics, then, can be understood similarly as an important element of a top-down, technocratic attempt to restructure human and social

relations in the direction of the system requirements of this ideal 'Fourth Industrial Revolution', with childhood and education as key fields of transformation. We turn now to a detailed account of the emergence and development of the modern vision of technocracy, guided by the assumption that the goals of the would-be society reshapers may be close to being realised.

# Digitalising the Plutocracy: Blackrock Inc. as a Shadow Element in U.S. Governance

These are not happy times for those attached to the principles of representative, let alone rational-reflexive, deliberative, and participatory democracy and who study it closely. This point was amply demonstrated in the important study conducted by Martin Gilens and Benjamin Page and published in 2014. This influential work, based on a multivariate analysis of a data set that included 1,779 policy issues, reached some disturbing conclusions: average citizens and mass-based interest groups have little or no influence at all in terms of their influence on public policy. Their findings presented a stark picture, though not surprising for anyone who has been monitoring the extraordinary acceleration of wealth concentration into fewer and fewer hands at the global scale since the beginning of the twentyfirst century (see, as some of the most prominent and influential examples, Sklair, 2001; Robinson, 2004; Rothkopf, 2009; Carroll, 2010; Korten, 2015; Phillips, 2018; Dayen, 2020; Goodman, 2022).

The study by Gilens and Page applies the four main classical theories used in the analysis of American politics to estimate how much influence various agents, interests, and entities have on the policy process. These are Majoritarian Democracy (the wishes of the majority of the population are reflected in policy), Economic–Elite Domination (the rich get what they want), Majoritarian Pluralism (interests groups, including those representing the interests and preferences of the non-wealthy, get what they want), and Biased Pluralism (the groups that represent the interests of the rich get what they want). The results of the study "provide substantial support for theories of Economic-Elite Domination and for theories of Biased Pluralism, but not for theories of Majoritarian Electoral Democracy or Majoritarian Pluralism" (Gilens and Page, 2014: 564). Put more starkly,

[c]learly the median citizen or "median voter" at the heart of theories of Majoritarian Electoral Democracy does not do well when put up against economic elites and organized interest groups. The chief predictions of pure theories of Majoritarian Electoral Democracy can be decisively rejected. Not only do ordinary citizens not have uniquely substantial power over policy decisions; they have little or no independent influence on policy at all.

(Gilens and Page: 572)

The report concludes that Americans do, indeed, enjoy many features central to democratic governance (e.g. regular elections, freedom of speech and association,

and a widespread franchise) - but that if "policymaking is dominated by powerful business organizations and a small number of affluent Americans, then America's claims to being a democratic society are seriously threatened" (Gilens and Page, 576). Others have reached the same conclusion in recent years, and their number is growing. Of these, a significant number of analysts locate the origins of the emergence of an increasingly powerful, globally connected, and essentially post-democratic elite in the neoliberal revolution of the 1980s and since, and, as we will see, further back still, in the first gilded age of Plutocracy brought about by the great American robber-barons-turned-philanthropists of the mid-nineteenth and early twentieth centuries. The influence of these players in shaping social, economic, and political developments to their liking should not be underestimated; their formative influence was profound and, as the earlier discussion of technocracy argued, is still very much with us. In what follows, we go deeper into the matter to get a fuller idea of the extent to which non-governmental private sector actors have researched, directed, and managed successive examples of their attempt to engineer the perspectives and behaviours of American citizens and, to a significant extent, the structure of American society itself.

For example the immensely wealthy and powerful tax-exempt foundations of the twentieth century (led, as we have already seen, by the Rockefeller Foundation, the Carnegie Endowment, and the Ford Foundation) in fact set up the system of American social science itself as a system for analysing, diagnosing, and controlling social phenomena and problems through objectively "scientific" means (Ross, 1991, 2003; Kay, 1996; Lemov, 2005). In this sense, the economic elites behind the foundations arrogated to themselves – in a way, arguably, that surpassed that of the government in overall scope, integrated vision, and purpose – the responsibility for understanding, stabilising, and improving the system of capitalist American democracy, ironically enough on the basis of the resolutely non-democratic resources, institutions, and networks developed by the plutocrats who strode like colossi across the political and economic landscape of the (first) Gilded Age in the early 1900s.

It is important to note at the outset of this discussion, argues Barry C. Lynn, that the United States has never actually been free from the threat posed by potentially monopolistic money power and its attendant tendency towards political overreach and interference in the democratic process (Lynn, 2020). For this reason, he argues in *Liberty from All Masters: The New American Autocracy vs. The Will of the People*, a working system of measures aimed at limiting and seeking to manage the monopolisation dynamic was operated until relatively recently. The current situation of accelerating ever-more concentrating post-democratic money power in the economic and political spheres stems, Lynn contends, from two main sources: first, the unprecedented accumulation of wealth and influence into increasingly fewer hands in an "unprecedented pyramiding of power" (Lynn, 2020: 16), occasioned he thinks by the rise of the twenty-first century Big-Tech monopolies, or what, as we have seen, Shoshanna Zuboff calls a new nexus of unprecedentedly 'instrumentarian' power; and second, the fact that the previously obtaining instruments built to contain and push back plutocratic monopoly practices have been abandoned by a society that has all but forgotten them:

The simple fact is that no liberty is safe among a people who have forgotten what it takes to prevent the concentration of extreme power and control within their own political economy. Who have forgotten how to protect the markets where, to a very great degree, they and their children make their society and their lives and their selves.

(Lynn, 2020: 13)

The details of the 'American System of Liberty' of which Lynn writes have, like so much else, been lost – or rather has been deliberately consigned, as Lynn has it – to the wastebin of history as far as the population at large is concerned. Prior to this, the system had been updated over time in response to changing circumstances to address the historical problems created by disruptive and monopoly friendly technologies like the railroad, cotton gin, electrical power, and mass communications. The aims, character, and functioning of this system

would have seemed familiar, even natural, to any reasonably educated, reasonably observant American voter, white or black, in 1965 or 1936 or 1912 or 1896 or 1860 or 1832 or 1800. It's a history that has been largely wiped from our textbooks and our discourse over the last generation . . . this is mainly the result of efforts by the same people who supported the overthrow of America's antimonopoly laws in the 1980s and the 1990s.

(Lynn: 23)

But there is more involved in the story of American plutocracy and the attempts to defeat it than the mere accumulation of capital into too-few hands. It is important to understand the aims and specific type of elite group psychology characteristic of entities such as the Rockefeller Foundation and the broader sociocultural, as well as economic and political, extent of their ambitions and influence over time.

There is little new, then, under the sun, and as Matt Stoller notes in his book *Goliath: The 100-Year War Between Monopoly Power and Democracy* (2019) there has been a long struggle throughout American history between democracy and plutocracy: between a Hamiltonian preference for "concentrating power in the hands of an elite, in banks, monopoly corporations, in a better, more educated sort" and a Jeffersonian desire to "place power through elections in the hands of the farmer, the worker, the small businessman" (2019: 26). At few moments in history has this been more intense than in the later nineteenth and early twentieth centuries when, to give one of the most germane and spectacular examples of the monopolistic impulse J.P. Morgan, the mergers king, made great strides towards his goal of centralising the ownership of major economic entities. Between 1894

and 1904, Morgan oversaw an unprecedented process of economic concentration in private hands,

structuring companies such as General Electric and International Harvester. Consolidation followed consolidation. American Tobacco rolled up 250 firms into one. At least seventy-two consolidations led to a situation in which one entity controlled at least 40 percent of an industry, and forty-two consolidations created situations where one entity controlled upward of 70 percent of an industry. Many newspapers cheered Morgan, lauding him as a heroic commander of the economy. (Stoller, 2019: 28)

The tone was set: the forces of monopoly, being greatly strengthened by the drive for consolidation, began to loom larger in the system, representing a powerfully plutocratic drive not only to make money but also, on the basis of the unprecedented wealth and influence accumulated, to take up the reins of responsibility for shaping American economics, politics, and society.

The continuous American tug of war between antitrust forces and strategies and the monopolisation dynamic across the twentieth century is too detailed and complex to be gone into fully here; but the point made by Lynn, Stoller, and many others is the germane one: on the face of the present facts, that struggle is close to over, absent a serious upsurge in popular democracy and concerted antitrust activity. Many popular and influential commentators have been making this and similar points in recent years, from Jonathan Tepper and Dennis Hearn in The Myth of Capitalism: Monopolies and the Death of Competition (2018), to David Dayen in his Monopolized: Life in the Age of Corporate Power (2020), to Zephyr Teachout's Break 'Em Up: Recovering Our Freedom from Big Ag, Big Tech and Big Money (2020) and Amy Klobuchar's Antitrust: Taking on Monopoly Power from the Gilded Age to the Digital Age (2021). The plethora of books with titles like these that have come onto the market recently is a clear indication of a crystallising of an idea which has become an almost normative belief among a large section of the population since 2008: the banksters and corporations are in charge. David C. Korten, one of the most sustained and assiduous analysts of these matters over many years, has as good an account of why and how we got here as any. In the most recent edition of his classic When Corporations Rule the World (2015), Korten shows how a triumvirate of ideological, political, and technological forces have produced an ever-greater concentration of economic and political power into increasingly few hands in the corporate and financial sectors. For Korten, the root of the problem is not the clique or cliques in ostensible charge of the global 'suicide economy' but the system itself, which is now beyond the control of even powerful interest groups to reform it, even in the unlikely event that they might want too:

Billionaire financiers and the CEOs of global mega-corporations may appear to be in charge. They may believe they are in charge. They receive lavish rewards beyond the dreams of the most powerful of former kings and emperors. They are, however, but well-compensated servants. The system is master. (Korten, 2015: 22)

The 'inherently unjust and destructive system' of which Korten writes has, once its underbelly is exposed, a very dark, world-permeating character:

The greater our dependence on money, the greater the hold the ruling corporate robots have over our lives. They control both the creation and allocation of money and our access to food, water, housing, energy, transportation, education, health care, entertainment, recreation, and the other basics of a healthy, prosperous life. The more complete their control, the greater their ability to reduce the people who do the real work of producing real goods and services to ever more desperate subservience.

(Korten, 2015: 22)

Thus is the world in which we are now required to live, and the pressures to which the parents and guardians of the younger and rising generations have sought, with varying degrees of success, to accommodate themselves. Younger people themselves, whether they have at their disposal the objective facts of the matter or acquire the feel of the twenty-first century through osmosis and emotional contagion, are growing up or heading for adulthood in this atmosphere. Small wonder so many of them prefer the refuge and consolation of the online life and its chimeras. The question of whether the mendaciously instrumentarian and anti-human 'suicide system' of which Korten writes has a centre or steering committee or not is open to debate. One avenue of approach to this question is a consideration of the role now being played not by a super-rich elite per se but through the institutions, strategies, and technologies of wealth concentration exemplified by BlackRock, the world's most significant provider of investment, advisory, and risk management 'solutions', as the jargon has it, and its peers State Street and Vanguard.

These entities, which have become somewhat more visible in recent years as the public awareness of wealth concentration has developed further, began the serious expansion of their operations in the aftermath of the 2008 financial crisis. Among the first to latch on to the new forms of power and influence as they were developing were Jan Fichtner and Eelke Heemskerk (2016), who suggested that "a massive shift has occurred from active towards passive investment strategies. This burgeoning passive index fund industry is dominated by BlackRock, Vanguard, and State Street". These they called the *Big Three* and noted that by 2016, in a total of "40 percent of all listed U.S. corporations the Big Three together constitute the largest shareholder – and even in 88 percent of the S&P 500 firms". This, they argued, was an unprecedented "re-concentration of ownership". Fichtner and Heemskerk noted that "the Big Three hold illiquid and permanent ownership positions, which gives them stronger incentives to actively influence corporations". Further to this, the authors found that these operations "indeed utilize

coordinated voting strategies ... Private engagements with management represent an important channel through which the Big Three exert influence". Interestingly, the authors also suggested that "BlackRock, Vanguard, and State Street are arguably exerting 'hidden power' because company executives are likely to internalize their objectives" and that there were indications that "this development entails new forms of financial risk, including anticompetitive effects and investor herding" (Fichtner and Heemskerk, 2016).

David Dayen, in a *Prospect* article of 2018 titled 'How BlackRock Rules the World', puts the problem in somewhat plainer language:

A new pecking order has emerged on Wall Street. Big banks remain powerful and incredibly profitable . . . But a decade of financial crisis, regulatory pressures, and (most important) new investing trends has transferred power to a few dominant asset management firms.

The focus of the piece overall is not so much the Big Three as such but on one of them in particular:

BlackRock is the world's largest asset manager, with \$6.3 trillion of other people's money under its control. BlackRock's Aladdin risk-management system, a software tool that can track and analyze trading, monitors a whopping \$18 trillion in assets for 200 financial firms; even the Federal Reserve and European central banks use it. This tremendous financial base has made BlackRock something of a Swiss Army knife – institutional investor, money manager, private equity firm, and global government partner rolled into one.

(Dayen, 2018)

This, as noted, was in 2018. The figure for BlackRock assets under management has since risen to ten trillion (Brush and Wittenberg, 2022). Readers who are unfamiliar with what 'trillion' actually means might like to consider the following: though precise estimates vary, there seems to be a general consensus online among people who calculate such things that counting trillion dollar bills – with each dollar taking a second to count, as if by a computer, working 24 hours a day – would take over *31,000 years*. The figure for the counting of a million would be a little less than 12 days and for a billion something in the region of 32 years (datagenetics.com). BlackRock meanwhile, and according to Dayen,

forges close relationships with governments to outpace competitors, attracting special benefits and avoiding onerous regulatory standards. Since 2004, researchers note, BlackRock has hired at least 84 former government officials, regulators, and central bankers worldwide. This can quickly bleed into conflicts of interest and official corruption.

(Dayen, 2018)

In fact, this might be putting things mildly. In what is possibly the most detailed and comprehensive critical analysis of the Big Three and what they represent published so far, Graham Steele argues the following:

Like other large investment companies throughout history, the influence of large fund companies does not end with their economic power. The Big Three fund companies also possess significant political power, by virtue of their lobbying heft, their stable of connected former policymakers, and their provision of vital privatized government services. These arrangements harken back to a day, before the advent of the antitrust laws, when financiers and government officials arbitrated policy difference behind closed doors, away from public scrutiny.

(Steele, 2020: 25)

BlackRock in particular enjoys a very close relationship with the government. Steele provides the details, writing in the same paper that "Good government groups have documented 118 examples of 'revolving door' activity by the company – cases in which a government officially joined BlackRock's roster, or vice versa". The ability of BlackRock and the rest and the monopolistic financial interests they represent to play an active role in the economic governance of the United States is, then, for many analysts at least as great as it was or may have been for the plutocrats of the first Gilded Age and is certainly sufficient to raise serious concerns about the central role it and its ilk are currently playing in the shadowy and corrosively anti-democratic merger of private financial and governmental structures and processes (Brown, 2020).

While it may indeed be true that there is nothing new under the sun, the rise of BlackRock to its current condition of influence and near-executive control of significant aspects of the American economy does have one particularly novel aspect: the firm's very powerful and highly sophisticated Aladdin risk management platform has allowed it to move the concentration of capital and other financial assets onto a new level. Indeed, the Silicon Valley giants themselves – who the uninitiated might assume to have technological capacities of their own sufficient to have facilitated their emergence as immense, top-level financial players in recent years have prospered, in large part, by taking advantage of what the Aladdin system has to offer: "Apple, Microsoft, and Google's parent firm, Alphabet - the three biggest US public companies - all rely on the system to steward hundreds of billions of dollars in their corporate treasury investment portfolios" (Dunn, 2018). This central facility of the BlackRock operation, then, has been a key component in the construction of the new financial infrastructure and networks that have enabled the new-money instrumentarian power coming out of Silicon Valley both to become integrated into the highest levels of the emerging transnational corporatocracy and to help consolidate and accelerate the development of the technocracy that has now come into view and functions as the practical management system that defends and expands the financial system's position and interests.
The Aladdin system itself, Steele explains, provides financial market sales, analysis, and tracking services. It has been alternatively described as the "central nervous system" for both the investment industry and the nonfinancial companies . . . or "like oxygen" – a product without which some companies "wouldn't be able to function". As of the time of Steele's writing of his paper in 2020, at least \$21 trillion in assets was to be found on the platform, "equivalent to 10% of global stocks and bonds" (equal to the annual GDP of the U.S.), "the total U.S. stock market capitalization, and four times the equivalent of all the cash in the world" (Steele, 2020).

In addition to the aforementioned Silicon Valley behemoths, BlackRock's 12,000 investment professional clients, as served through Aladdin, include State Street and Vanguard, its closest 'competitors', giving the firm a good deal of "vertical integration, a 'way to get new visibility and influence' to other wealth managers that is not available to smaller fund companies". As a consequence, at least in part, of this powerful sector-wide surveillance and control of trillions of dollars' worth of assets, BlackRock was "given a role contracting for the Federal Reserve Bank of New York to administer some of its COVID-19 related securities purchase programs, in a reprise of a role that it played after the 2008 crisis" (Steele, 2020; see also Martens and Martens, 2020; Massa and Melby, 2020; Roth, 2021).

As long ago as 2010, in a *Vanity Fair* piece on BlackRock CEO Larry Fink, Susanna Andrews was quoting a senior bank executive as stating that BlackRock was "like the Blackwater of finance, almost a shadow government" on the basis of the "mountain" of government contracts being awarded to the firm (Andrews, 2010) – 12 years ago. This, and the many developments since as outlined here, raises the question as to whether BlackRock should now be understood as forming a core element of a "shadow" or "fourth branch" of the U.S. government – an old notion frequently applied to the old fourth estate press/media more generally (Cater, 1959; Annenberg, 1985) and the post-9/11 security surveillance state (Englehardt, 2014; Greenwald, 2014; Robson and Olavarria, 2016) as well as the banking and financial services interest under review here (Lofgren, 2014).

In this regard, there are many questions to be answered about BlackRock's role in the Federal Reserve's financial response to the pandemic, and it will take future economic and political historians to properly sort them out, particularly the fact that BlackRock, the Federal Reserve, and an assortment of central bankers seem to have thrashed out a plan to transform the economy at the latter's annual meeting in Jackson Hole, Montana in August 2019, four months before the pandemic and the economic upheaval that would likely attend it were announced (Titus, 2020). A more detailed question concerns the relationship between the Federal Reserve/BlackRock strategy at this time of 'Going Direct', as a Blackrock white paper put it before the pandemic bailout/recovery deal was sealed. In effect, wrote Peter Ewart in a 2020 article, this meant, in response to the economic chaos being caused by the pandemic, "firehosing" trillions of dollars of bailout money "into particular areas of the economy. Given that this is public money held by

governments, who decides where and to whom these funds should go?" It would have been logical, Ewart continues,

that workers, professionals, small and medium businesses should have a central role in this, given their critical involvement in the creation of value in the economy and that they constitute almost the entire population of North America. But they don't. Instead, key power and authority has been handed over to a small group of private mega-banks and financiers.

Ewart wondered who the beneficiaries of this initiative were likely to be:

With BlackRock and other financial institutions at the helm, who is going to benefit from these bailouts to selected corporations which will amount to \$4.5 trillion (or by some estimates even more)? Will it be the highly leveraged "zombie" companies which have been bailed out before . . . Will it be those corporations who took advantage of low interest rates to spend trillions on stock buybacks (thus enriching CEOs and shareholders) instead of investing in their workers and production facilities? Or will it be those oligarchs who have outsourced much of their operations to other countries or have issued billions in junk bonds? It looks like many of these chosen entities and their CEOs stand to be rewarded handsomely, while the American people try to survive on a paltry \$1,200 handout and limited EI payments.

(Ewart, 2020)

Ewart's article is concluded with the suggestion that the North American economic system "is not classical capitalism but rather state monopoly capitalism, where giant enterprises are regularly backstopped with public funds and the boundaries between the state and the financial oligarchy are virtually non-existent".

Carol Roth goes still further in The War on Small Business (2021), suggesting that the BlackRock deal was part of a broader and ongoing campaign against small- and medium-sized businesses, in which the latter are seen as obstacles to the consolidation of state-corporate control. The primary mechanism used during the pandemic – often arbitrary decisions about which businesses could and could not function during the lockdown on the basis of their being 'essential' or not – worked massively in favour of state and oligarchical corporate interests; indeed, it is common knowledge by now that the reaction to the pandemic was responsible for the greatest transfer of wealth to the Big Money interest in history, with the big fish eating the little ones to astonishing effect. In the end, says Roth, in its Black-Rock-facilitated approach, the Fed, "a quasi-government agency, picked winners and losers, transferring wealth to those who already have it and making it harder for those who don't to compete" (Roth, 2021: 84). (Incidentally, readers unsure about what Roth may mean by calling the Federal Reserve a 'quasi' government agency may care to peruse Anthony C. Sutton's The Federal Reserve Conspiracy (1995) for more background).

The numbers involved in the wealth transfer mentioned by Roth are truly extraordinary, as Robert F. Kennedy Jr demonstrates in *The Real Anthony Fauci* (2022), in which he writes that the business closures in question

pulverized America's middle class and engineered the largest upward transfer of wealth in human history . . . In 2020, workers lost \$3.7 trillion while billionaires gained \$3.9 trillion. Some 493 individuals became new billionaires, and an additional 8 million Americans dropped below the poverty line. The biggest winners were the robber barons – the very companies that were cheerleading Dr. Fauci's lockdown and censoring his critics: Big Technology, Big Data, Big Telecom, Big Finance, Big Media behemoths.

(Kennedy, 2022: 38)

These accounts of the economic fallout of the pandemic closures bring something important into focus: the role played by a coalition comprising a 'quasigovernment agency' and an asset management firm in the further restructuring of the American economy towards oligarchical interests. The case of the rise of Blackrock exemplifies an important aspect of the emergence of this new postdemocratic and increasingly corporatocratic social and economic regime - and not only in the United States (e.g. in January 2022 Friedrich Merz, a former executive at BlackRock Germany, took over leadership of the CDU party, of which Angela Merkel had been leader for 18 years until 2018; see Deutsche Welle, 2022). At present, an array of integrated economic, technological, and political actors and forces are moving rapidly towards installing, on the basis of practical commonalities of interest and the system requirements of the instrumentarian infrastructure that has been built around us in short order while, for the most part, most of us were not watching closely enough, a hybrid actualvirtual reality management system for the American population that can best be described as a digital technocracy. Children and young people have been - for many decades now, as we will see as the book progresses – the primary source of guinea pigs for the development of the technologies and forms of behavioural manipulation that underpin this emerging system. The development of the core ideas and social philosophies on which technocracy is based has been long-maturing, and we turn in the next chapter to an examination of the history of the idea of technocracy, in the interests of context and an attempt to begin to understand as clearly as possible the processes, interests, and forces that have brought us to this point.

### Note

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The Road to Technocracy

From Sir Francis Bacon to the World Economic Forum

## The Dawn of Scientism and the Rise of the Expert

Though the origin of ideal of the superiority of technocratic rationality and governance can be traced back to Plato (Bambrough, 1962; Henwood, 1979; Gunnell, 1982), the emergence of the modern versions of these concepts is located in the seventeenth century. Emerging out of the Renaissance's humanisation of the world and the early scientific imagination, the first notable example of the idea of transforming the human condition by technological means may have appeared first in Tomasso Campanella's City of the Sun (1602) with its "emphasis on technical education and the creation of leisure through the use of machines" (Gunnell, 1982: 394). More usually, though, the story is said to start with Francis Bacon's idea that a technical elite should rule to maximise efficiency and technical order (Fischer, 1990: 67). In his utopian novel New Atlantis, published in 1627, "inventors, engineers, and what would later be called scientists, advised the kingdom and increased the wealth, health, and welfare of the state through their studies of nature, chemical experiments, and development of machinery" (Dusek, 2012: 1140). Though these new scientific experts did not rule as such, they functioned as high-level advisors to those who did, and on occasion they kept as secrets some devices they considered too dangerous to be placed in the hands of non-experts (Bierman, 1963). Thus, from the very beginning of the modern idea of the technocracy, Bacon was presenting the inevitable tension between rulers and politicians and the expert and eventually managerial entities that would rise up to challenge their legitimacy as rational governing agents capable of providing common goods to rational, stable societies. For Neil Postman, Bacon was the "first man of the technocratic age ... who first saw, pure and serene, the connection between science and the improvement of the human condition" (Postman, 1992: 35).

But it is with the ideas and innovations of Henri de Saint-Simon (1760–1825) – political theorist, utopian socialist, and pioneer of what might be called social scientism – that the technocratic impulse and its fundamental assumptions emerge in fully developed modern form. If Bacon's *New Atlantis* was the first example

of a scientific utopia, Saint-Simon provided the first model of a pure technocracy. His vision was of

an industrial society wherein an elite class of engineers, scientists, industrialists, and planners systematically apply technical knowledge to the solution of social problems and the creation of a rational social order . . . governance of society was to be an "administration of things" that would take from each according to capacity and provide for each according to performance. Political institutions would be replaced by a "parliament" of technical experts.

(Gunnell, 1982)

The proto-Marxist flavour of 'each according to his capacity' we will return to; but the real turning point in the theoretical promulgation of the potential of the new system lies in the fact that in Saint-Simon's conception, the certainties of science were to replace the dogma of the medieval church; the captains of industry and the scientist – a new, powerfully society-shaping type with extraordinary predictive powers – replace the feudal lords as the national leaders of society, because "a scientist, my dear friends, is a man who foresees; it is because science provides the means to predict that it is useful, and the scientists are superior to all other men" (Saint-Simon in Hart, 1964: 429).

The scientism and technocratic fundamentals of this new 'St. Simonian' paradigm were derived from an historicist conception of progress; the 'scientific' study of the past was understood to lead to predictively valid projections of what would be coming next. Quoting the Marquis de Condorcet, Saint-Simon wrote of producing a "history of the past and future of mankind" (Saint-Simon, in Simon, 1956: 318). These perspectives would later be absorbed into Marxism and Soviet Communism (Lyon, 1961: 55) as a consequence of Friedrich Engels's incorporation of many of Saint-Simon's phrases and terminology in his clarifying expositions of Marxist principles (Dusek, 2012: 1137). It is an often-overlooked fact that "Lenin and Stalin focused on phrases in the writings of Engels which actually originated with St. Simon, for instance 'society as one great factory', 'administration of things and not of men', 'artists as engineers of the soul'" (Hayek, 1955). Soviet Marxism, given this, had a strong technocratic trend, derived partly from earlier non-Marxist Russian utopians but also from the St. Simonian strain in Marxism (Bailes, 1978). As we will see when we come to the early twentieth century, the parallels between technocratic thinking in the Soviet Union and the United States are striking. More generally, as we will see, the connection between left-inclined utopianism and the development of technologies of social control has had a long career and been one of the features of technocratic thinking and innovation down to our time. It is interesting to note that Saint-Simon's prognostications themselves emerged from a desire to "bring order out of the chaos of post-revolutionary French society by establishing a social science" (Olson, 2016: 41) that could stabilise it; the solution to the social and political ills brought about by revolutionary destruction of the previously prevailing order was to be rooted somehow in a management and control system based on utopian socialism. Such are the ironies of history.

But it is important to note that Saint-Simon did not simply provide the likes of Engels with mechanical metaphors for relations between science society and humans. In his first book, Lettres d'un Habitant de Geneve, published in 1803, he moreover made reference to the laws being discovered in the physical and biological sciences as appropriate to the study of societies (Iggers, 1958), thereby laying the groundwork for what his successor, former secretary and originator of positivist sociology, August Comte, would call 'social physics'. This embedded the concept at the heart of the field of the nineteenth-century "social science" (introduced in 1822) he largely created (Comte, 1999; Aron, 1965: Ch. 3), setting us off on the road that has led to Alex Pentland et al. and, prior to that, the positivist approach to sociology that was at the centre of what in the next chapter we will call Rockefeller Social Science and its project of elite, top-down 'human engineering'. The latter was designed, like Sain-Simon and Comte's endeavours, to shape and condition society and the people in it in preferred directions on the basis of plutocratic wealth and the enormous 'philanthropic' power of the great tax-exempt foundations. The transposition of the technocratic impulse to the American context in the early years of the twentieth century would come to involve far more pragmatic - and much more ruthless - men than Saint-Simon and August Comte.

In the 1940s, James Burnham would, as we will see in the final chapter, write about the managerial society and managerialism, rather than electoral politics, as the core sphere of governance and social control in the American system. But prior to this, back in the early part of the century in an America still very much under the sway of the increasingly 'respectable' robber barons, Frederic Winslow Taylor (1856-1915) set out the principles of his 'scientific management' in 1911. This involved planning for and controlling the minutiae of the activity of industrial labourers, a practice very much of its time and connected to the broader emerging idea that "politicians and industrial entrepreneurs should, and would, give way to technical elites" (Gunnell, 1982: 393) to stabilise and maximally develop the expanding but chaotic economy and social system. Taylor, a mechanical engineer with an obsession with the maximisation of business efficiency, broke the industrial production process down into ever-finer elements and processes until optimal functionality was achieved, thereby casting the industrial labourer as the integrated cog in human-machine systems so memorably satirised by Charlie Chaplain and his conveyor-belt shenanigans in the 1936 film Modern Times (see Peters, 2022). It goes almost without saying that Taylor's 'scientific management' broke new ground in the shaping of human beings as standing reserve that was to be of long-lasting, world-historical significance; almost exactly a hundred years after the publication of The Principles of Scientific Management in 1911, Alex Pentland and his team at MIT invented, as a logical outgrowth of Taylor's stopwatch management culture, "a 'sociometric' badge, worn around the neck, that measures such things as your tone of voice, gestures and propensity to talk or listen" in the

workplace. Further to this, in the same article – and the reader will note that these innovations were already being cemented into workplaces almost ten years ago – it was noted that "Motorola makes terminals that strap to warehouse workers' arms to help them do their jobs more efficiently" (The Economist, 2015).

But we digress, slightly. The main point here is that Taylorism swept all before it, not only in the United States and the rest of the capitalist West but also in the Soviet Union because it combined *practices* for the maximal control of work processes and the people embedded in them with an *idea* derived, essentially, from St. Simon: *let the scientists and engineers take charge – they know what they're doing*.

The United States and Soviet Russia had more in common in those earlier years of the twentieth century than many knew. But the coming together in the USSR of technocratic revolutionary utopianism and Taylorism not only exceeded what was happening in the United States in an ideological sense, as would be expected, but provided a theoretical template for the figure of the instrumentalised and hyper-regulated citizen-worker, which is now coming into increasingly clear view in the Age of Amazon. In 1918, Lenin praised Taylor and insisted that his principles of scientific management be instituted without delay as a core element of social and economic transformation, writing a series of articles with titles such as "The Immediate Tasks of the Soviet Government" and "Six Theses on the Tasks of the Soviet Government" (McCarthy, 1984: 124).

Much is made these days, for obvious reasons, of the twentieth century's great prophetic-dystopian literature: Aldous Huxley's Brave New World (1932) (hot on the heels of Taylorism and perhaps a partial response to it) and George Orwell's 1984 (1949) spring most readily to mind of course (and we should also note in our context here C.S. Lewis's novel That Hideous Strength, 1945). But before any of these, there was Yevgeny Zamyatin's We (1921). Zamyatin, one of the first high-profile dissidents - or "heretics" (Zamyatin, 1970) - in the Soviet Union, used this early excursion into the dystopian form not only to critique the totalitarianism system unfolding in the USSR but also to offer a warning about the dangers of utopian-collectivist scientism more broadly. The extent to which We was an inspi-ration or template for Orwell's book is not at issue here (Owen, 2009), though it is worth noting that he reviewed Zamyatin's work very favourably, writing that it constituted "in effect a study of the Machine, the genie that man has thought-lessly let out of its bottle and cannot put back again" (Orwell, 1968: 65). What is at issue, though, is the way in which the totalising machine civilisation presented in We is based on the notion that Taylor's 'Tables' have escaped the bounds of the factory and have become the fundamental organising principle of the society as a whole. In the ironically named 'United State', the great Table of Hours transforms

each one of us into a figure of steel, a six-wheeled hero of a mighty epic poem. Every morning, with six-wheeled precision, at the same hour and the same moment, we – millions of us – get up as one. At the same hour, in million-headed unison, we start work; and in million-headed unison, we end it.

And, fused into a million-handed body, at the same second, designated by the Table, we lift our spoons to our mouths. At the same second, we come out for our walk, go to the auditorium, go to the hall for Taylor exercises, fall asleep. (Zamyatin, 1987: 12)

A less ironic enthusiast of the new managerial-technocratic vision of how things ought to be done was the influential economist, sociologist, and all-round influencer Thorstein Veblen, who called for a "soviet of technicians" to manage the governmental affairs of the United States (Veblen, 1921: 134). For Veblen, a complex figure too multifaceted to be fully examined here, the vision of an engineered society for which he was one of the most influential advocates needs to be put in its broad context of technocratic progressivism. As we will see, Social Darwinism had been all the rage among the movers and shakers of the Gilded Age (1870–1910), when ruthless competition and the exercise of a capitalism that was red in tooth and claw led to the accumulation of wealth and capital in a very small number of hands, necessitating the creation of an ideology that could justify the excesses of the newly rich and their corrupt business practices. Thus emerged the plutocrats' version of the "American Dream", "a blend of the Newtonian belief in a beneficent, finely tuned universe and the American versions of Calvinism and Puritanism, which condoned and encouraged the accumulation of wealth as a way of doing God's work" (Canterbery, 1999: 297). Andrew Carnegie and John D. Rockefeller, the most significant figures in the early twentiethcentury plutocracy's connection with technocracy and social/human engineering via the operation of "philanthropy", were of course Social Darwinists par excellence (Leonard, 2009).

Veblen, however, though he did not entirely reject Darwin (Hodgson, 1992), had a somewhat more critical and nuanced view than the plutocrats and some of the intellectual authorities who undergirded their world view when it came to what we might call the will to make money. Arguing that economic activity was not simply a function of supply and demand, utility, value, and so forth, Veblen suggested - and he was well ahead of his time in this matter - that it evolved with society and was thus shaped by psychological, sociological, and anthropological factors. In some of his earlier works, most notably the seminal The Theory of the Leisure Class (Veblen, 1899) - in which he coined the term 'conspicuous consumption', among many other things - he "condemned the exclusive emphasis of capitalism on 'pecuniary' motives, and argued that engineers, with their expertise and focus on 'facts' as well as the public interest should be in charge of American industry" (Olson, 2016: 22). It was in this direction that progress lay, towards a highly modernistic conception of "scientific" collectivism (Stabile, 1987). This, in the atmosphere of the "Age of the Machine" that was such a feature of the climate of thinking in the United States in the interwar period (Wilson et al., 1986). At this time "the machine emerged as the symbol of a new society based on order and efficiency, power and progress. In the course of the transformation, the engineering profession was often taken to embody the ideals of the new social system"

(Fischer, 1990: 84). The arguments of Veblen and other of his key kindred spirits were central to this change of climate. Those engaged in the question of how the burgeoning but always potentially chaotic economy and social system might be best managed were influenced by

economic theories of Thorstein Veblen and the principles of scientific management growing out of the work of Frederick W. Taylor, both of which suggested, much like the later work of James Burnham in The Managerial Society, that politicians and industrial entrepreneurs should, and would, give way to technical elites.

(Gunnell, 1982: 393)

The carrying forward of this idea and merging of it with Leninist principles were not by any means Veblen's project alone. Henry Gantt, mechanical engineer and consultant, an associate of Taylor's with an interest in extrapolating social principles from his colleague's scientific managerialism, was more strident and radical than Veblen himself and most of his followers - at least until the emergence of the Technocracy Inc. movement in the 1930s. In December 1916, Gantt recruited approximately 50 members of the Association of Mechanical Engineers to establish "The New Machine" (Maier, 1970; Peterson, 2017), which was intended to promote his vision of a new version of democracy. This new iteration of social and economic organisation was intended to mitigate the perils to the stability and orderliness of the system presented by the plutocrat-politician complex and replace them with the principles of across-the-board instrumental rationality, scientific expertise, and an approach to governance based on an 'engineering' approach. Gantt declared that "true democracy is attained only when men are endowed with authority in proportion to their ability to use it efficiently and their willingness to promote the public good" (Haber, 1964: 48). On another occasion, Gantt asserted that citizenship henceforth should "not consist in the privilege of doing as one pleases, whether it is right or wrong, but in each man's doing his part in the best way that can be devised from scientific knowledge and experience" (in Maier, 1970: 33). Irrational talking shops and the opinion-led, amateurish form of governance led by politicians would have to go. Facts and the predictive certainties of experts would replace this now redundant system, as "the engineer, who is a man of few opinions and many facts and many deeds, should be accorded the economic leadership which is his proper place in our economic system" (in Haber, 1964: 48). It is worth noting that, though Gantt himself appeared not to have been over-enamoured with the Bolshevik leadership, one former New Machine member, Walter Polakov, travelled to Russia to assist the Soviets with the development of their first Five Year Plan (Merkle, 1980; Kelly, 2004).

Gantt disbanded the New Machine initiative during WWI and, along with some of his former colleagues, became involved in applying the methods of scientific management to wartime production and resource allocation from positions within the government (Olson, 2016). Here Gantt et al. found themselves as part of the same system and effort as the likes of Edward Bernays and Walter Lippman, the creators not only of the propaganda enterprise that persuaded Americans to accept the U.S. involvement in the war but also of the mechanics of public opinion formation more generally when the war was over. Two of the core elements of the technocratic system that we are faced with now – a militarisation of the social structure and the applied social physics of 'nudge' groupthink persuasion – are visible here, and we will return to them in subsequent chapters.

The debate about the scientific management of the economy and the desirability of a more technocratic system was a feature of the 1920s as they wore on, but with the catastrophic effects of the onset of the Great Depression in 1929, the efforts to construct the most extensive and developed – and prescient – plans yet devised for a full-scale, all-encompassing technocratic system came to the forefront, at least for a time. And if commentators like Olson have seen the Technocracy Inc. movement as a "fringe" interest (Olson, 2016: 23), others have begged to differ.

## **Technocracy Inc.**

Of all the groups inspired to take action by Taylor and, particularly, Veblen, the Technocracy Inc. movement is arguably the most interesting and relevant for its connection with what is happening now in terms of its connecting of a new idea for an energy- rather than currency-based economy, and its dream of the kind of the technologies of mass surveillance of the population that were a mere fantasy in the 1930s. This was a movement, or perhaps something more like a cult, that took itself very seriously: it "declared without irony a 'new era in the life of man"" (Lemov, 2005: 34). Howard Scott, the movement's primary leader - assuming that role ahead of the more practical and scientifically trained engineer Hubbard - was a serious follower of Veblen, with whom he ran for a short time an outfit called the Technical Alliance. Scott broke away to form Technocracy Inc. in 1934, and he and Hubbard wasted no time in developing the 'Technocracy Study Course' through which they were hoping to bring legions of followers made despondent by the Great Depression - for them a product of the weaknesses in the currencyand price-based capitalist system itself - to their side. It contained declarations such as the following:

If the country's productive industry were competently organized as a systematic whole, and were then managed by competent technicians with an eye single to maximum production of goods and services instead of, as now, being manhandled by ignorant business men with an eye single to maximum profits; the resulting output of goods and services would doubtless exceed the current output by several hundred percent.

(Technocracy Inc., 1934: vii)

Technocracy Inc. was nothing, then, if not ambitious. Scott and Hubbard actually went so far as to develop a plan, or scheme, for an American 'Technate'. This once

established would be a "self-perpetuating corporate structure". Specifically, the Technate was to be divided into the so-called functional sequences:

Various branches of manufacturing industries – such as iron and steel, chemical, and electronics – were considered functional sequences. So were service industries, such as transportation, communication, housing, education, and public health. In addition to the industrial and service units, they recognized the need for certain social and quasi- political sequences to handle research, foreign relations, armed forces, and "social control".

(Akin, 1977: 138; see also Wood, 2014, 2018)

The Technate would be continental in scope, eventually encompassing Canada, Mexico, and Central America within its boundaries. This vast, centralised domain would be run on the basis of an energy credit system instead of the redundant system of fiat currency and price signals and would achieve the following programme, as included in the Technocracy Inc. Study Course:

- 1 Register on a continuous 24 hour-per-day basis the total net conversion of energy.
- 2 By means of the registration of energy converted and consumed, make possible a balanced load.
- 3 Provide a continuous inventory of all production and consumption.
- 4 Provide a specific registration of the type, kind, etc. of all goods and services, where produced and where used.
- 5 Provide specific registration of the consumption of each individual, plus a record and description of the individual (emphasis added).

Here then, in the middle of the 1930s, approximately 70 years before the advent of the smartphone, came into existence a powerful idea matching wall-to-wall surveillance with top-down control of individuals' energy consumption that was far more significant than the megalomaniacal 'planning' and cultish, fascistically flavoured ritual shenanigans of the actual Technocracy Inc. movement itself – which would begin to dwindle away in the 1940s but not be completely forgotten. It was certainly not forgotten by the contemporary 'space entrepreneur' and staunch advocate of transhumanism Elon Musk, whose paternal grandfather Joshua Haldeman headed up the Canadian chapter of the movement (Thornhill, 2018).

# Elite Utopianism and the 'Open Conspiracy'

As well as the likes of Taylor and Veblen, the leaders of Technocracy Inc. were under the influence of a major figure from across the Atlantic: the early pioneer of science fiction, visionary prophet, and promoter of technocratic one-world governance, and – there should be no surprises here – utopian socialist H.G. Wells (on this latter point, see Wells, 1908). Visions of technocratic futures abounded in the science fiction that Wells had been instrumental in establishing as a predictiveprophetic literary form since the publication of *The Time Machine* in 1895. Though he had his hits and misses in his futurological predictions of trends, one of them turns out in hindsight not only to have been an influence on Technocracy Inc. but also is more salient now than ever before, as we approach the era of fullspectrum surveillance of the Internet of Things and Bodies. In 1928s *The Open Conspiracy: Blue Prints for a World Revolution* – which was not, as the title suggests, actually a work of science fiction – Wells foresees a "great encyclopaedic organization, kept constantly up to date and giving approximate estimates and directions for all the material activities of mankind" (Wells, 1928: 53). Seven years later, Technocracy Inc.'s previously mentioned *specific registration of the type, kind, etc. of all goods and services, where produced and where used* and *specific registration of the consumption of each individual, plus a record and description of the individual* were put on the table.

This is why the Technocracy Inc. movement of the 1930s was much more than a fringe or semi-comical irrelevance: it had seeded into the minds of all those who were dreaming of a managerial technocracy the ultimate goal that such a system should be moving towards – as the 'management guru' Peter Drucker was quoted as saying more recently, "You can't manage what you don't measure" (Patrinos, 2014). It is also why Wells, whose prognostications on the theme of *The Shape of Things to Come* (1933) in his time, remains relevant now, as a precursor of the bizarre coterie of corporate overlords, futurologists, fantasists of our 'transhuman' future, and global technocrats currently seeding in the public mind the necessity of a post-pandemic 'Great Reset' or global technocracy.

As far as Wells is concerned, three of the core themes upon which he dwelt, and for which he often passionately proselytised, are of particular relevance to us now: elite technocratic scientism, world government (these two are in fact thought of by Wells to come together in a single global political entity), and eugenics (which was rebranded as 'population control' by the Rockefeller interest in the aftermath of the Holocaust, as we will see in the next chapter). As is well known in the industry that has grown up around the explication and discussion of the author's writings, there are in fact two H.G. Wells: the teller of cautionary tales in the late nineteenth century and the "gifted propagandist whose visions of the World State filled and shaped the first half of the twentieth century" (Shelton, 1991: 237). It is the impact of this second Wells that is of interest here.

The beginning of this second phase can be located at the beginning of the twentieth century, with Wells's publication of *Anticipations*, in which progress would be driven by "a really functional social body of engineering, managing men, scientifically trained, and having common ideals and interests" (Wells, 1901: 143). A few years later, in the highly philosophical science fiction novel *A Modern Utopia* (1905), the 'Samurai' – a caste of elite experts – manage the world state on Wells's imaginary planet in an attempt to maintain political stability in a progressive civilisation. This vision of elite-managed world states is at the core of the *Open Conspiracy* – a tract with some similarities to the prognostications of our contemporary would-be global technocratic class (although in this latter case, the amoral ruthlessness of the elite power structure that this would or will entail is masked by the canting rhetoric of "diversity" and "inclusion"; see Bromwich, 2021; Kahn and McArthur, 2021; Schwab and Malleret, 2022).

The central component of the 'open conspiracy' argument was the need for a collective effort towards the realisation of a "comprehensive conception of this new world", which should be "politically, socially and economically united . . . To this end a small but increasing body of people in the world set their faces and seek to direct their lives" (Wells, 1928: 27–28). This was to be a continuous theme in Wells's drive to persuade the world – or, at least, the small section of it that was to be directly responsible – that a one-world political and economic system was a must. Later, in and around the WWII era, his appeals and recommendations became, if anything, more urgent and apocalyptic: "The world needs . . . a federal world government embodying a new conception of human life as one whole" (1940: 1170), and "A world revolution to a higher social order, a world order, or utter downfall lies before us all" (1964: 252).

These reflections are not difficult to understand or contextualise; to the unprecedented horrors of WWI, through the trauma of the Great Depression, and to the further ravages inflicted upon the human spirit in WWII, Wells and others like him responded rationally and, arguably, humanely. From a certain perspective, a world government and technocratically controlled economic system made sense. But what are we to make of the central role of the eugenic thinking that accompanied these apparent 'solutions'? John Carey, whose *The Intellectuals and the Masses* (1992) and introduction to the *Faber Book of Utopias* (1999) are useful in this discussion, makes the connection clear:

The promise that genetic engineering holds out for improving the human race represents the most significant scientific advance since nuclear fission. It at last brings into the sphere of the possible the production of real live utopians, disease-free, super-brainy, superfit, of the sort that the more imaginative utopian writers have been dreaming about for centuries.

(Carey, 1999: xvii)

It is in this sense the sci-fi prophets, visionaries, futurologists, and technocratic would-be shapers of humanity have long been preoccupied with the quality not only of the human material with which the future utopias would have to work but also of the strains of thinking set in motion, in their different ways, by the cleric and economist Thomas Malthus (1766–1834) and the polymath and pioneer Social Darwinist (and half-cousin of Darwin himself) Francis Galton (1822–1911). In fact, long before Malthus and Galton propagated their ideas about population and heredity, writers of utopian fiction were already promulgating the kind of fallacies of human perfectibility that have so plagued our history: "Not only are the ideal societies of the utopian tradition full of handsome and healthy citizens, but both Plato and Thomas More supplemented their accounts

of political organisation with ingenious mechanisms for selective breeding" (Parrinder, 2015: 13).

Malthus's Essav on the Principle of Population (1798) contains numerous points of interest for the archaeologist of influential ideas, but one above all captured the imaginations of Wells and his cohort, via Charles Darwin, Herbert Spencer, and Francis Galton (Ruse, 1980; Claevs, 2000): the theory, based on a vision of constant struggle, that the human population will tend to increase at a faster rate than its means of subsistence (the food supply), unless checked by disastrous events such as war, famine, disease, and/or moral restraint. Widespread poverty, moral degradation, and general immiseration were inevitable otherwise. For forward-thinking and control-oriented progressives at the beginning of the twentieth century, this signalled the need to put into place eugenic strategies for population control. This line of reasoning has long since been debunked – largely on the basis of the fact that Malthus and his legions of followers, some of whom are still among us, treated humanity at large more as a passive pack animal than a sentient, problem-solving species capable of finding solutions to the very difficulties Malthus presented as inevitably catastrophic (The Economist, 2008; Naan, 2013; Bailey, 2015).

For Wells et al., a central component of any attempt to improve the situation would be to limit, control, and shape the human material of the emerging mass societies of the West before the impending civilisational crisis became an irreversible collapse. The broader context of European cultural pessimism emanating from anti-liberal writers very different from Wells and his like-minded contemporaries such as the Fabians George and Beatrice Webb, and George Bernard Shaw - leftinclined eugenicists all - should be noted here. Such signal publications emerging in the aftermath of the spiritual and cultural catastrophe of WWI as W.B. Yeats's 1919 poem The Second Coming, T.S. Eliot's The Waste Land (1922), Oswald Spengler's fascinating and these days widely misunderstood Decline of the West (originally published in German in 1918, English translation 1926-1928), José Ortega y Gasset's Revolt of the Masses (1930), and Arnold Toynbee's A Study of History (a multi-volume work initiated in, in terms of publication, in 1922) set the tone. Though Wells and his peers represented a very different strand of modernist, utopian social thinking, they can also be seen, to a considerable extent, as elitists in the cultural vein of the high Victorian Matthew Arnold - a cultural elitist if ever there was one - whose poem Dover Beach (1867) provides a poignant, highculture derived picture of the de-spiritualised England out of which Wells and the Fabians would emerge.

Wells, however, was a man much more of science than of God, and the second strand that played into the prevailing elite-eugenic vision of social improvement and human engineering of the early decades of the twentieth century came out of the work of Francis Galton, who is credited by history with being the originator of the core principles of eugenics, in 1833. The science of improving racial stock, developed out of Galton's Darwin-derived theory of heredity, had been transposed initially to the human population by philosopher, biologist, and first proponent

of social Darwinism Herbert Spencer (1820–1903); it is Spencer who coined the phrase "survival of the fittest", in his *Principles of Biology* (1864). The basic idea was to artificially produce a better quality of human race through regulating marriage and procreation. The key thing in Galton's idea of 'positive eugenics' was to encourage the like-with-like choice of marriage partners of the superior (mentally and physically) members of the population; these individuals ought to select for partners with similar traits to themselves. He first presented these ideas publicly on May 16, 1904, in London, before the *Sociology Society*, addressing "an audience that included, amongst others, the writers and eugenicists George Bernard Shaw and H.G. Wells and the future first British professor of sociology, L.T. Hobhouse" (Renwick, 2011: 336).

This historic presentation – historic because it both introduced the principles of social eugenics to representatives of a broad swathe of the educated public and turned out to be foundational to the direction early British social science would take – was on the theme of 'Eugenics: its definition, scope, and aims'. Galton's purpose was to make eugenics "a set of guiding principles for British life" (Renwick, 2011: 337). With this in mind, he set out for his audience his key aims: first, eugenics should be made an 'academic question' to establish and normalise in the public mind its scholarly and scientific significance and legitimacy; second, eugenics should be considered as such so that it could be "introduced into the national conscience, like a new religion", sufficient to make eugenics "the intellectual centre of gravity of British sociology" (2011: 337). With these goals in mind, Galton told the society that it should

devote its resources to the compilation of information about "thriving" families; that is, those in which "the children have gained distinctly superior positions to those who were their class-mates in early life". Indeed, in a turn of phrase that was no doubt directed towards the Sociological Society's desire for scientific respectability, Galton told his audience that whilst the "golden book" of thriving families would be a significant material contribution to the eugenic cause, it would "have the further advantage of familiarising the public with the fact that Eugenics had at length become a subject of serious scientific study by an energetic Society". Thus, as he brought one of his most famous presentations to a close, Galton – as is seldom recognized – had made the case for eugenics as the template for a new social science in the UK and outlined what needed to be done to make this a reality.

(Renwick, 2011: 338)

The presentation would have electrified not only Wells, Shaw, the Fabian socialists, and other left-inclined social reformers (Freeden, 1979; Ray, 1983; Coren, 1993; Freedland, 2019) but also a good proportion of Britain's socially concerned and ambitious intellectual class; a little later, as we will see in the next chapter, across the Atlantic, the nascent technocratic vision beginning to come into view around what would become plutocratic philanthropy, exemplified by the Rockefeller Foundation, fully absorbed the lessons learned from Malthus, Galton, Spencer, Wells, and the rest. Not only would the early tax-exempt foundations be inspired by Wells's vision of the desirability of top-down, elite-expert global governance, the Rockefeller and Carnegie interests would also settle upon the virtues and potential of eugenics, with the former initiating and funding the first American scientific research programmes into molecular biology (Kay, 1996) and the latter setting up at Cold Spring Harbour on Long Island of the Eugenics Record Office, the world's first centre for the national-scale genetic mapping and surveillance of the general population (Allen, 1986; Black, 2012; Krisch, 2014). This, among other things, involved a shift from 'positive' to 'negative' eugenics - from a desire to encourage the right kind of people to choose wisely in their choice of mating partners, to efforts aimed at decreasing undesirable 'genetic' and behavioural traits among the lower orders. The innovations and vigour brought to bear on this latter project by elite American money power interests were, by the 1930s, sufficient to attract the enthusiastic attention of the Nazis, those masters of negative eugenics. But we are getting ahead of ourselves. The point for now is to bring into clearer focus the conception of technocracy upon which this work is based - as a top-down, Technik- and technology-driven, human-shaping and controlling system of post-democratic surveillance, control, and management of the population at large.

# The Roots of the Global Technocratic Order: Trilateral Commission 'Technetronics', the Club of Rome, and the World Economic Forum

The two most significant Rockefeller figures in the post-WWII era were, without question, Nelson and David. The former came, in the end, to focus his activities on formal political work, making three unsuccessful attempts to secure the Republican presidential nomination in 1960, 1964, and 1968 before being made vice-president by Gerald Ford in 1974 (Persico, 1982; Reich, 1996), all this presumably to amplify and consolidate the political power of the family/Foundation. As we will see, however, the practical use of Rockefeller-dominated entities such as the Council on Foreign Relations (CFR), founded in 1921, was instrumental in serving the same purpose in terms of their influence and capacity to shape domestic and foreign policy alike, comprised as they were and are of 'non-partisan', publicprivate actors such as secretaries of state and other senior politicians, bankers, lawyers, professors, corporate directors and CEOs, and senior media figures as well as representatives (often directors) of the CIA. Funded by the big corporations and foundations - Rockefeller and otherwise - the presence and reach of these entities have of course given many causes for concern about their role in the American system of government and the exact nature of the state itself (Courtney and Courtney, 1962; Parenti, 2011; Parmar, 1995). Some analysts have gone so far as to characterise the CFR as the United States's "Imperial Brain Trust" (Shoup

and Minter, 1977), a point made repeatedly, though somewhat less colourfully, by sociologist G. William Domhoff (1970, 1998, 2014). Silk and Silk (1980: 184), who also adopt this perspective, suggest that if an American Establishment "is to be located in its purest form, then the Council on Foreign Relations is the place". Readers who would like to go deeper into the CFR's international connections and the scope of its influence are directed to the neglected but significant *The Anglo-American Establishment* (1981) by Carroll Quigley, the 'insider' and Georgetown University professor who carefully traced the origins and development of the international 'Round Table' system of which he argued the CFR was a part.

Unlike Nelson, David Rockefeller stayed almost entirely focused on the money in his prime years, putting extraordinary time and effort as a 'travelling commercial banker' into his pursuit of the consolidation and expansion of the Rockefeller empire and its associated interests:

During my thirty-five years at Chase I visited 103 countries; this included forty-one trips to France, thirty-seven to England, twenty-four to West Germany, fifteen to Japan, fourteen each to Egypt and Brazil, and three extensive tours of sub-Saharan Africa. At home I called on bank customers in forty-two of the fifty states. I logged more than 5 million air miles (the equivalent of two hundred round-the-world trips), ate approximately ten thousand business meals (more if you count the ones that I consumed in New York), and participated in thousands of customer calls and client meetings – as many as eight to ten a day when we were on the road. I also met more than two hundred heads of state and government, many of whom I got to know on a personal basis. Though at times the pace was a bit hectic, I found these trips productive and enjoyable, and essential to the globalization of our operations.

(Rockefeller, 2002: 198)

While Rockefeller presents himself in his memoir as a ceaseless toiler in the interests of Chase Bank – which is undoubtedly the case – he was also a dedicated and 'proud internationalist' spurred on, according to his account, by a sense of civic duty and mission: "For more than a century ideological extremists at either end of the political spectrum" have been attacking "the Rockefeller family for the inordinate influence they claim we wield over American political and economic institutions". But David is uncowed, and all the populists and conspiracy theorists in the world will not budge him. Some of those who engage in all this 'populist paranoia' even believe

we are part of a secret cabal working against the best interests of the United States, characterizing my family and me as "internationalists" and of conspiring with others around the world to build a more integrated global political and economic structure – one world, if you will. If that's the charge, I stand guilty, and I am proud of it.

(2002: 405)

The view one takes of the philanthropic ethos and programmes that underlay Rockefeller's activities in establishing and knitting together economic and political networks is of course a matter of personal interpretation; whether it expressed a genuine desire to make the world a better place or was simply a cover for an expansion of the usual, and hitherto primarily domestic, Rockefeller money–resources–influence grab is for the reader to judge, and in any case we will return to the topic later in the book. For now, it is the question of the extent to which the emergence of what we call 'globalization' was a matter of an organic and inevitable outcome of various kinds of 'progress' or a purpose-built system crafted by a small and specific coalition of interests that is at issue. It is suggested here that the latter is the case, and that since the influence not only of the major banking interests but also of the CFR and the Trilateral Commission (founded by Rockefeller and Zbigniew Brzezinski in 1973) were also involved in this process, we must look a little more closely at the role the Foundation–Corporation–Banking complex that David Rockefeller was instrumental in building escaped its limiting national boundaries and went global.

Harry Blutstein's *The Ascent of Globalization* (2015) is useful in helping us understand the dynamics of how this happened. During the 1960s, he explains, a group of prominent American CEOs began to argue for a reformation of the model the international financial order established at Bretton Woods in 1944. Their position was that a new post-national structure based on global markets was required in order for growth to continue and for the citizens of sovereign nations to benefit from globalised products and services without the restrictions placed on them by the regulatory regimes of individual states. Globalisation/economic internationalisation as it stood was faltering, and since these 'New Globalists', as *the New York Times* dubbed them, were not yet well-connected with political elites, they decided to take a direct role in promoting globalisation themselves, determined to replace the sovereignty of nation states with that of markets. David Rockefeller would play an absolutely central role in this project.

A crucial, tone-setting intervention in this process was made by the Italian industrialist Aurelio Peccei, who brought the argument about the need to suppress the influence of the nation state together with what came to be the core element of a new globalist ideology in the form of a rebooted, apocalyptic version of the Malthusian overpopulation argument. This second part of the programme was, as will be demonstrated in due course, utterly fallacious and has since been comprehensively debunked, but that did not prevent it from making its mark as the central element of a new 'philanthropic' ideology of what we might call elite-driven pseudo environmentalism, powered by Paul Ehrlich's massively influential and wildly inaccurate 1968 book *The Population Bomb* (Hartmann, 2016; see especially Chapter 2; we will return to this topic in Chapter 4). The two books Peccei published in 1969 were significant – *The Coming Chasm* and *Before It's Too Late*. In the latter, we find sweeping and unsubstantiated statements of this sort:

If we want to move ahead into the future with a sporting chance of success and survival, we must purge and purify our minds with the myth of sovereignty, which is a political and philosophical leftover from a dead past.

(Peccei, 1969b: 48-49)

Peccei and his supporters in the super-rich philanthropic community had already formed the Club of Rome in 1968 to promulgate this dark vision of the future of humanity and the environmental and human-control strategies necessary, it was argued, to mitigate the situation.

Things began, as Blutstein notes, to gain real momentum in the early 1970s. In 1973, for example, the RAND-associated consultant Neil Jacoby called on the United Nations to create a "World Corporation Authority" that would take on "supranational chartering of multinational corporations" (in Blutstein, 2015: 169). Private-sector lobbying at the United Nations became a key feature of the process whereby the new regime gained legitimacy and teeth. By the early 1970s, David Rockefeller was beginning to make increasingly decisive contributions to the development of what would become fully blown 1990s style globalisation. He "used business trips to build an extensive network of contacts among influential political leaders, CEOs and a smattering of kings, queens and plenipotentiaries", and though he preferred not to publicly criticise political elites "he worried that political leaders had lost their passion for reforming, let alone expanding the international order" (Blutstein, 2015: 171).

It was suggested by Rockefeller that the solution to this problem was to be found in the fact that "private citizens are often able to act with greater flexibility in the search of new and better forms of international cooperation" (Rockefeller in Blutstein, 172). The Club of Rome, which represented exactly the kind of formation Rockefeller was intent on helping develop, also upped the ante in the 1970s. It published its primary mission statement in 1972 (Meadows et al., Limits to Growth); this massively influential work, based on computer simulations, argued that economic growth would eventually and inevitably hit the buffers of resource depletion and was therefore as untenable as it was undesirable. Later, in 1991, the tone and scope of the Club's prognostications would harden into the kind of highly questionable but emotionally compelling catastrophism with which we are now all too familiar. The key publication here was The First Global Revolution by Alexander King (one of the Club's founders) and Bernard Schneider. Its primary purpose was to rally humankind to the cause of extreme environmentalism in such a way as to support the Rockefeller-Club of Rome agenda for globalisation. For this to work, King and Schneider argued that humanity at large could best be mobilised through the inculcation of the sense that there existed a common enemy to it:

In searching for a common enemy against whom we can unite, we came up with the idea that pollution, the threat of global warming, water shortages, famine and the like, would fit the bill. In their totality and their interactions these phenomena do constitute a common threat which must be confronted by everyone together. But in designating these dangers as the enemy, we fall into the trap, which we have already warned readers about, namely mistaking symptoms for causes. All these dangers are caused by human intervention in natural processes, and it is only through changed attitudes and behaviour that they can be overcome. The real enemy then is humanity itself.

(King and Schneider, 1991: 115)

Such is the story that children and young people have been fed consistently, through education and the media, ever since: *the real enemy of humanity is humanity itself* – we are a sort of destructive virus upon the face of Mother Earth. This fallacy has been a disaster for the mental health of American children – and, indeed, their self-image as dignified human beings. Popular political messaging such as Alexandria Ocazio-Cortez's unfounded but potentially terrifying assertion that "The world is going to end in 12 years if we don't address climate change" (Zhao, 2019) is but the spectacular tip of the iceberg of unease and potential self-loathing generated in the hearts and minds of young people as they are saturated, day after day, with end-of-the-world and humanity-as-a-bug-infestation scenarios (Zubrin, 2012; Shellenberger, 2020).

This might be less harmful as an issue if the authors of *The Limits to Growth* and *The First Global Revolution* had been close to accurate, well-intentioned, and humanely honest in their assertions. But serious reservations about the methodology and purposes behind this project were voiced by clear heads at the time, amidst all the manipulative doom-mongering of the early 1970s and early 1990s – both important moments in the hoisting into the public mind of this top-down technocratic vision of a world desperately in need of expert management and transformation. An examination of the original *Limits to Growth* model by a multidisciplinary team from the University of Sussex, published *Models of Doom: A Critique of the Limits to Growth* (1973), criticised the Club's modelling, inaccurate predictions, and misguided Malthusian assumptions. Later, economist Thomas Sowell took up the critique of the motivations, practices, and methods of the eliteenvironmentalists, in his *The Vision of the Anointed: Self-congratulation as a Basis for Social Policy* (1995).

Sowell's overall purpose here is a critical examination of the relationship between certain forms of elite progressive ideology and their neglect of empirical reality; he focuses in this respect on what he calls the "Teflon prophets" on whom no failures of analysis and prediction stick. One of the most remarkable characteristics of these "anointed" prophets and institutions is their ability to maintain their reputations

in the face of predictions that proved to be wrong by miles. Examples are all too abundant. A few of the more obviously false but Teflon prophets include such individuals as Kenneth Galbraith and Paul Ehrlich, and such institutional prophets as the Club of Rome and Worldwatch Institute.

In each case, Sowell argues, "the utter certainty of their predictions has been matched by the utter failure of the real world to cooperate – and by the utter invulnerability of their reputations" (1995: 64–65).

Singling out the Club of Rome as the entity whose predictions had at the time of writing been widest of the mark, Sowell argues that this degree of inaccuracy is not in itself the central problem. This, rather, is the real motivation behind the environmental and population narratives that began to rain down into the public mind from the 1970s onwards:

Like most prophecies of doom, the Club of Rome report had an agenda and a vision – the vision of an anointed elite urgently needed to control the otherwise fatal defects of lesser human beings. Long after the Club of Rome report has become just a footnote to the long history of overheated rhetoric and academic hubris, the pattern of its arguments, including its promiscuous display of the symbols of "science" – aptly characterised by Gunnar Myrdal as "quasi-learnedness" – will remain as a classic pattern of orchestrated hysteria in service to the vision of the anointed. Moreover, this is not the isolated act of a given set of people. What made the Club of Rome report politically important was its widespread consonance with views and visions of the anointed.

(Sowell, 1995: 78)

As David Rothkopf noted repeatedly in his persuasive and influential *Superclass: The Global Power Elite and the World They Are Making* (2009), groupthink and common cause are rife among the world's various super-rich individuals and institutions. There is no need to advance 'conspiracy theories' here; the pragmatics of action in defence of self-interest and the global concentration of wealth and power that the technological advances in digital communications have made possible in recent decades have made this concentration inevitable. But it is worth emphasising, as Sowell does, that mass-mediated climate and population hysteria, with the latter clearly connected to the strain of eugenic thinking in elite ideology, have not become historical footnotes (Hartmann, 2016). The growing intensity of the yearning among this group for increased technocratic control and ability to shape and direct the course of economic, social, and political events and manage populations in general demonstrates this.

It is worth taking a small step backwards in time here to clarify and establish exactly how the formation of this elite played out over time, with David Rockefeller at the helm. This will enable us to link the Rockefeller Foundation, the Club of Rome, and the World Economic Forum in a continuous line of development, where purposes and personnel are concerned, to the point at which we now stand – at what may be the threshold of Klaus Schwab's 'Fourth Industrial Revolution' – as good a euphemism as any for the elite dream of finally installing a 'Global Technocracy' once and for all.

Rockefeller, as noted, began his career in global network building in earnest in the 1970s. Having already established extensive relationships with the great and the good across the private and public sectors as Chief Executive of the Chase National Bank from 1969, and having made his observations about the limited potential of national government and formal political systems when it came to the business of knitting the world together in a system of international interdependencies by the early 1970s, he formed in 1973 the Trilateral Commission. This proved to be a turning point not only in Rockefeller's career and the development of the 'mature' globalisation of the 1990s and the pre-pandemic twenty-first century but also of the push towards technocracy we are now seeing unfold.

On the face of it, the Trilateral Commission was an initiative to bring the United States, Europe, and Japan together into a unified system that could advance the cause of global capitalism and resist the countervailing pressures of the communist powers; but the new and specific characteristic that made it especially significant was the bringing together of post-national "new globalism" with a recognition of the game-changing potential of the emerging computerbased and cybernetic technologies of the 1960s, as pioneered in the United States (Vaughan, 2020).

This latter insight Rockefeller owed to Zbigniew Brzezinski, then a sociologist at Columbia University prior to his rise to the role of National Security Advisor in the 1977–1981 Carter Administration. His 1970 book *Between Two Ages: America's Role in the Technetronic Era*, which in hindsight has proven to be one of the most far-reaching in its significance since the end of WWII, seems to have given Rockefeller a good deal to think about. It proposed, on the basis of Brzez-inski's analysis of the prevailing global geopolitical structure, the formation of a "Community of Developed Nations" that could create, to America's and as it turned out Rockefeller's advantage, a "long-range strategy for international development based on the emerging global consciousness rather than the old rivalries" (1970: 303).

This strategy would be made realisable because humankind had now arrived at the fourth and final stage of Brzezinski's four-part model of development. In the *Religious* phase, the world was dominated by religious organisations and dogma and was to a large extent ignorant and narrow-minded; the second, *Nationalist* stage, saw equality before the law established as a principle, and the twentieth century's two World Wars gave rise among the global elite to concerns that the national system was failing; the third, *Marxist* stage, recognised by Brzezinski the scholar despite his virulent Polish anti-Communism, had been a necessary step to get to the final stage as it contributed to the maturing of humanity's 'universal vision'; and the fourth, *Technetronic* stage had the potential to lead to a system of rational humanism at the global scale.

What followed from this would have been music to Rockefeller's ears: the nation state as a fundamental unit of humanity's organised life had ceased to be the principal creative force in world affairs, and "International banks and multinational corporations are acting and planning in terms that are far in advance of the political concepts of the nation state" (1970: 28). But there was more – much more: "A threat", Brzezinski wrote,

confronts liberal democracy. More directly linked to the impact of technology, it involves the gradual appearance of a more controlled and directed society. Such a society would be dominated by an elite whose claim to political power would rest on allegedly superior scientific knowhow. Unhindered

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by the restraints of traditional liberal values, this elite would not hesitate to achieve its political ends by using the latest modern techniques for influencing public behavior and keeping society under close surveillance and control. (1970: 97)

The old dream of Technocracy Inc. of being able to 'register' and analyse all the activities of all the people was, then, closer at hand than most understood. And though Brzezinski's writing is cast in the style of a forewarning of future threats, to Rockefeller and his ilk it more likely looked like a promise. Thus was the new Techno–Trilateral agenda formed, and its creators worked tirelessly thereafter to maximise its potential and their own influence.

Various conspiracies have been put forward about this formation, as David Rockefeller himself humorously noted, but the fact is that this was from its initiation and to this day an extraordinarily power-concentrating initiative, very much on the CFR model. A small number of scholars have critically examined the power structure of the Commission using its own documents, and we will consider their concerns here (Sutton and Wood, 1979, 1980; Sklar, 1980; Wood, 2014) - the Trilaterals are quite powerful and influential enough to make their own case for themselves. Of these early works - and there have been surprisingly few additions to them in recent years - Holly Sklar's edited 1980 collection Trilateralism: The Trilateral Commission and Elite Planning for World Management is the most comprehensive. It features sections on themes such as the origins and structure of the Commission, its rise to prominence and influence in the executive headed by President Jimmy Carter (a Trilateralist himself), managing the internationalist capitalist economy, the co-opting of national elites - particularly those in the then-developing countries, and, fascinatingly, making capitalist democracy more governable, in the context of the 'Crisis of Democracy' identified by Michael Crozier, Samuel Huntington, and Joji Watanuki, who published a book of that name with the subtitle Report on the Governability of Democracies to the Trilateral Commission in 1975. The authors of the advisory report make the following, extraordinary point:

The vulnerability of democratic government in the United States (thus) comes not primarily from external threats, though such threats are real, nor from internal subversion from the left or the right, although both possibilities could exist, but rather from the internal dynamics of democracy itself in a highly educated, mobilized, and participant society.

(1975: 115)

This, according to Sklar, gives us the first of two key themes in the Commission's thinking: the need to suppress or limit the possibility of a highly and genuinely participatory democracy emerging; the instability caused by such a form of political activity was to be curbed. Second, Sklar cites *Towards A Renovated International System*, a "Trilateral Task Force Report" published in 1977 and written by

Richard N. Cooper, Karl Keiser, and Masakata Kosaka: "The public and leaders of most countries", they assert,

continue to live in a mental universe which no longer exists – a world of separate nations – and have great difficulties thinking in terms of global perspectives and interdependence. The liberal premise of a separation between the political and economic realm is obsolete: issues related to economics are at the heart of modern politics.

(in Sklar, 1980: 3)

This early blast from the neoliberal camp subsumes, it seems, all things to economics. In other words, and to put the thing simply, Sklar argues,

[T]rilateralists are saying (1), the people, governments and economies of all nations must serve the needs of the multinational banks and corporations; (2) control over economic resources spells power in modern politics (of course, good citizens are supposed to believe as they are taught: namely, that political equality exists in Western democracies whatever the degree of economic equality); and (3) the leaders of capitalist democracies – systems where economic control and profit, and thus political power, rests with the few – must resist movement towards a truly popular democracy. In short, trilateralism is the current attempt by ruling elites to manage both dependence and democracy – at home and abroad.

(Sklar, 1980: 4)

Richard Gardner, a politician, academic, and Commission member, made no bones about the Machiavellian strategising and tough-mindedness of the Trilateralist mindset, and how little regard it had for national sovereignty, in the article 'The Hard Road to World Order', published in *Foreign Affairs* in 1974:

In short, the "house of world order" will have to be built from the bottom up rather than from the top down. It will look like a great "booming, buzzing confusion", but *an end-run around national sovereignty, eroding it piece by piece*, will accomplish much more than the old-fashioned frontal assault. (Gardner, 1974, emphasis added)

This gradual erosion of national sovereignty and instantiation of a post-national, elite-dominated political and economic system overseen by global institutions is a complex story, the telling of which is beyond the scope and remit of this book. Suffice it to say that the CFR and Trilateral Commission can be seen as expressions of Rockefeller's power and that this is not a purely historical matter. The Commission and its ilk are still very much with us; before concluding the chapter with a demonstration of the continuity of the Trilateralists' overall project, as exemplified by the increasingly prominent and controversial World Economic Forum, let us note that critics from both ends of the political spectrum have been scathingly critical and mistrustful of the globalist project overall, where the Commission is and was concerned.

Noam Chomsky, in a lecture given in 2000, talks about the Trilateral Commission as leading a concerted pushback against the upswing in potentially participatory democracy and civilising social change he believes to have been characteristic of the 1960s in the United States. Against these things a "strong backlash was to be expected from the ranks of privilege, and it was not long in coming, pretty much across the spectrum of respectable opinion. More important, it came in policies undertaken to contain and destroy the threat". The first report of the Commission, published 25 years previously, comes in for particular criticism, conveying as it did the views of an unprecedentedly merged elite private–public power bloc, as "the Carter administration was drawn almost entirely from the commission's ranks" (Chomsky, 2000: 36).

The report, being concerned – as has already been mentioned – with the 'crisis of democracy' that had arisen in the 1960s, is taken by Chomsky to constitute an attack on the "large sectors of the population that had been passive and marginalized" as they

sought to enter the public arena to defend and advance their interests. The naive might mistake this to be a step toward democracy, but the participants in the study understood that it is a "crisis of democracy" that must be overcome. (2000: 37)

The failure of the recently empowered sections of society to comprehend their roles as spectators of rather than of participants in the functioning of the polity and what Huntington et al. saw as an 'excess of democracy' spoke to Chomsky of hypocritical elitism; the Commission was particularly concerned, he said quoting the report, "by the rise of 'value oriented intellectuals" who "devote themselves to the derogation of leadership, the challenging of authority, and the unmasking and delegitimation of established institutions".

"It" [the report], Chomsky continues, "contrasted these sinister groupings with the 'technocratic and policy-oriented intellectuals', the 'responsible men', the domestic counterparts to those we label commissars and apparatchiks in the societies of our official enemies. Values are reversed at home, in the standard way" – here Chomsky focuses on the hypocrisy of the position adopted by Huntington et al., of whom he clearly expected better:

The "responsible men" on our side are not distracted by romantic ideas about justice and freedom but keep to serious pursuits: managing the world within the framework of "established institutions" that are subject to no challenge as they serve the needs of power and privilege. One element of this task is doctrinal management, including "the indoctrination of the young" in proper modes of thought and interpretation. The effort to restore discipline and obedience has been a major theme of the years since.

(Chomsky, 2000: 37)

Republican Senator Barry M. Goldwater, widely known of course as the catalyser of the American conservate movement in the early 1960s and in most if not all respects Chomsky's diametric opposite politically, was no less scathing or dramatic in *With No Apologies*:

The Trilateral Commission is international and is intended to be the vehicle for multinational consolidation of the commercial and banking interests by seizing control of the political government of the United States. The Trilateral Commission represents a skillful, coordinated effort to seize control and consolidate the four centers of power – political, monetary, intellectual and ecclesiastical. What the Trilateral Commission intends is to create a worldwide economic power superior to the political governments of the nation states involved. As managers and creators of the system, they will rule the future.

(1979: 280)

As already noted, we will go on to a more detailed consideration of the crisis of American democracy and the current push towards the increasing concentration of non-governmental power and control presently. It is easy to dismiss, as David Rockefeller does in his memoir, criticisms of the Trilateral Commission and other globalist institutions and initiatives as the ravings of irrational, crazed conspiracy fanatics. But anyone who has been paying attention in the last three years will have seen the rise to prominence and undoubted international influence of the World Economic Forum, a clear outgrowth of the Rockefeller Foundation/CFR/Trilateral Commission culture, and it is time to look with a clear eye at the changing balance of power between Western nation states and the forces and powers unleashed by Rockefeller et al. in the 1970s.

The World Economic Forum was founded by Klaus Schwab in 1972, in the same historical moment as the Trilateral Commission and only a little after the establishment of the Club of Rome; Aurelio Peccei, in fact, delivered a presentation of the findings of *Limits to Growth* at a World Economic Forum meeting in 1973 (Vedmore, 2021). The context of the emergence of this is, as we have seen, the gradual coming together of what by the end of the twentieth century some scholars had begun to identify as the formation of a fully transnational capitalist class (TCC) (Robinson and Harris, 2000; Sklair, 2001), based primarily, but by no means exclusively, on interlocked elite-level directorships.

As Brzezinski had observed in 1975 to his Trilateral Commission colleagues, by then in his role as director, their mission was one of great historical significance. Harking back to the internationalism that emerged in the aftermath of WWII at Bretton Woods, he wrote that while "1945 marked the beginning of the existing international system", the role of the new Commission heralded "the beginning of its renovation and readjustment" (Brzezinski, 1975: 2). This time around, though, the task would "no longer be the preserve of the Anglo-American political establishment, but involve the business and political elites together with senior bureaucrats from international agencies" (Blutstein, 2015: 175). The WEF did much to facilitate the development of this process. Having been convened for the first time in 1972, as the Trilateral Commission was being set up, the WEF brought the cream of Europe's CEOs together at Davos in Switzerland to brainstorm ideas around Europe's place in what was beginning to look like a potentially hyper-competitive international economic landscape. The initial purpose of the meeting was to

secure the patronage of the Commission of the European Communities, as well as the encouragement of Europe's industry associations. By 1982 the first informal gathering of "World Economic Leaders" took place on the occasion of the Annual Meeting in Davos, bringing cabinet members of major countries and heads of international organizations (including The World Bank, IMF, GATT) together with a burgeoning core membership of top international capitalists.

(Plehwe et al., 2016: 58)

This initiative was a clear outgrowth of the broader and older Rockefeller Foundation's vision of the direction in which the world should be moved – to scale-up corporate power and influence globally, to the extent even of sowing the seeds of the long-term development of China in a market-oriented direction; President Nixon's historic 1972 visit to that country grabbed all the headlines, but David Rockefeller and the then-Secretary of State Henry Kissinger did the serious work in the background, meeting with key members of the political elite and beginning to lay the groundwork for what would later become known as the Chinese "economic miracle" (Rockefeller, 2002: 212).

Unbeknownst to the public at large, Kissinger had visited China prior to Nixon's trip, in 1971, to work the back channels and prepare the ground (National Security Archive, 2002; MacMillan, 2007). Though on the 1972 visit Kissinger was accompanied by David Rockefeller, he was in fact a protégé of his brother Nelson. From 1956 to 1958, Kissinger worked for the Rockefeller Brothers Fund as director of its Special Studies Project, Nelson having recruited Kissinger, who was then on the faculty at Harvard, as director of the project. Nelson Rockefeller had first met and "picked out" Kissinger in 1955, when the former was special assistant for foreign affairs to President Eisenhower, long before his assumption to the vice-presidency in 1974 (Persico, 1982; MacMillan, 2007; Schwartz, 2020). It is worth noting, then, that one Rockefeller brother was vice-president of the United States at the same time another was getting the Trilateral Commission off the ground and that both Henry Kissinger and Zbigniew Brzezinski were brought into the Rockefeller orbit well before their rise to prominence and power in the executive and beyond. The details of and personnel involved in this crossover, or merger, of the Rockefeller/Trilateral interest with the U.S. government can be found in the thoroughly researched and information-packed works of Anthony C. Sutton and Patrick Wood, as noted earlier.

It is also interesting, while we are at it, to note the connection between Kissinger and WEF founder Klaus Schwab. In 1967, Schwab gained a Doctorate in Economics from the University of Fribourg, Switzerland, as well as a Master of Public Administration qualification from the John F. Kennedy School of Govemment. "While at Harvard", investigative journalist Johnny Vedmore writes, "Schwab was taught by Henry Kissinger, who he would later say was among the top 3-4 figures who had most influenced his thinking over the course of his entire life" (Vedmore, 2021). Indeed, Aratnam (2020) argues that "Klaus Schwab's 'Spirit of Davos' was also the 'Spirit of Harvard'". And the Wikipedia page for Schwab - not that we are acknowledging that platform here as a credible research source - does name Kissinger alone under the heading of Schwab's 'influences'. We will return to the WEF in due course, but make two points here: the first is the obvious problem with which it – and entities like it – are increasingly being associated, and the second, at a slight remove from the focus on economic power, relates to the corrosive effect on people in general of the mindset and values it represents.

The first concerns its 'agenda-shaping' character, as an entirely unaccountable and invitation-only gathering, which is

increasingly where global decisions are being taken and moreover is becoming the default form of global governance. There is considerable evidence that past WEFs have stimulated free trade agreements such as NAFTA as well helped rein in regulation of Wall Street in the aftermath of the financial crisis.

More broadly – and this is the context in which the much-discussed and apparently pandemic-triggered notion of the 'Great Reset' is situated – there is the matter of the so-called Global Redesign Initiative (GRI), started in 2009, which

effectively proposes a transition away from intergovernmental decision-making towards a system of multi-stakeholder governance. In other words, by stealth, they are marginalising a recognised model where we vote in governments who then negotiate treaties which are then ratified by our elected representatives with a model where a self-selected group of "stakeholders" make decisions on our behalf.

(Buxton, 2016)

Second, there are the broader social-psychological consequences of the values, attitudes, and behaviours of this global elite, the effects of which have percolated down (or been forced upon, depending on the reader's perspective) into our everyday lives. Richard Sennett has many observations about the Davos culture and its problematic trickle-down effects in his prescient 1998 book *The Corrosion of Character: The Personal Consequences of Work in the New Capitalism.* In his repeated visits to and report on the culture of Davos in this work, he works up a pen portrait of the psychological profile of an exemplary Davos mindset.

Three things, he says, are particularly significant about what elsewhere has been described as the "Gulfstream/private jet – flying, megacorporation-interlocked, money-encrusted policy-building elites of the world" (Phillips and Soeiro, 2012). The two main traits concerned here are the capacity to let go of one's past and the confidence to accept fragmentation: these

are traits which encourage spontaneity, but here on the mountain such spontaneity is at best ethically neutral. These same traits of character begetting spontaneity become more self-destructive for those who work lower down in the flexible regime. The three elements of the system of flexible power corrode the characters of more ordinary employees who try to play by these rules.

(Sennett, 1998)

The third quality – that of ethical neutrality, if that is its meaning here – is worthy of note, given the holier-than-thou platitudinous soundbites to which so many of the speakers at Davos meetings appear to be addicted. The canting rhetoric characteristic of these spheres is, perhaps, a cover for the lack of a genuine and deeply felt concern for others. But here we are speculating; Sennet does not make this point himself.

But his overall point is clear: the willingness to live with and embrace risk is "no longer meant to be the province only of venture capitalists or extraordinarily adventurous individuals. Risk is to become a daily necessity shouldered by the masses" (Sennett, 1998: 93). The capacity to endure, and perhaps even enjoy, 'dwelling in uncertainty' perpetually and the psychological risk that goes with that is, for the majority of us, more a corrosive ordeal than a welcome invitation to the thrill of globalised and endlessly reflexive open-endedness in a deliberately un-anchored and constantly 'innovating' world, dictated top-down by the requirements of the 'system' – or, perhaps, the interests that shape and run it, like the WEF.

Sennet makes this clear when he cites the research of the psychologist Amos Tversky, who argues that what most people focus on emotionally where risk is concerned is loss. As a result of numerous laboratory experiments, Sennett writes, Tversky came to the conclusion that

in everyday life people are more concerned about losses than gains when they take risks in their careers or marriages as well as at the gaming table, that "people are much more sensitive to negative than to positive stimuli.... There are a few things that would make you feel better, but the numbers of things that would make you feel worse is unbounded". . . . risk-taking is something other than a sunny reckoning of the possibilities contained in the present. The mathematics of risk offer no assurances, and the psychology of risk-taking focuses quite reasonably on what might be lost.

(1998:96)
Sociologist Ulrich Beck claimed in an early work on globalisation and risk that in "advanced modernity the social production of wealth is systematically accompanied by the social productions of risks" (Beck, 1992: 19). He was referring, at least in part, to the shifting of the responsibility for facing the challenges of the late-modern situation more and more towards the individual – a point also made by Zygmunt Bauman: "Being thrown on one's own resources' augurs mental torments and the agony of indecision, while 'responsibility resting on one's own shoulders' portends a paralysing fear of risk and failure without the right to appeal and seek redress" (2000: 19).

Hitherto, then, a flexible capacity to face and manage endless risk and uncertainty has been the enemy of mature, settled, embodied, and recursive life. To be burdening the shoulders of children and young people with these expectations – to unground them from the kinds of phenomenologically real and relatively stable experience enjoyed by their predecessors – may, of course, to be to herald a new kind of 'liquid' human personality. Time will tell, but the research into the mental health of Generation Z discussed in the previous chapter does not necessarily augur well. And this should be placed in the context of the decline of the social capital and solidarity that was already well underway before our current system of post-Google instrumentarian power was assembled (Putnam, 1995). In addition to the costs of the collapse of formerly relatively stable social institutions, vital living communities, and working lives so movingly presented by David B. Putnam in his *Our Kids: The American Dream in Crisis* (2015), we must now add the decentring and ungrounding consequences of the life online.

Such is the world in which American children and young people must dwell – in the existential chaos wrought, in part at least, by the centrifugal forces unleashed by the capitalistic monopoly and power-concentrating ambitions of the economic elites. Small wonder, then, that so many of them have embraced their immersion in the variety of fantasy worlds and alternative realities that now dominate our digitally mediated lives. And even smaller wonder that so many have fallen for the transhumanist, science fiction-as-social prophecy fallacies being pushed so hard by Schwab and his ilk – a phenomenon arguably initiated by H.G. Wells in novels such as the previously mentioned A Modern Utopia (1905) and Men Like Gods (1923).

In the next chapter we examine in more depth and detail the ways in which the elite technocratic–eugenic culture discussed earlier moved across the Atlantic and became a central interest of the Rockefeller Foundation and its ilk as they set up a variety of privately funded research centres in new disciplines, and social programmes designed to begin to shape American society in their preferred direction. This discussion provides further insights into the deeper long-term project from which the likes of the Trilateral Commission and World Economic Forum emerged and brings into the picture three other important themes: the first concerted attempts to build, and extend across society, integrated human–machine systems; the emergence of technologically mediated and propagandistic mass persuasion or 'public relations'; and the rise of the figure of the neoliberal 'consumer' as a replacement for the older one of 'citizen'.

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## Shaping the Twentieth-Century United States

Elite-Military Social Engineering

### Military-Corporate Elements in C. Wright Mills's 'Power Structure'

Five years after the end of WWII, a paper was published under the auspices of the recently constituted RAND Corporation - which will be discussed in the following called "The Prediction of Social and Technological Events" (Kaplan et al., 1950). Having grown out of U.S. Air Force research and development as a forum bringing together a variety of high-level scholars and analysts from different and formerly separated disciplines, the Corporation had by 1948 spread its wings and established, among other things, a social science division (Rohde, 2013: 13). The paper in question – designed as a pilot study – probed the issue of exactly how social and technological forecasting might be placed on a more rationalised and systematic basis than it had been hitherto in the interests of better policymaking. The project was the beginning point of what would become the RAND methodology known as the Delphi Technique, in which the structured groups of individual experts interacted systematically to produce shared forecasts on the basis of all the available evidence and their own collective analysis of a given topic. The process was designed to be iterative, with the experts involved encouraged to review their original thinking and conclusions in the light of summaries of their collective endeavour provided by facilitators or "change agents" at various stages in the process (McLaughlin, 1990; Rowe and Wright, 2001). Thus was a new technocratic approach to the prediction of social trends formed.

RAND at the time was an element in the developing landscape of synergistic private/public military projects, tax-exempt foundation research enterprises, and think tanks engaged, among other things, in the business of predicting and seeking to shape social and technological trends while they were often still at the nascent stage. The Rockefeller Foundation in particular, but also the Carnegie Endowment and Ford Foundation – which was central to the initiation of the RAND project and the intellectual culture that emerged from it – had already broken new ground in the setting up and funding of social–scientific research networks and councils. By the second half of the twentieth century public policy was being based on expert technocratic analysis and forecasting, and these processes were

central to a broad elite project of attempting to shape – on the part of private entities and in official policy alike – the direction and character of American society and the individuals who comprised it. This process was played out in such a way that the public at large often knew little of it, usually falling back into the default assumption that it was the role of elected officials exclusively, or at least primarily, to set social, cultural, and economic agendas.

In the age of globalisation, this cluster of institutional interests expanded into the system of interlocked globalist institutions with which we are familiar today – from the United Nations, European Union, World Bank and IMF to the still-active large foundations and newer iterations thereof, such as the Bill and Melinda Gates Foundation or George Soros's Open Society Foundation, to the multitude of entities that comprise the NGO Complex; this vast array of interests, held together by synergistic institutional, personal, and ideological connections (liberal or neoliberal, but certainly globalist), is widely held of course to represent a global civil society ceaselessly pushing towards making the world a better place.

The actors and forces represented in this system may be different in scope and scale from their American twentieth-century predecessors but are not different, it is argued here, in kind. With the weight of influence moving, as we have seen, more towards private sector interests in recent years, an expanded version of the Rockefeller-Trilateral-RAND culture which now seeks to take a leading role in reshaping the world, via a rhetorically strident but empirically questionable insistence that we must 'Build Back Better' via various post-pandemic 'Great Resets' and 'Transitions' to be overseen, of course, in a new system of top-down surveillance and management of populations administered by the usual suspects and their legions of experts and media spokespeople. The Rockefeller Foundation and RAND, as examples of the long-term playing out of these developments, have been active since 2020 in leading the argument that the world must now be radically transformed (RAND Corporation: Harrison, 2020; Izenberg and Clark-Ginsberg, 2020; Rockefeller Foundation: Kahn and McArthur, 2020, 2021). Curious and open-minded readers should also note the Rockefeller Foundation's extraordinary report 'Scenarios for the Future of Technology and International Development', which predicted the outbreak and character of the COVID-19 pandemic with astonishing accuracy ten years before it happened and make of it what they will (Rockefeller Foundation, 2010: 18-25). What follows is a presentation of the character and motivations of the Rockefellers and RAND, not because they were the only players in the push towards elite technocratic management and control in the American twentieth century but because an examination of their histories and purposes exposes most of what we need to know about the mindset and practices that have brought us to the verge of an integrated global system of digital technology-powered population management on the basis of technocraticinstrumentarian power.

Three post-war dates in U.S. twentieth-century history are particularly significant in reviewing this process whereby this situation has come to pass: in 1961, the outgoing president Dwight Eisenhower gave the famous speech in which he warned the American public about the growth, expansion, and threat to democracy posed by what he called the 'military-industrial complex'; three years prior to this, in 1958, Rene A. Wormser published his very important but lamentably neglected Foundations: Their Power and Influence, which presented the findings of the House of Representatives' Select Committee to Investigate Tax-Exempt Foundations and Comparable Organizations, also known as the Reece Commission, which sat between 1952 and 1954 and in which Wormser himself was closely involved (the findings and arguments of Wormser and the Committee will be reviewed later); and, two years before the findings of the Reece Commission were made public, C. Wright Mills published The Power Elite (1956), which effectively initiated the dedicated field of research into the American power structure within sociology and political science, demonstrating the fact that economic and political power was far more concentrated and classbased in the United States than had previously been understood – and which, as we will see later, presented insights which were long neglected in mainstream analysis partly as a consequence of the big tax-exempt foundations' marshalling and orienting of the field of social science itself in a particular 'gate-keeping' direction in the 1950s.

Mills laid out, in his highly significant analysis, an empirically sound presentation of the structure of the prevailing elite corporate–state interface that was so influential – and visible, for those who cared to look – in his time. He was able, in a sense, to proceed and be understood as a serious analyst rather than a kind of 'conspiracy theorist', in today's parlance. This in itself is arguably an indicator of the elite approach to the twenty-first century's 'post-truth' 'information war', insofar as the contemporary manifestation of that elite engages in systematic and self-defensive attempts to muddy the waters in the popular understanding – largely through social and 'mainstream' broadcast media now characterised by endemic censorship, propaganda, and omission of competing perspectives and awkward facts – where its own structures and interests are concerned (Warf, 2007; Schlosbert, 2017; Uzuegbunam, 2020, and see later for a discussion of newspaper and radio in the early days of this system).

The achievement of Mills, then, was both of its day and very useful in laying the conceptual and empirical groundwork for the approach being taken in this book. *The Power Elite* presented an account based on the presumption of a common world view being shared among the three pillars of American society: the military, economic, and political. Within this structure Mills discusses the presence and significance of six particular groups.

These are a *Political Directorate* – as one might expect – comprised of a fifty-man executive branch, including elected officials but numerically dominated by professional; *Chief Executives*, these being the presidents and CEOs of the most important companies within each various sectors; the *Corporate Rich* – major corporate shareholders and landowners; *Warlords*, in particular the Joint Chiefs of Staff, and other senior leaders of the military; *Celebrities*, the high-profile

entertainers and media personalities who were the forerunners of today's "influencers"; and last, but perhaps far from being least, the Metropolitan 400, a group with its personnel drawn from notable American families, or dynasties, as given in the Social Register - this grouping, of whom the Astors and the Vanderbilts were the archetypes, were concentrated in but not limited to Boston and New York, Philadelphia and Baltimore, and San Francisco. Mills emphasises the importance of elite educational establishments as forcing houses for the requisite dispositions and competences deemed necessary by these families for the children of the "400" and the continuity of its culture. It is worth noting that, of these six groups, the kinds of democratically elected officials known as "politicians" play a minor role numerically, perhaps even in the Political Directorate itself. Mills had this to say in his later work The Sociological Imagination (1959: 31): "Who, after all, runs America? No one runs it altogether, but in so far as any group does, the power elite". The reader will note that this assertion was made many decades before the extraordinary 21st century concentration of economic power being discussed here.

Key to understating Mills's argument is the point that in his view the relationship between the 'three pillars' and the 'six groups' is "no mere deduction from structure to personnel". That the presence and character of the power elite is a fact is revealed by "the heavy traffic that has been going on between the three structures, often in very intricate patterns":

The chief executives, the warlords, and selected politicians came into contact with one another in an intimate, working way during World War II; after that war ended, they continued their associations, out of common beliefs, social congeniality, and coinciding interests. Noticeable proportions of top men from the military, the economic, and the political worlds have during the last fifteen years occupied positions in one or both of the other worlds: between these higher circles there is an interchangeability of position, based formally upon the supposed transferability of "executive ability", based in substance upon the co-optation by cliques of insiders. As members of a power elite, many of those busy in this traffic have come to look upon "the government" as an umbrella under whose authority they do their work.

(Mills, 1956: 287)

In the late 1950s/early 1960s, then, the nature and extent of the challenge being presented to representative democracy by new networks of concentrated elite power players were beginning to come into view, though without being widely comprehended. Eisenhower's stark and now poignant warning to the American public went, dramatic as it was, largely unheeded; Mills's account, which had gone into much more empirical detail, focused on a trinity of power sectors that had been consolidated during WWII: corporate, military, and government elites, motivated by commonalities of class interest, now represented a centralised power

group that made decisions that advanced their interests not so much on the basis of personal linkages but rather according to a broader ideology of shared corporate system goals – (Mills, 1956: 284), and see Useem (1979, 1986) for validations of Mills's argument on the basis of analyses conducted roughly two decades later, and Domhoff (1998) for more recent validations of Mills's work.

The final section of this chapter focuses on the role played by the U.S. Air Force in the setting up of the RAND Corporation; in this regard, and in other examples such as that given in Chapter 6 on the military practicalities of human-machine systems, the work of Mills is also germane. In The Power Elite and elsewhere, Mills places a significant emphasis on the "military metaphysic" as a core aspect of that elite's world view; by this he seems to be referring to both a military definition of reality overall and the maintenance of a permanent war economy (Oakes, 2016). In this sense, the military metaphysic is deeply integrated into that of the power elite at a deep level and is not an adjunct or peripheral aspect. In all of this, we can see the convergence of warfare and the shaping of the public mind in support of it through media propaganda, human-machine systems and the technologies upon which they are based, and the surveillance and attempted control of the population coming within the attitudinal and strategic scope and eventually the purview of a tiny fraction of the American Citizenry. This convergence is presented and discussed in the following, beginning with the first, and in the long run arguably the most influential, of the robber-barons-turnedphilanthropists.

### **Rockefeller Social Engineering**

The Rockefeller Foundation – the first of its type – was set up in 1913 amid a wave of intense controversy now largely forgotten. Standard Oil's pioneering late nineteenth-century practice of what is nowadays known as 'horizontal integration' the big fish eats the little ones until they have all been absorbed into its stomach, much as BlackRock does today -had produced the first American billionaire (Segall, 2001). A devout Christian who had regularly tithed earlier in his life before he was wealthy, J.D. Rockefeller was now facing a torrent of criticism and unease – as well as aggressive Congressional oversight (Frumkin, 1994) – about the scale of his potential power and the non- or anti-democratic uses to which it could be put. He had already begun to make his mark as a charitable giver in 1890, when he provided a founding grant for the University of Chicago in 1890 (Chernoff, 2004) and played the instrumental role in the setting up of the General Education Board in 1903 in the name of social progress (Madison, 1984). He was now, in 1913, counselled (primarily by the Reverend Frederick T. Gates, his business advisor and "the man most responsible for shifting the Rockefellers from denominational charity to international philanthropy", Baick, 2004: 59) to do something other than merely accelerate the scale and scope of his giving as his riches accumulated and move to a situation in which 'wholesale philanthropy' could replace 'retail charity'; he would, in short, "have to seek to address root

causes of social ills rather than provide direct relief through alms, and he would have to pursue a broad mission with a global vision" (Reich, 2018: 2). This vision would amount to nothing less than an attempt to

promote the well-being and advance the civilization of the people of the United States and its territories and possession and of foreign lands in the acquisition and dissemination of knowledge; in the prevention and relief of suffering and in the promotion of any and all of the elements of human progress.

(Abrahamson et al., 2013: 35)

The vision thus defined left Rockefeller and his people enormous scope for potential action; seldom if ever in human history had people who had neither been put in position by divine right nor an electoral process created for themselves an opportunity to shape a society according to their own priorities and values. This realisation, often accompanied by intense public animus against Rockefeller himself, had been growing in the years before 1913. The Rockefeller/Standard Oil 'octopus' – cartoons of this great beast, with its tentacles entwining markets and state legislatures alike were in wide circulation – was broken down in 1911 by the William Taft administration, which brought even more antitrust legislation to bear than had its predecessor, that of Theodore Roosevelt (Posner and Weyl, 2018: 60). Roosevelt himself, an aggressive anti-monopolist, had argued, as Reich notes, that "No amount of charities in spending such fortune can compensate in any way for the misconduct in acquiring them". Samuel Gompers, president of the American Federation of Labor, was more caustic, treating Rockefeller the 'Titan' himself to a more personal fusillade of contempt:

The one thing that the world would gratefully accept from Mr. Rockefeller now would be the establishment of a great endowment of research and education to help other people see in time how they can keep from being like him. (Reich, 2018: 6)

Beyond personalised attacks such as this, of course, was a deeper concern about the kind of new force the Rockefeller Foundation was becoming:

They were troubling because they were considered a deeply and fundamentally *anti-democratic* institution, an entity that would undermine political equality, convert private wealth into the donor's preferred public policies, could exist in perpetuity, and be unaccountable except to a handpicked assemblage of trustees.

(Reich, 2018: 60)

Though the articulation of these fears became less widely expressed with time, there was still sufficient concern about the foundations, their power, and their purposes to stimulate the formation in 1952 of the Reece Commission, as their systematic approach of 'targeted philanthropy' had clearly exercised – for those who were inclined to observe it – a major effect on shaping both the character and the tone of the social contributions being made by many of the key American institutions of the early and mid-century periods, most significantly in the spheres of medicine and the medical system in general (Brown, 1981), education (Madison, 1984), scientific research (Kay, 1996), and even foreign policy (Parmar, 1995).

In the 1950s, the Reece Committees' concerns may be said to have had two main components: first, a desire to investigate the extent to which the foundations, having been granted tax-exempt privileges, were properly fulfilling their responsibility to serve the public welfare; second, there was a political componentwere the foundations involved in supporting Marxist perspectives on democracy with a view to undermining the system and initiating a process of value change therein? This second point makes the deliberations of the committee very much of their time, of course, since it sat between 1952 and 1954, and this context needs to be borne in mind in the consideration of its findings.

"Fundamental to the entire concept of tax exemption for foundations", says Wormser in his report, "is the principle that their grants are to be primarily directed strengthening the structure of the society which creates them. *Society does not grant tax exemption for the privilege of undermining itself*" (Wormser, 1993: 185 – emphasis in the original). The tone of much of Wormser's account of the workings of the Committee has, in fact, a sort of 'culture wars' character, decades before those wars officially broke out and percolated into the public awareness: he notes in the report that, for the Committee as a whole, many of the major foundations had been engaging in anti-American 'subversion', "namely the process of undermining some of our vitally protective concepts and principles. They have actively supported attacks upon our social and governmental system and financed the promotion of socialism and collectivist ideas" (1993: 305).

Two fields in which this 'subversion' expressed itself focused on by the Committee were of particular significance: the intertwined examples of globalism and education. As to the first of these, the 'big three' – the Rockefeller, Carnegie, and Ford Foundations – were criticised for promoting 'globalism', against the interests of American democratic sovereignty. Wormser cites the example, among many others, the work of Mortimor Adler, a philosopher of education funded by the Ford Foundation, citing a 1949 article in which the well-known University of Chicago authority stated that the cause of world peace now required "the total relinquishment and abolishment of the external sovereignty of the United States" (1993: 258).

The Committee was also highly critical of the long-term effects of the various 'progressive' education initiatives funded by the foundations, charging them with promoting socialism and collectivism. The Rockefeller-funded high school history textbooks developed by Harold Rugg of the Teachers College at Columbia University were singled out for "implementing an expectancy of change; picturing the America of today as a failure; disparaging the American Constitution and the motives of the Founders of the Republic; and presenting a 'New Social Order'" (1993: 159).

Another Rockefeller-funded textbook series, called 'Building America', was lambasted for presenting conditions in the Soviet Union in glowing terms (the communists were credited with having established 'democracy' for the working class and, still more bizarrely from our contemporary point of view, ending ethnic and religious discrimination) while ignoring the terror, repression, and purges of Stalin's rule (Wormser, 1993: 161). Elsewhere, Wormser's report makes reference to John Dewey's 'progressive' and relativistic proto-postmodern impact on the development of the education system as shaped by Rockefeller's General Education Board at the beginning of the century (though he does not mention, nor does the Committee seem to have considered, Dewey's later enthusiastic endorsement of Soviet education and educational philosophies – of which he had first-hand experience, having been to see it for himself as an idealistic and somewhat naive fellow traveller in 1928, Engerman, 2006).

At a time when the scales were beginning to fall from the eyes of such Western intellectual fellow travellers such as Arnold Bennett, Albert Einstein, Karl Capek, Sinclair Lewis, Thomas Mann, Bertrand Russell, Rebecca, and H.G. Wells – in large part as a consequence of the volume of *Letters from Russian Prisons* published four years before Dewey's impressions of Soviet Russia by the International Committee for Political Prisoners (1925) – Dewey continued to lionise Soviet society and its approach to education, enthusiastically endorsing the system's merging of education itself with the world-historical significance of socialist propaganda: "In Russia the propaganda is in behalf of a public burning faith", he wrote, and though observers may be critical of the object of the Soviets' faith-based approach to social transformation, their heart was in the right place insofar as their objective was the furtherance of the cause of progress. Indeed, their

sincerity is beyond question. To them the end for which propaganda is employed is not a private or even a class gain, but is the universal good of universal humanity. In consequence, propaganda is education and education and education is propaganda. They are more than confounded; they are identified.

(Dewey, 1929: 53-54)

Thus had written the 'father' of American progressive education and Rockefeller associate in 1929, over 20 years before the Reece Committee began to sit. The consequences of this anti-individualist, and therefore as the Committee saw it anti-American, approach to the education and socialising of the young was much on its mind over the course of its deliberations and continues, as we will see in Chapter 6 in the context of contemporary 'Social and Emotional Learning', to be a central element in the ongoing psycho-social shaping of the understandings of American children and young people. The project of using education in highly politicised and what we would nowadays call socially transformative ways was for the Reece Committee a highly questionable enterprise; interestingly, the mid-1950s discussion of these matters comes into especially clear view in the context of the Rockefeller and Ford Foundations' role in the establishment of the field of American Social Science itself. Here, as Wormser explains, the majority view of the Committee was that model of social science research they funded tended to be skewed towards a belief in the need for social change for its own sake and the promotion of academic "conformity" (1993: 224).

But there seems to be some potential contradiction in all of this: why would the biggest of the big money interests, who presumably were in favour of a retention of the status quo, in defence, if nothing else, of their wealth and sociopolitical hegemony (Fisher, 1983; Roelofs, 2003), be in favour of some kind of shaping of education towards such apparently radical ends as those described by Wormser – and, indeed, Dewey? It is, arguably, here that the example of the social sciences and their role is most instructive.

There was a time when the name of Beardsley Ruml (1894–1960) was synonymous with social science in America, with some of his contemporaries going so far to champion him as the key figure in its development. According, for example, to Robert M. Hutchins, the long-term President of the University of Chicago, he was indeed "the founding father of the social sciences in the USA" (Fleck, 2011: 40); but since Ruml was neither a social scientist nor an author of any relevant social–scientific theory but a manager (though he had been a psychologist at the War Department during WWI, specialising in the personality testing of military personnel and potential recruits, Bulmer and Bulmer, 1981), such an appellation has appeared to later observers as "evidence if not of wilful perversity, then certainly of silliness", as Rebecca Lemov has it (Lemov, 2005: 47). Notwithstanding this, Ruml was a significant figure in twentieth-century economic and social history in the United States – he chaired the Federal Reserve board from 1941 to 1946 and in that period came up with the idea for the pay-as-you-go income tax scheme (Bulmer and Bulmer, 1981: 356).

Why, then, did the Rockefeller Foundation bring in Ruml to develop and manage, from their base camp at the University of Chicago, the institutional edifice and networks of specialists that were to form the basis of the American system of social science? The answer, most likely, is that the conception of the role that academia could play in the future management of American – and later international – society was extremely ambitious and far reaching; and it comes down, ultimately, to the fundamental insight upon which the technocrats and social engineers of the first half of the twentieth century were keen to act, in their increasingly dynamic, complex, and chaotic-seeming society: "you cannot control what you cannot monitor and measure" (Wood, 2014: 146; see also Seybold, 1982). As things stood, up to this point the overall structure and internal workings of the society as a whole were, for those about to pay to change the situation, largely obscure. They needed more information, and the emerging techniques for a positivistic, quantitative 'human science' (of the kind first posited, as we have seen, by Henri de Saint Simon and actualised in the European context by August Comte) were now promising to become instrumental in the attempt to better understand what the United States was becoming and what the prospects were. As Ruml wrote:

All who work toward the general end of social welfare are embarrassed by the lack of knowledge which the social sciences must provide. It is as though engineers were at work without an adequate development in the sciences of physics and chemistry . . . production from the universities is largely deductive and speculative, on the basis of second-hand observations, documentary evidence and anecdotal material. It is small wonder that the social engineer finds this social science abstract and remote, of little help to him in the solution of his problems.

(Ruml, in Fleck: 41)

The Rockefeller Foundation and its ilk, then, were clearly about to set themselves up in the business of 'social engineering', and this fact is presented by Ruml in frank and transparent terms. Reading 'backwards' through the Rockefeller Foundation's evolving policy papers of the period, Lemov discerns three key phases in the run-up to setting Ruml in motion. First, at the beginning of the Foundation's activities, its creators "felt the need for a general betterment of people's lots and for 'social regulation'"; order needed to be brought to the "chaos of social life". Next, and in this context, the social sciences "made their debut as the meliorative agent, the key to knowledge that would bring about change" - here elements of the progressive Dewey world view become visible in the attempt to make things better for people whether they liked or understood it or not, because the knowledgebased engineers knew best; and third, by the end of this unfolding process of understanding and goal-setting, the trustees felt confident in the efficacy of such social science investigations, came to believe that the goal of the Foundation was clarified and confirmed, and that this was enabling "social understanding and social control in the public interest. . . . In this way, it was felt, democracy might be preserved, not through noblesse oblige but through science" (Lemov, 51).

The Rockefeller philanthropies therefore played a central role in shaping and promoting the rise of social science as a high-status and technocratically effective authority, lifting it up until it reached the point at which it became widely acknowledged as the "laboratory of social control", a process in which "Ruml merely epitomized and empowered the growing trend of scientism during the 1920s, which aimed to endow the human sciences with the power of prediction and control through the quantification of human behavior" (Kay, 1996: 35). Thus, many decades before the internet, personal computer, and smartphone would make the technocrats' dream of continuous full-spectrum surveillance of populations possible as a basis of oversight and control, the trustees of the Rockefeller Foundation were setting a new tone, and raft of ambitious goals for the future shaping of things.

#### 84 Shaping the Twentieth-Century United States

The scope of the ambition of the early twentieth-century plutocrats and some of the underlings who advised them was astonishing; the extra-governmental powers they arrogated to themselves were intended to marshal and shepherd the popula-tion at large towards understandings underpinned by social science, and a grow-ing belief among the elites that the public mind was, in the emerging age of mass popular culture, there to be moulded. The recent revival of interest in Edward Ber-nays's early twentieth-century founding of public relations (PR) and advertising is interesting in this regard – an interest piqued by the increasingly obvious manipulations of mass and social media as we enter the third decade of the twenty-first century, almost exactly a hundred years later - is worth recapping briefly here; it throws light on the process by which the big foundations were able, working in concert with Bernays and others like him, and utilising the persuasive possibilities of the new mass media, to seed ideas, propositions, and beliefs in the public mind, defining and guiding expectations as to "what happens next" in terms of social and economic processes, much as the Rockefeller Foundation and World Eco-nomic Forum do today with their "Great Transitions" (Kahn and McArthur, 2021) and 'Resets' until the idea that such a thing must inevitably come to pass becomes naturalised, primarily through the continuous repetition of them in the media.

Bernays, writing in the edited collection *The Engineering of Consent* (1955), published the year after the Reece Committee was wrapped up, explicitly brings together the intermingling of the foundation-led push towards social transformation and the role of the social sciences in providing the insights into human motivation that would enhance the effectiveness of the ongoing campaigns of 'persuasion'. "The causes of actions were beginning to emerge", Bernays wrote, as "psychology, social psychology, psychiatry and psychoanalysis furnished many clues". It began to seem probable, he noted, looking back on the work done up to that point, "that a limited predictability of conduct might be developed through knowledge of motivations". On the basis of the insights thus already established, Bernays is optimistic about the future: "The social sciences continue to give us the answer to many such important questions. Thirty thousand men and women at universities and foundations are currently trying to find facts about behaviour" (Bernays, 1955: 6–7; and see Packard, 1957: 202–205).

These apparent advances in understanding were the grist to the mill that Bernays had been turning for 35 years or more. Though disputed by some (especially Walter Lippman and his supporters; see later), his status as 'father of public relations' had long been acknowledged. The origins of his reputation as the masterpersuader were to be found in the attempt of the U.S. government to win popular support for the American entry into WWI: Bernays "honed his expertise in mind molding, taste forming, and idea suggesting during World War I, as a member of something called the Committee on Public Information. America's first dedicated ministry of propaganda" (Axelrod, 2009: x). Later, in *Propaganda*, his most widely known work, Bernays would famously write that the American public was being governed by an "invisible government . . . our minds are molded, our tastes formed, our ideas suggested, largely by men we have never heard of" (1928: 9). Bernays himself, of course, was one of these men. Making much not only of the ideas of Freud but also for the purposes of self-advertisement the fact that he was the great man's great nephew, he adapted psychoanalytical concepts to the advertising realm, with a significant focus on triggering in consumers desires they never knew they had, often of a sexual nature and originating somewhere in the depths of the unconscious. Bernays held that he had refined this approach to the point at which the skilled persuader could make "use of the mental cliches and the emotional habits of the public to produce mass reactions" (Bernays, 1928: 27). This latter quote concerns the mobilisation of public opinion on WWI, but it turned out that orchestrated mass reactions could be shaped in a variety of contexts as part of a larger shift from "news gathering to news making" (Boorstin, 1975: 266) and through the staging of "pseudo-events" such as press conferences and, more ambitiously, major perception-shaping public spectacles.

Most notable among these, in the earlier phase of Bernays's career, was the support the aspiring PR mastermind gave to the staging of *Damaged Goods*, a work by French playwright Eugene Brieux. The play tells the story of George Dupont, who is diagnosed with syphilis on the eve of his wedding but goes on to father a syphilitic child. His infected wife becomes sterile. The play, in essence, is about the dangers of sexually transmitted diseases and their link with prostitution and moral laxity – highly controversial themes for their time, making it difficult for those who wanted to stage the play to find funding.

Here Bernays spotted an opportunity. Having already understood that, hitherto, mere advertisers had been in the business of pleading for the attention of prospective customers, he refined the idea that 'propagandists', in contrast, would do better to identify the leaders in a population – what these days we would call 'influencers' – then appeal directly and only to them. Such a strategy was, in principle, quite simple: concentrate on influencing the influencers (Axelrod, 116). The *Damaged Goods* saga afforded Bernays an opportunity to test his ideas at the highest level and represents a key moment in the development of the propaganda– elite influence and society shaping nexus that has now been central to American life for over a hundred years and is arguably more powerful and affective than many of the things governments do.

Bernays, having become a co-editor of *Medical Review of Reviews* and *Dietetic and Hygienic Gazette* in 1912, published a very favourable review of *Damaged Goods*. Being of the mind that the undermining of Victorian sexual morality was – perhaps for reasons both social and economic, in the long run – in the end desirable, Bernays decided to take a direct hand in getting the play not only staged somewhere but staged on Broadway. He wrote to Richard Bennett, a notable actor who had thrown his weight behind the play: "The editors of the *Medical Review of Reviews* support your praiseworthy intention to fight sex-pruriency in the United States by producing Brieux's play *Damaged Goods*. You can count on our help" (Bernays, in Axelrod: 117). In moving the project forward, Bernays took it upon himself to raise necessary production monies, firm in the belief that an opportunity was at hand to test his theories on mass public persuasion; by getting

*Damaged Goods* presented to the public he hoped ultimately to effect social change. However, he reasoned that even to get the play to the stage, he would have to effect some degree of social change from the beginning. Controversy always poses a threat, but it also presents an opportunity, the very opportunity to convert controversy into a cause, and "this, Bernays understood, would not happen on his say-so alone" (Axelrod: 117).

It was time to influence the influencers. Bernays set up the *Medical Review of Reviews* 'Sociological Fund Committee' and drew to the initiative to the attention of the cream of America's moral, civic, and financial elite: Mrs William K. Vanderbilt Sr., John D. Rockefeller Jr., and Franklin and Eleanor Roosevelt led the way. They were joined by the Reverend John Haynes Holmes of New York's Unitarian Community Church, and "Dr. William Jay Schieffelin, whose company had recently brought to America a treatment for syphilis" (Tye, 2002: 19). The play was a huge success. But more importantly, Bernays's initiative had set a pattern for the culture-changing power of skilfully propagandised elite influence that remains with us to this day: "This was the first time that Eddie, or anyone else, had assembled quite such a distinguished front group (Tye, 2002: 19)".

These days Bernays is receiving a good deal more attention than he has for a while – perhaps, in part at least, due to the influence of Adam Curtis's 2004 docu-mentary *Century of the Self*. But a little over a century ago, he had his equivalent in Walter Lippmann, who is also credited by some sources as being the actual founder of what became known as 'public relations' and who, unlike Bernays, had a more significant and longer-term connection to the Rockefellers. Lippmann, a writer and political commentator, published his *Public Opinion* in 1922, a year before the appearance of Bernays's *Crystallizing Public Opinion* and a good six years before the more influential *Propaganda* (1928).

But the two men had one fundamental thing in common, and its influence was to play a decisive role in social, economic, and political life from their time to this: a belief that the public at large was less a corporate body of rational and responsible citizens capable of forming a civilised polity than a highly suggest-ible, instinct- and emotion-driven herd. This view of the general American public seems to have formed a core part of the bedrock assumptions of actors who emerge in the wake of this idea to take it upon themselves to manage and shape this manipulable public and begin to steer it in particular directions in the name of the public good, a disguise for the high collective self-interest of the descendants of the carpet-bagger class. In the early 1920s, elements within the economic and political elite were paying attention to what Lippmann and Bernays were writ-ing about and gearing up to transpose this emerging doctrine into the sphere of a new and more concerted field of action, setting in motion a range of initiatives across diverse areas that would reshape the United States and, in time, much of the world; this involved the setting up of the first of great tax-free foundations, the discovery of the persuasive power of propaganda, a vision of helming social change, and the astonishing expenditures disbursed in pursuance of socio-economic and culture-shifting goals.

One of the key aspects of this pursuit, on the part of the entities created by the robber-baron elite, was the capture of the primary form of media – the daily newspaper – through which citizens got their 'news'. This, as we have seen, was to a highly significant degree indistinguishable from the propagandistic public relations material pioneered by Bernays and Lippman, and ownership of control of these powerful information- and viewpoint-shaping entities represented the perfect vehicle for consolidating and expanding the social engineering aspirations of the elites in the period before the advent of radio news broadcasting in 1920 (Corbett, 2022).

Though the mechanism through which plutocratic control of America's most influential newspapers was not widely discussed and understood at the time, and has certainly not properly occupied its place as a key moment in twentieth-century history in general, its significance did not escape the notice of Oscar Callaway, a U.S. Representative from Texas's 12th District, who "exposed the conspiracy in the Congressional record" (Corbett, 2022). "In March 1915", Callaway explained the J.P. Morgan interests, the steel, ship-building, and powder interests, and their subsidiary organizations",

got together 12 men high up in the newspaper world and employed them to select the most influential newspapers in the United States and sufficient number of them to control generally the policy of the daily press in the United States... They found it was only necessary to purchase the control of 25 of the greatest papers. The 25 papers were agreed upon; emissaries were sent to purchase the policy, national and international, of these papers; an agreement was reached; the policy of the papers was bought, to be paid for by the month; an editor was furnished for each paper to properly supervise and edit information regarding the questions of preparedness, militarism, financial policies, and other things of national and international nature considered vital to the interests of the purchasers.

(Congressional Record Proceedings, 1917: 2571)

This was a perfect storm. By the early 1920s, the control and social-engineering appetites of the plutocrats, Bernays and Lippman's innovation of carefully crafted and propagandistic 'news', the control of newspapers, and the entry of the United States into WWI on the basis of the persuasion of the public had come together to create the basis for the system of media propaganda and manipulation of the public mind with which we have become so familiar.

Though this new form of elite influence and media power marked a first in the history of the United States, it was all in a sense as straightforward as it was regrettable, given the perpetual struggle for supremacy between plutocratic and antitrust elements. Later, however, things took a darker and more complex turn when the time came to press into service the deeper possibilities in the sphere of propaganda and mind control afforded by the rise of radio and its direct penetration into the overwhelming majority of homes in the United States.

### 88 Shaping the Twentieth-Century United States

James Corbett argues that it was Orson Welles's infamous *War of the Worlds* radio hoax of 1938 that made those who would influence and shape the public mind sit up and really take notice of the medium's potential. The alleged *Invasion from Mars* was in fact a radio adaptation of H.G. Wells's novel but sent many lis-teners into a panic as they were "flipping through the dial and mistook the drama-tised news 'interruptions' for actual reports of a Martian invasion". Though this episode is often treated lightly these days, and as Corbett suggests has come in for a good deal of debunking as far as the actual public response consequences were concerned, "the City Manager of Trenton, New Jersey–mentioned by name in the broadcast – even wrote to the Federal Communication Commission to demand an immediate investigation into the stunt". As a consequence, a team of researchers collected information, conducted interviews, and studied reports about the panic in an attempt to better understand what had happened and what could be learned about this still relatively new medium's ability to shape public perceptions:

The team was from the Princeton Radio Project – a research group founded with a two-year, 67,000 grant from the Rockefeller Foundation to study the effect of radio through the lens of social psychology. The team was led by Hadley Cantril, the old Dartmouth College roommate of Nelson Rockefeller who had written in 1935 that "[r]adio is an altogether novel medium of communication, preeminent as a means of social control and epochal in its influence upon the mental horizons of men".

(in Corbett, 2022)

For Bruce Lenthall, the Welles broadcast and the events around it reveal a new system of mass communications becoming deeply rooted in the United States and "helped to spawn a new mass culture" as Americans integrated the new medium of radio into their lives; in doing so, they were beginning to be exposed in ways that are all too familiar in our present situation to the encroachment of the increasingly mediated and de-socialising tendencies inherent in the coordinated mass utilisation of communications technology:

As radio brought an expanding, impersonal public sphere home to Americans, they encountered a world in which even culture and communication might be centralized and standardized. The modern culture that radio represented threatened to overpower individuals, leaving them with little control either in their own lives or in the wider world. As public intellectuals of the day lamented, that culture might be as menacing as Welles's Martians.

(Lenthall, 2007: 2–3)

At the same time, trends in military research and development (bearing in mind C. Wright Mills's argument of the centrality of the 'military metaphysic' in American society) and elite-intellectual activity were coming together into a new phase of the system that would combine the instrumentalisation of the human–machine

interface with an attempt to recast the ideal type of the free American individual as a neoliberally empowered and cybernetically moulded ultra-rationalist, as the *consumer* came to replace the *citizen*. Both of these dynamics come together in the form of the exemplary case of the highly technocratic RAND Corporation, which is of course still with us and to which we now turn.

## Shaping the Psychology of Neoliberalism: the Influence of the RAND Corporation

To fully understand the predicament in which young people find themselves, we must attend to two interconnected processes: the major post-WWII shift in American politics and the culture in which the citizen was re-fashioned as the consumer; and the process whereby military thinking about the place of humans in machine systems - and the conception of the person upon which that rested became diffused to the society at large from their home in the laboratories and research centres and penetrated the corporations, the education system, and, eventually, everyday life. The RAND Corporation, the most serious and significant of the great think tanks (or "Idea Brokers" - Smith, 1991) to emerge in that period engaged in the shaping and reshaping public perceptions and culture, was central to this process. Having had its origins in the 1940s as part of the U.S. Air Force's experiment in bringing in experts from a range of fields to collaborate and think creatively "outside the box" of conventional military doctrine on the emerging Cold War and the strategic dimensions of the nuclear stand-off that was its most concerning characteristic (Abella, 2008), RAND had evolved by the mid-1950s into an operation tasked by both the military and corporate sponsors with creating the public perceptions necessary for the transformation and optimisation of a new kind of American politico-economic system. Of particular significance in the latter regard was RAND's intimate connection with the Ford Foundation; H. Rowan Gaither, the attorney who drafted RAND's articles of incorporation, would later combine a continuing close relationship with the corporation with the chairmanship of the Ford Foundation (Abella, 2008: 34; Kaplan, 1991: 171), and a close involvement with the military's nuclear programme (Snead, 1999). Gaither's personal enmeshment in the 1950s military-corporate foundation system, across all sectors, is instructive. Here the role and purposes of the Ford and Rockefeller Foundations, the Carnegie Endowment et al. as potential shapers of the public mind and values, and politically powerful institutions in their own right, should not be overlooked. As we saw in the previous chapter, the House Select Committee to Investigate Tax-Exempt Foundations and Comparable Organizations - otherwise known as the Reece Committee - arose out of a general anxiety about the scope and reach of the society-reshaping activities and ambitions of these entities (Lemov, 2005; Wormser, 1993).

But what, in fact, was the RAND Corporation trying to help its military paymasters reshape? First of all, understandings of the Cold War nuclear stand-off, in terms of strategic forecasting and the psychology of decision-making in the military context. This hinges on the emergence of the broad idea of 'systems' theory during WWII, a tipping point in twentieth-century social and economic history. Austrian biologist Ludwig von Bertalanffy, who has been widely recognised as the founder of general systems theory (GST), had been arguing since the 1930s for an interdisciplinary approach to the study of the dynamics of 'closed' systems, as opposed to 'open' ones like living organisms, which was obviously a more complex matter; as we will see later, the RAND/Air Force approach to systems engineering was to seek to integrate the human factor *into* 'closed' systems themselves, as a predictable and controlled operational element. Drawing on biology, cybernetics, and other fields, GST was to become a powerful tool in the expanding arsenal of methods with which to better understand and enhance the development of the technocratic project: "Systems design, systems analysis [and] systems engineering . . . are the very nucleus of a new technology and technocracy" (Von Bertalanffy, 1968: 3).

GST, as its influence and scope began to expand in the period immediately after the war, was nothing less than a gigantic intellectual project encompassing and connecting for the first time multiple domains such as computer science, theoretical biology, linguistics, economic game theory, politics, and cybernetics. This approach, which did a lot of connecting and covered a lot of ground in a short space of time, coalesced in the 1950s into a 'general systems theory' movement that had the ambition to pursue "the search for overarching concepts and 'general laws' that govern all systems - living organisms, societies, economics, languages, and so on" (Fischer, 1993: 200; see also Erickson et al., 2013: 21). Though this coalition of perspectives was not long-lasting in its original form, it cemented the place of the RAND corporation at the centre of a new nexus of institutional entities that was to have far-reaching consequences on the shaping of policy fields and the public mind alike, and its influence continues into our day on the strength not only of its broader corporate connections and function but also of its existence as an element in a field of "interlinked hybridization between ... RAND, the US Department of Defense, and universities" (Erickson et al., 2013: 30).

The impact of particular individual RAND figures on the military, political, and social thinking of their time should not be underestimated, and some of them have become almost legendary as a result. Such is the case with nuclear strategist Herman Kahn, whose infamous *On Thermonuclear War* framed the nuclear holocaust that many at the time felt to be impending "in the bloodless dialect of probabilistic risk assessment" (Ghamari-Tabrizi, 2005: 10). This focus on the arithmetic of survivability – how many Americans would still be standing in the aftermath of such-and-such a nuclear scenario – not only influenced the framers of military policy but also projected Kahn into the sphere of fame and public notoriety; most notably, the transposition of his character from hard-headed analyst into the bug-eyed fanatical cold warrior was played so memorably by Peter Sellers in Stanley Kubrick's darkly satirical 1964 film *Doctor Strangelove: Or How I Learned to Stop Worrying and Love the Bomb.* Kubrick's presentation of what he saw as the pathological calculations and prognostications of the military think tankers and

the madness of U.S. nuclear strategy, particularly when it came to the concept of the pre-emptive strike, was no mere spoof – it drew on language and ideas from Kahn's *On Thermonuclear War*; to be specific, on page 30 of Kahn's book we find "Tragic But Distinguishable Postwar States" and estimates for "the time for 'Economic Recuperation' if anywhere from two million to 160 million Americans are killed in a thermonuclear exchange" (Maland, 1979: 708). On this basis, *Wired* said more recently of the film that it is less an over-the-top satirical fantasy than "basically a documentary" (Collins, 2020). Sidney Lumet's *Fail Safe* of 1962, an earlier, bleaker, and still-more disturbing treatment of an imagined nuclear catastrophe was also indebted to Kahn's calculations and personality: Lumet says, in his audio commentary on the film, that the RAND man was the basis for the character of Professor Groeteschele (Collins, 2020), a fanatically anti-communist political scientist played by Walter Matthau. This character is a more measured but no less fervent equivalent to the comically bug-eyed, out-of-control cold warrior played so memorably by George C. Scott in the Kubrick film.

This is just the most obvious and spectacular way in which RAND thinkers were imposing their perspectives on the public mind in the 1950s and bequeathing to posterity approaches to shaping social change that are still with us. One of these needs to be briefly assayed here to flesh out the context in which the parameters of neoliberalism and the machine integration and spellbinding of the young must be set: rational choice theory (RCT). This, it is contended here, played a significant role in the post-war neoliberal re-framing of the normative description of the individual person from a socially embedded person with obligations, duties, and responsibilities towards others to the much more self-responsible, atomised, isolated, and entrepreneurial individual (Mounk, 2017).

RCT should be placed for the sake of context into the game theory that preceded it – a central component of the RAND strategic paradigm. Devised by the celebrated polymath John von Neumann, game theory was originally and in essence designed to transpose the mathematical structure of games such as chess and poker to economics, politics, foreign policy, and other spheres of activity. The focus was on the application of a mathematically precise method of determining rational strategies in the face of critical uncertainties. The classical and bestknown game theory case is, as is well-known, the 'Prisoner's Dilemma', which we will not go into in great detail here (for this, see von Neumann and Morgenstern, 2007 [1944]; Luce and Raiffa, 1957; Poundstone, 1992).

Basically, in this scenario two prisoners, arrested on suspicion for the same crime, are kept in separate cells with no ability to communicate. They are separately approached by guards and given the following proposition: if neither informs on the other, both will be told they will serve short sentences. If Prisoner A informs on B, but B keeps quiet, then A will be let free and B will serve the maximum sentence; likewise, if B talks but A remains silent, then B will be freed and A forced to serve a full sentence; if both A and B inform on each other, both serve half-sentences. On the face of things it seems that it would serve both their interests to remain silent. However, there is a great deal of uncertainty in all this: Prisoner A worries that Prisoner B might feel compelled to talk, since it would be to B's advantage to do so; if, under such circumstances, A does not talk, A serves a full jail sentence. Prisoner B is, of course, thinking similar thoughts about Prisoner A's possible moves. Therefore, both prisoners will talk and both will serve half jail sentences, even though both would have been better off keeping quiet. In addition, according to game theory both prisoners would be perfectly *rational* if they did talk. Both have to assume that the other prisoner, the other player, will play his best move; thus, each has to play the move that would be best for himself *given the best move of the other player*. That is the essence of the theory: find out your opponent's best strategy and act accordingly. Such a strategy may not get you the maximum gain, but it will prevent you from taking the maximum loss; it allows for "precise solutions for all combinations of the probability of some move's success with its potential value to the player" (Edwards, 1996: 117).

Game theory had been in development since the 1920s, but it was fully unveiled to the English-speaking world in 1944, with the publication of Von Neumann and Morgenstern's *The Theory of Games and Economic Behavior*. The book found an enthusiastic audience not only among the nuclear-scenario strategists but also among the "systems" research community at large, especially with John Williams at RAND in the late 1940s (Kaplan, 1991: 65–68). On its basis Williams crafted RCT as what would become a core elaboration of the broader theory, providing a 'scientific' framework for the analysis of individuals' mutually interdependent interactions. Williams, a mathematician and ultrarationalist – at least on paper (Abella, 2008: 24) – held that human activity could be understood mathematically and objectively accounted for. Like Gaither, Williams was a technocrat who believed it possible to create a society in which social engineers and scientific experts could rule using objective, numerical analysis (Williams, 1954).

In this belief, and approach to 'human engineering', Gaither and Williams were not alone; for example, and as we saw in the last chapter, the strategists of the major tax-exempt foundations of the mid-century era were of similar mind and in fact had begun to set up, decades before RAND came into being, Social Science itself as a system for diagnosing, predicting, and controlling social phenomena and problems through objectively "scientific" means (Fischer, 1993). In this sense, the economic elites behind the foundations arrogated to themselves the primary responsibility for understanding, stabilising, and improving the system of capitalist American democracy as it entered a new phase, ironically enough on the basis of the resources, institutions, and networks developed by the plutocrats who strode like colossi across the political and economic landscape of the (first) gilded age in the early 1900s.

In this context and amongst other things, according to Alex Abella, the RAND mission was nothing less than an attempt to reframe the public's perception of the model of the person and train individuals in the arts of maximally appropriate, rational social and economic behaviours. This was to be the return of homo economicus and then some; combining an early cybernetic understanding of human behaviours in closed systems with a philosophical departure from classical liberalism and its 'first, do no harm' principle – most famously expressed by John Stuart Mill – and its replacement with a 'no holds barred' philosophy based on radical self-interest and an extremely reductive vision of the human person and the social world, with the RAND thinkers in the forefront in the creation of what would come to be known as neoliberalism. By the Reagan/Thatcher era in the 1980s, this would lead to the dissemination of neoliberalism as "the model of the market to all domains and activities – even where money is not an issue – and configures human beings exhaustively as market actors, always, only, and everywhere as homo economicus" (Brown, 2015: 31).

Sonja Amadae repeatedly emphasises, in her *Prisoners of Reason: Game Theory and Neoliberal Political Economy* (2016), the point that classical liberal capitalism exalted, for all its faults, the no-harm principle and that on the whole, and in principle, modern liberalism recognised individual human dignity and individuals' responsibility to respect others as its concomitant. Fellow feeling based on goodwill towards others – what we might loosely call, even in its minimal form, empathetic social solidarity (see later) – tends to be invalidated in this way of thinking.

The game theory/rational choice strategic model of rational agency became, over time, the animating idea of liberal society as a whole, with profound consequences. Three of these are of particular interest here: first, there is the impact, as we have seen, of the coming together of radical empiricism, *realpolitik*, and military thinking in general with the reductive, rational–calculative model of the person and social and economic intercourse.

Second, this emerging social-psychology of hyper-rational, instrumental selfinterest became central to the new 'narrative' of Americans and American life that developed in the post-war, McCarthyite atmosphere of the 1950s. David Golumbia suggests that the promotion of the new individualism – a departure from the previous American ideal type of rugged individualism - was part of an attempt to push back against "Marxist encroachment on the U.S. conceptual establishment" (which points at something far broader than institutional philosophy), as "individuals, government entities including the military and intelligence bodies, and private foundations like the RAND Corporation, promoted values like objectivity and rationalism over against subjectivity, collectivity, and shared social responsibility" (Golumbia, 2009: 32). The overwhelming popularity and influence of Ayn Rand's objectivist philosophy and the promotion the heroically self-interested and economically laissez faire individual, and the somewhat clunky but bestselling novels of ideas The Fountainhead (1943) and Atlas Shrugged (1957) that expressed her philosophical views, were an important element of this top-down, changing landscape of values and newly emerging ideal type of neoliberal American personality. Rand's popular cultural artefacts, it hardly needs reiterating, were locked into a powerful and amplifying synergy with the work coming out of some of the major universities in the 1950s, which were operating by and large on the basis of the Rockefeller Social Science playbook. Elite tax-exempt money and social philosophies and practices, if set in this context, can be seen to have played a crucial role in the eventual shaping of the neoliberal system. The heroic statue of Atlas outside the Rockefeller Center at 650 Fifth Avenue dramatises these connections for all to see (Okrent, 2004; Simard, 2018).

Third, these developments dovetailed with the expansion of the sphere of computers and computational analysis and the modes of technocratic thought that went with them; from now on the promotion of the model of the calculative, rational, and instrumentalising person and extremely narrow view of human motivation would merge with both unfolding shifts in economic and social philosophy and the policy that reflected them and the system requirements of the cybernetic dreams of the information engineers.

One of RAND Corporation's major activities in this period and context was to align developments in computer science with the needs of the military, in particular the Air Force. Its Systems Research Laboratory (SRS) in Tacoma, Washington was at the centre of this effort:

The underlying notion behind this research was that it might be possible to obtain the predictable features of a "closed" system by exploiting man's capacity to seek and find problem solutions. That is, if man could be motivated to seek the system's goal, and if he were provided knowledge of operational results, a disparity between actual and desired performance might serve as an error feedback to trigger adaptation of operating practices to improve effectiveness.

(Chapman, 1957 in Edwards, 1996: 123)

This was a highly significant moment in the progress towards the integration of humans into computerised technological systems. Paul Edwards makes this clear: "System closure was the goal, air defense control the chosen site, proto-computer simulation the chosen method, cybernetic (feedback-controlled) human-machine integration the result" (Edwards, 1996: 123).

The cementing of individuals, institutions, and other entities such as corporations into the processes and structures that flowed from this point towards the twenty-first-century environment we now find ourselves in – from the ceaseless data mining of school children to the economy-shaping technological platforms operated by the likes of BlackRock and the coming of a full-spectrum Internet of Things and Bodies – can now be seen clearly for what it is: the harvesting of and pressing into the service of elite-globalist and corporacratic entities the field of human *standing reserve*. In the next chapter we examine two of the main areas and processes through which the development, reach, and ambitions of these entities have been expanded – on what seems to be a deep psychological as well as practical need to seek to categorise, organise, and manage humanity as a whole: these are population control and corporate environmentalism, with the now deeply embedded concept and strategy of 'sustainable development' effectively acting as a synonym of 'technocracy'.

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### Chapter 4

## Sustainable Development as Technocracy

Population Control and the Corporate Capture of the Environmental Movement

### The Plutocrats and Social Darwinism

Here is a key question: to what extent do the values, goals, socioeconomic influence, and culture- shaping aspirations of the twentieth-century plutocrats prefigure those of our contemporary crop of Big Money titans and philanthropic would-be world changers? Let us begin by looking at the question of elite group mindset, on the assumption that a small number of increasingly powerful entities and individual actors are behaving in ways consistent with those of their predecessors.

Timothy Wu does not, in his *The Curse of Bigness: Antitrust in the New Gilded Age* (2018), pull many punches when it comes to his characterisations of the shared culture and mindset of the plutocrats of the first Gilded Age. Essentially, the United States had facilitated the emergence of a new breed of almost unimaginably wealthy and powerful men whose status, influence, and power made them, as we have seen, prone to wanting to reshape the society over which they were already, in the post-robber-baron days, holding enormous sway. A central dynamic here was a professed desire to shape and direct American society. That is one way of putting the project. Another, as Wu has it, is that these men were animated by very powerful ideas drawn from Social Darwinism, as briefly surveyed here in Chapter 2, and considered themselves to have become elevated above the mass of the population in a form of radical elitism. The Rockefellers, Carnegies, Fords, Vanderbilts, and Morgans

were not merely profiteering, but building a new and better society. They were bravely constructing a new order that discarded old ways and replaced them with an enlightened future characterized by rule by the strong, by a new kind of industrial Übermensch who transcended humanity's limitations. The new monopolies were the natural successor to competition, just as man had evolved from the ape.

(Wu, 2018: 20)

Economic and industrial monopolisation, of the kind that was common back then and is further concentrating now, was seen as a good in itself, expressive as it was of the dominating power of the strongest and healthiest in the society. Crucially, this kind of Übermensch thinking was allied with a strain of progressivism based on the belief that new ways of doing things must replace the redundancies of the old; though none of these super-capitalists can be accused of harbouring much in the way of Marxist tendencies, we can imagine them as being in accord with the 'all that is solid melts into air' world view, as expressed by Karl Marx and Friedrich Engels in their *Communist Manifesto* of 1848. The new reality, it went without saying, would be something they would shape themselves, according to the requirements of the protection of their own gains, and according to an essentially post- or non-democratic doctrine that tended towards scientism, technocracy, and the rule of social engineers – experts, of course, picked out and identified by themselves across a range of fields.

There was 'Progress' in this sense, yes; but these were men of their time. The Social Darwinism and the radical elitism led, irrevocably and entirely consistently according to the logic involved, to a preoccupation with the fitness of the human material with which the plutocrats would be working, that is with eugenics. Interestingly, the analogy between the need to weed out the weak in both the general population and firms in the economic sector was made explicit at the time. A core pro-monopoly argument, of course, was that nothing, and especially the government, should be allowed to halt the march of economic progress and the concentration of wealth. The big fish should be left to eat the little ones, for "what was underway was a kind of industrial eugenics campaign that exterminated the weak and the unfit to make room for firms great and powerful" (Wu, 2018: 21). But things take on a still darker aspect when we consider the intensity of J.D. Rockefeller's commitment to sorting the wheat from the chaff in the human gene pool. In light of his belief in the "survival of the fittest" – a phrase coined as we have seen not by Charles Darwin but by Herbert Spencer, who had a significant impact on plutocratic thinking - it was but a small step for the "Titan" himself (Chernoff, 2004) to transpose a concern with the survival and perpetuation of his own monopoly to a compulsion to ensure the survival, perpetuation, and supremacy of what he took to be his own, elite-Übermensch, kind.

This brings into clearer focus the commitment to public health surveillance and provision displayed during the *Damaged Goods* affair, as discussed in Chapter 3; Rockefeller's Foundation, it is sobering to realise so far into the American twentieth century, played an active, hands-on role in solving the 'problem' of the presence of genetic 'defectives' in the population, such as those who would these days be defined as having 'learning difficulties', by using and advocating for the kinds of methods that it would later take the Nazis, working to a significant extent from the Rockefeller playbook, to finally make unacceptable to polite American society. Edwin Black details, in *War Against the Weak*, the "links between the Rockefeller Foundation's massive financial grants and the German scientific establishment that began the eugenic programs that were finished by Mengele at Auschwitz" (2012: 23). In the 1920s, John D. Rockefeller Jr., at that time the world's wealthiest man, "funded scientific research into what he called the 'defective human' who should be bred out of the population" (Roberts, 2020) via a programme of compulsory sterilisation.

Eugenics and the genetic fitness of the population – often discussed in racialised terms – were respectable and much discussed topics in the early part of the century and were by no means the preserve of the plutocrats alone. A wide swathe of the socially concerned commentariat engaged in these debates. Quinn (2003) presents a range of such, spanning everybody from the Rockefeller and Carnegie interests to advanced 'race' progressives like W.E. DuBois and the socialist writer Jack London. However, the "robust support for eugenics among the American elite" made it no surprise that the Rockefeller Foundation involved itself in funding research in the field, though in this regard the Rockefellers had actually been beaten to the punch by the Carnegie Foundation and its eugenics research centre at Cold Spring Harbor on Long Island (the first in the United States, founded in 1904). Both the major players here had world views and motivations very similar to those of their elite peers across the Atlantic, as discussed in Chapter 2:

America's first general-purpose philanthropic foundations – Russell Sage (founded 1907), Carnegie (1911), and Rockefeller (1913) – backed eugenics precisely because they considered themselves to be progressive. After all, eugenics had begun to point the way to a bold, hopeful human future through the application of the rapidly advancing natural sciences and the newly forming social sciences to human problems. By investing in the progress and application of these fields, foundations boasted that they could delve down to the very roots of social problems, rather than merely treating their symptoms. (Schambre, 2013)

The Cold Spring Harbor project was initiated with deep seriousness and intent, and a strong commitment to mapping and profiling the population genetically, stockpiling "millions of index cards on ordinary Americans, as researchers carefully plotted the removal of families, bloodlines and whole peoples". Armed with the fruits of this early foray into mass surveillance, eugenics advocates fanned out across the country to agitate in "the legislatures of America, as well as the nation's social service agencies and associations" (Black, 2012: 170).

One aspect of Carnegie's interest in this sphere must be emphasised: his preoccupation, typical of the character of the time among himself and his peers, with race mixing and miscegenation. A year before the publication of Thomas Dixon's novel *The Clansman, The Birth of a Nation*, Carnegie paid for the setting up of a centre for the study of 'hybridized peoples' (Hartmann, 2016: 163). Where Dixon's novel and D.W. Griffith's notorious 1915 film adaptation of *Birth of a Nation* depicted their black characters (in the case of the latter played by blackedup white actors) as indolent, ignorant, and violent (Gillespie, 2009), the Carnegie Corporation was no less strident in its contemptuous attitude towards black people, beneath its veneer of pseudo-scientific seriousness. One of Carnegie's researchers, quoted by Bonnie Mass in *Population Target* (1976) and featured in Hartmann's discussion of the development of eugenic ideology in the United States, held forth on the topic of racial integration in Jamaica:

The moral disharmony in hybrids may often be due to the even greater contrast between the psychology of the various races, as, for instance, between the ambition, the love of power and the adventurous spirit of the whites, and the idleness, the inconstancy, the lack of self-control and often of adequate intelligence of many colored people.

(Mass, 1976, in Hartmann, 2016: 163)

Spencerian neo-Darwinism, Übermensch Elitism, and the endemic racial fears and tensions of the early twentieth century had, then, come together, as "elites, utopians and so-called progressives fused their smouldering race fears and class bias with their desire to make a better world", shaping eugenics into a repressive and racist ideology with the intent of populating the earth "with vastly more of their own socioeconomic and biological kind – and less or none of everyone else" (Black, 2003: 40-43; see also Bender, 2009).

# Übermensch Elitism, American Style: From Eugenics to 'Population Control'

This apparent paradox between progressivism and its fusing with and an approach to the management of human populations hard-headed and ruthless enough to attract the enthusiastic attention of the Nazis needs a little unpacking. Eugenics, in the first few decades of the twentieth century, had widespread appeal as part of a broader emerging programme of, as we have seen, technocratic social engineering. Science held the predictive key to the future; scientists, engineers, and other 'experts' would be the 'hands on' improvers of society; and the first of the big-thinking foundations began to set a pattern in which philanthropic enterprises would seek to shape and guide government spending by testing out potential solutions for social problems and subsequently advocating, as we saw in the Cold Spring Harbor approach, for their replication by government. The basis of the foundations' claims to legitimacy, where eugenics was concerned, was their boast that they could

delve down to the very roots of social problems, rather than merely treating their symptoms. Just as tracking physiological diseases back to parasites and microbes had begun to eliminate the sources of many medical ailments, so tracking social pathology – crime, pauperism, dipsomania, and "feeblemind-edness", a catch-all term for intellectual disabilities – back to defective genes would allow us to attack it at its source. As John D. Rockefeller put it, "the best philanthropy is constantly in search of the finalities – a search for cause, an attempt to cure evils at their source".

(Schambre, 2013)
The practical outcome of this approach was mandatory sterilisation programmes in no fewer than 27 states, underpinned by "widespread academic fraud combined with almost unlimited corporate philanthropy to establish the biological rationales for persecution . . . the eugenics movement slowly constructed a national bureaucratic and juridical infrastructure to cleanse Arnerica of its 'unfit'" (Black, 2003: 18). As part of this programme, 63,000 people were forcibly sterilised (Schambre, 2013).

This dark episode in the American story has still received little in the way of frank recognition or apology on the part of the foundations responsible for it, despite the fact that the sterilisers' arguments never would have "risen above ignorant rants without the backing of corporate philanthropic largess" (Black, 2012: 20). Ultimately, for Kay,

[T]he ideal of social control was inspired by Spencerian naturalistic philosophy and conceptualized through the dominant cultural categories and racialist doctrines of the Gilded Age. That discursive framework valued private enterprise, inward temperament, morality, and self-mastery as the innate drives that vaulted the Protestant Anglo-Saxon elite to world dominance.

(Kay, 1996: 23)

The sorry tale of hard American eugenics spans three decades and only really begins to draw to a close when the historical narrative shifts towards the Nazis in the 1930s. Thereafter, in the United States, eugenics was diplomatically rebranded as medical genetics and "population control" under the aegis of Frederick H. Osborn, who became the president of the American Eugenics Society in 1946 (Schambre, 2013). It is well worth noting that Osborn sat on the board of the Carnegie Corporation in New York for many years and that later he would team up in 1952 with John D. Rockefeller III to set up the Population Council: the Rockefeller name was used in that year to attract "thirty prominent Planned Parenthood leaders, demographers, and development experts to a population conference in Williamsburg, Virginia" (Hartmann, 2016: 168). The Population Council (which as usual, in classic Foundation style, was a private initiative named to sound like an official institutional entity) was born at this meeting. Rockefeller III himself, giving the highest form of elite American imprimatur to what was henceforth going to be set in motion as a global initiative, asserted at this time of his conviction that "the relationship of population to material and cultural resources of the world represents one of the most crucial and urgent problems of the day" (in Mass, 1976: 37).

This late 1940s/early 1950s moment is an interesting and important one not only in the transition from old-style eugenics to population control and its emergence on the global stage but also in the synergy between elite, eugenically inclined technocrats on both sides of the Atlantic. To begin with, we learn from Hartmann that the American Planned Parenthood Federation, which in the 1940s had begun to emphasise what it saw as the problem of overpopulation, went international, thanks significantly to the efforts of Margaret Sanger. The International Planned Parenthood Federation was launched in 1948, and "the English Eugenics Society gave the IPPF its first London offices free of charge" (Hartmann, 2016: 168).

Two years before the internationalisation of the planned parenthood movement got underway in earnest, UNESCO (United Nations Educational, Scientific and Cultural Organization), an important element in the emerging structure of globalist institutions, was launched. Its first president was Julian Huxley, an evolutionary biologist, enthusiastic internationalist, brother of Aldous, and a eugenicist in the British tradition even more ardently attached to the improvement of the population than H.G. Wells. Huxley – widely believed to be the originator of the term 'transhumanism' in the context of an argument that humankind should aspire to transcend its biological limitations in pursuit of a global humanist civilisation in his New Bottles for New Wine (1957: 13-17; see also Phillips, 2007) - enjoyed a too-complex and multifaceted career to be properly dealt with here. But two things about him are of significance to the argument being presented. First, that his rise to prominence as a committed population improver represented the influence on his strain of thinking and sedimented it at the heart of one of the central post-war global institutions. Second, that his long and varied career as a public intellectual was

linked to ideological agendas – not the least of which was to create "a new world order" – and [it] sheds light on the continuities in eugenic commitments from his interwar views, and, beyond that, on the contours of Huxley's post-Second World War eugenic thinking.

(Weindling, 2012: 480)

The extent of the ability of this cross-Atlantic group to exert enormous, worldchanging influence on the course of events is exemplified by the efforts of the Population Council of John D. Rockefeller III. As an example of the top-down insertion of a specific group interest into the social imagination at the global scale, this would be difficult to surpass. The context that enabled this project to achieve real lift-off was the 'Malthusian' revival that occurred in the United States in the 1960s, largely triggered by two books published in 1967: William and Paddock's Famine 1975! America's Decision: Who Will Survive? and Moment in the Sun: A Report on the Deteriorating Quality of the American Environment by Robert Rienow and Leona Train. Both books presented, among other things, the argument that overpopulation in the world at large had the potential to accelerate domestic environmental degradation and compromise the United States's ability to feed itself and the idea that hard decisions would soon have to be made about the disbursement of USAID to struggling countries and the degree to which the United States should continue to export the fruits of its own immense food production industries. These somewhat hysterical and certainly questionable books were part of a campaign to "convince Americans that population growth anywhere in the world posed a direct threat to them personally", and the "solution shifted to population control by any means necessary" (Merchant, 2021: 165). The following year saw the publication of Paul Ehrlich's *The Population Bomb*, wildly inaccurate and misguided as that work was (see Chapter 2), and the rest is history. Let it be noted for the record, however, that the high-flown rhetoric and apocalyptic predictions contained in this alarmist bestseller

clearly exceeded Ehrlich's expertise in butterfly biology. Few of his claims about the dangers of population growth were backed by empirical research. Nonetheless, within a year of its publication The Population Bomb became required reading in approximately two hundred college courses around the country.

(Merchant, 2021: 166-167)

Readers unfamiliar with Ehrlich's opus may get a fuller flavour of its tone through Emily Klancher Merchant's exposition of it in *Building the Population Bomb* (2021). Ehrlich, she argues, attributed to overpopulation, among many other things, the "social, economic, and environmental ills of the United States":

Despite his own history of anti-racist activism, Ehrlich contended that overpopulation, not racism, was the cause of the country's recent urban uprisings. In contrast to the 1968 report of the Kerner Commission, which attributed urban unrest to segregation and discrimination, Ehrlich offered a biological analogy. He noted that "we know all too well that when rats or other animals are overcrowded, the results are pronounced and usually unpleasant. Social systems may break down, cannibalism may occur, breeding may cease altogether. The results do not bode well for human beings as they get more and more crowded".

(Merchant, 2021: 167-168)

"Ehrlich's explanation", Merchant continues,

dehumanized urban residents, elided a long history of residential segregation and discrimination in policing and the provision of public services, and neglected the fact that cities were expanding mainly through internal migration rather than reproduction, meaning that rural areas were losing population as metropolitan areas grew.

(2021: 168, emphasis added)

The actual empirical facts of what was happening in American cities were clearly not an issue for Ehrlich and his fellow alarmists, promoting as they did an unverified vision of an unmanageable chaos that would threaten the stability of the United States if not dealt with. In other words, the old Malthusian alarmism was now front-and-centre of late 1960s cultural politics, and Ehrlich was expressing things that chimed resoundingly with the Rockefeller mindset and method. The time had come to make the evil of overpopulation a major issue in the global awareness, regardless of the multidimensional and internationally variegated empirical complexities at the heart of the matter (Connelly, 2008). The Rockefeller interest now inserted itself into public affairs in the familiar way, in the name of advancing the global public good. The vehicle chosen for this intervention was the United Nations, an institution with which the Foundation had a close and synergistic working relationship since its inception. In fact, the Rockefeller Foundation was instrumental in bringing the United Nations to New York and, having effectively donated the prime slice of Manhattan real estate on which the institution's headquarters sits, has played a major role in many of the key events and processes ever since:

By financing its [the UN's] move to the United States and all of its work during the Second World War, the RF would allow it to make a major contribution to the reorganisation of the global economic order after 1945.

(Tournes, 2014)

By 1967, the advocates of population growth and family planning had managed to work the issues into the activities around the United Nations's observance of Human Rights Day. At the suggestion of John D. Rockefeller III, Secretary-General U Thant once again celebrated a population resolution that Bernard Berelson – a colleague of Rockefeller's at the Population Council – had drafted a year earlier. This time round the resolution was "bound into a lovely keepsake pamphlet, with a foreword by Rockefeller that described increasing recognition of and concern for the world population problem" among heads of state. The pamphlet said nothing of

the Population Council's role in either generating that concern or producing the resolution, but U Thant's speech thanked Rockefeller for "his untiring efforts to secure ever wider acceptance of the Declaration". By the end of 1967, thirty countries had signed on.

(Merchant, 2021: 158, emphasis added)

A year later, the United Nations Association of the United States of America convened a panel to study how the United Nations could further the cause of global population control. The panel was chaired by Rockefeller and "included David E. Bell, vice president of the Ford Foundation; Oscar ('Bud') Harkavy, the Ford Foundation's programme officer in charge of population" and other representatives of the 'population establishment'. In their final report, which was circulated in 1969, these

elite American men described the UN as being "uniquely qualified to make an important practical contribution toward a solution to one of the world's most serious problems" because "it can act without arousing the fear that family planning is a device of the rich nations to avoid their obligations to the poor".

The panel recommended that the United Nations's population budget be expanded to \$100 million annually,

laying the basis for the 1969 establishment of the UN Fund for Population Activities (today the UN Population Fund). In its first year, USAID provided 85% of the Fund's money, cloaking U.S. efforts to reduce global population growth in "the multilateral approach".

(Merchant, 2021: 158)

Two things should be noted here: first, the Rockefeller Foundation/Ford Foundation/Population Council system's arrogation to itself of the responsibility for introducing and subsequently addressing, via a simplistic and one-size-fits-all strategy, what it claimed was a major and pressing matter of global concern despite the array of experts who contested their assumptions and conclusions; second, that the preoccupation with 'population' as revealed in this saga was and is entirely consistent with the elite's near-obsession with seeking to control lowerorder individuals and populations. The apple of Social Darwinism and desire for eugenic control that this particular formation was espousing and acting upon a hundred years ago has not fallen far from the original tree. This is amply demonstrated by Betsy Hartmann in her moving and at times shocking account of the "wrongs" done to poor women and their families in *Reproductive Rights and Wrongs: The Global Politics of Population Control* (2016).

Hartmann argues strongly that one of the main characteristics of this domain of Western elite-driven global birth control management has been the application of what Donald Warwick called the "machine theory of implementation"; in this exemplarily technocratic approach, family planning programmes are set up on the basis and pattern of relationships of (a) mechanical delivery systems and (b) programme clients, who are "receptacles for the services delivered" (Warwick, 1983: 40). Standardised models, on this view, are devised in Western cosmopolitan centres far removed from the realities and experiences of said 'clients' and applied regardless of cultural context. Authority is centralised within national government elites often assiduously directed and managed by the international entities and interests involved; these in turn implement the system through authority centralised within the national government and passed down to local level by hierarchically arranged systems of officialdom. The success of such programmes "has typically been evaluated solely in terms of numbers of acceptors and of targets met, not in terms of people's satisfaction with the services delivered" (Hartmann, 2016: 120).

For anyone seeking to understand the complexities and contradictions inherent in the activities undertaken by the Western elites in this sphere, Hartmann's book is essential reading, largely because it eschews ideology and presents a measured picture in a field riven by controversy and political antagonisms. As James Midgley observes, few other fields of social policy in the Third World have aroused such passions and heated controversy as population policy. On the one hand, he argues, "advocates of family planning are accused of seeking to maintain the hegemony of the West over the Third World by limiting the numerical strength of its people", while on the other "opponents of population control measures are attacked on the ground that they encourage the population explosion and threaten the welfare of the entire planet" (Midgley, 1983: 582). In this context, studies such as those of Hartmann and Warwick are valuable both for their rational character and also because they make clear the mechanics of Western, and particularly American, elite globalism and its top-down and technocratic approach taken to population management in a much broader environment than we have discussed so far in this chapter.

# Maurice Strong and the Corporate Capture of the Green Movement

Hartmann's criticisms of the activities of the tax-exempt foundation–NGO– government complex in this attempt to reduce and manage the global population echo those to be found in another important, though in this case somewhat less discussed, book: *The Earth Brokers: Power, Politics and World Development* (1994), by Pratap Chatterjee and Matthias Finger. The central argument here is that following decades of failed development plans and programmes initiated and foisted upon the Global South – the application of the machine theory of implementation of birth control systems and practices would be a good example here – the Earth Summit in Rio De Janeiro was convened in 1992 to take a dramatic new approach to the numerous environmental problems plaguing the planet and get things onto a new, more comprehensive, and better-managed footing.

The United Nations Conference on Environment and Development (UNCED), as the Earth Summit was formally called, recognised that environment and development were inextricably linked, a view that Chatterjee and Finger argue was an important step forward. They argue, however, that the focus quickly became development, at the expense of the unsustainable economic models being followed across the world, and that the neglect of the latter was an expression of the priorities of an emerging global management elite that would effectively co-opt and capture both the green movement and much of the political leadership of the South. The problems being caused, they wrote in 1994, by "Free trade, multinational corporations, militarism – some of the biggest contributors to today's crisis – were deliberately left off the agenda". Instead of tackling these fundamentals, the Earth Summit

attempted to "green" development and its major promoters by pushing the environment to the top of the agenda. UN and government agencies adopted this new green solution without questioning the assumption that growth and further development were necessary, let alone the assumption that they were possible.

As a consequence of this, and here we arrive at the nub of the matter,

[T]he Summit was flawed in both conception and execution. As a result, the new order that is emerging after the Rio de Janeiro conference is identical to the old one. If this new order were merely a warmed-over version of the old, things might be expected to continue deteriorating at the current pace, if not accelerate, since the new mantra is that the environment may even be a profitable enterprise that will stimulate development. What is more, the new order is slowly creating a global management elite that is coopting the strongest people's movements, the very movements that brought the crisis to public attention.

(Chatterjee and Finger, 1994: 2)

The corporate capture of the green movement through the machinations of the UNCED process has had profound consequences – though the public at large may know little of it, given the highly selective and biased way in which the corporate media covers environmental issues to this day, in lockstep with said 'global management elite'; but what were those machinations and who was behind them?

The 'Earth Summit' tag was devised by Maurice Strong, the prime mover behind the staging of the event. Strong was a Canadian businessman and diplomat with a long and chequered career that straddled the corporate sector and environmental activism. As independent journalist and documentary maker James Corbett puts it,

[O]n paper, it would be almost impossible to find a less likely candidate for "Godfather" of the modern environmental movement than Maurice Strong...Strong's meteoric rise to the heights of wealth and political influence is itself remarkable.

Over the course of his career, Strong founded numerous environmental organisations, chaired multiple conferences, led many campaigns, and received almost too many accolades to count. He was

[o]rganizer of the Stockholm Environmental Conference (1972), founding director of the United Nations Environment Program, Secretary General of the Rio Earth Summit, founder of the Earth Council and the Earth Charter movement, chair of the World Resources Institute, and commissioner of the World Commission on Environment and Development,

(Corbett, 2017)

and this list is not complete; we might also mention his spells as Director of the World Economic Forum, Senior Advisor to the President of the World Bank, member of the international advisory panel of the Toyota Motor Corporation, and Deputy Minister for Foreign Affairs for Canada (Dodds et al., 2012). We perhaps should also add to this shortened list Strong's position as Secretary General of both the United Nations Conference on the Human Environment in Stockholm in 1972 and the aforementioned Rio 'Earth Summit' of 1992, and his membership of the Brundtland Commission, of which more later, and leave it there. As Elaine Dewar put it in *Cloak of Green: The Links between Key Environmental Groups, Government and Big Business* (1995: 251–252), such was the length of and variety contained in Strong's CV that

[I]t was impossible to understand how one man could do so much. At first his Curriculum Vitae struck me as odd, as if it were designed to sell a life, not as if the life had produced the document. When I had checked and reviewed it, it also seemed to reflect the patterns of the Global Governance agenda – NGOs, governments, politicians, Native peoples, Marxists, Maoists and democrats tied in knots with power companies and other great trade empires. His CV was a record of a lifetime of arrangements.

But perhaps the most notable thing about this ever-present and influential environmentalist was, as Corbett suggests, his background: he was a "Rockefeller-connected millionaire from the Alberta oil patch who divided his time between environmental campaigning and running major oil companies". Strong, to be precise and for the record, was at one time a trustee of the Rockefeller Foundation (1971–1977) (Dewar, 1995: 252). This apparent contradiction only really makes sense, Corbett further contends, if we consider the character of the emergence of the environmental movement:

In the post-war period, the desire to control the population put on a new mask: protecting the world from resource depletion, pollution and ecological catastrophe. And, as always, the Rockefeller family was there to provide the funding and organizational support to steer this burgeoning movement toward their own ends. (Corbett, 2019)

Here the ambitious activities of J.D. Rockefeller III and Julian Huxley can be seen to converge. Corbett takes up the story:

Joining the Rockefellers in shaping the international environmental movement were their fellow oligarchs across the Atlantic, including the British royals behind BP and the Dutch Royals behind Royal Dutch Shell. And facilitating the transition from eugenics to population control to environmentalism was Julian Huxley.

(Corbett, 2017)

who famously wrote in his first speech as the president of UNESCO that

[a]t the moment, it is probable that the indirect effect of civilisation is dysgenic instead of eugenic; and in any case it seems likely that the dead weight of genetic stupidity, physical weakness, mental instability, and disease-proneness, which already exist in the human species, will prove too great a burden for real progress to be achieved. Thus even though it is quite true that any radical eugenic policy will be for many years politely and psychologically impossible, it will be important for UNESCO to see that the eugenic problem is examined with the greatest care, and that the public mind is informed of the issues at stake so that much that now is unthinkable may at least become thinkable.

(Julian Huxley, 1946: 19)

Corbett goes on, in the light of this extraordinary passage – written at a time when the ovens at Auschwitz had barely had time to cool – to suggest that Huxley "found the perfect front for the re-introduction of those 'unthinkable' eugenical ideas in 1948, when he used UNESCO as a springboard for founding the International Union for the Conservation of Nature". Later, in 1961, Huxley was one of the co-founders of the World Wildlife Fund. Joining Huxley in the launch as co-founders were

not only Prince Bernhard of the Netherlands, founder of the Bilderberg Group and former employee of the IG Farben conglomerate, and Prince Philip of England, but Godfrey A. Rockefeller of the Rockefeller dynasty. Together, they pledged to "harness public opinion and educate the world about the necessity for conservation".

(Corbett, 2017)

The beginning of the permanent drip-drip-drip media messaging about the strain that the growing human population was putting on the resources of the earth had begun and was "paid for by the very oiligarchs who had just spent the past century monopolizing one of the world's key resources" and led, inevitably to a predictable conclusion. The possible 'cure' for the 'disease' of humanity – or complex of diseases, if Julian Huxley were to be believed – thus began to be presented from the early 1960s, a decade or so before the first Club of Rome meeting. Organisationally and financially, the pieces were all in place, and the highly elite formation centred on the Rockefeller Foundation (via the Population Council), the Bilderberg Group, the British monarchy, and UNESCO was ready to begin ramping up the pressure. The venue of choice was to be the United Nations,

whose headquarters had been so graciously donated by the Rockefeller family itself. And the first step toward discovering that cure was to organize the UN Conference on the Human Environment in Stockholm in 1972, the world's first international environmental conference.

(Corbett, 2017)

It would have been difficult to find a better-connected and qualified person to put together and run the Conference than Maurice Strong. Though he was busy in the period preceding his acceptance of the Secretary General position for the Conference – mostly, according to Dewar, in helping the newly elected Canadian Prime Minister Pierre Trudeau put his cabinet together by identifying individuals for key government positions on his behalf (Dewar, 1995: 276) – he was ready to go when the United Nations came calling, though it seems he had to do some persuading of Trudeau to be let go. The reader should note, then, that in the period of his stewardship of the Stockholm Conference Maurice Strong was, amongst many, many other things, both a key advisor to the Prime Minister of a major nation *and* a trustee of the Rockefeller Foundation.

Around this time, partly as Dewar has it to service the Conference, the Canadian government initiated the practice of funding NGOs: "Previously treated as private organisations", she writes,

charities and other groups opened themselves to the money and policies of the federal government – becoming, in effect, PGOs, private government organisations . . . This [the period of the conference] was when Strong first demonstrated that the phrase NGO could be applied, like a democratic varnish, to dignify any group.

(Dewar, 1995: 177–178)

Via strategies such as these, Strong was able to bring an atmosphere of vox populi to what were very hierarchical and elite operations. But there was more – much more. The Stockholm Conference may have served as cover, Dewar suggests, "for certain triangular reconfigurations of the global power map". In 1969, when Strong was first invited to put the Conference together, Canada and China began to negotiate in secret at Stockholm the resumption of their diplomatic relations. "This move also fit with the Rockefeller view of global affairs" (Dewar: 278). And this, it almost goes without saying, was over two years before President Nixon's historic ice-breaking visit to China, shaped under the influence of Nelson and David Rockefeller and Henry Kissinger.

A number of things emerged as new global strategies and norms out of the Conference: the publication of peans to the idea of globalism, the first perhaps being *Only One Earth* (1972) by Barbara Ward and Rene Dubos, complete with a U.N. logo on its cover. Some Western countries followed the American lead and set up departments for the environment that developed the still-nascent sphere of policymaking; and the creation of a new U.N. bureaucracy – the United Nations Environment Program (UNEP), with Strong, unsurprisingly, as executive director, the headquarters of which was placed in Nairobi "as a sop to developing countries, who had been suspicious of Western intentions" (Dewar: 289). The tone, then, and much of the culture, was set, as well as the embryonic national and global entities which would come to litter the international institutional landscape. But the real turning point in the Rockefeller–Strong axis capturing and redefining of the green movement and its aims was to come 20 years later, in Rio.

Strong's opening speech at the Earth Summit certainly kicked things off with a bang:

We may get to the point where the only way of saving the world will be for industrial civilization to collapse. Isn't it our responsibility to bring this about? (Strong, in Bell, 2011: 226)

A shift was coming – from green concerns about the mitigation and management of a variety of environmental problems to empirically unfounded climate alarmism as a strategy for centralising environmental institutions at the U.N. This would enable decision-making and effectively executive power to pass, behind the scenes, into the hands of the Rockefellers and their cohort. As we will see, this amounted to a takeover of the green movement, which had been in the works since at least the late 1960s, and the consolidation of elite interests and their intention to use the kind of extreme climate alarmism with which we are now all familiar to persuade and cajole governments to heed and follow the prognostications of a new Western-corporate climate establishment, window-dressed with questionable NGOs, co-opted activists, and, crucially, scientists whose findings aligned with the narrative. As Democrat senator Tim Wirth declaimed in his address to the summit, "We have got to ride the global warming issue. Even if the theory of global warming is wrong, we will be doing the right thing in terms of economic policy and environmental policy". Thus was climate alarmism instituted as a central strategy in the attempt to make the world more amenable to the elite technocratic influence "even if there was no science to support it" (Bell, 2011: 227). As it was put on the NPR website in 2010 in relation to the senator's words and the strategies used by climate alarmists since the 1960s:

Every ecological problem was instantly transformed into a potential worldending crisis, from the population bomb to the imminent resource depletion of the "limits to growth" fad of the 1970s to acid rain to ozone depletion, always with an overlay of moral condemnation of anyone who dissented from environmental correctness. With global warming, the environmental movement thought it had hit the jackpot – a crisis sufficiently long-range that it could not be falsified and broad enough to justify massive political controls on resource use at a global level.

(NPR, 2010)

The reader may not be surprised to learn, or to be reminded, that in 1998 Senator Wirth was appointed head of the United Nations Foundation – which began as a

charitable adjunct to the United Nations proper before evolving into its strategic partner, with a focus on advancing that organisation's Sustainable Development Goals (SDGs), which now of course dominate global environmental policy and to which we will return. Wirth stayed in this role until 2013. On the broader issue of the overblown rhetorical strategies, fallacies, fear-mongering and debatable scientific findings employed by Wirth et al. - which are well beyond the purview of this work, as complex and specialised matters – it should be noted that far from actually being 'settled', as the messaging of tax-exempt foundations, governments, global institutions, NGOs, think tanks, education systems, mainstream/legacy media outlets, and countless cultural productions assert, properly robust and questioning scientific disputation continues. As an example, in 2022 the independent Global Science Intelligence Group published a document called 'There Is No Climate Emergency'. Its 1,107 signatories, international scientists, and professionals, headed by the Nobel Laureate Professor Ivar Giaver, emphasise the problems caused by both the politicisation and the computer-modelling of climate change:

To believe the outcome of a climate model is to believe what the model makers have put in. This is precisely the problem of today's climate discussion to which climate models are central. Climate science has degenerated into a discussion based on beliefs, not on sound self-critical science. Should not we free ourselves from the naive belief in immature climate models?

(Global Climate Intelligence Group, 2022: 4)

The report argues, in essence, that climate science and climate change should be less politicised and more scientific and makes the following headline points: natural as well as anthropogenic factors cause warming; warming is far slower than predicted by the UN's Intergovernmental Panel on Climate Change (IPCC);  $CO_2$  is plant food, the basis of all life on earth, and not a threat to it; global warming has not increased the number of natural disasters; and climate policy must respect scientific and economic realities. In summary, the report proposes that "Science should strive for a significantly better understanding of the climate system, while politics should focus on minimizing potential climate damage by prioritizing adaptation strategies based on proven and affordable technologies" (2022: 3).

But we are getting ahead of ourselves; there is more to be said about the runup to and consequences of the Rio Earth Summit – particularly where the influence of the Trilateral Commission and its operatives in shaping the direction and conclusions of the summit are concerned. First of all, there is the Brundtland Commission, which by common agreement laid the groundwork for and provided the rhetorical ammunition used in Rio in 1992. The Brundtland Commission, formerly the World Commission on Environment and Development, was a U.N. project set up to garner international support for the idea of sustainable development. It was founded in 1983, with Gro Harlem Brundtland – former Prime Minister of Norway and passionately committed international socialist (Skard, 2014) – as chair. The end product of the Commission's work was published as *Our Common Future* (Brundtland, 1987). In September 1988, four years before Rio, Brundlandt gave a speech at a Trilateral Commission dinner in Oslo in which she gave a broad overview of her vision of the global future of humankind (Brundtland, 1988).

The speech conveyed the essence of the core vision developed in the Brundtland Report and *Our Common Future* and put the concept of 'sustainable development' on the map once and for all by linking, as per the argument Chatterjee and Finger made about the Earth Summit of 1992, the environment to development and development to poverty:

Poverty is a major cause and effect of global environmental problems. It is therefore futile to attempt to deal with environmental problems without a broader perspective that encompasses the factors underlying world poverty and international inequality.

(Brundtland, 1987: 3)

The Brundtland Commission then, with Maurice Strong on board to support Brundtland's vision of corporate responsibility and international-socialist sounding vision, succeeded, in (a) linking poverty, equity, and security to environmental issues and (b) heavily promoting the notion that the environment was a popular issue around which governments, individuals, and NGOs could rally. This was a crucial moment: Brundtland's 1988 Trilateral dinner audience heard this, in all likelihood, as a usable battle cry with which to mobilise the world to create a new global economic order – and system of technocratic governance.

Three years later, in 1991, Strong wrote the introduction (David Rockefeller having written the forward) to *Beyond Interdependence: The Meshing of the World's Economy and the Earth's Ecology*, a Trilateral Commission publication authored by Macneill et al. (1991). The book itself gives numerous examples of the work the Commission itself had been doing since 1974, largely through the offices of the U.N., to encourage the idea that closer interdependence between nations, firms and economies was a necessity if the world was to be moved forward in a stable and productive way. As Rockefeller put in his foreword, a prominent theme in the Commission's work of persuasion had been that "growing interdependence and the inadequacy of present forms of cooperation are the principal features of the contemporary international order" (Rockefeller in Macneill et al., 1991: v). But it was time now to go well beyond mere interdependence: in the shadow cast over humanity by the various, potentially apocalyptic ecological scenarios presented by the Club of Rome and the Brundtland Commission, among others, a truly global approach was now a necessity.

Strong's introduction to this book made no bones about the role his upcoming jamboree in Rio was going to play in this process:

This book couldn't appear at a better time, with the preparation for the Earth Summit moving into gear . . . it will help guide decisions that will literally determine the fate of the Earth. . . . Rio will have the political capacity to produce the basic changes needed in our international economic agendas and in our institutions of governance.

(in Macneill et al., 1991: 5)

The time to develop and expand the Rockefeller/Trilateral view that the merging of economic and political power centres was now essential, if only to strengthen their own positions, was at hand. But how was the establishment of the structures and processes that would 'literally determine' the fate of the earth to be managed?

The answer to this potentially tricky manoeuvre was that the pragmatically hard-headed, deal-forcing, and somewhat less idealistic aspects of Strong's skillset would come to the fore, in the way in which the nuts and bolts of the summit's deliberations and findings would be organised. The fact was that, while "no scientific data existed to serve as a sound basis" for the threats that speakers at the summit were making to humanity at large, the "UN's motivation to establish its Framework Convention on Climate Change in 1992" (Bell, 2011: 100) was paramount, and so it was found, as Bell notes in the same passage, that

human activities have been substantially increasing the atmospheric concentrations of greenhouse gases, that these increases enhance the natural greenhouse effect, and that this will result on average in the additional warming of the Earth's surface and atmosphere and may adversely affect natural ecosystems and mankind.

This authoritative-sounding conclusion was, in fact, arrived at in the following manner, based on the need to meet, as Tim Ball shows, Strong's two primary objectives. These were to "create the science needed to prove human CO, was the problem and then convince the public if they didn't act the outcome would be catastrophic". To ensure that the required findings were reached, Strong needed control of selecting participants, especially Lead Authors, who would be willing to go along with a readiness, for ideological or other reasons, to abandon fundamental scientific principles: "Properly", Ball writes, "a scientific definition [of climate change] would put natural climate variability first, but at no point does the UN mandate require an advance of all climate science" because the demands made by Strong and others meant that "research and results would be political and produce pre-determined results. It made discovering a clear human signal mandatory, but meaningless. It also thwarted the scientific method" (Ball, 2014: 31); "the consensus was reached before the research had even begun" (Ball, quoted in U.S. Senate Committee on Environment and Public Works, 2007).

Ball, further to this, lays out the organisational strategy through which this was achieved. Maurice Strong not only wrote the terms of reference of the summit in such a way as to make the definition of climate change eventually reached at its conclusion endorse his view that human activity is its cause. Strong then set up a research protocol on the basis of three ostensibly synergistic working groups. According to Ball

There was the technical group, Working Group 1, which wrote the science report, and that was 600 of the 2,500 people. The other 1,900 people were in Working Groups 2 and 3. Now they were inconsequential because they had to accept the findings of Working Group 1, which were already limited by their terms of reference.

In effect, Working Groups 2 and 3 - composed of the majority of the 1,900 involved in the summit – were required to accept

without question the finding of the first group. Now Strong really restricted it even more because they then came and said, *Now look, this report is not to be used for policy*, but then they set up the Summary for Policymakers, the absolute contradiction of that.

The Summary for Policymakers was written by a completely separate group, working independently of the science report. The science report was finished and set aside. The Summary for Policymakers was written and supplied to the media, "but the rules – the terms of reference that Strong set out – said that the Summary for Policymakers goes back to the science report people and says make sure your science report agrees with what we've put in the summary" (Ball in Corbett, 2017).

These behind-the-scenes Earth Summit machinations of Strong's fixed, until this day, the hegemonic version of the climate change idea: not only is this itself destined to lead to an inevitable environmental catastrophe at some point in the future, but it has also been caused exclusively by human activity. This was the platform for the argument that the global economic system should henceforth undergo a profound transformation under the aegis of centralised elite institutional control for the good of us all; the hitherto prevailing sphere of genuinely concerned green activism, within both the West and the Global South, was captured and a whole new system proposed. This amounted, fairly obviously, to a power- and resource-grab in which entities such as the various wings of the Rockefeller interest and the later Gates Foundation could steer globalisation in a new direction - that of technocratic corporate pseudo-environmentalism (Greer and Bruno, 1996; MacDonald, 2008; Klein, 2014; Sklair, 2019) and philanthrocapitalism (or the "Messianism of Private Capital", Soskis, 2021 - see also McGoey, 2015; Amarante, 2018; Giridharadas, 2018), as covers for what is arguably the most concerted and far-reaching attempt to take control of the world's natural resources in history (Confino, 2012; Shiva, 2013). Even in the more charitable argument of Anand Giridharadas, in which he seeks to account in a measured way for the tensions inherent in the philanthrocapitalist enterprise, the point is made: even though "there is no denying that today's American elite may be among the

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more socially concerned elites in history", he writes in *Winners Take All* (2018: 7) "it is also, by the cold logic of numbers, among the more predatory in history".

## The Net Tightens: the U.N. SDGs, the 'Zero-Carbon' Scam, and the ESG Enforcement System

Paul Kingsnorth, a "recovering" British environmentalist (Kingsnorth, 2017a), has reviewed the main trends that have characterised the green movement in recent decades, since its capture by the aforementioned actors. The somewhat pessimistic tone of much of his commentary in this sphere seems to derive from two main, interconnected sources: the machinations of the remote globalist class as it moves through its successive phases of trying to reshape the world according to its own interests in the name of sustainable development and an abstract notion of a thing called 'the environment' now treated, though Kingsnorth does not use the term, as nothing but *standing reserve* for the profit motive and tighter control of activities and rights of human populations; and the way in which the technocratic machine built by corporate environmentalism to 'solve' the world's ecological problems has become normalised, even for many members of a more human, organic and spiritual connection to the earth.

"These days", Kingsnorth writes,

as the Brexit vote demonstrated, green politics is a marker of the globalist class. With their grand ecological Marshall plans and their talk of sustainability and carbon, environmentalists today often seem distant from everyday concerns. Green spokespeople and activists rarely come from the classes of people who have been hit hardest by globalisation. The greens have shifted firmly into the camp of the globalist left.

(Kingsnorth, 2017b)

The latter development, Kingsnorth writes elsewhere, should surprise nobody who has studied the British twentieth century closely – the enthusiasm for sophisticated and widely deployed environmental technologies in the name of human social progress is redolent of H.G. Wells's socialistic and ultra-modern utopianism: the paradox or irony here is that the same forces of instrumental rationality and increasingly powerful technology that caused a raft of environmental problems in the first place are now seen to hold the key to their solution. This 'neo-green' perspective represents – and Kingsnorth comes close to saying it – an ultimate triumph of the technocratic will that would have thrilled the participants in the Technocracy Inc. movement of the 1930s. Green activism has, as Kingsnorth puts it, "been unable to prevent the global industrial machine from continuing to destroy wild nature and replace it with human culture (2017b)".

Neo-environmentalism is a progressive, Kingsnorth has written elsewhere, business-friendly, postmodern take on the environmental dilemma. It dismisses traditional green thinking, with its emphasis on limits and transforming societal values, as naïve. New technologies, global capitalism, and Western-style development are not the problem but the solution. The future lies in enthusiastically embracing biotechnology, synthetic biology, and nuclear power. This

latest variant on the old Wellsian Techno-optimism which has been promising us paradise for over a century. The neo-environmentalists are growing in numbers at present not because their ideas are new, but because they offer a business-friendly worldview which, unlike the tiresome old green message, is designed to make people feel comfortable about their plane flights and their iPads . . . For some time, mainstream environmentalism has demonstrated a single-minded obsession with climate change and technological solutions to it, to the exclusion of other concerns. Its language and its focus have grown increasingly technocratic and scientistic.

(Kingsnorth, 2012)

In the end, then, Kingsnorth understands that the hijacking and redirecting of environmentalism is part of a bigger picture: "Corporations have grown so big that they are overwhelming democracies and building a global plutocracy to serve their own interests" (Kingsnorth, 2017a: 20).

We will proceed now to a discussion of this 'global plutocracy' in a little more detail, for two main reasons. First, to get a fuller picture of the strategy and systems for the furtherance of elite and corporate management of global resources and populations that came out of the Brundtland-Strong/Rio era; and second, to introduce the reader to facts and arguments with which many may not be familiar, given the dearth of genuinely critical social–scientific scholarship in this field since the rise to hegemonic near-unquestionability of the Maurice Strong–Trilateral Commission global narrative.

The first thing to note, of course, is the codification of the climate emergency narrative and the proposed solutions for dealing with it in the UN Agenda 21 in the form of the SDGs. The entire system described earlier is moving – apparently unstoppably given the unflinching support of national governments, such as for example those in the UK, Germany, and the Netherlands, and countless institutions and NGOs – towards the realisation of these goals in the name, amongst other things, of the contrived chimera of "Net Zero" carbon emissions (Lynn, 2020). Quite apart from the matter of the highly debatable claims central to the Brundtland-Strong/Trilateral climate scare strategy, environmental activists across the world have been honing in on the connection between some of the world's largest corporations and the alleged benefits of the carbon-removal technologies they advocate for (Lynn, 2020; Dahlstrom, 2021; Omorogbe, 2021).

The race to 'get to net zero' by mid-century is not arguably based only on a fallacy; even on its own terms, these commitments raise concerns that many nations and corporations are justifying continued use of fossil fuels and simply offsetting any damage they cause via the carbon capture and trading system. The first problem with this approach, as Paul Kingsnorth and others have repeatedly stressed, is that the move to 'solve' fundamental environmental challenges via the proposed building of an immense carbon capture-and-storage infrastructure is simply taking a potential corporation-driven global technocracy to another level – quite apart from the fact that the new technologies involved are mostly untested and will almost certainly produce unintended consequences as their operationalisation increases. As Patti Lynn puts it, writing for the Stanford-based *Millennium Alliance for Humanity and the Biosphere*,

[B]y now, we should know that our society's infatuation with creating new technologies as fixes only leads to more and bigger problems. (Like GMO seeds and the profound implications they have for the future of small-scale farming – or farming at all.)

(Lynn, 2020)

Lynn especially criticises BP and Shell, as many others have done, for its 'vague commitments' to 'zero out' its carbon emissions, raising the question of the extent to which BP's commitments are mere public relations window dressing and the fact that top Shell executives openly admitted to 'influencing' the outcomes of the U.N. climate treaty's Paris Agreement of 2018. Shell's Chief 'Climate Change Adviser' David Hone managed by his own account to get his company's interest in promoting net zero approaches written into the Agreement: "Hone was candid about just how much of a hand his company - through their involvement with the International Emissions Trading Association - had in writing the Paris agreement" (Aronoff, 2018). Here is a scenario with which we are now well familiar: huge corporations and the interests with which they are allied promote 'climate change advisors' who work the system on the basis of the Maurice Strong playbook to protect and maximise interests behind a smokescreen of rhetoric about the global common good. As Vandana Shiva put it with reference to the Kyoto Protocol of 1997 (it having emerged out of the Rio Earth Summit), "we lost a whole decade . . . because basically it was about emissions trading rather than emissions stopping, and the trading led to higher emissions and more profits for the polluters" (Siva in Dahlstrom, 2021). As Friends of the Earth International put it in their 2021 report 'Chasing Carbon Unicorns', the deception of carbon markets and 'net zero', using the latter phrase as cover, means that

fossil fuel companies can continue to explore, drill, extract, and burn fossil fuels, while someone somewhere else sucks carbon dioxide out of the atmosphere, magically balancing out emissions. But whose land, whose forests will be used to suck that carbon out? Fossil futures require carbon unicorns.

(in Omorogbe, 2021)

The report also makes clear the resource appropriation and human costs of this operation:

The area of land required to sequester just 2 Gt CO2 through ecosystem restoration is estimated at 678 million hectares – about twice the land area of the country of India. Communities in the developing world are already facing huge land and resource grabs, loss of livelihoods, and violations of their territorial rights.

(Friends of the Earth International, 2021: 14)

These abuses of human rights and disregard for the actual environment – as opposed to the rhetorical abstraction of it present in the brochures and reports – are by-products of the elite-corporate resource grab that is now moving towards a critical point, not that this reality comes across particularly clearly in the U.N.-centred mission statements, prognostications, and publications themselves. Agenda 21 is a case in point here: the vague, sentimental, and vacuously utopian language in which in which the SDGs were set out was a concern to some keeneyed commentators upon its publication in 2015 under the aegis of the United Nations General Assembly. The 17 interlinked 'goals' in question are to be realised by 2030, by which time this "shared blueprint for peace and prosperity for people and the planet, now and into the future" (U.N. Department of Economic and Social Affairs, 2022) is to be achieved.

Goals 1 and 2 – 'No Poverty' and 'Zero Hunger', respectively – are, then, to be achieved at the global scale in less than eight years from the time of writing. Writing in response to the publication of the goals, Jason Hickel described the document as a "high-school wish list on how to save the world" (Hickel, 2015), *The Economist* called the SDGs "worse than useless: (Economist, 2015), and economist William Easterly had this to say:

Beyond the unactionable, unquantifiable targets for the SDGs, there are also the unattainable ones: "ending poverty in all its forms and dimensions", "universal health coverage", "ending all . . . preventable deaths [related to newborn, child, and maternal mortality] before 2030", "[end] all forms of discrimination against all women and girls everywhere", and "achieve full and productive employment and decent work for all women and men". Again, these could have been great as ideals – I share such ideals with great enthusiasm. But the SDGs are not put forth as ideals but as "targets" for the year 2030. The rejoinder to a utopian target should be: Wow, if something that great is possible, why wait until 2030? Why didn't it happen already?

(Easterly, 2015)

The SDGs, as published in 2015, represented a series of utopian gestures rather than a set of actionable practical goals, setting out a 'blueprint' for getting all the good things done from the kind of high-abstract moral ground that it is difficult for the average person to oppose, and presents an ideal rhetorical cover for those more interested in installing a technocratic system for the categorisation, surveillance, collection, and management of the earth's natural resources, and the increased constrictions of human activity – whether it be, for example, in the spheres of independent farming, small-medium business ownership, or genuine and principled environmental activism – which is their necessary concomitant.

Of the too-few commentators and analysts who have sought to give a full account of the emergent global surveillance-and-control system, which has been made visible for those prepared to see it by the Net Zero strategy, the recently deceased Rosa Koire is prominent. In her book *Behind the Green Mask* (2011) she describes Agenda 21 as aimed at seeking to make as complete as possible an inventory of as much land, water, minerals, plants, animals, construction, means of production, food, energy, and information as possible. The possible achievement of this goal is coming into view, as has been argued here, thanks to the new and highly concentrated cohort of instrumentarian power interests able to maximise the potential of technocracy like never before. It is important to note that behind the veil of the platitudes and hollow goals put forward in Agenda 21 there has been a real, gritty, practical, and continuous purpose.

One of the best examples of this has been the way in which corporate interests working under the protective umbrella of the SDGs have established working relationships with local government entities at the state level and have gone far beyond the 'high-school' rhetoric and embedded themselves deep into planning and zoning processes in ways that have been near-invisible to the majority of the population.

The vehicle that made this possible, Koire explains, was the President's Council on Sustainable Development (PCSD), initiated during the Clinton presidency in 1993, immediately after Rio. This entity funded, as one of its early contributions to the effort to get the United States transformed in line with the construction of the post-Earth Summit regime, the American Planning Association. After extensive deliberations, the PCSD released a "legislative guidebook to be used as a blueprint for every city, county, and state in the United States in order to implement UN Agenda 21". This document, called Growing Smart Legislative Guidebook: Model Statutes for Planning and the Management of Change (Meck. 2002), contains sample legislation, ordinances, rules, regulations, and statutes to be incorporated into the General Plans of every single city and county in the country. By 2002, Koire writes, "every planning department and every local, state, and federal department that governs land use had a copy and was implementing the practices". In addition to this, "every university, every college, every junior college, private school and teaching institution in our nation was using Growing Smart in its curriculum. Sound familiar? Growing Smart is Smart Growth".

The main focus of all this activity, as it has been assiduously pursued for 30 years, has been the promotion and naturalisation of the wall-to-wall redevelopment of central city areas with a bias towards compact condo-building in the context of the spectacularly technocratic, Internet of Things and Bodies-friendly 'smart city' environments increasingly being pushed and networked by global institutions and corporations alike (Sennett, 2012; Greenfield, 2013; Shelton and Clark, 2016; Kitchin et al., 2019; Breedon, 2022) and the removal of great swathes of the population from the land in the name of environmental protection and sustainability:

Human habitation, as it is referred to now, is restricted to lands within the Urban Growth Boundaries of the city. Only certain building designs are permitted. Rural property is more and more restricted in what uses can be on it. Although counties say that they support agricultural uses, eating locally produced food, farmer's markets, etc, in fact there are so many regulations restricting water and land use (there are scenic corridors, inland rural corridors, baylands corridors, area plans, specific plans, redevelopment plans, huge fees, fines) that farmers are losing their lands altogether. County roads are not being paved. The push is for people to get off of the land, become more dependent, come into the cities. To get out of the suburbs and into the cities. Out of their private homes and into condos.

(Koire, 2011)

Interestingly, Koire argues that the central mechanism through which these changes have been sold to communities is through public consultation meetings conducted along the lines of the expert-led Delphi Technique mentioned in Chapter 3. The practice of the professionalised, technocratic handling of local populations looms large here, and it is worth looking at it briefly as an exemplary instance of the concealed top-down population management which exemplifies technocratic systems.

As has already been noted, the Delphi Technique was developed in the 1950s by RAND Corporation researchers interested in rationalising and systematising their work in the sphere of social and technological forecasting. The innovation here was that groups of individual experts interacted systematically to produce shared forecasts on the basis of all the available evidence and their own collective analysis of a given topic. The process was an iterative one, with the experts involved encouraged to review their original thinking and conclusions in the light of summaries of their collective endeavour provided by 'change agents' facilitating matters at various stages in the process. Thus was born a new, technocratic approach to the prediction and subsequent shaping of future trends and developments, first of all in the military and industrial spheres. Since that time, the Delphi Technique, as it has developed and been subject to a variety of methodological criticisms and innovations, has been used both to predict the future and to evaluate alternative courses of action across a wide range of contexts and situations.

The method, then, has long since branched out from its military-industrial origins to take its place among the plethora of established methodologies which now characterises social science, broadly conceived. For example recent studies have applied it, in classic fashion, to the forecasting of future trends in digital information and 'education 4.0' (Baker and Ellis, 2021) to the modelling of transport demand (Profillidis and Botzoris, 2019) and nursing and health research (Keeney et al., 2011). Scenario planning, interestingly enough, was pioneered by the Shell Corporation, which has specialised in and further developed it since the 1970s and the oil crisis that occurred in that decade (Wilkinson and Kupers, 2013); there can be little doubt that this experience and expertise have been brought to bear on the emergence of the net-zero concept, for example, via Shell scenario planning in 'energy transformation' (www.shell.com/energy-and-inno vation/the-energy-future/scenarios/the-energy-transformationscenarios.html#ifr ame=L3dlYmFwcHMvU2NlbmFyaW9zX2xvbmdfaG9yaXpvbnMv), a 'world energy model' (www.shell.com/energy-and-innovation/the-energy future/scenarios/ shell-scenarios/energy-models/world-energy-model.html), and 'future cities' (www.shell.com/energy-and-innovation/the-energy-future/scenarios/new-lenses-on-future-cities.html).

But it is in the sphere of community consultation processes around urban and land redevelopment initiatives that we are most interested. The Delphi Technique is now used routinely in this area of public engagement. The goal of the method – in all contexts, but perhaps particularly this – is to

reduce the diversity of opinions within a small group so they tend to converge towards one common opinion. The method applies a cycle made up of various stages of questions, answers, analysis which are then returned to the experts in the subject.

(dell'Olio et al., 2018)

The questionnaires used aim to reduce the deviation of the group's opinions from that of the expert by defining the average of the answers obtained. The first questionnaire in the cycle of iterations familiar to anyone who has participated in 'public partnership' planning meetings is used to calculate "the dispersion of opinion; the second delivers the opinions of their group partners to each expert". Following this,

Each expert will analyze the pros and cons of the opinions of the members of the group along with their own presented in the first cycle. The process repeats until the required number of questionnaires have been applied. At the end of the iterations, the replies that continue to be different from the group average can be analyzed as alternative scenarios to formulate alternative hypotheses about the future. This methodological approach is used to fulfil long term goals within a determined overall strategic plan.

(dell'Olio et al., 2018)

Such is the model, which seems rational, reasonable, and consultative enough on the face of it, and the explanatory framework provided non-expert participants in such meetings. But for Koire and others (see Burns, 2002; Copperhead Consulting

Services, 2017) what is actually often involved is a sleight-of-hand put on by the interests and practitioners working towards the realisation of Agenda 21:

Trained facilitators present a range of choices to a group but have tailored them to direct the outcome. This is most often done in public meetings, called "visioning meetings", put on by your city or county to get your opinion on Your Town 2020 or 2035. Money for these programs often comes from federal agencies (members of the President's Council on Sustainable Development) in the form of grants to your local government. The meetings are advertised as an opportunity for you to give your input to an exciting new plan for the redesign of your city center for the future. You'll usually see it as a specific plan for a redevelopment project or a regional transportation plan that involves housing and land use restrictions. Delphi is used in school board meetings, in trainings, at neighborhood association meetings, and other places where the organizers want to give the appearance that they have listened to community opinion and incorporated it into their plan.

(Koire, 2011)

As Burns (2002) has it in his summary of what too-often actually happens to hopelessly over-matched and expertly managed neighbourhood groups, the meeting cycle really looks like this: (1) The facilitator (the change agent) must be someone with whom most of the audience can identify; (2) The facilitator initially identifies potential opponents and frames them as foolish, aggressive, etc. thus warming the rest of the audience to the facilitator; (3) The audience is broken into six or eight discussion groups, with topics chosen by the facilitator. Typically, members are asked to write down concerns and turn them in to the facilitator; (4) The facilitator selects only concerns from the compilation that are consistent with the desired outcome. These concerns are then addressed in the final discussion, which ultimately supports the desired results; and (5) The participants and the community at large are told that the conclusions reached at the meeting were the result of open public participation.

This process might seem to the attentive reader to bear a remarkably close resemblance to the one Maurice Strong employed to secure his desired outcome – human activity is the sole cause of global warming – at the Rio Earth Summit in 1992. Expert professional facilitators of the kind that emerged out of the RAND culture, working on behalf of entities with vested interests in the outcomes of such 'collaborative' meetings, have been working assiduously, week by week and year by year, across the United States for decades now to achieve the U.N.–Rockefeller system's core goals: the removal of as much rural land as possible from the public domain via ever-more-constrictive hyper-regulation and the retooling and 'revisioning' of urban centres in the name of the competitive necessity of turning more and more American cities into 'smart' ones and getting them woven into the networked global system being established by the World Bank and its allies.

However, it is not only half-defenceless neighbourhood and community groups that are brought into the fold through the operation of management systems such as the above. Some of those in the boardrooms of even major corporations have been pulled further into the normative requirements of the global instrumentarian system in recent years. While there has been a good deal of discussion in recent times about the potential spectre of a 'Chinese-style' personalised surveillance and social credit system being installed in the Western countries in the not-too-distant future (Cho, 2020; Tate, 2021; Corbishley, 2022: 142), not enough attention has been paid to the emergence of the system of top-down Environmental, Social and Corporate Governance (ESG) goals which is now effectively enforcing corporations and businesses themselves to become integrated into, for example, the required 'net-zero' and ideologically 'woke' (see Chapter 6) globalist philosophies and positions that are now hegemonic in the system.

The ESG framework has its origins in a corporate social responsibility initiative closely connected to the SDGs, which became associated at the United Nations as a movement around the beginning of the current century. It has since grown into something more like a global movement involving institutions which to date have assets under management of over US\$30 trillion (Holder, 2019), via a process of gradually replacing the less demanding and perhaps more voluntary idea of 'corporate social responsibility' (CSR) as it emerged from the fallout from the Rio '92 Summit. One way of putting the difference between CSR and ESG would be this: while CSR holds businesses accountable for their social commitments in a qualitative manner, ESG helps measure or quantify such social efforts (Hung, 2021). It is this latter aspect that has become more prominent in recent years, as the net-zero era of climate alarmism has unfolded. As product marketer Holly O'Doherty puts it,

The governments of the world have sought to reduce global warming, pledging climate action during COP26 in 2021. This change in governance, tied with changing public opinion on conservationism and climate change, has led to businesses' ethical expenditures being more closely examined . . . As a result, ESG goals are no longer a minor consideration for businesses, but are an essential and expected part of business strategy and operational management. To operate and compete in today's economy all organizations must set ESG goals and act quickly to achieve them.

(O'Doherty, 2022)

Company compliance with a range of environmental, investing, and social objectives – the latter including 'diversity', a wide-open topic we will examine more closely in Chapter 6 – is now monitored by credit rating agencies (Gratcheva et al., 2022), pushing businesses to outdo one another to demonstrate the ways in which they have folded the ESG framework and goals into their working and investment practices.

A high ESG score enables a firm to get credit, the best deals with vendors, and to participate in the global supply chain. Thus, it is important to note, ESG has "nothing to do with the physical aspects of a company, like capital, cash flow or profit". Rather, it concerns intangible factors such as how closely "you, your vendors and customers adhere to Sustainable Development and climate change policies" (Mercola, 2022; see also Chaturvedi, 2022; Hoffmann, 2022; Worcester, 2022). Joseph Mercola goes on from this to make the most significant point about this whole system: though it was channelled for a time and to a degree through the United Nations - a common-enough practice in this sphere, as we have already seen - it emerged from the usual major players in the corporate and banking sectors. In 2005, an 'environmental policy wonk' named Ivo Knoepfel wrote a highly significant paper called 'Who Cares Wins: Connecting Financial Markets to a Changing World'. Patrick Wood notes that the report contained "recommendations by the financial industry to better integrate environmental, social and governance issues in analysis, asset management and securities brokerage". This was music to the ears of the big players who jumped on board, including the "World Bank Group, Morgan Stanley, HSBC, Goldman Sachs, Deutsche Bank, UBS, Mitsui Sumitomo Insurance, Citigroup and others. And just like that, ESG was born" (Mercola, 2022).

The ESG framework has, then, every appearance of being a system designed to force a consensus on the climate alarmist world view (and much else besides, as we will see in due course) by hitting any dissenting corporations and businesses where it hurts – in their profit margins. This would be entirely consistent with what we know about the motivations and practices of the instrumentarian power elite. Just as members of city neighbourhood communities are managed and led towards desired behaviours by technocratic experts at 'public engagement' consultation meetings, so are the larger forces brought into line with the prevailing pseudo-environmental narratives by a combination of persuasion and, ultimately, the threat of financial punishment. This ceaseless repetition of the tropes of this apparent consensus, through the endless speeches, social media campaigns, and the messaging of a mainstream media system now owned in the United States to the tune of 90% by six immense conglomerates (Strong, 2022), is in fact the hallmark of the global money power's interface with the population at large.

Neema Parvini identifies in his 2022 book *The Populist Delusion*, the moving power behind the SDG/ESG complex as being not within the UN but with entities like BlackRock – as discussed in the first chapter here – and in particular with its CEO Larry Fink:

The sorts of characters who attend the Davos Agenda hosted by the World Economic Forum – the most elite managers of today – speak in the language of consensus. One such character, Larry Fink, the CEO of BlackRock . . . who can name the US Federal Reserve as a client, uses phrases such as "public-private partnership" and stresses that it is important for CEOs across all

businesses to be unified, it has "never been more essential for CEOs to have a consistent voice".

(in Parvini, 2022: 177)

Although Fink writes, Parvini says, in gushing terms about the "power of capitalism", it is clear that his message is managerial and his vision is of a "quasicommand economy" in which the "controllers of capital dictate the investment agenda for the future" (2022: 177):

Every company and every industry will be transformed by the transition to a net zero world. The question is, will you lead, or will you be led? . . . We focus on sustainability not because we're environmentalists, but because we are capitalists and fiduciaries to our clients. . . . Divesting from entire sectors – or simply passing carbon-intensive assets from public markets to private markets – will not get the world to net zero. . . . When we harness the power of both the public and private sectors, we can achieve truly incredible things. This is what we must do to get to net zero.

(Fink in Parvini, 2022: 177)

This, Parvini observes, is very far from representing the views of a man who has any time for what we used to think of as free market capitalism. Rather, this is more akin to Soviet-style agenda-setting, in which "one of the most powerful executives in the world announces five-year and ten-year plans for 'what the future will look like' in an almost entirely top-down managed economy" (2022: 177).

A recent article by the investigative journalists Iain Davis and Whitney Webb makes clear just how comprehensive this management system is intended to be. The new global public–private system that is driving the development of the technocracy is characterised, as we have already seen emphatically to be the case, by the activities of an alliance of merged public–private financial players. The grandiosely utopian language in which the SDGs are described by these actors makes the way in which they are pitched attractive, above all, to children and idealistic young people, as will be discussed in detail in Chapter 6. Who does not want to live in a world from which poverty, racism, and the threat of environmental catastrophe have been eradicated? However, closer inspection of the way in which the system is actually constructed reveals, with crushing inevitability, that the "reality behind most – if not all – of the SDGs are policies cloaked in the *language* of utopia that – in practice – will only benefit the economic elite and entrench their power". This can

clearly be seen in fine print of the SDGs, as there is considerable emphasis on debt and on entrapping nation states (especially developing states) in debt as a means of forcing adoption of SDG-related policies. It is then little coincidence that many of the driving forces behind SDG-related policies, at the UN and elsewhere, are career bankers. Former executives at some of the most predatory financial institutions in the history of the world, from Goldman Sachs to Bank of America to Deutsche Bank, are among the top proponents and developers of SDG-related policies.

(Davis and Webb, 2022)

With this in mind, it is essential to understand that the 17 SDGs, while they are presented as being focused on environmental issues, are in fact designed to cover just about every aspect of human social and economic activity, from 'economic and food security', Davis and Webb write,

to education, employment and all business activity; name any sphere of human activity, including the most personal, and there is an associated SDG designed to "transform" it. Yet, it is the SDG 17 – Partnerships for Goals – through which we can start to identify who the beneficiaries of this system really are.

The breadth and intensity of this pattern of partnerships has come into clear focus since the twenty-sixth U.N. Climate Change Conference (COPF) in Glasgow in 2021. Out of this grew GFANZ (Glasgow Financial Alliance for Net Zero), a forum bringing together some of the world's leading financial sector entities. GFANZ gives "Citigroup, Deutsche Bank, JPMorgan, HSBC and others the opportunity to pursue their ideas through the GFANZ forum. They are among the key 'stakeholders' in the SDG transformation" (Davis and Webb, 2022). As stated on its website, this grouping "provides a forum for leading financial institutions to accelerate the transition to a net-zero global economy. Our members currently include more than 450 member firms from the global financial sector, representing more than *\$130 trillion in assets under management*" (GNFAZ, 2021; emphasis added).

Prior to the formation of GFANZ, the main forum performing this function was the U.N. Net-Zero Banking Alliance, which according to its website had grown to represent 40% of all global banking assets (UNEPFI, 2022). It can be assumed that this figure has been surpassed since then, given the emergence of GFANZ. And these 'net-zero' alliances now embedded at the heart of the global economy are in a hurry to accelerate the process towards their goal they are now making "specific policy requests" of national governments, one of these being "economywide net-zero targets" via still-further reform of the requisite financial regulations (Davis and Webb, 2022). The consolidation of the power of the centralised, global, private–public alliance was marked at the Glasgow COPF 2021 Conference by a speech given by Prince Charles, shortly before his accession to the British throne as King Charles III. The urgency of its tone mirrors that to be found in the publicity materials and speeches of leading figures in the United Nations and GFANZ net-zero alliances. The question of the extent to which Charles is a fully knowledgeable member of this conspiracy or a well-intentioned but naïve true believer is secondary, perhaps, to the seriousness of the assertions made and agenda proposed in this speech:

As we tackle this crisis, our efforts cannot be a series of independent initiatives running in parallel. The scale and scope of the threat we face call for a global, systems-level solution, based on radically transforming our current fossil fuel-based economy to one that is genuinely renewable and sustainable. So, Ladies and Gentlemen, my plea today is for countries to come together to create the environment that enables every sector of industry to take the action required. We know this will take trillions, not billions, of dollars. We also know that countries, many of whom are burdened by growing levels of debt, simply cannot afford to "go green". Here, we need a vast military-style campaign to marshal the strength of the global private sector. With trillions at its disposal – far beyond global G.D.P. and, with the greatest respect, beyond even the governments of the world's leaders – it offers the only real prospect of achieving fundamental economic transition.

(Prince of Wales, 2021)

This speech likely represents a significant symbolic step on the road to a system of technocratic post-national global governance centred on the Big Money interest, working under the legitimacy-supporting umbrella of the major transnational political–economic institutions, with national government executives functioning as facilitators. While this narrative of super-urgency, Davis and Webb plausibly argue,

exonerates public policy makers, it also lets the private sector, that drives the antecedent policy agendas, off the hook. The fact that the debt they collectively create primarily benefits private capital is just a coincidence; an allegedly inescapable, consequence of creating the "fiscal space" needed to deliver "sustainable development".

(Davis and Webb, 2022)

The 'delivery' of 'sustainable development', given the power of the forces at work and in the light of what has been discussed in this chapter, is beginning to look very much like a new – and perhaps final – iteration of Western Imperialism, as countries in the Global South and elsewhere are forced-open to further economic exploitation and the external management of their resources. Debt, as ever, is the main weapon in the arsenal of the interests represented by the World Bank, IMF, and the net-zero mega-money alliances, with the urgent, world-saving exhortation to comply with the SDGs becoming a contemporary mechanism of choice through which to prey on poor countries, often as we have seen by co-opting local political elites. Thus are the SDGs being used to further erode national sovereignty in the poorer regions of the world as more and more of them come under the control of an ostensibly benign set of global interests actually intent on profiteering, resource-marshalling, and asset-stripping them for its own ends, under cover of a child's utopian fantasy of a perfect world. As Whitney Webb put it in 2021:

GFANZ seeks to use the World Bank and related institutions to globally impose massive and extensive deregulation on developing countries by using the decarbonization push as justification. No longer must MDBs [multilateral development banks] entrap developing nations in debt to force policies that benefit foreign and multinational private-sector entities, as climate changerelated justification can now be used for the same ends.

(Webb, 2021a)

The sustainable development/net-zero programme therefore supplants decisionmaking at the national and local level with global governance and constitutes what can only be described as an

ongoing, and thus far successful, global coup. But more than this, it is a system for global control. Those of us who live in developed nations will have our behaviour changed as a psychological and economic war is waged against us to force our compliance.

(Davis and Webb, 2022)

At the centre of this power- and control-grab is nothing less audacious than an attempt to financialise all of nature and convert it into a standing reserve for subsequent utilisation – to turn all *beings* into manageable *things*, subject to the kind of ordering and management just becoming possible as the digital-technological structure reaches its surveillance-and-control tipping point:

As openly stated by the UN, "sustainable development" is all about transformation, not necessarily "sustainability" as most people conceive of it. It aims to transform the Earth and everything on it, including us, into commodities – the trading of which will form the basis of a new global economy. Though it is being sold to us as "sustainable", the only thing this new global financial system will "sustain" is the power of a predatory financial elite.

(Davis and Webb, 2022)

The most obvious difficulty in all this for humanity at large is that the ideology underpinning the continued roll-out of this programme is so powerful, persuasive, and naturalised as a set of default beliefs and assumptions – with children and young people, in particular, having had this world view dripped incessantly into their minds, through education and the culture at large, in the period since Rio '92. This has been a highly successful exercise in generational fear-mongering and belief-instillation (Lomborg, 2022); and it represents one of the biggest challenges for those seeking to turn the tide of propaganda, hypocrisy, and organised misunderstandings now

embedded in the social institutions, on the basis either of informed collusion with or of participation in this conspiracy, or true, benign adherence to a highly emotionally and spiritually charged belief system, which has now become akin to a new, post-Christian "metaphysic" (Murray, 2019; and see Garreau, 2010; Thornton, 2015), complete with its own teenage high priestess in Greta Thunberg, whose development and unveiling to the global youth audience by the likes of the WEF and the 'green' tech company We Don't Have Time involved more manipulation of their emotions than her young followers may know. Corey Morningstar suggests that the Thunberg phenomenon was carefully built and specifically initiated to usher the global public into "emergency mode", using the analogy of her house being "on fire", as she put it in a widely reported speech in 2019 (Morningstar, 2019: 165; see also Witt, 2022). Accordingly, Chapters 6 and 7 will discuss the ways in which public schools in the United States have been subject to a 'therapeutic turn' which has made youngsters more suggestible and less resilient in the faces of implied threats to their safety and well-being and the coming together of a Social Emotional Learning (SEL)-SDG culture which is absorbing many of them into unquestioning compliance with, and at times effectively making them into unwitting foot soldiers of, the Agenda 30 revolution and all it entails for humanity.

In the next chapter, we will look more closely at the WEF – a group which has heavily utilised Greta Thunberg's persona and public pronouncements as the publicfacing messaging front for the global money power alliance. One of its key messages of recent years, of course, concerns the impending 'Fourth Industrial Revolution', which it claims to be an inevitable consequence of technological developments but which is more likely, once again, to be a cover narrative for the further concentration of instrumentarian wealth and power into still-fewer hands. A key platform of the digital technocracy now seeking to be born is the technological enhancement of ourselves and, ultimately, transhumanism. We are to be eased, to our own benefit, into a mixed actual-virtual and increasingly synthetic reality in which there will be nowhere to hide. A digitally powered Agenda 30 nirvana. But these prognostications, whether they come from Silicon Valley, celebrity futurologists, the Rockefeller Foundation, the RAND Corporation, DARPA, Klaus Schwab, BlackRock or the U.S. government (The White House, 2022), are premised on ideological rather than scientific premises and are, to boot, based on fundamentally false, simplistic, and in fact outdated assumptions about the nature consciousness and the human person. In reality, humans are really nothing like machines, and our brains are nothing like computers. In the next chapter we discuss why - and why it matters.

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# Human–Machine Systems and Their Discontents

### Why Our Brains Are Not Like Computers

With the movement forward of the AI project, the extensive digitalisation of the lifeworld, and the attempt to reduce the human mind to nothing more than a bundle of neuronal processes, Thomas Fuchs argues in his important recent book *In Defence of the Human Being* (2021), the human person appears more and more as a product of data and algorithms. Thus, we conceive ourselves 'in the image of our machines' in a process of 'self-reification'. The demands for and belief in the possibility of an 'enhanced' human nature seem to promise – to those inclined to accept this rhetoric – that we are on the verge of evolving to a new stage. But despite the long-term cultural impact of the old mind–brain metaphor, and the increasing clout wielded by the kinds of elite technocratic–transhumanist discourse being circulated by the likes of the World Economic Forum, no one, Raymond Tallis emphasises, has come close to producing a conscious machine; nor is there any significant – let alone compelling – evidence of structural similarities between brains and computers.

Tallis's arguments fly in the face of the now widely held belief - in post-human, techno-fetishist circles, at least - that mind and cognition are closely analogous to certain types of mechanical operation. Patricia Churchland's hugely influential contention that "nervous systems are information processing machines", with the mind itself being "essentially a kind of logic machine that operates on sentences" (Churchland, 1986: 36) was a tellingly influential contribution to this discussion. The upshot of this line of reasoning and the cultic acceptance of its reductive principles has been the normalisation of the view that the human brain is merely an "embodiment of a logical system and any other object that embodied that logical system would share the brain's ability to sustain consciousness" (Tallis, 1999: 104). The utter, nonsensical falsity of this claim - as famously adumbrated in 'visionary' futurological terms by the likes of Ray Kurzweil (see later) - should be obvious to anybody not invested, whether economically or imaginatively, in the promotion of a digital global technostructure, transhumanism, and the downgrading of the human. We should note the readiness with which so many interests, from military researchers to the instrumentarian data hounds set in motion by
Silicon Valley, have dispensed with any serious conception of what a human *person* is or may be. Tallis discusses, for example, how a person's smile, recalled by an individual from their past

is allocated to its own world, connected with a boundless nexus of the circumstances in which it was given with such love and received with such delight.... Answering such questions has led many thinkers – probably the majority of those who have expressed a view on the matter – to imagine that the world in the head is a model of sorts and that the model is stored in computational form. I, or my head, or my brain, or something, is a kind of digital computer in which my past experience, my memories, my knowledge, my habits, my skills, my acquired attitudes are stored as bits and pixels, as patterns of nerve impulses. This would be fine if there were not the small detail that we are aware of the world in our head and it permeates our awareness of the world before us, so that we can make sense of the latter. Computers, however, are not aware in this way. This is no minor difference. It makes computers nearer to pebbles than we are to computers.

(Tallis, 2008: 268)

If this is so, the questions that need to be addressed concern the reasons for the widespread diffusion and acceptance of the 'naturalness' and inevitability of the rise and triumph human-computer relations as just the next stage of our development as a species. Iain McGilchrist, like Tallis, a subtle and adult writer who actually knows how brains work to the best of our current knowledge, has some interesting thoughts on these questions in his two-volume work The Matter With Things: Our Brains, Our Delusions and the Unmaking of the World (2021). To begin with, he asks, why "in the face of such overwhelming evidence of the inadequacy of the machine model to the study of living organisms . . . does this product of the mid-Victorian mindset persist?" (2021: 640). One fundamental reason is its simplicity: everybody is familiar with machines, and many with the taking apart and putting back together thereof; this, because of its direct connection with troubleshooting specific problems or malfunctions and solution-finding, becomes transposed to the examination of non-human organic entities and processes because that is "perhaps a natural assumption that other systems, ones we didn't make, will work in a similar way". Here, chains of cause and effect are usually "abstracted from their wider context", thereby seeming to "function in a broadly mechanical fashion" (640 ibid.). Quoting Daniel J. Nicholson (2014), McGilchrist argues that molecular biology, for example, places "the entire explanatory burden on a relatively stable, epistemically tractable entity: a onedimensional digital code that can be replicated, modified, and transplanted from one individual to another" (in McGilchrist 640). This is what humans, scientists included, do when thinking non-reflectively; the regular, reliable, and predictable patterns of behaviour visible in an organism are "assumed to demonstrate mechanisms"

The step from such a way of thinking to the acceptance of the brain-ascomputer metaphor is, of course, a small one, which has been by now well-established in the general imagination. But McGilchrist is having none of it: "This metaphor", he writes, "is one of the scourges of our time. The brain is nothing like a computer, nor does human memory have 'data banks' like a computers" (McGilchrist 487). The truth of the matter, as far as it can be discerned, is infinitely more suggestive and compelling than the fallacies proffered by the promoters of mechanically augmented humanity. Like Tallis, McGilchrist employs arguments as subtle as they are effective in his attack on their simplistic assertions regarding 'computational thinking'.

Drawing on the work of the great nineteenth-century mathematician/polymath Henri Poincaré, McGilchrist pursues the argument that far more is involved in mathematical work – and coming up with inventions more generally – than any kind of mechanical thinking based on "applying rules, of making the most combinations possible according to certain fixed laws". This is because

The combinations so obtained would be exceedingly numerous, useless and cumbersome. The true work of the inventor consists in choosing among these combinations so as to eliminate the useless ones or rather to avoid the trouble of making them, and the rules which must guide this choice are extremely fine and delicate. It is almost impossible to state them precisely; they are felt rather than formulated... the subliminal self is in no way inferior to the conscious self; it is not purely automatic; it is capable of discernment; it has tact, delicacy; it knows how to choose, to divine. What do I say? It knows better how to divine than the conscious self, since it succeeds where that has failed. In a word, is not the subliminal self superior to the conscious self?

(Poincaré in McGilchrist: 42)

We are drawn forwards in such enterprises on this basis, McGilchrist says in a tone worthy of Heidegger,

towards some scarcely perceptible form in the surrounding obscurity, towards something we intuit is already there; not just propelled, as it were blindly, and from behind, by a chain of causation that has to run through all the possibilities to find one that works. That's what a computer does. It's not how the human mind works... creativity can never be divorced from the business of existence, which is also a continual coming into being.

(McGilchrist, 2021: 335-336)

Here we come to the crux of the matter: no computer is able to operate in this *gestalt* human fashion. That is to say, no computer-driven network, considered as an organised field, pattern, or configuration, can constitute itself in such a way as to move beyond being more than the sum of its parts. Even when computers are

engineered so as to give the impression of doing so – for example in facial recognition software – they are still entirely dependent on

trawling blindly and laboriously through vast heaps of data, in a process that speaks not of intelligence but its opposite. The linearity of this approach can no more reach the curve of true intelligence than straight lines, however many they be, can describe the circumference of a circle, though they may give the illusion of doing so.

## (McGilchrist, 2021: 61)

The question of embodiment, and the embodied person, now looms large. Underpinning the brain–computer analogy and the fantasies of the transhumanists are not only, as we have seen, crude forms of reductionism but also the limitations of the understanding of the person in a holistic sense. At the core of both sets of misinterpretations of what it means to be human are, ironically enough, an obsolete, dualistic idea of where the brain or mind sits in the individual person – just as the pace and character of technological innovation and development are being presented as the wave of the future. In other words, the would-be designers of the future are encumbered by a dated and highly questionable model of the person that has been already rejected by increasing numbers of scientists, psychologists, and philosophers with no axe to grind or financial interest in the attempt to normalise transhumanism. This, above all, concerns the ways in which embodied person is understood.

It is being argued here that, as the late pioneer of 'biosemiotics' Wendy Wheeler put it, living organisms are not computers and they do not "process information in bits. They encode and process information using sensation-rich lived, embodied, and environed experience and its lived associations" (Wheeler, 2020). This 'environed experience' and the form of 'information' considered valuable have been framed, historically, by the exact thing that the builders of the technocratic hardware and visionaries of our transhuman future discard: "Information engineers", Wheeler says,

describe "information" as "the unexpected", or communicative "noise", which is experienced as disruptive positive feedback. But for organisms and their parts, actual information is also pattern, repetition, and similarity. Information engineers describe these latter phenomena as "the expected" and refer to them as "redundancy".

## (Wheeler, 2020)

Contrary to this, and to the widespread but fallacious conceptions of people, culture, and agency which we have inherited from reductive and anti-human intellectual currents of the twentieth century, it is embodied *recursivity*, more than the logocentric *discursivity* beloved of those who follow the precepts of postmodern ideology, which is most characteristic of humans as social animals. Wheeler puts it like this:

pattern, repetition, and habit are all central aspects of the kind of negative feedback that makes self-sustained purposiveness, self-organized in response to a telos (Aristotle's final cause), possible. In the absence of pattern, habit, and law, no communication (including articulate human language) would be possible at all. We cannot, like Humpty Dumpty thinks he can, make words mean just what we want them to mean. In other words, pattern, repetition, and similarity all make meanings.

(Wheeler, 2020)

Further to this, Guy Claxton has written on the basis of recent and emerging developments in neuroscience and psychology, in his *Intelligence in the Flesh: Why Your Mind Needs Your Body Much More Than It Thinks* (2016), that our understanding of the human person as a fully integrated organism and not a dualistic brain–body entity is coming more clearly than ever – in the Western conception, at least – into focus. Indeed, it is clear now, except perhaps to those who have interests in maintaining and indeed amplifying the older ideas, that "the proper substrate of the mind is not the brain alone but the entire body". The human body should now be conceived, at the material level, as

a massive, seething, streaming collection of interconnected communication systems that bind the muscles, the stomach, the heart, the senses and the brain so tightly together that no part – especially the brain – can be seen as functionally separate from, or senior to, any other part.

(Claxton, 2016: 4)

Given the obviousness and significance of this, it is difficult to take seriously the fantastical and increasingly ideological over-simplifications of those who are already beginning to advocate for a near-future for humans as technologically enhanced cyborg entities on the basis of being somehow capable of tweaking our brains. A short list of the most celebrated and influential visionaries in this sphere would have to include Noah Yuval Harari, World Economic Forum insider and advisor to its head Klaus Schwab, Ray Kurzweil, Google's 'Head of Engineering' and, of course, Elon Musk, the freedom-loving libertarian's transhumanist.

The rise of Kurzweil, the futurologist and fervent advocate of the coming benefits to humanity of AI (Kurzweil, 2005), clarified and made more explicit than ever the disembodying, transhumanist trend in Silicon Valley ideology. Kurzweil's suggestion that it will become possible to create consciousness in an artificial being was already well known to his readers at the time of his appointment as "Head of Engineering" at Google (Levy, 2013); but his claim that we will be "uploading our brains" to computers by mid-century – in part, at least, to cheat death and achieve a kind of virtual immortality (for rational responses to this ambition, see for example Kass, 2004; Meilaender, 2011; Scruton, 2012a) – now entered the popular media and gained widespread prominence (Woolaston, 2013). It is true that his narrative was, and remains, striking and is not without a certain comedic charm: his prediction that "software based humans" will "live out on the Web, projecting bodies whenever they need or want them, including holographically projected bodies, foglet-projected bodies and physical bodies comprising nanobot swarms" (Kurzweil, 2005) is of course beyond parody. But his assimilation into the Google hive represented something that was actually rather disconcerting; the increasing convergence of ideas drawn from tech-utopianism, futurology, and transhumanist theory and their accelerating operationalisation by a globally expanding and extremely powerful corporation.

But comedy is comedy and, as is often the case, Raymond Tallis made the most of it: "Jonathan Swift, thou should'st be living now!" he wrote in 2018. It was difficult, he suggested, to resist the comparison with the Academy of Lagado to which Gulliver travels, a place in which the eponymous hero of the novel

finds characters trying to extract the sunbeams from cucumbers (cf. minds from brains) and to educate students by feeding them propositions written in "cephalic tincture". This seems not too distant from the claim by Zoltan Istvan that in a decade or two "it would be possible to upload the informational content of a Harvard or Yale degree directly to [his children's] brains", so there would be no point in saving for their education. The entire Chapter V of *Gulliver's Travels* is an extraordinary anticipation of the fantasies of Silicon Valley billionaires.

(Tallis, 2018: 186)

Entrepreneur Elon Musk – by repute the 'world's richest man' at the time of writing, presents quite another case. Here it might be said that the technocratic apple has not fallen far from the tree, as we saw in the first chapter. Let us now consider for a moment his pursuance of the dreams of his grandfather and the other Technocracy Inc. leaders of the 1930s. As hardly needs stating, given the height of Musk's public profile and the level of discussion of his activities, he is of primary interest here for his Neuralink project, which is centred on creation of devices that can be implanted in the human brain, with the eventual purpose of helping us merge cognitively with computers and keep up, self-defensively, with advancements in AI accelerating towards the endgame of its emergence as an anti-human monster that might decide to eat us. Essentially, the goal of such enhancements would be to allow humans to interface directly with computers and the broader technostructure that Musk suggests we are destined to live in.

His self-described role in all of this is protector of humanity; the existential threat to us, our way of life and the nature of our being is posed by the runaway, unstoppable AI-driven machine civilisation now on its way to being born. *We are summoning the demon*, and only the transhuman technologisation of our brains

can save us. It is Musk's historical mission to oversee our salvation from this dark force.

To this there is no alternative: "We're already cyborgs" Musk told journalist Maureen Dowd in her long *Vanity Fair* interview with him in 2017, "Your phone and your computer are extensions of you, but the interface is through finger movements or speech, which are very slow". With a neural lace woven into your brain you will be able to flash-transmit data wirelessly from your head, he suggested, to your digital devices or the cloud. And this was not a far-distant dream of the visionary: "For a meaningful partial-brain interface, I think we're roughly four or five years away" (Dowd, 2017). These comments were addressed to the World Government Summit in Dubai in the same year.

This annual 'summit' itself has, it should be noted, since its inception in 2013 characterised itself as a global, neutral, non-profit organisation dedicated to *shaping the future of governments* (World Government Summit, 2022, emphasis added). Once again we find ourselves in the familiar sphere of elite-led, top-down social and human engineering, with a wide array of participating interests such as 'strategic partners' (e.g. World Economic Forum, the U.N., and the International Monetary Fund), 'knowledge members' (e.g. the giant global consulting firms Deloitte and McKinsey and Company), and CNN, Bloomberg, Forbes, and Time (World Government Summit, 2022). Thus are the powerfully influential contexts in which the likes of World Economic Forum leader Klaus Schwab and his multitude of visionary influencers, Musk included, make their global agenda-shaping prognostications.

In the latter's case, however, the world- and humanity-reshaping project seems to have gone somewhat awry: in early February 2022, it was reported that Neuralink had been forced to issue a rebuttal to stories that all was not well with its trial experiments with brain implants in monkeys, with accusations of cruelty towards the research subjects abounding – specifically that certain of the creatures had endured "extreme" suffering as a result of having their brains wired up to computers via "crude surgeries" (Paul, 2020) so that they could be observed at the machine interface while they played Pong – or, rather, Mindpong. Soon after this, the full facts of the case were revealed and widely reported – though not necessarily in outlets such as Forbes or Bloomberg – that no fewer than 15 of the 23 monkeys concerned had in fact been killed as a result of the company's investigations (Graves, 2022; Jaupi, 2022; Paul, 2022).

It is difficult – given his propensity for self-dramatisation and publicity stunts – to know how seriously to take Musk in all this. While his utterances on the subject of brain chips in particular and our transhuman future in general receive wide coverage and discussion, a literature review of the serious recent research on human augmentation via brain–computer interfaces tends not to mention either the man himself or Neuralink at all (see for example Opris et al., 2018; Cinel et al., 2019); and even popular books such as Moreno and Schulkin's *The Brain in Context: A Pragmatic Guide to Neuroscience* (2020) tend to mention

Musk, if at all, in passing and without discussion of any of the technical aspects of his work. Meanwhile, the really serious military research and development of brain-computer interfaces and other forms of neuroscientific augmentation (Giordano, 2015), their potential convergence with an emerging, Big Databased neuro-surveillance system (DiEuliis and Giordano, 2016), and even silent brain-to-brain communication in command-and-control and conflict scenarios (Eversden, 2020) continues apace; the seemingly never-ending military instrumentalisation of humans as suboptimal machines and increasingly secondary elements in merged bio-mechanical systems continues. The ultimate goal, or perhaps fantasy, is of course the development of a two-way brain-computer system that could feed information directly into a war fighter's cortex and effectively "write" – that is to say download information – directly into their brain (Hollywell, 2019).

# Transhumanist Technocracy as Elite Ideology: the 'Fourth Industrial Revolution' and the 'Great Reset'

Visions of the future potential of brain hacking and society reshaping also characterise the darkling and nihilistic prophecies of the third of our visionaries of transhumanism, Yuval Noah Harari, who amongst his many other accomplishments is a World Economic Forum 'agenda contributor' and has given multiple presentations at Davos and IMF meetings over the years, as well as providing intellectual support for the thinking of a cast of characters ranging from Barack Obama and Bill Gates to commentators like Sam Harris and Russell Brand (Lent, 2018), as well as the masters of Google, Instagram, Facebook, and Twitter (Leib, 2020).

Harari rose to global prominence, of course, on the back of his Sapiens: A Brief History of Humankind, which has sold many millions of copies and been translated into over 50 languages since its publication a decade or so ago. The book is based on the contention that the human is, as Harari himself writes in the first chapter, "an animal of no consequence" (Harari, 2014). A couple of the central assumptions that underpin the direction of Harari's historical narrative arc are worth considering here: one is that human history has tended to be guided by a pattern of misadventures - he singles out the Industrial Revolution as a key case and another is that there is nothing special about humanity as a species, evolutionarily speaking. The first of these contentions is clearly not without merit, as anyone who has studied the thousand-and-one examples of the unintended consequences of human action that litter the historical record knows (see for example Merton, 1936; Sowell, 2003; Vyse, 2017; Weber, 2009 [1919]); as Nick Spencer suggests, in discussing Sapiens and apropos the modern technological turn from which we appear to be unable to escape or to properly control, "No one planned for the industrial revolution to destroy our shared environment. No

one wants the digital revolution to wreck human relationships" (Spencer, 2020). In this area we find

perhaps Harari's most striking and powerful point. Simply because we humans believe we exercise our (rational) agency at an individual level, we naturally think humanity does the same. But humanity does not "think" in the way that humans do (assuming humans actually do think), and unintended consequences abound at the macro level. Our future is as likely to be accidental as it is intentional.

(Spencer, 2020)

The second assumption, however, is much more contentious; from it proceeds the scientistic and reductive view of the human person with which we are by now all too familiar:

The first chapter of *Sapiens* opens with the clear statement that, despite humans' long-favoured view of ourselves "as set apart from animals, an orphan bereft of family, lacking siblings or cousins, and, most importantly, parents", we are simply one of the many twigs on the *Homo* branch

(Spencer, 2020)

through no action or quality of our own. The entire human experience has been characterised by this randomness and contingency, from which no particular value or meaning originates. For Jeremy Lent, of whom more later, from Harari's point of view human cognitive processes are nothing more than algorithms, and "it's just a matter of time before artificial intelligence controls every aspect of our consciousness, predicting all our needs and preferences better than we can, and ultimately surpassing anything a human can do" (Lent, 2021: 103).

It is little wonder, then, that Harari has become the pathfinder for the aspiring society- and government-shaping super rich and their associates; but his popularity with a global readership is perhaps not his only recommendation to these actors – equally significantly, he shares, and perhaps has helped to amplify and circulate, their anti-human, spiritless, and reductionist view of humanity. As Mark Leib writes,

for all its crisp and entertaining explanations of everything from the disappearance of the Neanderthals to the mixed accomplishments of global empires and the probable future of genetic engineering, *Sapiens* is a distinctly nihilist tract, rejecting every sort of theism, every claim that life has meaning, and every assertion of human rights. According to Harari, there's nothing the least bit sacred about human life, the Declaration of Independence is in error about liberty and equality, and the word "nature" itself – as in human nature – is meaningless.

(Leib, 2020)

Jeremy Lent, whose work is not entirely dissimilar to Harari's in its historical scope, writes about the cognitive history of humanity in terms of the ideas and narratives that have characterised the human story throughout its cultural– historical phases. Some of these can be called meaningful 'fictions' through which people have organised their societies in various ways, as sets of unacknowledged but motivating assumptions about themselves and the world. In this context, he criticises Harari for failing to acknowledge his own unacknowledged assumptions, which he argues leads to the production of fallacious narratives in a way "that risks causing considerable harm" (Lent, 2018) given Harari's status as a global public intellectual.

Of these unacknowledged 'fictions' there are, Lent contends, four: the first, which we will focus on in what follows, is that nature is a machine; the second that 'there is no alternative' to the darkly dystopian future that Harari often sets out as inevitable; the third is that human life is essentially meaningless; and the fourth is that humanity's future, as the events and processes on which Harari holds forth roll themselves out, is a spectator sport in which passive, stoic endurance will be the best policy for the average human at large.

As far as the first of these are concerned, the myth of nature as a machine, reviewing Lent's argument briefly will add a little more of the clarity and emphasis necessary for the definitive rejection of this corrosive and dangerous myth. He argues, perhaps most fundamentally, against the hollow and misguided belief of Harari's (and, in this context, also Musk's) that even the most creative and distinctively human endeavours are likely to be downgraded - especially when it comes to cognition - and controlled, if not replaced, by AI. The underlying rationale for this is the claim that emotions, feelings, and intuitions are simply 'biological mechanisms' analogous to algorithms. This contemporary variant of the belief that humans and the rest of the natural world can be conceived as complex machines, which we have seen accounted for and rejected earlier, continues in part because of the role it plays in the thinking of influential heavyweights past and present, from Descartes's declaration that he saw no difference "between the machines made by craftsmen and the various bodies that nature alone composes" (Lent, 2018) to Richard Dawkins's contention that "life is just bytes and bytes and bytes of digital information" (in Lent, 2021: 103). Harari's view that everything in nature and the human being in particular can ultimately be reduced to its component parts and understood accordingly has a heavy pedigree. To nail the point home, Lent quotes Nobel laureate Francis Crick, co-discoverer of the DNA molecule: "You, your joys and your sorrows, your memories and your ambitions, your sense of personal identity and free will, are in fact no more than the behavior of a vast assembly of nerve cells and their associated molecules" (Crick, in Lent, 2021: 103).

These contentions are distant enough from the observable facts to be considered fictional. Biologists, for example, are now increasingly identifying principles intrinsic to natural life that categorically differentiate it from even the most advanced and complex of machines: living organisms cannot in any meaningful sense be split between their 'hardware' and 'software'; a neuron's biophysical make-up is inherently linked to its behaviour in time and place; the information it transmits does not and cannot exist separately from its material construction. All of this has been more than amply proven for the neuroscientists, biologists, and philosophers cited earlier. And yet this dangerous fallacy not only persists but seems, thanks to the proselytising of the likes of Harari and Dawkins, to be becoming *more* influential – certainly, at any rate, among the aspiring shapers and controllers of the 'Fourth Industrial Revolution' being so ubiquitously touted by the WEF. There are perhaps two possibilities to be considered here: first, that those who would shape and direct the future, such as the participants in World Government Summits, actually believe what Harari, Musk, Kurzweil et al. tell them; second, that these accounts of the human person and its future at the digital interface are useful fictions with which to create a plausible "post-Covid", narrative for an opaque, complex, and unstable coming world (Schwab and Malleret, 2020, 2022) and the forms of human engineering and technological control that will need "inevitably" to emerge to manage it (Kingsnorth, 2021).

Novelist and environmental activist Paul Kingsnorth's essay is an illuminating attempt to get to the core of what Schwab and the WEF represent in terms of the coming digital technocracy. In his review of Schwab and Mallaret's *Great Reset*, Kingsnorth suggests that this apparently inevitable 'reset' itself is in fact no

invention of the paranoid, and neither is it a conspiracy. You could call it a plan, or an agenda, but it is best understood as another story: one that Schwab and his colleagues would like us all to adopt as our map for the coming territory.

(Kingsnorth)

This agenda is both, Kingsnorth suggests, 'scary' (in its implications) and dull at the same time, with the vision of the future set out as a "standard-issue globalist manifesto" in the kind of bland bureaucratise characteristic of the usual plethora of would-be world-steering institutions and actors. It could, in fact, "have been put out by any editorial functionary at the WEF, WTO, G8, World Bank or IMF, or any writer for the Economist or Forbes since 1990" (Kingsnorth, 2021).

The real points of interest in Schwab's narrative begin to heave into view, Kingsnorth thinks, when he reflects upon the 'opportunities' for a global reset provided by the pandemic and governmental responses to it:

Schwab is clear that the measures taken to tackle covid – lockdowns, vaccine passports and mandates, medical segregation, mass sackings, widespread destruction of small businesses, the deepening profit and reach of Big Tech and a radical normalisation of digital monitoring, surveillance and state control – have wrought permanent changes on our societies which will not be going away. "What was until recently unthinkable", he writes, "suddenly became possible". This is especially true when we look at the real winner of the covid years: the technological system itself.

(Kingsnorth, 2021)

The extension and normalisation of screen-based schooling and education in general, which is discussed in the Chapter 6, are likely to be a highly significant aspect of this for young people in a variety of ways. But let us stay with Schwab's discussion for a moment, as he himself presents the kind of mentality and perspective on social ethics that lie beneath his urge to proselytise the notion that the ways things have been done in the past – the everyday routines of patterned, repetitive, familiar, recursive, and, above all, embodied social experience (for 'classic' discussions of embodiment; see Bourdieu, 1978; Taylor, 1989; and for more recent elaborations Brandon, 2016; Dings, 2018; Harrington, 2019; Heersmink, 2018) – can now be simply dismissed with a wave of the hand or done away with altogether.

As the social and physical distancing necessitated by the pandemic, Schwab says, persists over the longer haul as things move towards their 'new normal', we will come to rely more on digital platforms to "communicate, or work, or seek advice, or order something"; they will, little by little, "gain ground on formerly ingrained habits". In this context, the "pros and cons of online versus offline will be under constant scrutiny through a variety of lenses" and will lead to us thinking twice, at least, before flying to a meeting

(Zoom is safer, cheaper, greener and much more convenient), driving to a distant family gathering for the weekend (*the WhatsApp family group is not as fun but, again, safer, cheaper and greener*) or even attending an academic course (not as fulfilling, but cheaper and more convenient).

(Schwab and Malleret, 2020: 109, emphasis added)

It is almost as if Schwab and company have only the faintest grasp of how the majority of the people of the world actually think or exist in it. The devil is in the details. Schwab reveals here, in his breezy dismissal of the deep human need to be in face-to-face contact with those close to us ('close to' itself being a linguistic clue here), the instrumentarian world view. For all the rhetoric of 'inclusiveness', 'diversity', and 'sustainability' he espouses, his dismissal of close physical connection with loved ones as mere 'fun' is telling. The readiness to accept the notion that we are in some sense machine-like and the ease of acceptance of disembodied and emotionally reduced remote communications are characteristic of the Silicon Valley and WEF cant designed - as all cant does - to obscure the speaker's deeper intentions and the meanings that motivate them. In this case, that meaning centres very clearly on the desire of Schwab and his ilk to take the opportunity (his own word) offered by the COVID pandemic to go back to square one and "design" the future (Schwab, 2016) according to the needs of an expanding technostructure driven by the aspirations of what is beginning to look very much like a global corporatocracy.

The media-driven ubiquity of the positions and prognostications of the likes of Schwab has given them far more purchase in the global public imagination than they would have had in a saner time. Their normalisation through the endless presentations of science fiction dystopia and WEF/'World Government'style 'imagineering' has for many people concealed how close the idea of a genuine human-machine merger is to outright mental aberration and illness. McGilchrist cites examples of psychiatric patients being treated for schizophrenia who suffer from such aberrations. One believed that "sex can be reduced to mathematics" and that the human soul is the outcome of "the action of acids on the brain". In another case, a patient describes himself as becoming "a more efficient communications machine". Then there is another who felt his mind was a "'photocopy machine" and a plethora of others who "report believing themselves to be cameras, computers or other mechanical devices" (McGilchrist, 2021: 455-456).

McGilchrist observes that if these self-accounts from schizophrenia patients seem familiar it may be because "this pathology is now embedded in the culture that surrounds us" and contends that up to half of such patients, if presented with the right questions, will "describe themselves as machines or computers, or being controlled by forces emanating from machines or computers" (2021: 552). Here, the conception of the human being is reduced to little more than a mechanism – and not only by schizophrenia sufferers themselves:

While there are cognitivist scientists to whom that would seem to make perfect sense, and for whom it would even be a welcome advance, I doubt this means that schizophrenics are seers and philosophers with privileged insight into the nature of being, any more than that they are spiritual masters; but that, more probably, there is something very odd that happens to the world once you view it in the way towards which our unbalanced analytic tradition in philosophy and our unbalanced technological tradition in science leads us, a tradition in which most academics now are so thoroughly schooled that they can't see that there is a problem, let alone how to escape it.

(McGilchrist, 2021: 554)

The process whereby humans began to find it possible to believe themselves to be machines, or machine-like, is obviously complex and multifaceted and an integrated examination of them all is beyond the scope of this work. But two interconnected and relatively recent strands, historically speaking, are directly relevant to the case and indispensable to understanding of the plight young people are experiencing now. These are the conception of the "diminished self" (Ecclestone, 2007; Ecclestone and Hayes, 2008; Fevre, 2000; Furedi, 1999, 2003, 2004; Nolan, 1998; Sennett, 2003) that has sedimented itself in popular psychology and social policy across a range of institutions, to which we will return in the next chapter, and the postmodern theoretical attack on the integrated and stable individual self.

## Facing Away From the Screen: Embodiment, Empathy, and Social Ethics

The ideas and propositions advanced by the likes of Kurzweil, Musk, and Harari, drawn as they are from not only tech-utopianism, futurology, and transhumanism but also radical varieties of 'post-something' social theory and philosophy – are now powering increasingly influential and 'visionary' actors and corporations convinced that they hold the keys to the future. But the rising up of these forces and ideas, and the assumptions they make about us as people, should unsettle all mature people who value and are attached to our human being as we have known it for so long. For beneath this ostensibly (or rather, perhaps, rhetorically) hopeful and utopian vision of a transhuman future lies a core of fantastically reductive and anti-human nihilism, in which humanity in its customary form is viewed as a mutable, transitional, and ultimately dispensable condition from which we must now move on.

This deeply troubling view of the person has not, of course, arisen out of the blue since Google began its operations. Prominent among the intellectual streams which have nourished it are those other 'posts', structuralism and modernism, which in the 1970s began in earnest their long and corrosive work of deconstructing one might say degrading and excessively relativising - much thinking about personhood. There is little mileage in rehearsing this well-worn theme here, but it is worth noting that important recent works such as those by Douglas Murray (2019), John McWhorter (2021), and Helen Pluckrose and James Lindsay (2020) have brought into clear focus the disastrous contemporary consequences of this great experiment in 'deconstructing' personhood and critically downgrading and 'de-privileging' humanity in general and of course specific sections of it in particular. The widespread adoption in the social institutions of the West of simplified and often garbled notions and strategies of deconstruction advanced by postmodern theories of one kind or another - though it has to be said that many of these ideas were readily amenable to the garbling process to begin with - has been especially disastrous in education, and we will focus on this in Chapters 6 and 7. The emergence of the conception of the psychologically and emotionally enfeebled and inherently vulnerable and diminished 'minimal self' (most notable in the works of Philip Rieff, Christopher Lasch, and Frank Furedi) will be discussed there, in the context of postmodernistic 'therapy culture', the self-esteem movement which has done so much to undermine the resilience of successive generations of children and the emerging pedagogical revolution known as Social and Emotional Learning. But before this, we must attend to the foundational - or, ironically, anti-foundational - streams of thought and social action that laid the groundwork for the dystopian conception of the hopelessly fragmented individual person. Of salience here is the set of arguments generated by a concern to deal with the problem of "Descartes' error" and the emergence of Western mind-body dualism (Damasio, 1999), which has in many quarters led not to an attempt to find a human solution to the problem of the subject as reductively over-rationalised - an area inviting constructive research and reflection on how we might re-embody the subject and integrate the role of reason into a more holistic conception of the person – but to a rejection of both humanism in particular and the human (represented by the idea of a stable, coherent, and integrated self) in general.

While much of the work of the previous "posts" was about dismantling the rationalist Cartesian conception of the individual as autonomous cognitive ego as part of the claim that we can have no coherent self at all (Benhabib, 1992: 209), many post- and trans-humanists rely on highly questionable notions, drawn from Cartesian/Enlightenment thinking, of barely embodied persons as little more than the mentalistic information-processing machines discussed earlier. In this view, it is assumed and frequently asserted that our bodies are essentially prostheses – material supports for the immaterial mental processes which are our most salient feature – and that consciousness is an epiphenomenon reducible to responses to stimuli, most significantly the information-crunching activities taking place in the brain. These ideas saturate, or saturated, the AI movement for long enough and of course loom large in the thinking of Kurzweil and Google, Musk and the Neuralink idea, and Harari and his patrons in elite globalist circles.

In the minds of these players, our bodies have become largely meaningless irrelevances, replaceable props or hindrances rather than being integral to our full-spectrum experience of ourselves; the Cartesian brain on a stick body, or perhaps nestled comfortably inside a nano-probe, returns. This twofold weakening and reduction of the idea of the subject – this downgrading of the bases of our common humanity – has thus been deeply sedimented in the intellectual culture of our times and frames recent and emerging thinking about human experience and interaction in the age of digitalisation and ubiquitous computing. It is little wonder, then, that the corporate forces running global digitalisation and their supporters in the commentariat want to collapse the 'hierarchical' boundary between embodied agents – dare we call them *real people*? – engaged in actual embodied and recursively meaningful activity in the world and the reduced self-representations of avatar selves interacting with one another remotely, from behind the screens of their gadgets.

The problem with the instrumentarian view – as we began to consider in the first chapter – is that the difficulties caused by remote interactions and the disembodying experiences and perspectives they normalise are particularly acute where stilldeveloping young people are concerned. In the new dispensation it is not merely social skills and competences that are at stake and becoming increasingly fragile but also healthy self-awareness, authentic social interaction, and friendship:

What we are witnessing is a change in the *attention* that mediates and gives rise to friendship. In the once normal conditions of human contact, people became friends by being in each other's presence, understanding all the many subtle signals, verbal and bodily, whereby another testifies to his character, emotions, and intentions, and building affection and trust in tandem. Attention was fixed on the other – on his face, words, and gestures. And his nature

as an embodied person was the focus of the friendly feelings that he inspired. People building friendship in this way are strongly aware that they appear to the other as the other appears to them. The other's face is a mirror in which they see their own. Precisely because attention is fixed on the other there is an opportunity for self-knowledge and self-discovery, for that expanding freedom in the presence of the other which is one of the joys of human life. The object of friendly feelings looks back at you, and freely responds to your free activity, amplifying both your awareness and his own. As traditionally conceived, friendship was ruled by the maxim "know thyself".

(Scruton, 2010)

Peter Berger and Thomas Luckmann make a related point in their landmark *The Social Construction of Reality*, emphasising the absolute necessity of the face of the other to self-understanding, because the 'I'/'eye' *cannot see itself* but needs to be reflected back at the viewer from the eyes of the other:

In the face-to-face situation the other is fully real. This reality is part of the overall reality of everyday life, and as such is massive and compelling. To be sure, another may be real to me without my having encountered him face-to-face.... Nevertheless, he becomes real to me in the fullest sense of the word only when I meet him face-to-face. Indeed, it may be argued that the other in the face-to-face situation is more real to me than I myself.

(Berger and Luckmann, 1966: 43-44)

Taking this line of reasoning still further, beyond even the exalted ethics of the face in the interpersonal encounter, Emmanuel Levinas, who famously wrote in *Infinity and Totality* of the implicit command from God, embodied and presented in the face, that "Thou shalt not kill" (Bernet, 2000: 55), suggests that the human face is nothing less than the gateway to transcendental spiritual experience:

The dimension of the divine opens forth from the human face ... It is here that the Transcendent, infinitely other, solicits us and appeals to us. The proximity of the Other, the proximity of the neighbor, is in being an ineluctable moment of the revelation of an absolute presence (that is, disengaged from every relation), which expresses itself. His very epiphany consists in soliciting us by his destitution in the face of the Stranger, the widow, and the orphan.

(Levinas, 2007 [1961]: 78; see also Tischner, 1978)

Deep connection between people, then, has really to be embodied and cannot be maximally accomplished in virtual space through screens (Sproull and Kiesler, 1988; Knapp and Hall, 2010; Giedd, 2012; Jiang et al., 2012; Sherman et al., 2013; Bilek et al., 2015; Tang et al., 2016; Fishburn et al., 2018). Meaningful and satisfying face-to-face interactions, it has long been assumed by analysts from a range of perspectives, require on the part of the subject the presence of embodied

others; such an assumption lies, for example, at the starting point of the long history of the symbolic interactionist understanding of the 'interaction order' central to social experience. In the words of Charles Horton Cooley, an influence on George Herbert Mead and therefore on the development of the 'interactionist' tradition of analysis, his notion of the 'looking glass self' is a conception comprising three elements:

the imagination of our appearance to the other person; the imagination of his judgment of that appearance, and some sort of self-feeling, such as pride or mortification . . . The thing that moves us to pride or shame is . . . the imagined effect of this relation on the mind.

(Cooley, 1965 [1902]: 184)

This fact of co-presence in the formation of a coherent self, of meaningful social interactions and, ultimately, of the interaction order upon which social processes are based hinges, to repeat, on the physical presence of actual others. This sense is based upon an understanding of human subjects as corporeal beings. In recent decades, the 'return' of the body and the concept of embodiment in sociology, social and cultural theory, anthropology, and social psychology reflect a growing awareness of the need to reconceptualise the nature of the self, and the self in social interaction, and to move beyond the formerly prevailing, reductive models of personhood and subjectivity that have lingered too long in the social sciences and humanities.

The strain of thinking which has sought to develop this more holistic conception of self and agency, and counter the effects of the installation in modern understanding of the Cartesian model of the person, is too long and complex to be fully discussed here (see Csordas, 1994; Lakoff and Johnson, 1999), but a number of central contributions to the enterprise should be noted, including important benchmarks other than those already mentioned such as Heidegger's promotion of being over epistemology, as discussed in Chapter 1, as the central focus of his philosophy; Maurice Merleau-Ponty's phenomenological account of the corporeal sources of perception, self-identity, and action (Merleau-Ponty, 1962); Charles Taylor's repeated attempts to move beyond the "monological" conception of subjectivity and emphasise the importance of connectedness-to-background in social interaction (Taylor, 1989, 1993a, 1993b); Pierre Bourdieu's justifiably influential account of the embodiment of the social "habitus" (Bourdieu, 1977) and "physical capital" (Bourdieu, 1978: 838, 1984: 212-213; and see Shilling, 2004); and the more recent work of those, such as Thomas Csordas, who have sought to set out the character and dimensions of "intersubjectivity as intercorporeality" (Csordas, 2008). Further to this, research conducted by those such as Hans-Herbert Kogler (2012) has more positively, and usefully, advanced our understanding of the intersubjective grounds of self-consciousness and self-identity as they relate to a complex and non-reductive notion of agency. Drawing on the heuristic framework provided, again, by Mead, Kogler analyses the ways in which, if we accept the idea that self-consciousness emerges from intersubjective perspective-taking and dialogue, a socially embedded and symbolically mediated notion of selfidentity – one which is able to preserve the core features of human agency – becomes viable. His argument revolves around recognising the extent to which *the Other's irreducible agency is constitutive of the self's capacity to establish an identity*, now understood as a socially situated and self-interpreting narrative process. Self-identity reveals itself in this account to be an open but coherent dynamic, a socially situated yet agent-driven phenomenon, and ethically indebted to the Other as providing the gift of selfhood.

Kogler's approach offers new insights into how selves are formed and maintained as active, emergent processes in embodied, everyday interactions. This seems an eminently sensible, practical, and hopeful way of thinking about the subject which does not resort to the reductive simplifications of those who would have the fullness and unpredictability of phenomenological experience equated with the dissociated and purely cognitive practice of dealing with reduced, instrumentalised others from behind the anomic and instrumentalised 'safety' of a digital screen.

A corpus of studies into the corrosive effects on young people of so much life being lived through screens is by now well established. Uhls et al.'s "Five days at outdoor education camp without screens improves preteen skills with nonverbal emotion cues" is an early example of a trend which has snowballed since its publication (Uhls et al., 2014, 2020). Beginning with the premise that children's faceto-face communication skills were being negatively affected by the ubiquitous technological mediation of experience, researchers conducted a field experiment in which a control group living their regular in-school, screen-mediated lives were compared to one spending five days at a nature camp at which television, computers, and mobile phones were not allowed. After five days of exclusively face-toface interaction,

the children's recognition of nonverbal emotion cues improved significantly more than the control group for both facial expressions and videotaped scenes. Implications are that the short term effects of increased opportunities for social interaction, combined with time away from screen-based media and digital communication tools, improves a preteens' understanding of nonverbal emotional cues.

(Uhls et al., 2014: 387)

This was an important finding which clearly demonstrated that, despite the arguments of vested commercial interests and transhumanist ideologues that want us all to believe that one form of communication is as good as another, face-to-face interaction is absolutely necessary for full-spectrum, genuinely empathetic communication with others and that interventions can work. Recent and emerging research in this field is showing us that the range and significance of the nonverbal dimensions of communication are far greater than most of us understand. And this at a time when the majority of young people's online communication with others is taking place via texting and instant messaging – the methods of communication furthest removed from an engagement with the face or the phenomenologically real human presence of their partners in interactions.

As already noted, the development of neuroscience is of course also doing much to enhance our understanding of the mechanics of face-to-face interaction and empathetic communication. Though it has come late to the party, and its claims about what it can reveal about consciousness and personhood are routinely inflated and misrepresented, at times in support of a form of scientistic triumphalism (Crawford, 2008; Noe, 2009; Poole, 2012; Reynart, 2016; Tallis, 2012; Satel and Lilienfeld, 2013; Silvermintz, 2019), it is offering support for some much older philosophical, social-psychological, and sociological accounts of the connection between embodiment, co-presence, and intersubjective connection indeed, on the very development and maintenance of our social selves (Crossley, 1996; Kogler, 2000). Though Theodor Lipps, the first modern philosopher to give a developed account of empathy, suggested as long ago as 1903 (Lipps, 1979) that it is grounded in an innate human capacity for the motor mimicry of another's expressions of affect, it is only relatively recently that the quality and range of mimicry and imitation have been rigorously scrutinised -largely as a consequence of the emergence of "mirror neuron" studies, that famously "accidental" outcome of neuroscientific research (Rizzolatti and Sinigaglia, 2010; Keysers, 2011).

This role played in social communication by bodily simulation is critical – especially when it comes to the imitative convergence between people of the micro-muscular systems in their faces. According to the Perception-Action Model (PAM) of empathy (Rymarczyk et al., 2019), processes of simulation that manifest themselves in the field of visible actions "result from the fact that the subject's representations of the emotional state are automatically activated when the subject pays attention to the emotional state of the object" (Preston and de Waal, 2002: 1). Attending to the other's emotional state gives rise to autonomic and somatic responses, with a plethora of studies now showing that empathic traits relate to variations in facial mimicry (FM) in close person-toperson encounters (Sonnby-Borgström et al., 2003; Dimberg et al., 2011; Balconi and Canavesio, 2013).

Further to this, neurological/affective 'mirroring' between people is most powerfully experienced, it has been established, when they meet face to face. Jiang et al. contend that "face-to-face communication, particularly dialog, has special neural features that other types of communication do not have and that the neural synchronization between partners may underlie successful face-to-face communication" (Jiang et al., 2012). Profound interpersonal connection requires, then, not only the co-presence of actual people but close and active face-to-face empathetic *communication* between them; words or images remotely conveyed and received are not sufficient, Jiang et al. note, for the maximal occurrence of this neural synchronisation and the interpersonal empathetic–emotional connection which accompanies it.

With this in mind, we have seen a trend in recent years towards neuroscientific studies which go beyond the individual-scanned-in-isolation norm so as to better understand the situated and embodied nature of human cognition and interaction. Hari and Kujala, for example, argue that it is now necessary to begin the "monitoring of brain and bodily functions within a socially relevant environment. Because single-person studies alone cannot unravel the dynamic aspects of interpersonal interactions, it seems both beneficial and necessary to move towards 'two-person neuroscience'" (Hari and Kujala, 2009). Hasson et al. concur in their paper on 'brain-to-brain coupling', noting that most cognitive studies focus on processes that occur within a single individual. But with "so many cognitive faculties emerging from interpersonal space, a complete understanding of the cognitive processes within a single individual's brain cannot be achieved without examining and understanding the interactions among individuals" (Hasson et al., 2012). Understanding the role played by empathy in such interactions is absolutely central in all of this. Two or more brains are better than one; no one among us is an island; and the Mirror Neuron System may turn out to constitute, as Vittorio Gallese has it, the "shared manifold of intersubjectivity" (Gallese, 2001).

This practical intersubjectivity at the centre aspect of everyday embodied relations - the social meanings and sense of human value that people generate and maintain together - is, to reiterate, what enables the human capacity for empathy, defined as an ability to comprehend and understand the perspective of another person rather than 'sympathy' (this is because "empathy differs from sympathy and compassion in the sense that it includes feelings that are similar as the other feels and not feelings for how the other person feels"; see Van Dongen, 2020, and also Batson, 2009). It is fitting then that Sherry Turkle, once so optimistic about the potential enhancement of human experience she held to be forthcoming in our relations with computers (The Second Self, 1984), should have written one of the most important books yet on our need to start undoing the damage done to ourselves and our relationships by human-machine thinking in her Reclaiming Conversation: The Power of Talk in a Digital Age (2015) and more recently in The Empathy Diaries (2021). The importance of and need for three things comes across loud and clear in these recent works of Turkle's: embodiment, empathy, and direct communication, the very things now central to the experiential crises affecting too many young people. One of the most important goals of those seeking to help them deal with our current situation is, as we will see in the final chapter, the attempt to get them back into their bodies - or perhaps into them for the first time since infancy. It is vital in this regard that the deep significance and necessity of embodied experience be promoted and encouraged, in opposition to the strategies of mechanical instrumentarianism being driven by Big Tech/Data interests and the financial elites that would 'shape' not only governments but children and young people themselves in order that they may play the parts already being notionally assigned to them in 4ID-world. In this context, the relationship between young people and technologies of communication can be seen not as a continuation of an old story but a distinctively new one.

Socrates, as Plato tells us, was unsettled by the appearance of writing, a technology he feared would weaken the oral and mnemonic culture upon which his teaching was grounded (Plato, 1987; and for broader discussions of the transition from oral to textual culture in the Greek world; see also Havelock, 1963; Ong, 1982). A conclusion drawn from this episode by many in our current moment is that all 'disruptive', transformative, and epoch-making technologies of communication are initially destabilising of prevailing systems but that this anxiety fades over time as the new technology and the habits to which it gives rise become naturalised and internalised by its users. Jeremiads against the unsettling effects of the digital life such as those we reviewed in the first chapter here are, the argument goes, but the latest manifestation of the kinds of responses that accompanied the emergence of the telegraph, television, or the telephone – we have nothing to fear but our fear of change itself.

While there is clearly something to be said for this overall story, its contemporary iteration misses an important point: the culture - the world - Socrates feared would crumble under the onslaught of writing was one of intensely personal, faceto-face interaction, of what we would now call inter-subjectivity. The oral culture of Greece had been premised upon the co-presence of embodied others and the forms of communicative interaction that this made possible. Socrates's teaching depended upon the establishment of communicative rapport between teacher and pupil, or questioner and answerer, upon empathetic, full-spectrum communicative engagements with others. This, until very recently, was more or less obvious to everyone, to the extent that it could be taken entirely for granted. But the capacity to form and maintain such relationships is precisely what is now being endangered, especially among the young, by the recent shift towards remote and reductive kinds of online self-presentation and interaction that either support or, increasingly, replace or merge with face-to-face experience. Simplified, reductive, and distorted forms of self-representation and the culture of look at me, like me are, as we saw in the first chapter, undermining the ability of many young people in their formative years to acquire, develop, and maintain the interpersonal skills and habits upon which empathetic connection with others rests.

Young people are now poised, on current trends, for assimilation as a standing reserve into an ever-expanding and deeply integrative digital communications infrastructure at the global scale. Their (our) predicament, in this sense, can be viewed as but the latest in a long line of technological development, of the extension of *technik*, whereby individuals become enframed as exploitable subjects and all but forced to adapt, as Ellul has it, to succeeding waves of technological development in an ongoing process of subjugation to expanding instrumentarian power. This tension lies at the heart of the growing unease about the consequences of global digitalisation, as the threats posed to customary modes of human being become clearer and more unsettling. Multiple, intersecting forces have brought us to this situation. Among them are the new media corporations which have successfully combined the global marketisation of gadget fetishism with a rhetoric of personal empowerment and wall-to-wall dataveillance of consumers and now seek to play their role in the re-fashioning of the world on the basis of adolescent tech-utopianism and an utterly fallacious and transhumanist ideology ungrounded in the accumulated wisdom of the human past or any realistic conception of what really constitutes a person holistically. Preceding waves of intellectual debunking fed into the emergence of this post- and trans-humanism and so relativised and devalued older conceptions of humanity and healthy personhood that a body-and self-less future now seems attractive, at least to the driven ideologues of the Silicon Valley culture; and deep cultural changes, gaining force in and since the 1960s, which have shaped the 'therapeutic turn' in public culture and have triggered, in the West, a dramatic increase in fragile self-centredness, to which we turn in the next chapter – with social media and the tools that deliver them now locked into an ever-expanding symbiotic relationship with these forces.

In this context, the Socrates story is more than worthy of our consideration – not because the technology of writing was bad, which would be an absurd proposition, but because treating the current communications revolution and all that it makes possible as if it were simply the latest equivalent of the arrival of the television or the telephone is to underestimate the step-change it represents in human history. Steve Jobs, that widely revered wise man of our own era, who of course did as much as anyone to make possible the development of a profit-driven sphere of disembodied interaction masquerading as 'friendship' and 'connection', knew more than he let on in this regard. In one of the most widely cited pre-pandemic surveys of its kind, conducted in 2015, the average amount of time spent onscreen daily by American teens was nine hours and for tweens (aged 8–12) the figure was six hours. This was *in addition* to whatever screen time they'd already had in school (Graber, 2019: 17). This kind of lifestyle was not, however, enjoyed by the Jobs children. Jobs himself declared, in his theatrical unveiling of the iPad in 2010, as summarised by Adam Alter, that

[what] this device does is extraordinary.... It offers the best way to browse the web; way better than a laptop and way better than a smartphone.... It's an incredible experience.... It's phenomenal for mail; it's a dream to type on. For ninety minutes, Jobs explained why the iPad was the best way to look at photos, listen to music, take classes on iTunes U, browse Facebook, play games, and navigate thousands of apps. He believed everyone should own an iPad.

(Alter, 2017: 9)

But it was a different story where Jobs's parenting of his own children was concerned; the use of iPads was disallowed, and the children were encouraged to both read books and discuss them at the dinner table (Bilton, 2014). And he was not the only high-powered Silicon Valley type to take this line – a line which has continued to this day. Alter continues the story: Chris Anderson, the former editor of *Wired*, enforced strict time limits on every device in his home because he had seen the "dangers of technology first hand"; Evan Williams, a founder of Blogger, Twitter, and Medium, bought a multitude of books for his two young

sons, but they did not get iPads; and Lesley Gold, the founder of an analytics company, imposed a "strict no-screen-time-during-the-week rule on her kids" (Alter, 2017: 9); Snapchat CEO Evan Spiegel told *The Times* in 2018 that his stepson was allowed one and a half hours of screen time *per week* (McStay, 2018). Many examples such as these could be put forward, but the point is made. Business insiders and some of the people instrumental in creating devices and setting up social media platforms follow the old, cardinal rule of the drug-dealer: *never get high on your own supply* (Alter, 2017).

But there is, of course, much more to it than this. The iPad and equivalent devices were immediately and warmly embraced, like the laptops before them, by school administrators, some teachers and educationalists, and in general those with "a financial interest in spreading educational technology" (Clement and Miles, 2018: 185). Joe Clement and Matt Miles, two 'veteran teachers' who expose the impact of this process in their *Screen Schooled: Two Veteran Teachers Expose How Technology Overuse is Making Our Kids Dumber*, that educational technology is promoted and widely accepted as magic bullet for achieving a variety of educational outcomes, perhaps most importantly the closing of the achievement gap by improving learning outcomes – the holy grail of public education, central to its rhetoric. This rhetoric is supported, they note, by "otherwise reputable institutions":

Stanford University's Graduate School of Education, for example, advertised a report proudly entitled "Technology Can Close Achievement Gaps, Improve Learning". That sounds great. However, the report was actually done by the Alliance for Excellent Education and the Stanford Center for Opportunity Policy in Education. What do these two groups have in common? They are both heavily funded by Bill Gates.

(Clement and Miles, 2018: 184)

Such is the educational landscape – replete as it is with all the old canards about digital technology and the kind of wondrous learning that it is held to facilitate – with which children and young people must contend. We will see in the next two chapters how a combination of technocratic and increasingly screen-based schooling and dubious, radical, and essentially therapeutic experimentation with young and developing personalities are moving the rising American generation away, quite deliberately, from a grounding in any form of embodied and ontologically secure presence in the actual world. In addition, in the coming years, the level of exploitation to which they will be subjected, as arguably the world's most ceaselessly data-mined and continuously monitored population, is set to increase as the techno-surveillance system being built for the handling of them as a standing reserve becomes more finely calibrated. This has been a long time coming, as "power has been concentrated in the hands of those who control the world's technological structure. Bill Gates, Mark Zuckerberg, Klaus Schwab, Jeff Bezos, Sergey Brin, Ray Kurzweil and the like have been moulding our reality for decades" (Kingsnorth, 2021). To the 'enhancement' and turbo-charging of this reality

the children now stand nakedly exposed, unless they have adults around them who understand where this is all going, and what is at stake – for it seems that many of their teachers do not.

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# The Classroom Laboratory #1

The Self-Esteem Movement, the Therapeutic Ethos, and Utopian Education Reform

# Liberation Psychology and the Self-Esteem Movement

In 1964, philosopher and novelist Ayn Rand, as last mentioned here in Chapter 3, co-published a collection of essays called The Virtue of Selfishness: A New Concept of Egoism. Her co-author was Nathaniel Branden, an adherent to and fervent supporter of Rand's Objectivist philosophy, with whom she collaborated frequently and at one time was involved in a romantic relationship. In 1969, Branden published, this time on his own, The Psychology of Self Esteem - the first widely noted insertion of this idea into the public space, earning him the title of 'the father of self-esteem'. Coming together here were the militantly anti-collectivist rejection of altruism in the name of the rationally and radically individualistic notion of the person adumbrated by Rand with the emerging psychology of self-esteem explored by Branden. As we have seen, it may be argued that the tenor and tone of Rand's intellectual position regarding the autonomous individual was closely intertwined, given her enormous popularity as a novelist and thought leader, with the emergence of the neoliberal mindset itself in the 1950s; but Branden's achievement is also of great significance – by the late 1970s, the self-esteem movement had gathered serious momentum, in particular where it posited a relationship between the variety of social pathologies becoming increasingly expensive to deal with where the public purse was concerned and early education. If children could have the way in which they felt about themselves positively boosted by teachers, educationalists, and therapists, then society might be transformed – comprised as it would then be of balanced, well-integrated, confident, and positive individuals able, as we will see, to 'selfactualize' in ways that would transform American society as a whole. The two things coming together in this corpus of thinking were, of course, the promotion of the radically self-interested (this now being a virtue) economic actor, a rebooted version of the old homo economicus of classical liberalism, and a new, therapeutically empowered citizenry. By the 1980s – the decade of Ronald Reagan and Oprah Winfrey - talk of self-esteem and 'emotional intelligence' was

everywhere, thanks in large part to the latter's influential TV show. As Andrew Bianchi writes,

Driven by "Human Potential evangelist" John Vasconcellos, the task force sought to "prove, scientifically, that self-esteem was the vaccine for all social disease". Though their work was initially derided by the press, upon publication, the task force's findings appeared conclusive, establishing self-esteem as a panacea to a variety of ills, given credence by platforms as diverse as *Time Magazine, The Washington Post*, the BBC, and even *The Oprah Winfrey Show*.

(Bianchi, 2018)

If Nathaniel Branden was self-esteems' father, its primary 'evangelist' was John Vasconcellos, and the task force mentioned was his initiative. Vasconcellos, a Democrat politician who spent the bulk of his career in the California State Assembly, is the man most closely associated with the widely acknowledged emergence of the 'self-esteem' movement in the 1980s and the embedding of its principles - in the first instance - in Californian social institutions. Perhaps the most significant difference between Branden and Vasconcellos where self-esteem was concerned, substantively speaking, might be put in the following way: Vasconcellos was in favour of and in fact oversaw the wholesale insertion of a new, therapeutic approach to education into California schools on the basis of selfesteem being *ascribed* to children by their teachers via a rhetorical strategy of enthusiastic praise and positive feedback with regard to their classroom efforts and self-perception as persons. Branden, whose work appears to offer considerably more depth and coherence than the interventions Vasconcellos managed to force into classrooms, was particularly scathing about the way his work had been bastardised in the practical implementations achieved by the 'self-esteem movement':

I have stressed that "feel good" notions are harmful rather than helpful. Yet if one examines the proposals offered to teachers on how to raise students' self-esteem, many are the kind of trivial nonsense that gives self-esteem a bad name, such as praising and applauding a child for virtually everything he or she does, dismissing the importance of objective. accomplishments, handing out gold stars on every possible occasion, and propounding an "entitlement" idea of self-esteem that leaves it divorced from both behavior and character. One of the consequences of this approach is to expose the whole self-esteem movement in the schools to ridicule.

(Branden, 1994: 203)

Prior to this, Vasconcellos's driving forward of what became *The California Task Force to Promote Self Esteem and Personal and Social Responsibility* (Fishel, 1992: 665) was instrumental in establishing the foundations for the therapeutic turn in education and its deleterious long-term effects on the well-being and resilience of the generations of American school children who have been experimented on in this regard since that time. And since it will be argued in the following that this trend has in recent years reached a dangerous pitch of irrationality, and that this weakening of the exercise of true self-knowledge and the capacity for reason is an important aspect of the technocratic reframing of public education, we need to obtain a clear grasp here of how this situation came about.

Vasconcellos himself was very much a man of his time; though he achieved great success in his public–professional life, a period of internal unease and confusion he experienced reflected, perhaps, something of the 1960s in which he had been a young man. As the 1960s gave way to the 1970s, the self-fulfilment movement began to hit its stride, as exemplified by the emergence and practices of the Esalen Institute for personal growth and 'holistic pursuits' at Big Sur (given, incidentally, a memorable dramatic portrayal in the final episode of the celebrated *Mad Men* TV series). Initially founded in 1962, by the later years of the decade "the iconic image of Esalen", as Andrew Marantz puts it in a *New Yorker* article on the continuing popularity of this institution among the elite of the Silicon Valley crowd, was

of its central lawn, as brilliant as an emerald, ringed by oceanside cliffs. This is where, in the sixties, Aldous Huxley and Timothy Leary facilitated sessions of "drug-induced mysticism"; where the psychotherapist Fritz Perls led "Gestalt workshops" often involving crying and primal screams.

(Marantz, 2019)

In 1969, Vasconcellos's search for enlightenment and release from his inner turmoil led him to undertake numerous courses at this "leading retreat centre for exploring the frontiers of human potential" (Fishel, 1992: 671). Crucially, in terms of what was to come, Vasconcellos was in the end no mere lone, socially detached seeker after truth – though he did go through such a phase as part of his self-development:

My quest began on January 30, 1966-a turning point in my life, marked by a radical change in my personal and social condition. On that day I held my first Assembly campaign meeting, and embarked on my personal odyssey as well... I began living the life of a nomad-cut loose from my old ways, on the search for new ways of being, professional and personal.

(Vasconcellos in Fishel, 1992: 671)

Eventually, as a practising politician preoccupied with finding ways of mitigating various forms of social dysfunction and pathology, Vasconcellos came to the view, as the 1960s slogan had it, that the 'personal is political'. In his interpretation, this meant that the insights and practices of humanistic psychology, if brought into the public sphere through the social institutions, could have the effect of assisting

the individuals caught up in antisocial and self-destructive behaviours gain more holistic and balanced forms of self-awareness and act accordingly. This, it was thought, had the potential to develop a citizenry composed of people who were more fulfilled and prosocial, and that improved social conditions and a more effective, open, honest, and switched-on polity would follow.

The therapeutic–psychological background to Vasconcellos's understanding requires a brief presentation here. The school of thought and practice known as humanistic psychology, as exemplified in the widely influential work of Abraham Maslow and Carl Rogers (from whom Vasconcellos received extensive mentoring and with whom he established a close relationship; see Storr, 2017) is usually seen as a reaction to the scientistic and anti-humanistic sway held over psychology in the 1950s by behaviourism. B.F. Skinner – as discussed in earlier chapters and of whom more later, was the public face, along with E.L. Thorndike, of an approach to the understanding of the person militantly opposed to the notion that self-perceptions and other internal mental states should be the central focus of scientific psychological concern.

Rather, behaviourists believed that the examination of the phenomena that make a person tick should include only "externally, measurable and observable human behavior" (Pajares and Schunk, 2002: 10-11). This "led to a diminishment on the Self in favour of what people do or how they behave. Instead of studying the concept of self and what it is, this school sought only to examine what the self does" (Van de Voorde, 2019: 10). This disinterest in the issue of interiority was, for many, a major problem. One such was Maslow, who had studied under Thorndike, and whose highly significant 1943 paper A Dynamic Theory of Human Motivation explored concepts such as the self in a more extended and subtle sense and his own concept of 'self-actualization'. This "humanistic revolt against the behaviorists sets the stage for the ideas of self that underpin the Self-Esteem Movement" (Van de Voorde, 2019). The salience of the self and the ways in which it both seeks and becomes thwarted in the attempt to selfactualise underpin Rogers's seminal 1961 book On Becoming a Person. In it, Rogers argued that if what he called self-esteem was low it could be "tied to so many maladaptive responses, to so many forms of underachievement and bad behavior", then "'surely raising kids' (and other's) self-esteem could bring with it untold benefits" (Rogers, 1961: 74).

In perhaps the key publication in which Vasconcellos was involved (along with Andrew Mecca and Neil Smelser), *The Social Importance of Self Esteem* (Mecca et al., 1989), it was made clear that the authors believed that social problems like crime, drug abuse, violence, teen pregnancy, and underperformance in school were largely the result of low self-esteem. This conception of self-esteem and how to raise it was at the heart, it followed, of the California State Task Force's intention to create a legislative body through which to deliver it to the population. As Vasconcellos put it elsewhere, "It is now time for a new vision of ourselves, of man, of human beingness, of human nature, and of human potential: a new theory of politics and institutions premised upon that vision" (quoted in Storr, 2018: 165).

This kind of lofty rhetoric was accompanied, in Vasconcello's case, by his reputation as a hard-working and effective political player, and in 1986, he and his colleagues finally achieved what they had been working towards. They managed to persuade Republican California Governor George Deukmejian to sign on to the project – largely on the basis of the argument that great cost savings could be made by the public purse via their promise of a potential decrease in the various forms of social dysfunction – and the *California Task Force to Promote Self Esteem and Personal and Social Responsibility* was rolled out for an initial threeyear period.

Something new had happened in American social history. As later critics of the task force and its activities put it,

What *is* remarkable is that attention to self-esteem has become a communal concern, at least for Americans, who see a favorable opinion of oneself as the central psychological source from which all manner of positive outcomes spring. The corollary, that low self-esteem lies at the root of individual and thus societal problems and dysfunctions, has sustained an ambitious social agenda for decades.

(Baumeister et al., 2005)

The arguments – pro and con – over this ambitious and apparently never-ending social agenda are many, various, and the issue in has been hotly contested. The full story of the details and character of its rolling-out can be found in multiple authoritative sources (examples include Beane, 1991; Sykes, 1995; Vitz, 1995; Mruk, 1999; Stout, 2001; Weare and Gray, 2003; Ecclestone and Hayes, 2008; Somers and Satel, 2010; Firestone et al., 2012; Martin and McLellan, 2013; Twenge, 2014; Miller and Cho, 2017; Lukianoff and Haidt, 2018; Fox, 2019). Here we will focus, for obvious reasons, on the interconnection between two things: the first is the way in which public schools became a primary conduit through which the self-esteem project got out of the laboratories, study groups, and think tanks, and, second, whether the mere attribution of self-esteem, rather than the arduous earning of it, has actually been beneficial to children and young people.

The launch of the Task Force was met, originally, with widespread ridicule, particularly where the media was concerned: "The response from the California media was immediate and savage. One editorial, in the *San Francisco Chronicle*, called Vasco's task force 'naive and absurd". Vasconcellos was mocked for a full two weeks by cartoonist Garry Trudeau in his popular Doonesbury strip, and he was also made to suffer when "a delighted Los Angeles Herald told how, in front of the press, one member of the task force had asked others to close their eyes and imagine a 'self-esteem maintenance kit' of magic hats, wands and amulets" (Storr, 2017).

The incredulity with which the attempt to bring a therapeutic approach into the heart of mainstream state politics and the Task Force's mission in general was met stands in stark contrast with that of our contemporary situation, in which it seems that there is no educational suggestion too bizarre to find acceptance among the commentariat. We will return to this shortly, having noted that we are looking here at the beginning of the road that has led us to now. But back then, in the second half of the 1980s, Vasconcellos and his colleagues were still being held to relatively high standards when it came to the demonstration of the validity of their claims. The way they did so and the outcome of the process have been contested ever since. This matters, because at the time of writing school children and older ones in college are being inundated with therapeutic philosophies and interventions like never before.

In 1987, Vasconcellos responded to the torrent of ridicule he was facing by persuading the University of California to recruit seven professors to form a research committee to establish the links, or otherwise, between low selfesteem and societal ills. The resulting report was made public in 1989 in the form of the aforementioned *The Social Importance of Self Esteem*. It reported, in the words of committee member Neil Smelser, that the results were good, insofar as "the correlational findings are very positive and compelling" (in Storr, 2018: 235).

This was enough for many politicians, and a substantial swathe of the public at large, to get behind the self-esteem bandwagon and support its penetration into the public school system. The model to be followed – initially in California schools, prior to the movement spreading like wildfire across schools in other states – was adumbrated in the following way by the California State Department of Education (1990: 6):

Every school district in California should adopt the promotion of self-esteem and personal and social responsibility as clearly stated goals, integrate selfesteem in its curriculum, and inform all persons of its policies and operations. School boards should establish policies and procedures that value staff members and students to serve to foster mutual respect, esteem, and cooperation. Course work in self-esteem should be required for credentials and as a part of ongoing in-service training for all educators.

This was only the beginning. As sociologist James L. Nolan Jr. states in his seminal book *The Therapeutic State: Justifying Government at Century's End* (1998), by the middle of 1994, no fewer than 30 states had on their books over 170 statutes that in one way or another sought to enhance the self-esteem of the American citizenry. The majority of these statutes were situated in the area of education. As other commentators have noted, "self-esteem was touted in the professional literature as both a means and an end of education" (Ravitch, 2000: 427), with "most educators" believing "developing self-esteem to be one of the primary purposes of public education" (Stout, 2001: 119).

But the house of this normalisation of Vasconcellos's claims was built, it is clear now, on sand. There are two main points to be made regarding this: the first is that when Neil Smelser assured the University of California and the general public that the "correlational findings" on improved self-esteem and the task force's desired social outcomes were very "positive and compelling" he was being, to put it mildly, economical with the truth. Second, the gigantic social experiment represented by Vasconcellos's forcing of humanistic psychology into the everyday therapeutic practices of schools has been shown to have been ineffective at least, and more likely positively harmful to generations of American children and therefore socially catastrophic. Unfortunately, and as we will see later, this has done nothing to halt the utopian and ideologically driven promotion of the self-esteem programme's educational offspring – Social Emotional Learning (SEL) – in our contemporary situation.

The fact of the matter is that even during its working phase the California Task Force team was not exactly unanimous in its view of what the long-term efficacy of the institutionalisation of the self-esteem project might be. The work of the task force, as can be read in the California State Archives, "reflect[s] ambivalence on self- esteem's effect on society", and Vasconcellos himself was careful not to discuss this during his promotional activities around the report's general findings, merely asserting that self-esteem was valuable for society. The California Archives also note that members of the team "Disagreed on the definition of self-esteem so completely" that they "set up a definition committee to evaluate the task force's various working definitions and create a more agreeable definition. To further help define self-esteem, the task force members contacted experts who were not associated with the task force's work" (in Van de Voorde, 2019: 34–35).

If disputation over basic definitions were to a large extent the meat in the sandwich of the resulting report, "the language of the opening and closing of this report are very flowery and idealistic, and do not represent the complexity and diverse findings of the 25 Task Force members or the academic findings published in the *Social Importance of Self-Esteem*" (Van de Voorde, 2019: 35). After publishing the final report, Van de Voorde notes, the State Legislature neither created a replacement task force nor extended the first mandate.

Though state education authorities across the United States were keen enough to adopt the Vasconcellos world view lock, stock and barrel, others were more critical. David Shannahoff-Khalsa, a key researcher on the project, told the *Los Angeles Times* that the final report was "propaganda" and its recommendations "simplistic and misleading. They could have been written by a group of sixth graders". Further to this, his view was that "Self-esteem was never shown to play a causative role in the six social problems the task force studied . . . The report is a massive effort to mislead people. There's no basis for what is written in it" (in Billingsley, 2010, and see Storr, 2017).

In a slightly more measured vein, Baumeister et al.'s highly authoritative 2005 *Scientific American* report 'Exploding the Self-Esteem Myth' presents some serious misgivings about the claims so successfully foisted onto the education sector by Vasconcellos's ceaseless hard work, energy, and charisma. The report presents findings that show, on the whole, weak-to-moderate, negligible,

and counterproductive effects of the promotion of self-esteem across the fields of academic achievement, relationships and happiness, and concludes with the following:

So we can certainly understand how an injection of self-esteem might be valuable to the individual. But imagine if a heightened sense of self-worth prompted some people to demand preferential treatment or to exploit their fellows. Such tendencies would entail considerable social costs. And we have found little to indicate that indiscriminately promoting self-esteem in today's children or adults, just for being themselves offers society any compensatory benefits beyond the seductive pleasure it brings to those engaged in the exercise.

(Baumeister et al., 2005: 91)

At bottom, Vasconcellos's desire to inject, from the top down and not for the first time in history, a highly questionable form of utopian wishful thinking into the public sphere in the name of improving humanity has arguably done more harm than good. To paraphrase and conjoin two of Thomas Sowell's bon mots, *the super highway to hell is paved with good intentions and Ivy League degrees* (Hoover Institution, 2018; Rubin Report, 2018).

The self-esteem intervention in schools was not, of course, the first time the public education system had been used to surveille, manage, and transform children according to the doctrines of 'mental hygiene' – a strategy that emerged in the early twentieth century, linked to eugenics and population control and driven, perhaps unsurprisingly, by the familiar forces and actors that dominated that period. These have already been extensively discussed across the course of this book, but we must now briefly mention them again in the interests of accounting for the continuity of the impact scientism, expertise, and the technocratic impulse has been having on the lives of Americans for over a hundred years.

Theresa Richardson documents, in her fascinating *The Century of the Child: The Mental Hygiene Movement and Social Policy in the United States and Canada* (1989), "the power of industrial philanthropists, such as the Rockefellers, to control social welfare through practices such as mental hygiene" (Petrina, 2006: 505). This clearly, would have been a central component of the broader Rockefeller project, in this case aimed at integrating the child into the expert-driven and technocratic form of social organisation that was preferred by the robber-baron philanthropists. At this time, Sol Cohen suggests,

progressive psychiatrists and leaders of the mental hygiene movement isolated "personality" (as opposed to character, will, or rationality) as the essence of human nature, the human being's most vital element, the most essential aspect of the self, formed largely in childhood.

The core of the interest of these primarily foundation-funded psychiatrists and psychologists lay in the sphere of 'maladjustment': "the mental hygiene
movement 'medicalized' all behavior problems, i.e., redefined all problems in terms of psychological maladjustment" (Cohen, 1990: 333–336). This, in essence, transformed the problem of 'social maladjustment' from a moral failing of the individual into a socialised medical matter.

The emergence of this medico-psychiatric or hygienist 'gaze' (Richardson takes a largely Foucauldian approach here) objectified the child as a unit of primary social concern and helped bring into existence *the century of the child*, that is to say, "the century of the child as problem, the object of an endless solicitous concern and intervention". The goal of organised schooling which, we have seen, the Rockefeller Foundation helped to get off the ground as a system, "was . . . to adjust children's behavior and personality. . .. The teacher's primary goal in the classroom was not to impart formal knowledge but to impart life skills, personal adjustment and identify aberrant tendencies" (Richardson, 1989: 89–90).

Richardson dates the beginning of this process to 1908. It set a tone and pattern that was to be long-lasting where public education was concerned. At this time, the psychiatric conception of childhood and education was, as Kathleen W. Jones explains in *Taming the Troublesome Child* (1999), coming out of the university-based social scientific enterprise to provide both information and methods for the technocratic reshaping of persons and social processes – practically, as we have previously seen, by order of the big foundations:

In academic departments and child welfare stations, early twentieth century researchers measured children against one another to find the range of physical and mental attributes of the "normal" child. . . . Those engaged in the study of "normal" childhood believed they were. replacing folk wisdom with scientifically verifiable truths about children.

(Jones, 1999: 4)

Also, Jones notes that the Rockefeller Foundation was probably the best-known organisation funding research into childhood delinquency in the 1920s and that its offshoot, the Laura Spelman Rockefeller Memorial (LSRM), funded medical research and social welfare projects that included those focused on "social hygiene, child development, and parent education" (Jones: 58–59).

The surveillance, mind cleansing, personality shaping, and attempted standardisation of childhood through the public education system are established therapeutic practices with a pedigree going back over a hundred years (Gatto, 1992, 2001). The 'therapeutic turn' in education that began in the late 1980s should be placed in this context and linked to both 1908 and 2023. Before we consider the current iteration of this process – Social Emotional Learning – we must return to the 'self-esteem' movement to understand the extent to which the schools-as-therapeutic-institutions project has expanded since the 1990s and prepared the grounds for the extraordinary – and extremely harmful as far as the children and young people involved are concerned – state of affairs we are now experiencing. John Steadman Rice, in his insightful discussion of the origins and character of the "therapeutic school" (2004), makes clear the consequences of the social transformations flowing from the Abraham Maslow/Carl Rogers world view. He calls the therapeutic ethic at the centre of this world view 'liberation psychotherapy', arguing that this contains four core assumptions: first, that *human nature is intrinsically benevolent, positive, and constructive* – "an adamant rejection of the premise that humans are by nature self-seeking, aggressive, and potentially destructive creatures" (2004: 113); second is the view that *cultural and societal repression of the self is the cause of virtually all forms of psychological sickness* – humans are essentially benevolent, or would be, if the world would only let them (114); the third assumption is that *the psychological sickness born of repressions is, in the aggregate, the cause of a wide variety of public problems* –

the standard psychologistic conceit that the entity we call society is really no more than the sum total of individual action and interaction – a collection of individuals whose ties to one another begin and end with the enlightened pursuit of self-interest (115).

and fourth, *people must be set free from cultural and societal repression* – "by negating the repressive, standardizing demands imposed upon them by conventional culture and society, individuals can gradually cultivate innate potentials heretofore lost in the process of socialization" (116). All four of these assumptions of "liberation psychotherapy" had been "wholeheartedly embraced and adopted by educationists" (117) and were worked more or less systematically into schooling in the post-Vasconcellos era (though Rice does not mention the latter's name). This brings us to the character and consequences of the 'therapeutic school'.

First of all, this new kind of openly acknowledged therapeutic social institution needed to impose a root-and-branch redefinition of education, teaching, and the teacher's role: "Since the devotees of liberation therapy see the imposition of external standards upon the individual as repressive, and the cause of psychological sickness, education must be understood as a means to ensuring each student's positive self-image" (Rice, 2004: 117). Further to this, and consistently with the therapeutic ethic, educationalists' belief was that schools will, unless structured to do otherwise, hold all students to a set of standardised expectations and thereby it is "likely that some students' self-images will take a beating" (119). The way around this, Rice contends, was for self-esteem-minded educationalists and teachers to focus on self-actualisation, as per Maslow's definition. The following quote, the reader will observe, is pre-California Task Force:

The goals which those interested in humanistic education are proposing for the schools . . . are aspects of what [Carl] Rogers calls the fully functioning person, a person who is open to and aware of his feelings, who is able to relate to others, and who is developing and utilizing his potentials. Other terms referring to the same concept are self-realization, self-enhancement, and self-actualization. The last, *self-actualization*, *is becoming generally* accepted . . . [a]s the primary goal of humanistic education. (Patterson 1977 in Pice 2004: 119 emphasis added by the latter)

(Patterson, 1977, in Rice, 2004: 119, emphasis added by the latter)

In the minds of progressive educationalists, it is clear, the 'primary goal' of education began to shift thereafter, with American children – especially those in the public schools and having parents who lack the economic resources to buy their way out of the system and into more reasonable situations, where they still exist – becoming cast, by default, as research subjects in an immense and decades-long experiment in psychological and emotional recalibration. But what have been some of the most notable effects on children of the imposition of the liberation psychotherapy regime?

### The Rise of Utopian Therapeutics in Education

Here we must place education into the broader context of the 'triumph of the therapeutic' so famously identified by Philip Rieff (1966) and discussed by Christopher Lasch (1979) and many others. Broadly put – for there is a long and involved set of positions made by these two in particular and the legions of others who have responded to them – Rieff presented an argument about a post-Christian shift, in the West, away from the religious and towards the psychoanalytical account of the human being as a civilisational default narrative. In *The Triumph of the Therapeutic: Uses of Faith After Freud*, Rieff sets out his argument in the following manner:

[T]he spiritualizers [of religion], who set the pace of Western cultural life from just before the beginning to a short time after the end of the nineteenth century, have given way now to their logical and historical successors, the psychologizers, inheritors of that dualist tradition which pits human nature against social order.

(Rieff, 1987: 3)

Of this dualism – we are reminded immediately of a range of ideas, from Rand's rejection of the desirability of any form of collective identification to the liberation psychotherapists' contention that practically all psychological sickness is caused by cultural and societal repression – Rieff is highly sceptical, as he is of the therapeutic culture in general. The problem here is the building of a culture not with God – an entity external to the individual person – as the central point of reference but the 'self'. Rieff's much-discussed and controversial but prescient argument, following on from this observation, of how personal, psychological well-being had become the primary purpose of human life in the American context laid the groundwork for multidisciplinary treatments of the self-esteem movement in particular and the rise of liberation psychoanalysis and its offshoots and consequences in general. Rieff's major contribution, then, was to be the first to fully identify the deeper meanings of the rise to predominance – in the official institutional culture and media landscape – of the full human cost of this shift; it amounted to nothing less than an epochal narrowing down of the scope of human experience:

The therapy of all therapies is not to attach oneself exclusively to any particular therapy, so that no illusion may survive of some end beyond an intensely private sense of well-being to be generated in the living of life itself. That a sense of well-being has become the end, rather than a by-product of striving after some superior communal end, announces a fundamental change of focus in the entire cast of our culture – toward a human condition about which there will be nothing further to say in terms of the old style of despair and hope.

(Rieff, 1987: 261)

Christopher Lasch, Rieff's successor in this realm of the sociological analysis of what was argued to be the emergence of a new American personality type, honed in more specifically than his predecessor on "narcissism" - something of a catch-all term, many of his critics argued, given the actual complexity of the concept and variety of ways in which it can be applied (Ronningstam, 2011). Notwithstanding this, his classic The Culture of Therapy American Life in an Age of Diminishing Expectations (1979) became an evergreen classic for a reason: it argued, with sensitive and creative acuity, that aspects of the clinical definition of NPD (Narcissistic Personality Disorder) were no longer markedly distinct from the generic or ideal-type (sociologically speaking) personality type characteristic of the United States of his time (Jean Twenge and Keith Campbell made a similar argument much later, in the 2014 The Narcissism Epidemic: Living in the Age of Entitlement, in which they contended with some force that the situation had worsened since Lasch's time when it came to the incidence of symptoms of NPD among the general public and especially the young). At the level of generalisation, Lasch argued that every era throws up its own form of characteristic psychopathology, which "expresses itself in an exaggerated form, through the underlying structure of the character or personality type of its time" (Fox, 2019: 170).

Lasch's lament was that an older American culture of rugged individualism was being swept away not only by social and economic changes but also by the rise to hegemonic influence of progressive liberalism, of which he was a stern critic at a time when that was not the most fashionable of positions among public intellectuals and cultural influencers. Quite specific changes in American society and culture, he wrote, from bureaucracy, "the proliferation of images, therapeutic ideologies, the rationalization of the inner life, the cult of consumption, and in the last analysis from changes in family life and from changing patterns of socialization" (Lasch, 1979: 32) were causing the demise of the previously obtaining American way of life. Specifically, he was referring to

the culture of competitive individualism, which in its decadence has carried the logic of individualism to the extreme of a war of all against all, [and] the pursuit of happiness to the dead end of a narcissistic preoccupation with the self.

(Lasch, 1979: xv)

Much of the criticism of this eminently justifiable argument came, Christine Rosen suggests, from the fact that Lasch had the temerity to challenge – as he would still more scathingly in *The Revolt of the Elites and the Betrayal of American Democracy* (1996; see especially chapter 8, 'On the Common Schools') – many of the

core assumptions that elites and non-elites blithely accepted as facts at the time: that human beings would continue to devise more sophisticated means of controlling nature and its effects (such as aging) through technology and science, and that these would bring inordinately positive results; that democracies inevitably continue to progress in their development rather than stall or regress; that extremes of individualism and secularism would free people from the supposedly restrictive confines of family, religious, social, and political obligation.

(Rosen, 2005)

The family and the direction it was apparently headed in were in fact the subject of an essay of Lasch's called 'The Waning of Private Life', published two years before The Culture of Narcissism, in 1977. Here he expressed concern about two developing aspects in this, the most fundamental of institutions where the care of the young is concerned: the abdication of parental responsibility for the alwaysdifficult and complex moral socialising of children and the resulting turn to professional experts to fill the gap. Lasch's overall theme in this essay is the decline of the classic bourgeois family model and its rigours and its replacement with a more therapeutically oriented approach which, as he would write in The Culture of Narcissism, "clothes in the jargon of emotional liberation, the parent's helplessness to instruct the child in the ways of the world or to transmit ethical precepts" and teaches children that "all feelings are legitimate" (Lasch, 1979: 167). But this comes, for Lasch, at a very high price: "the collapse or near-collapse of privacy and inner life, the impoverishment of imagination and fantasy . . . and the waning of the capacity for self-discipline and self-regulation". These are hardly the results, Lasch notes, that were

anticipated by a long line of reformers, social critics, socialists, and libertarians, who expected, in fact, precisely the reverse – that the weakening of authoritarianism (as symbolized and perpetuated by the authority of the father) would enable the individual to become more self-reliant and autonomous. In retrospect it appears that criticism of the bourgeois family was in a curious way the bourgeois family's highest product. It came from men and women whose strong commitment to personal independence, autonomy, and the development of the individual's inner resources had been nourished precisely by the patriarchal family, which they nevertheless saw, correctly enough, as an obstacle to the full development of those resources. Only now that the collapse of the bourgeois family has entered what may be its final stage is it possible to see that in spite of its repressiveness and authoritarianism, the old-fashioned family structure occasionally produced something of incalculable value – the capacity for independent thought and judgment – which under ostensibly more permissive and egalitarian regimes, may wither and die.

(Lasch, 1977: 8-9)

Citing, like Rieff, the thought of Freud, Lasch argues that "under normal conditions – or the conditions we assumed were normal until recently – the child overcomes the Oedipus complex by identification with his parents. The wish to get rid of the father is transformed into the wish to supersede him". This is the 'essence' of the Oedipal situation and its resolution. However, the

weakening of the father's authority and of his role in family life makes this identification difficult or impossible. The child no longer wishes to supersede the father; he wishes merely to enjoy life without his interference – without the interference of any authorities at all.

This leads the adolescent, especially, into relational networks and experiences which surpass the family in significance and authority:

Having no inner need to supersede or surpass his father and hence no compelling reason to become an adult (except to get free of the power of other adults), the young man or woman forms strong ties to his peers.

These non-familial groupings, which tend to involve close but non-binding relationships and now – in the post-Lasch era – last well into what previously was understood to be adulthood, often represent a flattened plane of experience in which the trials, tribulations, and complications that were central to the 'traditional' family as a microcosmic social system and set of demanding personal relationships are avoided, in the form of perpetual adolescence, and devoid of many of the deep, personal, self-esteem-building challenges and fulfilments the older arrangements made possible. In the "anti-culture" (Rieff, 2006; and see the final chapter) in which many young people now dwell in the United States, responsibility avoidance and highly individualised forms of self-fulfilment are certainly an option – but one, as Roger Scruton puts it, that comes at the cost of the development of what he, and Lasch, saw as rounded maturity:

The youth culture prides itself on its inclusiveness. That is to say, it removes all barriers to membership – all obstacles in the form of learning, expertise, allusion, doctrine, or moral discipline. For these would be rites

of passage, constituting a tacit admission that to be young is not enough, that the world expects something, and that there is a higher stage of existence to which we all must eventually proceed. This very inclusiveness, however, deprives the youth culture of human purpose. It remains locked in the present tense, looking for good causes, spiritual icons, ways of representing itself as legitimate, but without crossing the fatal barrier into responsible adulthood.

(Scruton, 2000)

Lasch's lament for 'legacy' America has been subject to a great deal of scrutiny over the years – and often dismissed as a jeremiad. Some of the criticisms levelled at him are justifiable. But *The Culture of Narcissism* was published in 1979, years before the launching and institutional embedding of the self-esteem project, and so it is only fair to set his worries in the context of the explosion of self-centredness, outright narcissism, mental distress, and social disaggregation that have come to the fore in the lives of young people in the United States in more recent years (Twenge and Campbell, 2014; Twenge, 2014, 2017; Twenge et al., 2018; Julian, 2020; Thompson, 2022), including the ordeals of the life online that were just beginning to percolate beneath the surface in embryonic form when Lasch died in 1994.

Having said that, James Nolan Jr had already noted with great foresight in 1990 the extent to which the therapeutic ethos had become a significant macro-level phenomenon in the American system, this ethos having made dramatic inroads into the state itself not only in education but also in civil case law, welfare provision, the criminal justice system, and the very rhetoric of national political life among *both* cultural progressives and cultural conservatives (Nolan, 1998).

In this context Nolan drew attention, among many other things, to the nearexponential explosion of people entering the profession of 'therapist' in the 1990s – a direct consequence, Kathryn Ecclestone explains (Ecclestone, 2004: 119), of the

use of therapeutic techniques in areas of life that were once seen as private or dealt with informally by communities, workplaces and families . . . an intensifying preoccupation with the self in American culture, law and politics led to the erosion through the 1980s and 1990s of the repressed or adaptive self of Freudian psychology by the Rogerian notion of the "liberated self".

As Nolan pointed out:

There are more therapists than librarians, firefighters or mail carriers in the United States and twice as many therapists as dentists or pharmacists. Only police and lawyers outnumber counsellors but only by a ratio of less than two to one in both instances.

(Nolan, 1998: 8)

This was in 1998. Since that time, it has become increasingly apparent that govemments not only in the United States but also in many of the Western democracies are tending to focus on elements of the hitherto 'private' spheres such as emotions, relationships, and the subjective well-being of citizens. Sociologists such as Richard Sennett (2003) and Frank Furedi (2004) have linked this to a crisis of legitimacy and the collapse of trust in political institutions and parties. Politicians and governments, in this argument, began to 'reach out' emotionally to electorates in the absence of a healthy civic domain or compelling political programme.

The impetus for this came, unusually, from social-theoretical approaches, specifically those pertaining to arguments about 'late modernity' and the shifting nature of social agency and personal identity. A key sociologist here was Anthony Giddens who, along with his colleagues Ulrich Beck and Scott Lash, promoted the concept of 'late modernity' as an alternative 'postmodernity'. 'Late modernity' describes the contemporary condition as continuous with modernity and therefore a part of it; but with the old certainties and institutions of early modernity weakened, individuals find themselves both more powerless and anxious in the face of risk (Beck, 1992) and, necessarily, involved in a self-directed process of identity development and maintenance, aimed at achieving psychological equilibrium in fragmented and potentially destabilising social environments.

These forces troubling 'late modern' people are best handled, Giddens contends, through the development of 'reflexive self-awareness', a conception of creative agency derived from the therapeutic context, which provides a

rich fund of theoretical and conceptual resources for the creation of a reflexively ordered narrative of self. In a therapeutic situation, whether of the classical psychoanalytical type or not, individuals are able (in principle) to bring their past into line with the exigencies of the present, consolidating a storyline with which they feel relatively content.

(Giddens, 1995: 31)

New, 'progressive' forms of democracy could be based, it was argued on this basis, on the cultivation of an essentially therapeutic form of self-awareness among the public. It was but a small step from the successful extrapolation of these ideas from the therapeutic sphere into social policy, most obviously their bastardised transposition into the popular catch-all notion of 'emotional literacy'.

For Furedi (2003), this shift in governmental focus towards the self and the emotions led to an amplification of late modern trends in which 'fear entrepreneurs', politicians among them, tend to promote the idea of personal vulnerability rather than resourcefulness, based on the notion of the 'diminished self'. This increasingly common view "regards most forms of human experience as the source of emotional distress . . . [where people] characteristically suffer from 'an emotional deficit' and possess a permanent consciousness of vulnerability" (Furedi, 2003: 414). In this context,

The term "vulnerable group" does not simply refer to groups of psychologically distraught people or to those minorities who are economically insecure. Instead, we are all seen as being vulnerable in one way or another. Children, most strikingly, are automatically assumed to be vulnerable . . . and it isn't just children who are defined as vulnerable en masse. So are women, the elderly, ethnic minorities, disabled people, the poor.

(Furedi, 2003)

The redefinition of personal difficulty as a kind of pathological condition requiring professional management was one of the main drivers of the explosion of counselling and related services over the last three or four decades, in which battalions of experts have emerged to offer support and guidance in relation to just about every vicissitude of late modern life. These developments are significant for two main reasons. First, the 'need' for them is used by the managerial state to justify increasing levels of intervention in the personal and domestic lives of citizens (see final chapter); and second, they have exacerbated the subjective experience of powerlessness and make it more rather than less likely that individuals and communities will respond to the increasingly complex demands of late modern, globalised life in ways that express fearfulness, anxiety, and vulnerability.

These feelings of vulnerability and anxiety-provoking self-absorption, it is now clear, are to a large extent being built from the ground up within children as they enter the social institutions, are socialised as 'people of the screen' and, in many cases, are influenced by 'emotional intelligence' and 'self-esteem' narratives and practices within their families. The latter, as elements of a more generalised therapeutic ethos, penetrate families as well as institutions because it now has the power and persuasive force to "influence and arguably dominate the public's system of meaning [and to have] emerged as a serious cultural force" (Furedi, 2004: 17); it has become nothing less than a generalised *cultural script*: the therapeutic ethos

offers a new sensibility, a form of cultural script, a set of explanations and underlying assumptions about appropriate feelings and responses to events, and a set of associated practices and rituals through which people make sense of themselves and others.

(Ecclestone and Hayes, 2008: x)

Little wonder, then, that in a civilisational context which, as Rieff put it, marks a "sharp and probably irreparable break in the continuity of Western culture" (1987: 261), more and more children became, from the 1980s on, subjected to the kind of therapeutic handling that only a small, genuinely troubled minority actually

required. It seems highly likely, if Eva Illouz is correct, that these experiments on and interventions among school children have done much more harm than good:

There is a poignant irony in the therapeutic discourse. The more the causes for suffering are situated in the self, the more the self is understood in terms of its predicaments, and the more "real" diseases of the self will be produced. Because the therapeutic narrative discusses, labels and explains predicaments of the self, the self is in turn invited to conceive of itself as ridden with emotional and psychological problems. Far from actually helping manage the contradictions and predicaments of modern identity, the psychological discourse may only deepen them.

(Illouz, 2008: 246)

This alarming tendency has been much discussed in recent years, of course, in the context of the emergence of the 'trigger warning', the 'safe space', and the increasing censorship practices (e.g. in the form of 'deplatforming' of speakers) in college and university campuses across the United States and beyond that seemed to achieve lift-off sometime around 2015. Lukianoff and Haidt, in particular, took centre stage in the discussion of what all of this meant in *The Coddling of the American Mind* (2018), in which the circulation among and impact on young people of three 'great untruths' is argued to have impeded the formation (particularly among a wide swath of Generation Z) of the mature, level-headed, and characterful citizenship once thought to be indispensable to the stable functioning of American democracy. These untruths, it is argued, have promoted a default condition of emotional fragility (*what doesn't kill you makes you weaker*), the use of emotion over reason (*always trust your feelings*), and the tendency to see the world in terms of unnuanced, polarised absolutes (*life is a battle between good and evil people*) (Lukianoff and Haidt, 2018: 14).

The circulation of these fallacies in particular and abuse of therapeutic techniques in the socialisation of children in general are based on an ideal type of the feel-good personality that elides the difficult aspects of being a person - the emotionally complex social situations, the obstacles to be overcome and ordeals to be survived, the socially unpleasant others that must be negotiated with, and above all the experience of suffering - that until recently were seen as the raw material of the achieved mature personality. The fantasy that actual, embodied life could ever be as 'frictionless' as being near-automatically nudged across one digital screen or another has had calamitous effects on substantial sections of two generations in their formative years. Any attempt to mitigate this disaster would need, as a bare minimum, to deemphasise the therapeutic angle and reacquaint children with (a) classroom and real-world activities through which self-esteem can be gradually earned and built on the basis of often-demanding engagement and application and (b) the removal of the trigger-warning culture and its replacement with sensitively handled and ageappropriate materials in which the presentation and discussion of actual, immemorial human challenges and the resolution of them takes centre stage.

This means that certain subjects ought no longer to be avoided or waved away in a gesture of wishful feel-good thinking. A potentially fruitful way into this endeavour – for both educators and those under their charge – would be to engage with serious material that presents humans as facing inevitable limitations, questions the utopian impulse and the notion of human perfectibility with reference to historical examples, and deals squarely with the real significance of suffering, disappointment, and pessimism as authentic, necessary, and potentially fruitful experiences.

For example James Davies's *The Importance of Suffering: the Value and Meaning of Emotional Discontent* (2011) offers a consideration of emotional suffering as an integral and unavoidable aspect of what it means to be human and to develop and thrive as such. Moving away from the standard conception of emotional pain as being simply a mental health 'issue' requiring treatment via psychiatry, cognitive therapy, or pharmaceuticals, Davies discusses the ways in emotional distress and discontent can be engaged with to reveal their productive value as both a call to change and a process that can be worked through to the sufferer's developmental advantage. Unfortunately, Davies observes in this regard,

there is a shortage of "productive" suffering in contemporary life, and a surplus of "unproductive" suffering. This is due to two factors: first, the ascendancy since the early 1980s of the negative vision of suffering (which has taught people that all suffering is harmful and therefore best avoided), and second, the rise of anaesthetic regimes, which, by capitalising upon this negative vision, have claimed to offer easy solutions for problems that do not lend themselves to quick and superficial treatments.

(Davies, 2012: 91; see also Burton, 2009: 117; Ehrenreich, 2010)

Further progress might be made – where, say, the cultivation of pessimism as an honourable, dignified, and psychologically healthy stance in the world is concerned – through the study of wise and measured thinkers like Roger Scruton. His *The Uses of Pessimism and the Dangers of False Hope* (Scruton, 2012) might make a bracing and welcome antidote to the pie-in-the-sky utopianism and groundless wishful thinking with which young people are these days inundated. A couple of brief examples from this book will make the point: Scruton's discussion of the 'Born Free' and 'Utopian' fallacies. The first of these is particularly well suited to application in the educational context, given that John Dewey and the other early founders of 'progressive' schooling were, essentially, Rousseauand Wordsworth-inspired Romantics who saw children as oracles who already contained within themselves all or most of what they needed in terms of their development from the outset, their innate instincts and inclinations to be drawn out of them by 'naturalistic' teaching methods. The Rousseau influence was strong here, as we will see after we have considered Scruton's thoughts on these matters.

For him, to subscribe to Rousseau's notions about the natural state of childhood is to be more a hindrance to a successful education and upbringing than a help because many of the highly influential Enlightenment philosophers' arguments contained some highly dubious propositions. Rousseau provided, Scruton writes, "the language, and the avenues of thought, with which to introduce a new conception of human freedom, according to which freedom is what is left when we take all institutions, all restraints, all laws and all hierarchies away" (Scruton, 2012: 42). This perspective was always, as we have already seen, music to the ears of the foundational liberation psychoanalysis and self-esteem cultists. But Scruton moves from this statement to a discussion of Enlightenment-era 'state of nature' thought experiments and the influence of Hegel before suggesting that we are not in fact, as deeply, interdependently social creatures, simply 'born free', because "freedom is something we acquire. And we acquire it through obedience. Only the child who has learned to respect and defer to others can respect himself". Such a child

is one who has internalized the rules, customs and laws that form the boundaries of a shared public world. Egotistic children who ignore those boundaries are at large in the public world, but have no real conception of it as public, as a place shared with others, whose respect and affection are the reward of good behaviour. They are not free in that world, but random, and the obstacles that others put in their path are a source of rage and alienation. Well-brought-up children have adopted as their own the constraints that make freedom possible. And this freedom is inseparable from the sense of the public validity and respect-worthiness of their own aims and projects.

(Scruton, 2012: 50–51)

It is unfettered freedom and self-will, in fact, that lead us back to Thomas Hobbes's state of nature, and the socialisation of the child into a world of shared norms and embodied interconnections that can help keep us out of it. The contention that a liberation from all previous social conventions, norms, and structures would lead to a freer world in which humans could better thrive is a fallacy. And a dangerous one at that – utopian optimists' ability to "believe the impossible in the face of adverse evidence" (2012: 43) must never be underestimated – bearing in mind the fact that the born-free fallacy "has dominated educational thinking throughout the twentieth century" (2012: 62).

Scruton's discussion of the 'utopian fallacy' proceeds from an attempt to understand the previous one, drawing on the work of Hungarian philosopher Aurel Kolnai's notion of the 'utopian mind'. Kolnai's argument, in *The Utopian Mind and Other Papers* (1995), is summarised by Scruton as follows: though not all of his arguments are necessarily persuasive, Kolnai is absolutely right about one thing, and that is that true utopians are not distinguished from humanity as a whole by the holding of a few particular beliefs that the rest of us do not share but by the fact that they *see the world differently* and are able to

ignore or despise the findings of experience and common sense, and to place at the centre of every deliberation a project whose absurdity they regard not as a defect but as a reproach against the one who would point it out. This frame of mind, Scruton continues, "has for two centuries played a leading role in European politics and none of the disasters that have stemmed from it has the slightest weight in deterring its new recruits" (2012: 63–64).

The utopian imagination makes a radical claim about the human condition – let us say that all of the potential psychological and emotional problems that beset the twenty-first-century American child stem from pathological social structures or 'power' – and uses, as Scruton puts it,

that claim to destabilize the forms and conventions of our existing way of life. By identifying the essence of humanity with freedom, and freedom with a prelapsarian bliss, it urges people to destroy the "structures" that stand in the way of a recovered innocence. It therefore has the same totalitarian tendency as the egalitarian doctrines of the Marxists.

(2012:70)

Arguments against the propositions and actions of utopian-minded educationalists and liberation psychologists tend, therefore, to fall on deaf ears where they themselves are concerned. The evidence against the damage done to sound education by its reshaping as a set of therapeutic interventions and a form of noholds-barred social prophylaxis is a case in point. With the recent emergence of Social Emotional Learning (SEL) as a new front in the American culture war around education, the psychologically corrosive and socially destructive impact of militant and irrational educational utopianism has become more of an issue than ever before. But now this comes with a new twist: SEL, as we will soon see, both surpasses the older style of self-esteem education in terms of its radical political goals, and – and this is the crucial point to understand – is already being deeply integrated into the technocratic, ed-tech-based machine system that is coming to dominate this sector and replace what the majority of parents think, or thought, 'education' was. A discussion of the characteristics and consequences of the new educational technocracy will form the basis of the next chapter; therein we will also return briefly to historical mode, to examine the way in which militarycorporate advances in the development of human-machine systems and the management of the American population began to plant themselves squarely in classrooms at around the same time self-esteem fraud was being launched in them.

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## Chapter 7

# The Classroom Laboratory #2

The Child-Machine Interface, Social Emotional Learning, and the Data-Mined Pupil as a 'Standing Reserve'

# Integrated 'Human-Machine' Systems Arrive in the Classroom

We return now to the pioneering work of Douglas Noble, as referred to earlier in connection with the 'militarisation' of human cognition and the effects of this on education, as people began to play second fiddle in military 'man-machine' system interfaces. Noble's argument is a profound one, pointing not only to a transference of the requirements of military research and technology into educational structures but also to a broader reconfiguration of the social system as a whole. Noble takes Daniel Bell's adoption of the thinking of RAND's Herman Kahn – "military technology has supplanted the 'mode of production', in Marx's use of the term, as a major determinant of social structure' (Bell, 1973: 356) – and pushes it as far as he can in the educational context.

At the most fundamental level, Noble was interested in making a contribution to our understanding of the ways in which "military research contributes to changing definitions of the role of human beings in an advanced information economy" (Noble, 1995: 188). These changing definitions are clearly visible, according to the logic of Noble's argument, in the changing practices, under the pressure of the determining force set in motion by the military need for increasingly effective, predictive, and infallibly automated technologies, the requirements of civilian education, and the development of a culture of corporate human resources management alike. The original desire to integrate and better control human instructors in military training programmes drove the development of technological systems and practices that have, or will, "contribute to the ultimate dispensability of human beings altogether in military operations and decision making" (1995: 188). This techno-social trend, redolent as it is of Ellul's prediction of an increasingly autonomous technostructure, was adopted largely unknowingly, as a set of givens, by educators and education systems from the 1980s on.

Noble argues that a sea change is detectable in American elementary and secondary education in the 1980s, focused on the image of the computer in the classroom but with ramifications far beyond it. This, of course, was the decade in which the producers of the new personal computers, led by Apple, went on a charm offensive designed to redefine computers and computing as democratic, empowering, and exciting:

Apple Computer released its "1984" ad for the Macintosh. Directed by Ridley Scott, who had just wowed audiences with the dystopian hit Blade Runner, and aired during the Super Bowl, Apple's message could not have been more clear: forget what you know about IBM or corporate mainframes or military computer systems. With Apple at the helm, personal computers are the opposite of what they used to be: they are not about domination and control but about individual rebellion and empowerment.

(Levine, 2019: 188)

Such was the mid-1980s zeitgeist, or at least the attempt to shape it, and on the whole those responsible for setting education policy bought into it. But for Noble, the sexy, captivating new box on the desktop was in a sense only the tip of a very large and powerful iceberg. The real story here concerns the dissemination and widespread acceptance of some of the central paradigms of the long-term military research into computer-based education (CBE) and their sedimentation into "the foundation of a rigorous new science and technology of education" (Noble, 1995: 169). Four such paradigms are identified by Noble.

The first was a new emphasis on problem-solving, decision-making, and higher-order thinking skills, in general, as cognitive prerequisites for participation in the information economy; the second was the emergence of the idea of a new 'knowledge base' for education, coming out of the then-emerging preoccupation with 'human factors' research, which is to say research into learning itself; the third was the development of new instructional methods involving the 'cognitive engineering' of the 'human processing system'; and the fourth, Noble mentions the emergence of the now-endemic use of public education as a laboratory and arena of legitimation for research in cognitive science, CBE, and AI machine learning (of which more later) (Noble, 1995: 169).

This is how age of the computer-tethered, perpetually data-mined schoolchild was born. But this was not all; children's experience of education and technology as a form of grist to the mill or 'standing reserve' for utilisation in top-down, society-transforming research programmes must be understood more broadly – and deeply. Let us take Noble's discussion of his already-mentioned educational paradigms for 'human engineering in the information society' in turn.

Problem-solving and thinking skills: a new paradigm for education. Noble notes that, while the emphasis on teaching pupils and students problem-solving and critical thinking skills was nothing new in the 1980s, the specific instrumentalization of these abilities was; the emphasis from this time on would be on inculcating in young people the ability to process and interpret information quickly and effectively – a the key competence in the engagement with the information society and the increasingly complex and sophisticated information technology

infrastructure. Problem-solving, in this context, is distinguished for Noble by its becoming an end in itself: "Socrates, it will be recalled, exhorted pupils to 'know thyself', not to 'solve thy problems'; yet solving problems is becoming a goal, if not the goal, of education, rather than a means to some greater end" (Noble, 1995: 172). The widespread inculcation of successive generations of school children since that time of highly instrumental patterns of thought – at least where it has been successful – is arguably a vital building block of the instrumentarian social and economic technostructure of which Zuboff writes. The parts must service the whole. This shift in educational priorities in the period under discussion can be seen, then, as stemming from anything but a desire to support in children the truly holistic development of themselves as persons; the emphasis was on a logic of "fit" to the requirements of an increasingly corporate-technocratic mode of education. The promotion of higher order intellectual functioning at this level demonstrates the way in which, "perhaps",

educators have unwittingly adopted the framework of a larger military/scientific enterprise that only appears to be an agenda for public education because the language – intelligence, learning, thinking and problem-solving – is the same. This latest educational impulse is, according to this perspective, a derivative venture. It is both a "spin-off" and a corollary to a much deeper and more pervasive enterprise fuelled by military research and mirrored in corporate practice. This is the enterprise to harness intelligence, both human and machine, for use within complex military and corporate technological systems.

(Noble, 1995: 171)

Achieving a better understanding of how people reason is motivated in this model – in which schools have become laboratories and the mental lives of pupils a form of raw material for the extractive needs of the Big Data concerns – is essential, then, to the rolling development and continuing growth of the system itself. It was the desire to fulfil the technical promise of the expanding technologies rather than reflecting "any new-found appreciation for the developed potential of enlightened empowered human beings" (Noble, 1995: 171) that was the motor of this machine-led transformation of education. If we look now at another of Noble's 'paradigms' of the early years of the new technoeducation, these consequences for children and young people come into clearer focus still, for they concern the reductive move of treating them like machines themselves, through attempts at 'cognitive engineering' and 'redesigning the minds' of learners.

Back in the 1950s, RAND consultant Herbert A. Simon began to promulgate, along with other cyberneticists, the claim that the human mind was basically a logic machine (see Chapter 5 for a discussion of this kind of proposition). On the basis of his analysis of decision-making processes among employees of industrial organisations, he argued that the mind worked in terms of mechanical operations which "took some premises and ground them up and processed them into conclusions" (Simon in Noble: 42) – this, as we have seen, fed into the emergence of the widespread idea that human cognition amounted to not much more than information processing.

The concerted military application of this line of reasoning, of the understanding of the role people could best play in human-machine information systems according to the functioning of the 'human factor', changed the course of the twentieth century. The normalisation of the technological instrumentalisation of humans was at hand; as Paul Edwards notes, "cybernetic psychology began as an effort to theorize humans as component parts of weapons systems . . . Cognitive science may be read both metaphorically and literally as a theory of technological worker-soldiers" (Edwards, 1985: 12). This embedding of cognitive science at the heart of the military-corporate structure began to assume world-historical significance; as a new discipline, it was

connected much more directly to computerization than is widely understood. Put most clearly: in the 1950s both the military and U.S. industry explicitly advocated a messianic understanding of computing, in which computation was the underlying matter of everything in the social world, and could therefore be brought under state- capitalist- military control – centralized, hierarchical control. The intellectuals who saw the promise of computational views did not understand that they were tapping into a vibrant cultural current, an ideological pathway that had at its end something we have never seen: computers that really could speak, write, and think like human beings, and therefore would provide governmental- commercial-military access to these operations for surveillance and control.

(Golumbia, 2009: 60)

Three key elements and one central argument are worth reiterating here. The elements are the coming together of a hankering after maximal technological surveillance and control of human actors on the basis of their cognitive–behavioural integration, as information-processing components, of 'man-machine' systems. The argument that encompasses these elements is that it was the direct intentions and industrial spin-offs of military research that shaped and directed the formation of the human–technical system now responsible for the socialisation of children and young people. We will consider these points in the context of technocratic education in due course. But first of all, and to extend Zuboff's survey of the destructive consequences for the young of the rise and normalisation of instrumentarian power and practice, we must consider the most fundamental suggestion of all: that there is something inherently reductive – and destructive – in treating whole persons as cognitive cogs in machine systems, especially among the young and especially in the broader context of non-stop, ubiquitous computing.

In fact, and as we saw in Chapter 5, despite the intensive cognitive science and AI-related research of recent decades, the ongoing popularity of the brainmachine metaphor in popular science and culture conceals just how far its advocates remain from making their case convincingly. While the social physicists and controllers of Big Data may want to see us, or want us to be made into, directly programmable machines, it is still the case that, as John Searle wrote over 30 years ago, "as far as its intrinsic operations are concerned, the brain does no information processing. It is a specific biological organ and its specific neurobiological processes cause specific forms of intentionality [we call] consciousness" (Searle, 1990, in Broudy, 2021). Nor, as Daniel Broudy notes, has serious recent research in the field done much to advance the humans-as-information-processors cause: Victoria Alexander and her colleagues, for example, are currently arguing that "theorists working on the issue of intentionality are even more convinced that the brain is not like a computer at all" (in Broudy, 2021, and see Alexander, 2019).

Though the human as information processor metaphor did not, strictly speaking, come from within cognitive science itself (though the more extended mindbrain metaphor did), the potential command-control and financial benefits of the fully programmable human remain compelling for the interests involved. Those interests are intent on extending their powers of reach into the individual beyond those discussed in Chapter 1 in the context of Pentland's Big Data super-nudges and Zuboff's concerns about the automation of the behaviours of the individual at the digital screen interface. Thus, the billions of dollars pouring into the attempt to reduce humans to not much more than automated elements in the man-machine technostructure continue to flow. And – there should be no surprises here – those who would shape society and the people that comprise it into their preferred forms include the likes of the Rockefellers and those who have developed and fine-tuned the plutocratic-philanthropic playbook now going into its second century of use. To take the most obvious example, consider the activities and stated ambitions of the best known of the contemporary crop of would-be visionary world improvers:

When Bill Gates observed in his book The Road Ahead that "human DNA is like a computer program but far, far more advanced than any software we've ever created" it seems he wasn't speaking in strictly figurative terms. For the world's most powerful software developer, he evidently saw in the early 1990s, at least, the untold economic potential in (re)programming the greatest "machines" ever created – human beings. His foundation's investments in genetic engineering ventures over the decades testify to the dubious sentiment that biological systems are merely the soft fleshy components of a purely mechanistic world driven by blind chance.

(Broudy, 2021)

We will see in the next section of this chapter just how far Gates and his ilk are prepared to go – and how much they are willing to spend – to turn the sphere of education into the cognitive engineering and data-farming 'laboratories' dreamt

of by the military cyberneticists of the 1950s. If children, like their elders, are programmable information-processing entities, then it makes perfect sense to 'enhance' their abilities through technological interventions that get 'under the skin' to make them more effective – that is to say more cost-effectively productive and useful to the instrumentarian needs of those who are developing machine learning systems and the technostructure as a whole.

### Personalised Profiles and Pathways: Pandemic-Enhanced Distance Learning as Cybernetic Conditioning

John Klyczek (2019) sets out, in his timely and important work on recent and impending innovations in education technology, the details of the expanding scope and ambitions of the 'corporatist ed-tech revolution' now underway – the inner workings of which still remain obscure to the majority of people even while it is being rolled-out. His analysis and predictions make for troubling reading for those concerned not only about the future of education but of childhood itself.

For Klyczek, a cluster of four developing strands lies at the heart of the 'corporatist ed-tech model': the rise and expansion of networks of corporate charter schools in the United States; the expanding deployment of 'cognitive-behavioural adaptive-learning software', which has its roots in Skinnerian operant conditioning; 'transhumanist precision education', already beginning to promote a new era of disguised eugenics via gene modification; and, at the farthest and most problematic reaches of this possible scenario, what he calls 'posthuman AI ed-tech'.

The first of these, the corporate charter school explosion, breaks down the local, community-based and democratic control of schooling policy by replacing elected school boards with executive business councils. These put in place workforce-training curricula that psychologically condition pupils for the specific career pathways and the quotas attached to them by public–private planning entities. This in itself, of course, is nothing new. However, in Klyczek's view the further downgrading of the old public education ethos and the integration of schooling into the deep structures of surveillance capitalism – though he does not use the term – via the endless data mining of pupils' cognitive processes and behaviours which, as we will see later, are characteristic of the situation as it stands.

Second, the refinement and expanding use of cognitive-behavioural adaptive learning software may lead not only to a reinforcement of the tightening system of workforce preparation mentioned earlier but also be used to induce the passive acceptance of the norms, behaviours, and social roles preferred by an increasingly technocratic system. The deliberate constraint of the individual student's free will and open creativity, Klyczek contends, will place them in a position not dissimilar to that of the laboratory pigeons and rats that preceded them in Skinner's operant-conditioning experiments (Klyczek, 2019: 401-404), that is, into learning passively, via the stimulus-response method, through tablets and computers rather than the cranked levers of the old 'Skinner box' learning machines,

some of which dispensed chocolate treats to pupils who responded to questions correctly (see examples in Skinner, 1968). Though parents are often happy to pay for what is marketed to them as effective individualised learning and tuition via the delivery of personalised modular programmes, the effects of this stimulusand-near-automatic-response tramlining of the educational process will, Klyczek argues, tend to make children passive and un-reflexive by depriving them of time to develop their curiosity or reflect on the material with which they are presented.

Third, more fully developed 'transhumanist precision education' may further undermine free will and agency by overriding, or perhaps at least partially overwriting, the conscious awareness of the individual. Human-computer interfaces that hack into the student's neuro-electrical biopsychological system so as to "robotically control the student's biocomputer system much like a cyborg-drone, technocratically programmed into an internet-of-everything planned economy" (Klyczek, 307) may seem a little far-fetched for some readers but consider some of the educational technologies now either in use or currently being trialled, from galvanic skin response bracelets for gauging students' psycho-socioemotional engagement with lessons and course work, part-funded by the Bill and Melinda Gates Foundation (Klyczek, 2019: 215), to headsets designed to capture and analyse brainwave data, also of course for the measurement of 'engagement' (Johnson, 2017; Staufenberg, 2019), to the 'precision' education of which Klyczek writes (2019: 213) - a field, were it to mature sufficiently, that might eventually make it possible to 'personalize' education and offer tailor-made programmes based on a student's DNA profile and the predictive assessment of their likely levels of attainment and competence in various areas. Thus would, or will, the educational brain-computer interface begin to realise Julian Huxley's dream of getting human consciousness into his "new bottles" (Huxley, 1957) by way of cognitive super-enhancement.

The fourth of Klyczek's strands, fully 'posthuman AI ed-tech', would see the need for student learning itself consigned to the wastebin of history – at least, perhaps, for the elite level of a technocratic social order – as AI outstrips and surpasses human cognition, and the individual consciousness is subsumed into the mind of the hive once and for all via brain–computer interfaces or, beyond that, the variety of non-surgically invasive and 'remote' possibilities now being worked on by DARPA (Broze, 2020; DARPA, 2019; DiEuliis and Giordano, 2016, for a discussion of the role Big Data is playing in the development of such potential 'mind control' military technologies). But that is for later; for now, the first two of Klyczek's four strands are up and running, and the third is well on the way. Pupils/ students, educators, and parents or other carers need to be made aware, now, of the details and likely consequences of this quickly cementing system:

Corporatized charter schools and voucher programs, cognitive-behavioural adaptive-learning software, transhumanist precision-ed biotech and posthuman AI teacher bots all have in common the alluring promise of "personalized" or "individualized" learning. If the privatization of "school choice" through ed-tech would in fact maximise the critical and creative exceptionalities of each student's individual consciousness, there would be perhaps nothing to protest. However, the only aspects of this corporatist ed-tech revolution that are truly individualized are the social-engineering methods used to minimize the unique talents of each student, in order to mold the child into conformity with the mandates of a technocratically planned global economy. (Klyczek, 2019: 307)

Technocratic ideologues – connected as they are to older traditions of eugenicist (i.e. population control) thinking and 'progressive' scientistic triumphalism – are, arguably, presenting to teachers, parents, students, policymakers, and other interested parties visions of our transhuman future as inevitable. The course of technosocial development is leading, they say, to and shaping a future we cannot avoid. The top-down dissemination of both these ideas and the technologies/practices behind them in the instrumentarian technocracy now unfolding is obscured. We march together into a brighter human future populated by digital natives turned tech-integrated (and perhaps genetically enhanced) cyborgs, in which education as we now understand will in any case become obsolete when "neuro-genetic biological systems plugged into human-computer interfaces" merge fully with AI robots (Klyczek, 2019: 243).

# The Data-Mined Pupil and the Enforcement of 'Transformative' Social Emotional Learning

The latter scenario may or may not be in our future; it is a long way from any of the real-world discussions and controversies that have characterised the field of education in recent decades. But it does bring the central question into clear focus: what on earth should twenty-first-century education even consist of? Do we look for answers in the wretched, anti-human narratives being driven forward by the likes of the WEF, DARPA, and Elon Musk? Should we go back to pedagogic basics? Do we need to find a spot that balances proven older methods with emerging technological possibilities? These questions, as the vast mountain of highly disputatious and conflicting educational research indicates, will never come close to being satisfactorily answered in a way that will keep everybody happy. It could be, however, that we already have a good indication of the form of education that can balance individual and societal needs and provide young people with the skills and perspectives they need to thrive as humans rather than being used as political pawns or set up as passive standing reserve for the further development of the ed-tech industry and the broader machine learning project in which it is embedded.

As Douglas Noble argued, and as quoted in the foregoing, the machinefriendly instrumentalisation of problem-solving skills was an integral part of the re-fashioning of educational principles and goals. This overlapped to a significant extent with the parachuting of the therapeutic ethos into school curricula and practices. Both these converging trends tended to call into question or actively undermine what was now coming to be called 'traditional' education, based on its stereotyping as a top-down system of the transmission of facts via rote learning. With the outlines of the information society coming into view, it was widely argued - by both radical educationalists and the producers of classroom-bound technologies - that the necessary, modernising pivot in education should be towards the development of problem-solving skills and efficiency of cognitive processing of information etc. and away from masterfully authoritative teachers standing on a pedestal mechanically filling pupils' heads with outdated or irrelevant 'stuff'. The push here, similarly to the contemporary one identified earlier by Klyczek, was directed more towards workforce training particularly the corporate need for employees who could more effectively be integrated into increasingly computerised informational systems - than it was to the development of the individual learner and their shaping and a citizen familiar, for example, with the narrative history of the United States or the body of general knowledge associated with it.

By the early 1990s, however, this broad approach was seen by many to be producing indifferent, and for some educationalists, lamentable results. One of the most influential and successful – and, it therefore follows, controversial – of these was E.D. Hirsch, called by one writer appalled at the shortcomings of the education his children was receiving at a well-known and prestigious Manhattan school, "the most important education-reformer of the past half century" (Stern, 2013). This claim was substantiated, first, by Hirsch's pulling off of the 'Massachusetts Miracle', in which

Bay State students' soaring test scores broke records, was the direct consequence of the state legislature's passage of the 1993 Education Reform Act, which established knowledge-based standards for all grades and a rigorous testing system linked to the new standards. And those standards, Massachusetts reformers have acknowledged, are Hirsch's legacy.

(Crook, 2009)

Of what, then, did this legacy - and indeed this 'miracle' - consist?

"The landmark Massachusetts Education Reform Act of 1993", write Jamie Gass and Charles Chieppo for the Pioneer Institute, "which was entirely state-led, pushed academic content and high standards over the Bush I and Clinton administrations' agenda of K-12 education as merely workforce development training", was the outcome of the insights and practices developed by Hirsch over the course of his career. The Massachusetts Educational Reform Act of 1993 required, as per Hirsch's insights, the drafting of

liberal arts-rich "curriculum frameworks" to help schools choose curricula by specifying the content students should be able to master. Developed after years of public debate and with input from teachers and experts, the English, writing, math, science, and history frameworks were internationally benchmarked, with an eye toward authentic college readiness.

(Gass and Chieppo, 2019)

The impact of this reform was extraordinary and offered the ideal model for schools nationwide:

Beginning in 1993, Massachusetts' SAT scores rose for 13 consecutive years. The state's scores on the National Assessment of Educational Progress (NAEP) shot up, too. By 2005, Massachusetts students became the first to score best in the nation in all four major NAEP categories (fourth- and eighth-grade reading and math) . . . While American students as a whole lag behind their international peers, the 2007 and 2011 Trends in International Mathematics and Science Study results showed that Massachusetts students were competitive with their counterparts in places like Japan, Korea, and Singapore. . . . In addition to across-the-board improvements, race- and class-based achievement gaps narrowed. E.D. Hirsch found that Massachusetts was one of three states that made the most progress at reducing achievement gaps between 1998 and 2005. Between 2002 and 2009, the NAEP scores of African Americans and Hispanics on both fourth- and eighth-grade reading tests improved more rapidly than those of white students. Low-income students made gains as well.

(Gass and Chieppo, 2019)

Though sadly this level of improvement - in terms of educational excellence and school accountability - has not been sustained in Massachusetts for a variety of reasons including political ones, as Gass and Chieppo go on to explain in their article, and the model was far from adequately taken up nationally, it was an important experiment in providing all the students involved (at least in terms of the social categories to which they were assigned) with an impressive educational uplift in both practical and self-development terms. The key insight on which the programme rested was that young learners need background cultural knowledge to properly access subjects across the curriculum, which Hirsch discovered while trying to figure out the 'literacy gap' he was seeing between the fully literate freshmen he was teaching and those with poor reading and writing skills. As part of his investigations he conducted an experiment on reading comprehension, using two groups of college students. Members of the first group possessed broad background knowledge in subjects like history, geography, civics, the arts, and basic science; members of the second, often from disadvantaged homes, lacked such knowledge. The knowledgeable students, it turned out, could far more easily comprehend and analyse difficult college-level texts (both fiction and nonfiction) than their poorly informed brethren could. Hirsch had discovered "a way to measure the variations in reading skill attributable to variations in the relevant background knowledge of audiences" (Stern, 2009).

This finding, Stern continues, was consistent with Hirsch's past scholarship, in which he had argued that

the author takes for granted that his readers have crucial background knowledge. Hirsch was also convinced that the problem of inadequate background knowledge began in the early grades. Elementary school teachers thus had to be more explicit about imparting such knowledge to students – indeed, this was even more important than teaching the "skills" of reading and writing, Hirsch believed. Hirsch's insight contravened the conventional wisdom in the nation's education schools: that teaching facts was unimportant, and that students instead should learn "how to" skills.

(Stern, 2009)

*Cultural Literacy*, the outcome of Hirsch's deliberations, was published in 1987 and laid the groundwork for the educational reforms with which he has since been associated. Its publication was timely, coming only four years after the *Nation at Risk* (1983) report published by the government, which revealed to the public at large the facts about the mediocrity of the education the majority of school and college students were getting. Stern observes that many parents, including himself, were appalled by what they had learned from the report and confirmed in their belief that something had gone wrong:

I was one of those parents. My children were students at P.S. 87 on Manhattan's Upper West Side, also known as the William Tecumseh Sherman School. Our school enjoyed a reputation as one of the city's education jewels, and parents clamored to get their kids in. But most of the teachers and principals had trained at Columbia University's Teachers College, a bastion of so-called progressive education, and militantly defended the progressive-ed doctrine that facts were pedagogically unimportant. I once asked my younger son and some of his classmates, all top fifth-grade students, whether they knew anything about the historical figure after whom their school was named. Not only were they clueless about the military leader who delivered the final blow that brought down America's slave empire; they hardly knew anything about the Civil War, either. When I complained to the school's principal, he reassured me: "Our kids don't need to learn about the Civil War. What they are learning at P.S. 87 is *how* to learn about the Civil War.

(Stern, 2009)

Hirsch emphasised the Civil War example to make a very important more general point: children who do not acquire specific contextual knowledge in a given field or topic in their early years found it much harder in later grades to understand reading material of any real complexity. This kind of knowledge, it turned out, as if anybody apart from educationalists with a penchant for abstract theoretical intellectualising really had any doubt it, is the key to making sense of succeeding

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levels of information and, crucially, being able to integrate them into a context – that is to say in our contemporary parlance, to be able to *join the dots* within, and indeed across, subjects. To deprive young people of a grounding in the raw material of thought and the self-construction of understanding is to disempower them more surely than any of the social 'causes' of their troubles so loudly proclaimed by ideologically driven teacher-activists. It is also to leave them, in a society moving fast, on our current trajectory, towards a greatly increased level of technocratic control, to deprive them of the potential for genuinely independent 'critical thinking' that can help them negotiate the propaganda, fallacies, and products of the anti-culture (see next chapter) with which their screens are, and minds will otherwise be, awash, as Alex Pentland and the other exponents of online social physics seek to nudge them towards unconscious acceptance of their 'social universals'.

The Social Emotional Learning fad which is now replacing the promise of educating rounded, independent, and self-aware young people with a programme for churning out SDG ESG SEL-spouting slogans in the manner of Chairman Mao's Red Guards is a perfect case in point. Nothing better illustrates the socially destructive and technocracy-compliant nature of this emerging – and fast-consolidating – system as a whole than the recent institutional entrenchment of this latest hijacking of the sphere of education by elite, ideologically driven educationalists more engaged in dreaming about societal transformation than they are with the hands-on, nuts-and-bolts classroom craft of helping to humanely mould the development of young people – a phenomenon that began, perhaps unsurprisingly, with the younger John Dewey and high-minded, collectivist thinkers like him (Hoftstadter, 1963; Furedi, 2009; Gatto, 2010; Green, 2014).

SEL is presented by its proponents – most significantly an entity called CASEL (Collaborative for Academic, Social, and Emotional Learning) – as follows: it is

an integral part of education and human development. SEL is the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions.

Further to this, and beyond the classroom itself, the approach is explicitly one of utopian social reform, as it is asserted that "SEL advances educational equity and excellence through authentic school-family-community partnerships . . . can help address various forms of inequity and empower young people and adults to co-create thriving schools and contribute to safe, healthy, and just communities" (CASEL, Undated).

It is claimed by CASEL and others that the evidence-base for the efficacy of SEL is strong, with evidence demonstrating that an education that promotes SEL yields positive results for students, adults, and school communities in terms of

social and emotional skills; attitudes towards self, school, and civic engagement; social behaviours and problems with conduct; and –this comes last on CASEL's list on its website – academic performance. This broadly favourable research evidence for the positive value of SEL can be reviewed in a number of meta-analyses (for an overview, see Mahoney et al., 2018).

Serious questions have been asked about this research, however. For example Max Eden, research fellow on the House Committee on Appropriations Labor, Health and Human Services, Education, and Related Agencies asks the following (Eden, 2022): How confident should we be that a study really says what it says it says? Does the subject of the study bear close resemblance to the programs it is used to justify? Eden cites a 2017 RAND Corporation review that

identified 68 SEL studies meeting three tiers of evidentiary rigor. No studies within the top tier of evidentiary strength demonstrated benefits to academic achievement. Only one study within the second tier found benefits to academic achievement. Studies categorized within the third, weakest, tier of evidentiary rigor showed benefits across a variety of metrics, and we could debate how much stock to put in them.

All in all, Eden concludes that "the claims that SEL is 'evidence-based' have been vastly oversold".

More significantly still, in the context of what is being discussed here in terms of the politicisation of educational reform in the name of the radical utopian impulse, is the fact that the "entire literature now also faces a major threat to its external validity". This is because CASEL - the most significant and influential actor in the SEL sector fundamentally changed the ideological character of SEL in 2020. Before 2020, SEL was a broadly bipartisan enterprise which had the broad support of the Department of Education, a bipartisan commission, as reported on by the Aspen Institute. "Why, then", Eden asks, "did The Washington Post run an article last month titled: 'In Social Emotional Learning, the Right sees Critical Race Theory?" Eden answers his own question: "in 2020, CASEL infused SEL with CRT-aligned ideology. SEL 1.0, as we could call it, focused on morally neutral student 'competencies', such as 'self-awareness' and 'self-management'". Back in 2019, it struck me as an unsustainable enterprise: a morality-free attempt at moral education. In 2020, those neutral competencies became value-laden with values derived from the left academic ideology popularly known as CRT. CASEL embraced this ideological shift under the name of 'Transformative SEL'. (Eden, 2022). This is how the transformation looked:

In "Transformative SEL", "self-awareness" encompasses "identity", with "identity" defined now through the lens of "intersectionality". "Self-management" encompasses "agency", with "agency" defined through "resistance" and "transformative/justice-oriented" citizenship. "Transformative SEL" also embraces "culturally relevant/responsive" pedagogy. This approach was

pioneered by Gloria Ladson-Billings, the professor who brought Critical Race Theory to K-12 education.

(Eden, 2022)

CASEL, let us be clear, "sits atop the SEL ecosystem" as Eden has it and has now thrown its weight behind a radically subversive political agenda, making SEL as it now stands look very much like an ideological intervention designed to bring children, schools, parents, and the population at large into line with its hyperprogressive - if the latter is still an adequate word to describe what is happening world view. CASEL is now in the money, as the brand leader in what is soon to become a "billion dollar education industry" (Eden, 2022); and a good deal of this money flows its way - the reader is unlikely to be surprised by the information at this point – from funds provided by "the Rockefeller Philanthropy Advisors, the Bill and Melinda Gates Foundation, the Chan Zuckerberg Initiative" and others (Klyczek, 2021a, 2021b). It is for the reader to mull over the extent to which the 'turn' in CASEL's approach may or may not be connected to its attachment to - or co-opting by - the usual global Big Money/social engineering players, especially in light of what we know about the ESG enforcement system when it comes to compliance with the U.N. Sustainable Development Goals, as discussed in Chapter 4, in terms of the 'Diversity' goals.

This possibility makes more sense if we examine the ways in which SEL is increasingly being worked into the fast-expanding ed-tech sector and the structures within which it is nested, especially "if SEL encourages schools to create more robust and sensitive datasets on their students" (Eden, 2022). In fact, there is no 'if' about it: American kindergarten and school children are almost certainly now more subject to continuous in-depth dataveillance than any other subset of the population, and this trend will only intensify as the digital technocracy consolidates. The momentum and unyielding post-human logic of instrumentarian system development makes this inevitable.

Here's how it works: one of the most pressing needs of the workforce, according to the World Economic Forum, is Emotional Intelligence (EQ), which is defined as "the ability to understand, use, and manage your own emotions in positive ways to relieve stress, communicate effectively, empathize with others, overcome challenges and defuse conflict" (Grant, 2017). But how is emotional intelligence to be measured? Through the social and emotional learning scores of future job candidates, collected as data that follows them from preschool through age 20 in statewide longitudinal data systems along with their academic scores (Logan, 2022). Significantly, as Lisa Logan notes that data "is gleaned from SEL assessments built around curricula that's aligned to CASEL's 5-Core competencies" – which, as we have already seen now include radically politicised diversity, inclusion, and 'resistance' criteria; see Sailer (2021), who agrees with Eden that "this iteration of social and emotional learning offers nothing suggested by its name. It undermines neutral education by tacitly endorsing the notion that everything should be political". Thus are schools, educators, and pupils-students alike being brought into conformity, along the social-emotional pipeline, with the spiritually hollow but ideologically charged ersatz religion and metaphysical system ('sustainability'-'diversity'-'inclusion' being its holy trinity) being circulated in a top-down manner and via the Agenda 2030 SDGs and the ESG structure.

But that is not all. The doctrines of the new, 'transformative' version of SEL take learners far beyond wanting to make them feel good about themselves or simply keep their noses clean and comply with the system requirements so as to avoid trouble: now they must become revolutionaries in the cause of saving humanity and the world. This iteration of SEL is being used to

groom students into thinking that the systems of society are intentionally built to be oppressive toward certain groups of people, and that they need to become agents of change who . . . want to overthrow those systems to make them more "equitable".

(Logan, 2022)

through practical classes in techniques and strategies of 'disruptive' activism. Logan identifies the nub of the matter in the following way:

These disruption strategies encourage students to come up with concrete plans to advocate for causes related to race, gender and sexuality. Being that the assessments . . . also align to CASEL's standards, they are measuring compliance to & students' adoption of these Marxist values, attitudes, and beliefs, which will be scored and collected as data that reflects their "emotional intelligence".

(Logan, 2022)

According to the logic of this world view and the institutional structures being locked into it through the ESG structure 'emotional intelligence' is no mere preferred personality trait: it is itself the key to dismantling 'structures of oppression': "6 Seconds, The Emotional Intelligence Network, seems to think that hiring people based on their 'emotional intelligence' is the way to dismantle the systems that contribute to racism" (Logan, 2022; 6 Seconds, undated) The full dystopian potential of this merger of SEL with the corporate enforcement system discussed in Chapter 4 is brought out by Logan with chilling clarity:

What is going to keep anyone who has access to this information in the future from eventually using this social emotional "score", like China's social credit system to eventually red-flag and/or punish individuals for not agreeing with their views on issues like Climate Change, Gender Fluidity, or White Privilege? Will children's social emotional or EQ score be able to disqualify them from colleges, or jobs, or a loan if they don't meet their standard of "inclusivity"?

(Logan, 2022 – and see Harvard Graduate School of Education, 2022)

This begs a question that needs to be asked by anyone with an attachment to the freedoms of expression and conscience for which the United States once stood and which, as technocracy – in combination with what looks very much like a new iteration of Marxism – seeks to eclipse democracy, stand threatened. The Marxist ethos becomes perfectly clear if we look at the educational theory and political ideology behind transformative SEL – or "Social Emotional Learning for Social Emotional Justice (SEL-SEJ)" as some of its practitioners are starting to call it in a variant of the familiar buzz-phrase salad (Strong and McMain, 2020).

It is interesting to note that these radical educationalists are in full accord with the WEF and other elite globalist entities when it comes to the opportunities 'arising' out of the pandemic to reimagine and reconstruct society wholesale. It must also be understood that this "Marxification of Education" (Lindsay, 2022) embedded in SEL is no marginal thing in the education sector in the United States – a 2016 London School of Economics survey of the Google scholar citation metrics found Paolo Freire, the Brazilian educator and philosopher who saw what he called "critical pedagogy" as key to a radical reconstruction of the psychology of the individual learner, and therefore society, along Marxist lines, to be the third most cited social scientist in the database, and the most cited in theorist of education by a very large margin (Green, 2016). There is no question that his Pedagogy of the Oppressed (1995 [1970]) is the key text underpinning the extreme-left turn that education-based activism has taken, and it is hard to avoid the conclusion that the emergence of the SEL-ESG complex reveals the elite pursuance of a digital-technocratic social management system to have a blended Big Money revolutionarily disruptive character. It is a peculiarity of our era that while the global economic superclass becomes more concentrated, rich, and powerful, young American learners are increasingly exposed to a Soviet-style human engineering experiment in which, as John Dewey adumbrated, the formation of a new ideal-type, collective American social personality takes priority.

Much more research is required, as a matter of urgency, into the ways in which children and young people are being moved around and cultivated, unawares, as a 'standing reserve' for the further development of this system and its ideology. The 'communism for the many' and 'resource ownership for the few' model being established takes another turn if we include the insights Philadelphia-based activist-researcher Alison McDowell, who has raised two crucial issues in this regard: first, she notes the acceleration of the use of ever-younger children as resources to be ceaselessly data-mined, usually without parental knowledge or consent, for profit, the benefit of the machine learning system, and, in the end, the turning of the latter against them in terms of the increasing manipulative power it will lead to. This direction is exemplified by the pre-school "We Play Smart" activity table for 2-4 children playing together marketed by Hatch Solutions (Hatch Early Learning Inc., 2022). This device, effectively a giant tabletop tablet, not only collects data from the children's hands-on activities but also comes complete with built-in, unobtrusive fisheye cameras for the recording of

their bodily and facial expressions and interactions for the capturing of socialemotional data (see Liu et al., 2018, for an example of the educational rationale behind this approach, and Williamson, 2017, for a critique of it). McDowell suggests that technologies such as this are part of a broader, emerging regime of pre-school practice – including, for example, compulsory pre-school dyslexia screening (McDowell, 2021) – aimed at producing ever-more detailed cognitive– emotional–psychological–social profiles of individual children, as has already been discussed. These are but the latest examples of an already well-known trend in Big Data: American school children are at present, in all likelihood, the most extensively data-mined people in the world (EPIC, 2019; Ferriera, 2012; Hill, 2014; Shade and Singh, 2016).

Second, in connection with this, McDowell has opened up a line of enquiry on new 'extractive' economic practices that could make advances on Zuboff's work on the monetisation of children's attention and the behavioural-economic surplus that accrues from all their online activities. This concerns the new proposals for the extraction of private profit from individuals via "impact investing" – in fact, the creation of a new, post-2008 financial crisis spin on "predatory" (Giridharadas, 2018: 13), or at least highly questionable (McGoey, 2015) philanthropy, in which investors 'do well by doing good'. Initiated in 2009 in the wake of the previous year's global financial crisis by the Global Impact Investing Network (GIN) under the aegis of the Rockefeller Foundation, the central instrument here is the Social Impact Bond (SIB), said to be an "innovative financial tool to help state and local governments facing tough budget decisions fund critical social programs" (Rockefeller Foundation, 2021; and see Rodin, 2014 for a full account of the thinking behind the initiative). Judith Rodin herself was president of the Rockefeller Foundation from 2005 to 2017.

These SIBs allow private investors, following decades of neoliberal disinvestment in social expenditure, to take profit from public programmes based on their projections of reduced government expenditures in the future on the basis of predictive outcome metrics for poorer citizens reliant on public services. The basic idea, rhetorically at least, is to impact-invest in the remedying of potentially costly social problems and pathologies before they are fully realised – making children in educational institutions an obvious primary target, as in the predictive profiling of individuals, as mentioned earlier in connection with the We Play Smart table and the data-mining gamification of education in general (Ofosu-Ampong, 2020).

The role of government in this is to issue payments when programmes meet narrowly designed and predetermined metrics of success and, though it may take a long time before a return on investments are realised,

bundling the debt they represent transforms them into liquid securities that are immediately available for high frequency trading . . . as bets and counterbets are made by elite financial players, the future prospects of real people are woven into the operations of global financial markets.

(McDowell, 2017, also see McDowell, 2020)

It would be difficult to find a better example than this of school pupils being set up as 'standing reserve', unbeknownst to themselves or their families. In this particular Rockefeller initiative, school children are reduced to being something even less than things; they are now, as far as this system is concerned, little more than arithmetical abstractions on somebody's data dashboard. Given the Founda-tion's outstanding hundred-year plus record in being able to shape social and eco-nomic agendas or, at least, play a powerfully influential and often decisive role in shaping them – this is a disheartening development. Despite this, there are ways in which children, young people, and the adults supporting them can push back against the anti-human technocratic system the elite global superclass wants to shovel them into, and to these we turn in the final part of the last chapter, following a summary of the existential threat posed to the spiritualised, soulful, and mean-ingfully connected ways of being human that the technocrats would sweep a way.

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### Conclusion

Technocracy Unchained Versus the Soul of the World

# The Assault on the Human Spirit and Embodied Personal Autonomy

Philip Rieff, of the Triumph of the Therapeutic (1966), published little in his lifetime after that unique, influential, controversial, and prescient work on where American and Western society and culture might be heading. In 1973, he published Fellow Teachers, a "jeremiad against the counterculture and what he considered to be the degradation of the 'sacred' institution of the university" (McDougald, 2021) and subsequently fell largely silent. However, it turned out, around the time of his death in 2006, that during the period of his later withdrawal from public life and utterance Rieff had accumulated thousands of pages of unpublished drafts and notes. Three volumes of these were edited as a series under the name of Sacred Order/Social Order with the first volume, My Life Among the Deathworks: Illustrations of the Aesthetics of Authority (2006), being published shortly before he died. Described by one reviewer as "one of the weirdest books ever" (Hawtree, 2006), this volume may be understood, at least in part, as Rieff's attempt to systematise his thinking, if the reader can stay with him, into a model or schematic of three modes of connection between social order, culture, and the sacred. Grasping Rieff's intention and the profundity of his thinking in a way that the critic Hawtree perhaps had not, a reviewer for the Intercollegiate Studies Institute wrote of Deathworks that "a more piercing bullet could not be fired into our present age" (ISI (Intercollegiate Studies) Archive, 2014).

The *Deathworks* of which Rieff writes are examples of what he calls 'Third World', Western-modernistic cultural expression which declares expressive war on the forms of authority, order, and piety characteristic of what we might these days call pre-modern social orders. These works arise out of what Rieff calls, as an element in his three-part scheme, the 'Third World', exemplified by post-Christian Western civilisation. The three-part model (which is not in itself necessarily chronological, as there are temporal overlaps) consists, unsurprisingly, of 'First World' and 'Second World' civilisations. As a somewhat ambiguous Freudian, but Freudian nonetheless (Zondervan, 2005), Rieff regards civilisations as being defined primarily by what they forbid, with 'Culture' being defined by the

set of institutions, practices, and beliefs that inculcate and transmit these prohibitions across the generations. In Carl Trueman's summary, the three cultures look like this:

"First Worlds" are characterized by a "variety of myths that ground and justify their cultures through something that transcends the immediate present". These myths might be the tales of the gods and heroes in "the *lliad* or the Norse sagas, the philosophy of Plato, or the mythic stories of origin found in Native American societies. Whatever their specific content, what they share in common is that they make the present culture accountable to something greater than itself".

"Second Worlds" are characterized not by a belief in fate, a central element of "First Worlds" but by faith. The great examples of this are "Judaism, Christianity, and Islam, where cultural codes are rooted in the belief in a specific divine and sovereign being who stands over and above creation, and to whom all creatures are ultimately accountable". First and Second Worlds are similar in that "both set their social order upon a deeper, even sacred, order".

(Trueman, 2019)

The Third World culture – that is to say the modern Western variety – represents a decisive rupture on this point, being as it is characterised by a repudiation of any sacred order at all. There is nothing in the Third World mindset that can provide any extra-human spiritual referent by which culture can be justified, nothing that cannot be de-sacralised and recast in the domain of the purely human, and for Rieff this is catastrophic. First, because of their rejection of a sacred order, Third World cultures face an unprecedented challenge: that of justifying themselves on the basis of themselves, without reference to any external transcendental element. No culture in history, Rieff notes, in a reiteration of his claim in *The Triumph of the Therapeutic*, has ever done this successfully, and our current 'anti-culture' exemplifies this:

The modern West . . . is the first culture in history that has attempted to deny the legitimacy of the interdicts and to live without some form of sacred authority. Therapy is our means of getting away with this denial. The therapeutic ethos teaches us to overcome the guilt and shame, especially around sexuality, prompted by what we have come to regard as the unrealistic, unhealthy, and oppressive moral prohibitions inherited from Christianity. But because, for Rieff, these prohibitions are a core part of our psyche, therapeutic culture can only ever lead to their transgression or negation, never to their genuine overcoming.

(McDougald, 2021)

The rebellion against all sacred authority, the traditions associated with it, and the belief in the sanctity of human life itself are understandable in these terms. Michael Lewis succinctly summarises the position we find ourselves in, which in Rieff's terms has worsened dramatically in the period since his death less than 20 years ago:

The first world, that of primitive and pagan society, was ruled by fate and ordered by taboos; the second, that of the great monotheistic religions, was ruled by faith and ordered by commandments. The third world presents something new under the sun: a social order that rests on no pre-existing sacred order, and whose cultural artifacts serve mainly to transgress, debunk, or deconstruct.

(Lewis, 2006)

According to this line of reasoning, this rising tide of reckless metaphysical rebellion is becoming increasingly difficult to resist or swim against the tide of; it is the outcome of the move towards "an anti-culture, a culture of 'de-creation' dominated by a critical intelligence whose truths are merely negational" in societies governed by "remissive and transgressive elites who foster a repression of commanding truths and of the interdictions that follow from them" (Turner, 2009: 845).

Only an anti-culture could have produced the social-economic elites and their operatives in the managerial state (see later) with which we are now saddled, combining as they do the worst of the recklessly hubristic and morally transgressive tendencies of the 'Third World' of which Rieff and his interpreters write with the primitive, naked hunger for power and control in a new, virulent, technologically enhanced, and entirely unchecked form. This combination of factors, now moving together towards a situation in which everything in the human sphere must be definitively 'transformed' in the name of the fallacious narrative of 'sustainable development' for all – a cover as we have seen for and synonym of the digital technocracy being assiduously built around us – is posing a serious threat to what remains of relatively open and democratic systems in which free individuals and communities can thrive and enjoy their liberty as sovereign humans. Children and young people have been used as guinea pigs in (and, lacking perspective, often willing participants of) processes of social, cultural, psychological, and economic transformation being driven by private sector actors and entities that nobody has ever voted for and of whom most people have never heard. For this transformation to be achieved the self-understandings, perspectives on the world, and behaviours of humanity at large must be forced to change; it is younger people who, by being fed endless lies and propaganda about the nature of personhood and society on the one hand and being nudged towards ever-deeper integration into the global instrumentarian machine through their love of their screens on the other, are bearing the brunt of this attempt to reshape the human world according to the veiled dictates of an infinitesimally small proportion of the global population determined to concentrate ownership of all of the world's resources into its own hands. All is to become a standing reserve for the purposes of this group and the requirements

of the new economic system it is building, from the kindergarten child at play to the very soil beneath our feet.

In the interest of clarity I will offer one last discussion of the character, motivations, and strategies of the elite would-be world reshapers and the technocratic future they aspire to lock us into. This will come in two sections: first, a discussion of the 'woke', post-rational, hyper-progressive, and anti-cultural elite attack on the values, beliefs, and behaviours of the public at large and the structures within which they live and work through the machinations of the managerial state; and second, a final summary of the full-spectrum surveillance and control opportunities the 'powers that be' believe will make the achievement of their goals possible through their development and eventual installation of a control system based on already-mentioned things like the Internet of Bodies and Things, Central Bank Digital Currency, China-style Social Credit systems and, above all here, an expanding programme of transhuman 'enhancement'.

In 1941, James Burnham published his controversial and much-discussed The Managerial Revolution. In this book, Burnham sought to explain the fundamental transformation of society that appeared to be happening around the world. While it may have looked on the surface like liberal democracy, fascism and communism were competing for global organisational supremacy, Burnham focused more on their commonalities than their differences. What these systems shared, he observed, was the common tendency to raise up and empower highly specialised managers capable of operating extensive networks of large bureaucracies, the aim of which was top-down, standardised social planning. This trend was of course easier to spot in the Communistic totalitarian regimes with their five-year economic plans, or merged state-corporation fascist variants, as in National Socialism. In the long run, Burnham suggested, the inflexible and unresponsive grip the managers had on their systems in such societies drove them to collapse; he also noted, with insightful originality, that in the liberal West, the managerial class proved to be more supple and resilient, able as it was to respond to economic, political, and social signals and changes in ways the hardtotalitarian states had not, making it possible to exercise a more long-lasting, subtle, and pervasive form of agenda-setting control over Western societies than would have been possible in the non-liberal systems mentioned. The Managerial Revolution was, as noted, widely discussed in the circles one might imagine, perhaps most famously by George Orwell, who was both strongly influenced by Burnham's analysis and apparently alarmed by what he seems to have seen as the book's amoral scientific perspective on power. Elements of this presentation of the mechanics of the managerial state found their way into both Animal Farm (1945) and 1984 (1949), as Orwell makes clear in his discussion of Burnham's ideas (Orwell, 2002).

Later, in 1960, Burnham condensed and updated his analysis in the essay 'Managing the Managers', and this makes fascinating reading for anyone interested in non-governmental continuities in the exercise of power and the ways in which the likes of the entities and forces mentioned throughout the present book are able to shape and run long-term, social, cultural, economic, and political agendas. As Parvini notes,

Where the analysis of power and the ruling class has conventionally rested in the government itself, Burnham saw the managerial class operating across the so-called public-private divide and in every large organisation. In effect, the bureaucrats who emerge . . . through the iron law of oligarchy, come to control every institution and then come to recognise each other as an identifiable class with common skills, interests, beliefs, and goals.

(Parvini, 2022: 120)

Here, Burnham's thinking is influenced by the Italian sociologist Robert Michels and is also reminiscent of C. Wright Mills's *The Power Elite*, which we considered in an earlier chapter.

Michels formulated his 'Iron Law of Oligarchy' in his 1911 book *Political Parties*, published in English in 1915; Michels's 'law' states that all complex organisations, regardless of how democratic they are at the time of their formation, will eventually and inevitably develop and thereafter fall under oligarchical control as part of the strategic and technical necessities of organisational development. Michels is therefore usually seen as belonging to a tendency in political and sociological theory that came to the conclusion that representative, participatory democracy is an impossible system to actualise (Michels, 1962 [1915]; and for other core texts in the Italian 'elite' school of thought; see Mosca, 1939 [1895]; Pareto, 1984 [1921]). Mills's argument about the distribution of power and influence across sectors while simultaneously concentrating it in a networked oligarchical–managerial structure (Mills, 1956) also finds a strong echo in Burnham's account:

The trend extends to the military world, the academic world, the non-profit foundations and even auxiliary organizations of the U.N. Armies are no longer run by "fighting captains", but by a Pentagon-style managerial bureaucracy. Within the universities, proliferating administrators have risen above students, teaching faculty, alumni and parents, their power position expressed in the symbols of higher salaries and special privileges. *The great "non-profit foundations" have been transformed from expressions of individual benevolence into strategic bases of managerial-administrative power*. The United Nations has an international echelon of managers entrenched in the Secretariat.

(Burnham, 1960: 19, emphasis added)

This embedding, expansion and normalisation of the managerial system of political and social institutions in the post-war period, which was particularly visible in the United States, accounts for the consolidation and perpetuation of particular elite world views and values over time. It is in fact what has made possible the gradually bringing under control of more and more aspects of society: "Government agencies, corporations, media outlets, and educational institutions increasingly seemed to act with one voice and one agenda, instead of behaving as the separate self-interested actors described by classical liberalism" (McIntyre, 2022).

Paul Gottfried offers insights into the problem of managerial elite control of American society, in the process laying bare the mechanisms whereby the population becomes increasingly exposed to a form of corporate overlordship with strong therapeutic tendencies. In After Liberalism: Mass Democracy and the Managerial State (1999) Gottfried describes nineteenth-century liberalism as having been 'slain' by the managerial state that emerged post-WWII; the actors we call 'liberals' or 'progressives' today are not of the same ilk as their smallstate, free market predecessors. Therefore, quite a different set of goals is in play, as the contemporary helmers of the managerial state are preoccupied - as agents of therapeutic change and the transformation of the 'legacy' American value system - with combating prejudice, securing and maintaining the provision of social services and welfare benefits, and defending expressive and ever-expanding 'lifestyle' freedoms. Gottfried shows, in his important book, that the new regimes of managerial social engineers are staffed by elitists, that their elitism is defined to a significant extent by the social values they propagate and the moral virtue and superiority these confer on their proselytisers.

In a more recent iteration of this idea, Rob Henderson has coined the term 'luxury beliefs' to describe the ways in which representatives of the elite class converge on a core canon of beliefs and attitudes as a way of signalling not only their virtue but also their social status. Basing his argument, in part, on Pierre Bourdieu's seminal work on Distinction (Bourdieu, 1984) as a strategy of reproducing the class differentiation necessary for the maintenance of status hierarchies. Where Bourdieu's work in the 1970s and 1980s focused on a range of forms of (social, economic, and cultural) 'capital' that could be deployed in this struggle to assert cultural-symbolic as well as economic dominance, Henderson pays attention to the symbolic. Now that postmodernity and the overproduction of symbolic material goods has made it harder to 'read' the social status of a person on the basis of what they own and display, the symbolic, performative, and rhetorical assertion of 'woke' values becomes an important marker of distinction and dominance: as Henderson puts it, "luxury ideas and opinions . . . confer status on the upper class while often inflicting costs on the lower classes" (Henderson, 2022). An example: with every increase in the degree of the hegemony and normalisation of these beliefs that takes place, white managerial class elitists use language and concepts such as 'white privilege' to both secure moral superiority and position and demonise those lower down the status hierarchy than themselves:

White privilege is the luxury belief that took me the longest to understand, because I grew up around poor whites. Often members of the upper-class claim that racial disparities stem from inherent advantages held by whites. Yet Asian Americans are more educated, have higher earnings and live longer than whites. Affluent whites are the most enthusiastic about the idea of white privilege, yet they are the least likely to incur any costs for promoting that belief. Rather, they raise their social standing by talking about their privilege.... In other words, upper-class whites gain status by talking about their high status. When laws are enacted to combat white privilege, it won't be the privileged whites who are harmed. Poor whites will bear the brunt.

(Henderson, 2019; see Paul, 2018 and Taiwo, 2022 for further elaborations of this argument, and also Moench, 2020; Kyeyune, 2022)

This relatively recent explosion of hyper-progressive, irrational ideological positions in the social and cultural institutions' needs, it must be emphasised, to be contextualised in the managerial turn those institutions have taken in the last 60 or 70 years and the motivations of the managers themselves. Let us acknowledge here the convergence in the direction of this transformation of two sets of closely interrelated factors: the more generalised transformation, along broadly 'therapeutic' lines, of American culture itself, as this impacts communities and individuals, and the forced alignment of the corporate sector with the BlackRock– World Bank–U.N. system through the monitoring of compliance with the elastic and easily manipulated concept of 'diversity'.

The argument of Samuel T. Francis's Leviathan and its Enemies: Mass Organization and Managerial Power in Twentieth-Century America (2016) is germane to both these aspects. The book contains a sharply perceptive elaboration of Lasch's argument about the therapeutic turn, combined with elements of Nolan's work on the state. In Francis's view, managerial elites have justified their expansion of power through the therapeutic state, which treats social ills like crime, war, ignorance, and poverty not as part of the human condition but as social pathologies. These are now widely held to have been generated in and by the autonomous social institutions which were once the cornerstone of the socialisation of the child and the bourgeois order itself: parents, churches, and other spheres of influence on the individual came to be seen as the sources of ills that can be 'cured' only through the bureaucratic administration of scientifically developed therapies that would have the effect of dissolving of social bonds, thereby allowing the state and economy to further merge, in a more complete and comprehensive way, on the basis of the weakening of customary culture and the installation of the atomised neoliberal consumer discussed here in Chapter 3.

It follows that what Francis calls 'managerial capitalism' must therefore specify and promote through the market is an ideology of globalised hyper-cosmopolitanism that asserts universal rather than particular identities, values, and loyalties, and rationalises the process of cultural homogenisation. In contrast to the universal variety, particularistic forms of identification, belonging, religiosity, and non-progressive moral character are at best subordinate considerations and regarded as artificial, repressive, and obsolete barriers to the fulfilment of human potential. In this way, this iteration of cosmopolitanism rationalises the adoption of the mass-cultural framework and the collective meanings and behaviours that characterise the managerial regime. In addition to this dissolution of the hard boundaries around, say, working-class collective identities, there is that between corporation and state – because the managerial elites have assumed control of both these sets of institutions involved in essentially the same way; the knowledge required to direct organisations and to successfully manipulate public opinion to sell a product or service to consumers, or a political/social project to voters, has now converged (Francis, 2016; see also Murphy, 2008; Klikauer, 2013).

## The Subversion of Reality: Transhuman Chimeras in a Synthetic World

The assault on the human world in the name of science is more pseudo-science than science, and rejoices in its bald, unmoralised image of "what we really are". What we really are from the scientific point of view is precisely what we really aren't.

Roger Scruton (The Soul of the World, 2014)

The persistence over time of this managerial elite distributed across the private– public sectors has had far-reaching consequences for American society and culture. We should think of the functionaries of this elite as being (a) true believers, to a considerable extent, in the transformative values emanating from the top of the global system and (b) fully merged functionally with the higher, activating levels of this enterprise in such a way as to represent a new force – as ostensibly 'radical' adherents to a social ideology being driven down into the global public sphere from the highest echelons of the Big Money power and therefore the expanding corporatocracy. Strange revolutionaries indeed. Also, we should be clear that this managerial echelon of the social-control-through -sustainable development programme is, if anything, both expanding and unstable.

At this time we are witnessing, as Peter Turchin explains, the continuing unrolling of a process of "elite overproduction" (2016); this concerns the material insecurity of the American managerial classes, the numbers of whom have grown too large to be absorbed by society in ways commensurate with their high economic expectations. Here we see the benefits that would have accrued from those fiscal expectations compensated for by a preoccupation with status, which we have seen Henderson and others account for in terms of the psychological satisfaction to be gained from a form of self-presentation based on the connecting of social status and moral superiority. Two things go almost without saying here: first, that this process is likely to lead, to be maximally beneficial for the individual, to a process of internalisation of these values and therefore a condition of 'true belief' and the militant certainty characteristic of fundamentalist religious belief; and second, that the dynamic of continuous, ongoing status differentiation on this basis leads, ineluctably, to the never-ending overproduction of forms of increasingly arcane elite opinions and 'knowledge'.

This concerns not only obvious things such as a cornucopia of products, services, and technologies but also ideas, forms of rhetoric, and social-cultural narratives that are sucking, or forcing, too many young people into a world of notions and propositions no less 'ungrounding' and disorienting than the fantastical dreamworlds of the life online. And here we come to the nub of the matter: are we to take 'wokeness' to be a transitory political movement adhered to and proselytised by frustrated and over-educated functionaries of the managerial-therapeutic, private-public system? Or does it pose a deeper and more concerted challenge to the existing human order? To answer this question we must consider more seriously the contention that a rebellion that is more metaphysical than merely social is underway and that describing 'wokeness' as indicative of an emerging 'belief system' may mean recognising the point that something is happening that goes beyond political rhetoric to begin to advance an argument that it is not racism, sexism, or any of the other 'isms' and 'phobias' that we need to be liberated from, but material reality itself, in the name of the liberation of pure, entirely unfettered subjectivity in which the self and its wilfulness can finally be free.

This desire has of course had a long and storied history in human affairs, but its current iteration in transhumanism is, as we have seen, the outcome of Anglo-American eugenics, as inaugurated by Francis Galton in 1883. Among the numerous parallels between transhumanism and Anglo-American eugenics the most significant concern the role of scientism as the guiding star of modern human development, and the view that intelligence and moral attitudes - such as altruism and self-control – require significant biological augmentation if they are to be maximised for the good of us all. Transhumanism's origins can in this sense be squarely located in Welles's sci-fi utopianism, Julian Huxley's dream of a genetically perfected world, and the Rockefeller/Carnegie development of everything from the initiation of fields like molecular biology to the establishment of the immense genetic surveillance and tracking system devised at Cold Spring Harbor. Transhumanism as we now know it is a marriage between these ideas and the fundamentally incorrect but widely shared belief, or hope, that living things and machines are basically alike - the latter emanating from developments in computing, information, and brain-computer theory during and after WWII and their subsequent corporatisation via various kinds of product and cultural commodification.

Far from embodying some timeless truth, however, it is clear that the view that computers and living things are fundamentally alike – being, in essence, entities that transmit and process information – is a product of specific late-Victorian and early-to-mid-twentieth-century historical moments and the afterlife of the misapprehensions to which they gave rise. This is made abundantly clear by Susan Levin:

Transhumanists' supposedly cutting-edge view of genes reflects early molecular biology, which was quickly appropriated and applied to living things concepts derived from computing, information theory, cryptology, and cybernetics. Biology was coronated an information science – a designation spurring conviction that, through informational manipulation, human biology could be upgraded. Molecular biologists' embrace of the informational picture as literally correct was fostered by their reliance on metaphors – such as "program", "magnetic tape", "code", and "decipherment" – whose metaphorical nature was stripped away. Transhumanists treat this increasingly outdated vantage point as patently correct.

(Levin, 2022)

The same applies, Levin writes, to what transhumanists think of as 'information' – that in time it

will be fully translatable, for their purposes, across the living-nonliving divide, which is traceable, historically, to a view expressed by Norbert Wiener, founder of cybernetics, in 1950: "The fact that we cannot telegraph the pattern of a man from one place to another" represents a "technical" challenge, not "any impossibility of the idea".

(Levin, 2022)

Channelling this perspective, the article continues, transhumanists embrace and advocate for projects like "whole brain emulation", which, as described by Peter Eckersley and Anders Sandberg (2013), would involve, a la Ray Kurzweil's wildest dreams, "taking an individual human's brain, scanning its entire neural . . . structure into a computer, and running an algorithm to emulate that brain's behavior".

The latter is, ultimately, also the dream of the theorists who connect the transgender movement with transhumanism, with the former ideology representing a prefiguring of the latter. These two 'trans' ideas are, of course, central to the 'woke'-managerial value system and can stand here, as its most extreme examples, of what is at stake in the elite's dreams of across-the-board social transformation. To restate the absurdity of the propositions advanced in this sphere, we can return to Thomas Fuchs's most recent book, *The Defence of the Human Being* (2021), which offers a neat summarisation of the problem.

The transhumanist view of the human body and person centres, Fuchs argues, on their imperfectability. Therefore, though Fuchs does not put it in this way, like the French or Soviet revolutionaries, their aim is to turn the clock back to Year Zero and create, ultimately, a new synthetic species on the basis of neverending 'enhancements' trending towards perfection. The key goal in all of this, and it is obviously much more metaphysical than it is scientific, is that our liberation from the constraints imposed upon us by time and matter will enable us to live, in some version or another, as immortals via 'mind uploading'. For Fuchs, these ideas are based on the 'blatant mind-body dualism' of the kind we have accounted for and dismissed in Chapter 5. In this form of now-outdated dualism, the body is regarded as a material vehicle, which is at our free disposal; the mind is considered to be a substrate-independent information structure. In contrast to this, however, "humans are neither natural machines nor pure minds but living beings in the first place. The idea of mind uploading is thus based on untenable neuro-reductionism, which wrongly assumes the brain to be the only substrate of the mind". And if this were not enough, "the ideas of optimizing the body overlook the necessary balance of functions that has evolved in human evolution" (Fuchs, 2021).

Let us transpose these facts now to the arguments of Martine Rothblatt, who was one of the early trailblazers on the transgender front – and an absolutely indispensable guide to the development of the ideology that connects transgenderism to transhumanism. This is an important connection to understand, as it takes us well beyond any form of conventional social justice politics and into the realm of existential metaphysics. The central point is this: just as Rieff argued, when it came to his 'Third World' conception, that such a society sees itself as a purely human matter no longer in need of any form of external referent by way of a spiritual or transcendental entity or presence, so it goes with pure philosophical transgenderism: the self-creating individual will or consciousness must be allowed to develop without reference to definitions or structures imposed by any external material reality or necessity. It is not only that gender is a 'fluid spectrum', or a matter of 'performative heteronormativity', or suchlike. Rather, Rothblatt – a highly successful entrepreneur who famously underwent surgical male-to-female reassignment in 2014 - represents a case of a wholly subjective psychology that seems to acknowledge or require no necessary relationship with any determining aspect of physical reality. This from Rothblatt's book from Transgender to Transhuman (2011):

I came to realize that choosing one's gender is merely an important subset of choosing one's form. By form, I mean that which encloses our beingness . . . I came to this realization by understanding that 21st century software made it technologically possible to separate our minds from our bodies. This can be accomplished by downloading enough of our neural connection contents and patterns into a sufficiently advanced computer and merging the resultant mindfile with sufficiently advanced software – call it "mindware".

(Rothblatt, 2011: 25)

This claim about 'mindware' and how it might be produced is purely speculative; it is, as we have already seen and will discuss one more time later, a fantasy with no concrete basis in anything we currently recognise as doable science. It is interesting to note here, though, that this seems not to really be at issue. We cannot know if Rothblatt actually believe this can be done, or rather merely signals it rhetorically, for political and financial purposes. The latter is an important aspect: Rothblatt, and "a growing number of wealthy investors and visionaries" claim they are "on the threshold of creating humanity and personhood outside of DNAdriven flesh bodies" (Hendershott, 2021). The imperative to get this done – for such is it presented – is but a mere logical step away from Rothblatt's prior rejection of the legal distinction between male and female:

In a similar fashion I now see that at it is also too constraining for there to be but two legal forms, human and non-human. There can be limitless variation of forms from full fleshed to purely software with bodies and mind being made up of all degrees of electronic circuitry between. To be transhuman one has to be willing to accept that they have a unique personal identity beyond flesh or software and that this unique personal identity cannot be happily expressed as either human or not. It requires a unique transhuman expression. (Rothblatt, 2011: 27)

A clearer statement of a purely psychical, post-materialist desire for liberated selfcreation it would be difficult to find. But the key thing to note here is the ease with which Rothblatt slips from deciding to become a woman to deciding to become a set of disembodied cognitive processes as if it were the most natural and straightforward thing in the world. Still, this kind of magical thinking about the absolute indeterminacy and fluidity of human being is as we know now becoming normalised, through the pronouncements emanating from a range of positions, from utopian dreamers of one stripe or another, to 'woke' political activists and philosophers, to the World Economic Forum and the mega-corporations it represents, to the U.S. government (The White House, 2022). This is one of the defining characteristics of our time – at least when it comes to the top-down messaging coming out of the technocratic elites, and it makes complete sense from Rieff's perspective, as we have now entered a time in which, for both progressive visionaries and those with money to earn, the idea that anything could have been divinely created and thus 'written in nature' is an absurd archaism. This anti-cultural rejection of all that has gone before it if it bears any taint of the divine has become a fixed feature of 'Third World' life - to the benefit of an

emerging multi-billion dollar transhuman industry. And that industry is led by some of the wealthiest and most brilliant tech trailblazers. It is an industry that promises us that not only can we choose our own gender, but we can also choose to live forever as transhuman persons – with full citizenship rights – in a new and "perfect" body that will be created for us.

(Hendershott, 2021)

This is an entirely logical element of the elite-managerial ideology, allowing as it does for the never-ending loosening and redefinition of all boundaries around or settled characteristics of the human person. As Keith Woods puts it, we have reached a "utopian eschatological horizon" at which, for some at least, we escape from all our archaic material constraints. This suits the "oligarchs" perfectly, as it allows for a "destruction of inner identity" that leads to expanded markets for technological products, other forms of market-based therapeutic solutions, and, of course, increased profits all round (Woods, 2021). This, in substantial part, explains the speed at which the transgender-transhuman ethos has moved so quickly from the margins of things to the very centre in such a short space of time:

It is difficult to predict how soon the transhumanist movement will take hold. The advocate-elites are wealthy, brilliant, and politically savvy. They know where to spend their money in order to promote public policy. No one would have predicted even a few years ago that the transgender industry would attain such success as it has with President Joe Biden. His first executive order was to expand rights and privileges to the transgender community – a community that comprises less than half of one percent of the population. But most did not realize just how much influential wealth from elites undergirds the transgender movement.

#### (Hendershott, 2021)

It is contended then, in conclusion, that transhumanism is an ideologically driven, false, and questionably scientific doctrine being advanced by an alliance of interests intent on, first of all, making money from the imminent explosion of trans-related technologies and services (this accounts, in large part, for the WEF's obsessive promotion of the 'Fourth Industrial Revolution'). Allied actors and interests of note include those embedded in the global elite–managerial structures who will advance any transformation, however extreme, away from what remains of 'tradition' in any form, in pursuit of their perfect, de-sacralised and anti-human 'Third World' utopia – or 'Great Reset'. The long-term goal of the would-be world shapers, of the kind which have been discussed throughout this book, is to nudge humanity – or herd it, if necessary, if the recent attempt to lay the foundations of a global biosecurity state are anything to go by – towards a transformed synthetic–virtual reality, in the name of the establishment of the perfect, full-spectrum surveillance and control system of which every tyrant dreams but which is only now becoming technologically possible.

In the vanguard of the acceptance of the latter, unless something can be done to slow down or reverse the process, will be the gadget-tethered younger people whose immersion in and love of remote and disembodied pleasures and gratifications makes them an obvious target population for transferral into the metaverse, in which they might exist on a diet of entirely synthetic foodstuffs and, for meaningful input, the hollow philosophical blandishments fed to them by billionaire thought leaders and transhumanist ideologues and the social doctrines handed down by the SDG–SEL managerial class. And who could blame them? Their world, they are continually told, is about to catch fire in an environmental apocalypse; humanity itself, in its messy and chaotic embodied form, is little more than a sort of viral plague; the human individual is at bottom disposable, a fact attested to by the population control narrative and the 50 million-plus abortions conducted in the United States since the 1970s; and God, if he ever existed, is long dead, and now it's our turn. The foregoing is, of course, the nightmare scenario. We are not there yet, but we may be well along the way. The first step towards trying to reverse these trends is to acknowledge and accept the gravity of the situation in which we find ourselves. Back in the twentieth century, in the context of somewhat different brands of tyranny to that we face now, the threats were perhaps easier to spot, and old truths easier to state and circulate among a discerning reading or listening public. Eric Voegelin, who would likely have had much to say about the corrupt and corrupting absurdities of transhuman ideology were he still with us, wrote this:

The nature of a thing cannot be changed; whoever tries to "alter" its nature destroys the thing. Man cannot transform himself into a superman; the attempt to create a superman is an attempt to murder man. Historically, the murder of God is not followed by the superman, but by the murder of man: the deicide of the gnostic theoreticians is followed by the homicide of the revolutionary practitioners.

(Voegelin, 1997 [1959]: 43)

Eleven years earlier C.S. Lewis wrote this well-known and prescient paragraph, looking forward towards the perils of the future following the great upheavals and destruction of his time. It seems apposite now, in relation to both the ruthless machinations of the early robber barons and their successors and the false and manipulative social doctrines of the managerial class. It is to be hoped that we may be able to create a future in which the lives of young Americans will not be plagued by either kind of faction:

Of all tyrannies, a tyranny sincerely exercised for the good of its victims may be the most oppressive. It would be better to live under robber barons than under omnipotent moral busybodies. The robber baron's cruelty may sometimes sleep, his cupidity may at some point be satiated; but those who torment us for our own good will torment us without end for they do so with the approval of their own conscience. They may be more likely to go to Heaven yet at the same time likelier to make a Hell of earth. This very kindness stings with intolerable insult. To be "cured" against one's will and cured of states which we may not regard as disease is to be put on a level of those who have not yet reached the age of reason or those who never will; to be classed with infants, imbeciles, and domestic animals.

(Lewis, 1970 [1948])

The 'softer' tyranny of which Lewis wrote is all around us now. In the larger scope of things, it seems likely that pushing back against the internet-of-control being built to advance the interests of instrumentarian power will involve a motivating force that is at least equal to the zeal of the elite world reshapers, transhumanist fanatics, and the new breed of would-be Marxist revolutionaries. The one thing all these have in common is that they are all emanations of Rieff's Third World anti-culture, and all propose a concerted attack on what until recently was considered the normal ebb and flow of regular American life. Contesting these forces supposes, then, a spiritual revival of some form, upon which it is beyond the purview of the current work and competence of its author to discourse.

Given that, numerous things can of course be done to help children and young people, on the basis that the devil is usually in the details. It is in everyday life and its rhythms and habits that a revival of the human spirit adequate to resisting the most problematic consequences of the 'Great Reset/Fourth Industrial Revolution' might be grounded. It is obvious that those responsible for the formation of children should find, as a bare minimum, ways of integrating screen time and its attendant technologies into the everyday life of families in a time-managed, proportionate, and realistic manner. This is a beginning, and the bookshelves, both actual and virtual, are full of sensible advice on how to go about this in an effective way. But in the context of the argument presented here, deeper perspectives and activities are also implied. These, in essence, should be connected to the spiritual life and the continual reassertion of the sanctity of the individual human person and their soul and whatever practices might strengthen this perspective; an engagement, insofar as circumstances allow, with the natural world and all it has to offer; and activities and instruction which prioritise embodied empathic connection with others.

Such experiences need to be accompanied and where possible integrated into purposeful social activity in which the participant is forced to shift from being, as the great but under-acknowledged sociologist Norbert Elias put it, *homo clausus* – the over-individualised *I* deprived of the *us*, to *homines aperti* – the open and mutually interdependent person *who is influenced by others and influences them in turn*. It goes without saying that a multitude of group activities – from group discussion and problem-solving, to music making (jazz being the exemplary and ultimate form of this, but there are of course plenty of others), to team sports and beyond – have developed over time to facilitate exactly this process and are therefore tried and trusted. As far as sport and games are concerned, Georg Herbert Mead in particular, and the Symbolic Interactionist perspective generally, placed great emphasis on the ways in which the adoption of roles in infants' pretend play, and subsequently the taking up of positions in more formalised team games, were central to the development of healthy socialised personhood.

To look at this from another angle, Matthew B. Crawford's perspective on combating the disembodying and abstractive behaviours shaped and encouraged by technocracy and its increasing intrusion into our everyday awareness can be useful here (Crawford, 2009). The tempering of the glorification of 'knowledge work' and virtual experience can be achieved through participation in more concrete activity – for example working to solve practical problems through hand-mind coordination, as in the example of doing things like fixing motorcycles. Such activities as this – and there are of course countless other possibilities which can have similar effects – can begin to lead young people out of the misguided separation of thinking from doing that is being increasingly

imposed on them, develop their practical intelligence, and get them back into their bodies. Crawford's call is for the inculcation of self-reliance and embodied self-development through concrete activity, which is a practical antidote to the enfeebling experience of living in the 'frictionless' reality shaped by the ceaseless scrolling and swiping of the life online and, unfortunately, much of what now passes for education.

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