

FINISHING THE RAT RACE



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Finishing the Rat Race

Ruminations on life, the universe and
making things better

James Boswell

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*For James and James,
Adrian & Marta*

“If there’s a book you really want to read but it hasn’t been written yet, then you must write it.”

— Toni Morrison

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Foreword: Skip to the end

*This is the way the world ends
Not with a bang but a whimper.*

— From *The Hollow Men* by T.S. Eliot

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When I first told a friend about my ambitions for this book, he smiled enthusiastically and replied “the important thing is to keep it short.” Unfortunately his advice came much too late! So here instead is a précis condensed to a few short paragraphs – the book in pamphlet form:

There’s an old adage that ‘you are what you eat,’ when more accurately you are where you’ve lived and what you choose to believe in. Likewise, societal structures, public and private institutions and behavioural norms are the products in great part of our prevailing attitudes toward life, the universe, and by extension, human nature.

Modern civilisation has flourished for more than three centuries grounded upon solid but rigid scientific axioms and a commensurate faith in mechanistic physicalism – the towering ontological edifice of today. Our ever-expanding knowledge of the thinginess of stuff heaped up material prosperity, lifestyle improvements, medical enhancements and astonishing levels of interconnectedness. As technology advanced by leaps and bounds, individual freedom soon followed and buoyed by the dream we have greatly enjoyed the pleasures it afforded.

Indisputably this progress required the grotesque and involuntary sacrifice of an oppressed, maltreated and silent majority both domestically and abroad, but beyond the dire costs both the intellectual and concrete material successes have been truly spectacular. Judged by its own metrics (another thing our system excels in), however, western progress has recently halted. With the prospect of future benefits dwarfed by escalating social and environmental costs, another way of living – a new formula – is now being frantically sought.

It is my contention that this crisis-point we pivot around involves our quite literal disenchantment: a painful misunderstanding that the universe is but a cold and inhospitable place and we are estranged biological robots lost in the midst of its infinite desert spaces. Meanwhile, raised above

an otherwise godless void, there is a singular omnipotence that reshapes us daily with its own routines: the serpentine dollar sign. Coercing us through mass media, education, politics and work, its purpose is ceaselessly to remind us to consume and clamber higher up the greasy pole. Thus, to these ends and its own perpetuation, a distant billionaire class controls our political arena, the business sector and, most importantly, the narrative.

Lately, a postmodern fad has also arisen amongst the ruins of the old beliefs and into which, devoid of meaning, a banal individualism can be endlessly refashioned to accommodate the inherent and inescapable meaninglessness of our given existence. A life of drudgery interspersed with entertainment: the choice of brain death and/or distraction from it.

Finally, the rat race is approaching the finishing line, but not in a good way. Coerced by the established moneyed interests into tightening confinement, a future of non-stop surveillance and micromanaged control enabled by new cyber- and biotechnologies awaits us. Do we plunge into the bright, shining hell of the lab rats that enabled its development? For this will be the way our civilisation may end, unless...

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Preface: The future is a foreign country too

“I’m a pessimist because of intelligence, but an optimist because of will.”

— Antonio Gramsci

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It was summer 2006 when I last properly travelled. Disembarking in Athens, and then a few months later, in Beijing and Mumbai, I spent the summer months visiting three very different countries. All once great civilisations of the ancient world; all were now facing momentous turnabouts. One was about to enter a shattering era of decline (not that this was evident fifteen years ago) while conversely the others were at the start of an historic upturn: a pair of tigers recovering their strength after a long slumber, and readied for a new ascendancy on the world stage. So one thought I’d carried with me was along the lines of which of the two would make for the least objectionable future superpower. It was not a happy question, of course, since like many people I’d rather there were no superpowers, but we also have to be realistic.

Politics aside, my visits to these extraordinary countries of the East had been wonderful and unforgettable experiences. We had journeyed across landscapes of inexpressible beauty, and explored some of the world’s most ancient temples, palaces and mausoleums. I’d eaten often strange but mostly very delicious food, and delighted in so many other oddities of two distinctive and complicated cultures. There were just so many positives, and yet both stays also perturbed me greatly and in unexpected ways.

I had, for instance, fully anticipated that China, being a one-party and (notionally at least) communist state, would be quite evidently so, with a highly visible police and military presence, and a population fearful that careless words might lead to sudden arrest and ‘re-education’ behind the razor-wire of some distant internment camp. Thousands of Chinese dissidents are indeed dealt with by such brutal tactics,¹ as it seemed the Chinese people were quite well aware.

But then it is also well known in China, as it is here, that the West now has its own secret or semi-secret detention centres, aka “black sites,” for those who are in effect political prisoners. Indeed, the most visible of

these, which is at Guantánamo Bay, bears the proud motto “honor bound to protect freedom”. Protecting our freedom by incarcerating dangerous men irrespective of the clear violation of human rights and international law. My Chinese friends told me likewise that those interned at the camps were extremists too: members, for instance, of a dangerous religion called *Falun Gong*. For *Falun Gong* read ‘terror suspect’. And doubtless a few of those who guard the Chinese black sites feel ‘honour bound’ too.

But this Orwellian side of the Chinese state, while anticipated, was something I barely brushed against. Much to my surprise indeed, my host and his friends appeared free to speak privately and (more remarkably) in public, with our conversations regularly straying off into politics, economics, and the rights and wrongs of Chairman Mao.

One evening I even spoke with this little group of friends about (what we call) the massacre at Tiananmen Square, and though personally too young to remember the events, each agreed that the story reported in the West was a distortion. According to their revised accounts, it had been a radical faction amongst the students who attacked the army first, and then the soldiers reacted to defend themselves. To underline this point my host actually reminded me of the incident involving “the tank man”. The incredibly brave soul who had directly confronted an entire column of People’s Army tanks. Apparently the Chinese were also familiar with the footage (perhaps not in its entirety I imagine). The soldiers were only trying to go around him, my host explained, with the other friends nodding agreement... but then, as we know, half truth is untruth.

I soon understood that the Chinese bourgeoisie are deeply trusting in their government, unduly so; and reluctant to protest against the excesses of their own authorities not principally due to fear, as we might suppose, but mainly because their own lives are rather comfortable and content.

Conditions in China are comparatively good, historically considered, and especially so for those lucky enough to move within the relatively affluent circles of Chinese middle classes – and my friends’ families were all within the lower echelons of that circle. Thus, the extremes in China remained invisible: the hardships of the sweatshop workers and worst of the slums hidden away; the heavily polluted industrial centres also off the tourist trails; and regions where dissent is most concentrated, such as Tibet, strictly off-limits to nearly everyone.

The big giveaway came only after I’d arrived at the border. Crossing from the mainland into Hong Kong and suddenly held up by long queues at the checkpoints. It was here that I spoke with an English couple who were leaving after a commercial visit to the nearby electronics factories. They told me they were both delighted to be leaving, completely

dismayed by what they had witnessed. The fourteen year old girls on production lines working sixteen hours for ten dollars a day. When I asked why the British company they represented didn't buy their components more locally, they shook their heads and told me that it's impossible to compete. And the queues at checkpoint? Necessary precautions to hold back a flood of Chinese refugees who were desperate to join us.

India was a totally different story. In India the privation and misery is never very far beyond the hotel door. It is ubiquitous. So the most deeply shocking revelation about India (revelation to me at least) was how an upwardly mobile and already affluent few are able to look right past the everyday filth. As unmindful, as much as apathetic, to its overwhelming ugliness and stench.

If I may briefly compare India to Tanzania, the immediate difference was an alarming one. For modern India is, and in countless ways, a relatively wealthy nation composed of a growing middle class, a great many of whom are already earning considerably more money than I ever will, whereas Tanzania remains one of the poorest nations on earth. Yet, and leaving aside the similarities in terms of the obvious lack of infrastructural investment (which is bizarre enough given the gaping economic disparity), there was, at least as I perceived it, a greater level of equality in Tanzania: equality which made the abject poverty appear less shocking (after a while at least) if no less degrading. So India sickened me in a way that Tanzania had not, remaining as she does, more 'Third World' than one of the poorest and most 'underdeveloped' nations on earth.²

The overriding lessons from these journeys were therefore twofold. As a traveller to China, I had been greeted and treated quite differently to those who visited the former Eastern Bloc countries. No doubt the thousands of undercover spies exist, but in general this modern Chinese totalitarianism is slicker and more quietly efficient: the cogs of a police state meshing and moving but barely visible and mostly unheard. So China revealed how authoritarian rule can be installed and maintained with comparatively little in the way of outward signs. For instance, I saw fewer CCTV cameras in Tiananmen Square than I would have expected to find in Trafalgar Square.³ Whilst on our many journeys across the country, we encountered no road blocks or random checkpoints. Indeed, my entry into China had been far easier than my departure from Heathrow. The reason behind this being as clear (at least on reflection) as it was deeply troubling: that, as Orwell correctly foresees in *Nineteen Eighty-Four*, any forward-thinking police state must sooner or later aim to abolish *thoughtcrime* altogether.

From India, the important lesson had been much plainer, and my thoughts were firmed up after a conversation with an Italian stranger on our flight home. “We must never let this happen to our own countries,” he told me solemnly, and almost as if aware in advance of the impending financial attack which is still impoverishing our own continents.

On returning, I decided to start work on a book. Not about the journeys themselves, but less directly inspired by them.

Fifteen years on and the future does not look especially prosperous for those in the East or the West. But it does appear that there is a convergence of sorts with the worst elements from modern China and India coming west, and, in exchange, the worst elements of our broken western socioeconomic systems continuing to be exported far and wide. Simultaneously, however, the desire for major political change is now arising in many nations. So broadly in the book, I challenge the direction the world is heading, looking forward to times in which people East and West might choose to reconfigure their societies to make them fit our real human needs much better.

In brief, the book tackles a range of interrelated subjects: from education and debt (closely linked these days); advertising and mental health (linked in another way, as I hope to show); to employment practices and monetary systems – that’s Part 2. Whereas in Part 1, the larger questions of how we view our own species, its relationship to other species, as well as to Nature more broadly are considered. A quest for answers which includes a different, but closely related question – what do science and religion have to tell us about this blooming, buzzing confusion and our place within it?[†] The book is titled *finishing the rat race*, since this is not merely desirable, but, presuming the political will to do so, and driven by the careful development and application of new technologies, a feasible goal for every nation in the twenty-first century.

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[†] I have stolen the phrase here from William James famous remarks about how “The baby, assailed by eyes, ears, nose, skin, and entrails at once, feels it all as one great blooming, buzzing confusion.” From *The Principles of Psychology*, “Discrimination and Comparison”.

Introduction: Republic of the new malarkey

“A map of the world that does not include Utopia is not worth even glancing at, for it leaves out the one country at which Humanity is always landing. And when Humanity lands there, it looks out, and, seeing a better country, sets sail. Progress is the realisation of Utopias.”

— Oscar Wilde[†]

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“What is the meaning of life?” is an unintentionally hilarious question. So abstruse and rarefied that it awkwardly bumps into the authentic experience of being alive before meandering off with eyes barely lifted from its own navel. It is just too damned philosophic! And yet there is a related though ineffable question that does respectfully and more intelligently seek an answer, and so at an almost primordial and existential level a sort of paradox confronts us daily. This paradox is indeed a source of much merriment.

But then, this question, which is hardly raised in polite company, finds a more permissible everyday enquiry: “what is the purpose of life?” A question, I think, we all ask ourselves from time to time, and one that takes its lead from the Socratic challenge: the search for self-improvement through self-examination. More confrontationally, you may have faced interrogation along the lines of: “so what are you doing with your life?” The implication here, of course, is that something purposeful needs to be done in life, since just drifting along without certain direction or any clear goals is basically unacceptable.

In the modern world such a need for everyday purposefulness seems to be common sense. By contrast, pre-modern humans mostly live from meal-to-meal and from day-to-day – as we all did until comparatively

[†] From *The Soul of Man under socialism*, an essay by Oscar Wilde (1891).

recent times – so it is odd that we forget how purpose (like many things we take for granted) is not an ordinary and natural consideration, not even a notion those in primitive societies might readily understand, but an invention. Civilisation gave birth to ‘purpose’ in the abstract, and then once we had acquired aspirations of ‘purpose’, ‘meaning’ arose as a more diffuse back-projection.

And formerly, religion was the wellspring we drew upon to make determinations about our ultimate significance, and so answers to questions of ‘purpose’ and ‘meaning’ were entirely contingent upon ordained beliefs about the divine and of morality. Today, with no gods to bother us, we might suppose the invitation simply to eat, drink and be merry would be sufficient enough, and yet few appear fully satisfied in following this straightforward directive; a nagging doubt persists that we may still be here for some higher purpose – or failing that that we can reinvent one anyway. Put differently, we have a tremendous longing for ‘worth’.

Unfortunately in our valiant attempt to save the world from the most egregious of religious doctrines, the cure becomes rather too clinical. In practical terms utilitarianism has stolen religion’s mantle and this numbs us in a peculiar way. With notions of ‘purpose’ and ‘worth’ necessarily adapted to fit the new paradigm, and with no better yardstick these have become equated, almost unavoidably, with notions of being socially useful in one way or another. Finally, morality too, which is inherently unquantifiable, might be conveniently cut away, leaving usefulness above all else apprehended as good, virtuous and valuable. This is where utilitarianism logically leads and it is how modern society trains us to feel. What is your contribution? (Something implicitly asked and understood in terms of economic value.) This is really the measure of man today.

Of course, tracing the lineage, we see utilitarianism is actually the bastard child of science – a quasi-Newtonian calculus misapplied to happiness such that all human relations can be narrowly reduced to a cost-benefit analysis. We have adopted this approach primarily because of its origins: science works! But science in turn depends upon reductionism. It maps reality, and as with every other map, does this by craftily omitting all of the detail of the actual territory; this refined attention to very specific elements is what makes all maps and scientific models useful. Utilitarianism reduces everything to usefulness.

Moreover, by successfully measuring all of creation, including each particle of our own nature, in the strict but narrow terms of what is scientifically quantifiable, we have accidentally impaired ourselves in another way. Through the high-magnification lens of science, we have learned to see trees, flowers, birds and all other creatures as cellular

machines programmed and operating purely to survive and reproduce. This is a partial truth, of course, for no matter how high our magnification, science sees the world through its glass darkly, and at another level we remain keenly aware that the universe is not a wholly dead and lifeless automaton that endlessly recycles itself through ingestion and procreation. That there is more ‘meaning’ to life.

Back in the real world, the trees, the birds, the sky and the stars above that enthralled us as children, are no less wondrous if as adults we remain incurious to reflect upon their immanent mysteriousness. Indeed, not only life, but sheer existence is absolutely extraordinary and beyond all words. This we know at one level – call it intuition for lack of any better term – with unflinching certainty. Importantly, and aside from death, it is the only substantial thing we can ever know for sure. The poets keep vigil to this spectacularly simple truth and are endlessly enraptured by it.

Thus the gauche and frankly silly question “what is the meaning of life?” has actually never gone away, but now hides out of bemused embarrassment in the more or less unconscious form of “what is my social function in life?” Life may be just as meaningless as it is mechanical, the acceptable view goes, but we can surely agree on the seriousness of this meaninglessness and on importance of making a worthwhile contribution. Robots in particular just need to get with the programme!

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A few years ago a friend said that, like him, I too was fed up with the old malarkey. What you want, he proposed, is “a republic of the new malarkey”! Well, since life always involves a certain amount of malarkey, then maybe this is the best we can finally hope to achieve. But then, continuing the theme, I wondered, why not aim instead for “a republic of the least malarkey”? After all, ask most people (myself included) if the world might be improved and they will generally say yes, but then ask how, and answers typically become trite and (for want of a better word) utopian. ‘Make poverty history’ is a perfect example. Remember that one? Some of us once marched under banners demanding that we ‘make poverty history’ – yes, but how? ‘Give peace a chance’, we might add – but again, getting no closer to ending the daily carnage of the forever wars.

Ask most people (again myself included) to explain the nitty-gritty of how we might make our societies better and we probably feel dumbstruck by the complexity and overwhelmed by the confusion of potential outcomes. We simply don’t quite know precisely what we want, or, better put, how to bring about the necessary changes – or at least never

precisely enough to outline effective measures. Our problem, in one sense, is that positive action becomes difficult. After all, the world is a deeply and inherently puzzling place and so figuring the best course can be an inordinately difficult task.

But then ask an alternative question and you immediately receive better answers. Ask, for instance, what our society least needs and many people can instantly pull up a fairly detailed list of complaints. Pointing out stupidities, asinine rules, debilitating conventions, especially wherever our personal development is stunted or our lives are hamstrung; this comes perfectly naturally. Finding faults is just so much easier than offering details for improvements or formulating solutions. "It is very easy to criticise," people often say, which is itself a criticism! But why? Why the eagerness to dismiss this one faculty common to all? Wouldn't it be better to exploit it?

Which brings me to the idea of "a republic of the least malarkey": the establishment of a society based upon the very deliberate intention of avoiding too many negatives: negatives being that much easier to put your finger on and, crucially, to agree about. Given our innate preference for fault-finding, why not make this the benchmark? To set forth boldly to junk all nonsensical burdens and impositions because, aside their counterproductivity, any such transparently pointless impediments are generally as tedious as they are odious. Time is too precious to be needlessly wasted on nonsense.

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A corresponding political movement would aim at an intelligent and humane transformation, turning away from the current drive for structuring societies on the proclaimed basis of the optimisation of efficiency and productiveness, with rigidly imposed structures that inevitably hamper the human imagination whilst infringing our most basic right: the inalienable right to be free-thinking human beings. Surely this is the most fundamental of all rights. So what of our other inalienable right, so far as practicable without infringing the freedoms and rights of others, which is to be freely-acting creatures?

All of this is a kind of 'liberalism', although of a very rough, unpolished form. Together with the Golden Rule, 'liberalism' of some kind is vital presuming we wish to live in a freer, saner and more tolerant society. Indeed, if we ever seriously decide to construct a better world for ourselves then freedom for the individual remains the paramount concern, but so too is ensuring a nurturing and protecting society. I feel obliged therefore to add

a few important caveats. As the poet and English civil war polemicist John Milton wrote:

“For indeed none can love freedom heartily, but good men: the rest love not freedom, but license: which never hath more scope, or more indulgence than under tyrants.”⁴

The great danger of liberalism, as Milton says, is that inadvertently or otherwise, licence may be granted to tyrants, and then one man’s ‘freedom’ offers legitimacy, since it is reliant upon another’s debasement and servitude. Sadly, this has been a common mode of liberalism as it has existed until now, and in spite of the warnings of more thoughtful liberals who, from the outset, asserted loudly that unfettered individual liberty is entirely at odds with freedom that serves any common interest.

Today’s self-proclaimed (neo-)liberal thinkers are misguided in another crucial and related way. Their emphasis on freedom of the market has dispelled one system of serfdom only to replace it with another that, although superficially different, is comparably repressive: the exaltation of the market to the rank of our new lord and master brings tyranny of more cleverly concealed designs.

What neoliberalism conveniently overlooks is that money, besides being an inherently utilitarian artefact, is a thoroughly and indivisibly social instrument too. That money is not some product of private contracts since these do not supply and protect its value, but that since society creates it to lubricate its means for production and distribution of goods and services, then society maintains, in principle at least, complete autonomy over it. Taxation, therefore, isn’t somehow reducible to the theft of private property since money strictly speaking is neither private nor property.

Nor should money or the profit-making engines called corporations be put on any kind of pedestal: money confers no rights at all, only sentient beings have rights, and corporations therefore do not qualify (although the law now makes a mockery of this fact and grants them rights). Likewise, having money ought to accord no special privilege other than in enabling the procurement of stuff. This is what it does and nothing else. Money has been our onerous and fickle master, but we might transform it into a fully useful servant, striving to break its links to power in every way this can be achieved.

Incidentally, the oft-cited “lump of labour fallacy” which contends that technological unemployment is a misconception because it is based on the false premise of a fixed quantity of available work is itself a straw man argument and thus a fallacy in its own right. It is in fact perfectly self-evident that the labour market is fully expandable since every society can potentially magic up any number of window jobs, bullshit jobs and

Potemkin jobs.* What obviously does not follow, however, is that the level of truly productive employment can be continually maintained as jobs are automated.

For these reasons, the decline of money is in the process of happening, and this is rather crucial to understand. Once industrial production becomes fully automated, and services follow, money will lose its primary function, which is as a token of exchange for labour. Without labour there will be no need to reward it. Thus in order to ensure a smooth and humane transition to this future post-wage society (and the robots are coming sooner than we think), we need an honest reflection of our values: values entirely without any pound or dollar sign attached. If we are serious about our collective futures, this fundamental reevaluation of life has to

* In Japan, there has been a long-standing custom that rather than offering redundancy, companies often moved employees into so-called ‘window jobs’ – their job entailing nothing more strenuous than looking out of the window! Another term I have heard applied to strategies for maintaining the outward appearance of full employment are Potemkin jobs – a play on Potemkin villages, which according to legend were fake portable ‘villages’ constructed by Grigory Potemkin to impress his lover, Empress Catherine the Great, during her journey to Crimea in 1787.

More broadly, in his book *Bullshit Jobs: A Theory* (2018), anthropologist David Graeber outlines five alternative forms of meaningless employment which he categorises as flunkies, goons (lobbyists, PR men, telemarketers and corporate lawyers), duct tapers (people who fix problems caused by failures inherent in the system), box tickers, and taskmasters (especially unnecessary tiers of middle management). In the original article titled “On the Phenomenon of Bullshit Jobs: A Work Rant” published by *Strike!* magazine in 2013 on which the book was based, Graeber had argued that:

“Over the course of the last century, the number of workers employed as domestic servants, in industry, and in the farm sector has collapsed dramatically. At the same time, ‘professional, managerial, clerical, sales, and service workers’ tripled, growing ‘from one-quarter to three-quarters of total employment.’ In other words, productive jobs have, just as predicted, been largely automated away (even if you count industrial workers globally, including the toiling masses in India and China, such workers are still not nearly so large a percentage of the world population as they used to be.)

“But rather than allowing a massive reduction of working hours to free the world's population to pursue their own projects, pleasures, visions, and ideas, we have seen the ballooning of not even so much of the ‘service’ sector as of the administrative sector, up to and including the creation of whole new industries like financial services or telemarketing, or the unprecedented expansion of sectors like corporate law, academic and health administration, human resources, and public relations. And these numbers do not even reflect on all those people whose job is to provide administrative, technical, or security support for these industries, or for that matter the whole host of ancillary industries (dog-washers, all-night pizza delivery) that only exist because everyone else is spending so much of their time working in all the other ones. These are what I propose to call ‘bullshit jobs.’”

Read more here: [/www.strike.coop/bullshit-jobs](http://www.strike.coop/bullshit-jobs)

happen without delay and in earnest, long before we are completely freed from treadmill of work itself.

But then, final and complete individual freedom (as we often claim to desire) is only attainable once the reins that harnessed us to work have begun to slacken. Meanwhile, unbridling ourselves of the work ethic, as unavoidable as it is, is no straightforward matter, since it requires the tackling opponents on all sides. Both left and right, for contrary reasons, are mindful to keep the workers hard at it.

Indeed, all that ultimately stands between us and this gateway to an unprecedented age of freedom and abundance are two abiding obstructions. The first of these: further advances and refinements to our technology, are certain to arise whatever we decide to do; whereas, the second, that invisible but super-sticky glue which binds money to political power, can never be fully dissolved unless we act very decisively to see that it is.

This second obstacle is virtually immovable, and yet we must finally meet it with our truly irresistible force, if only because tremendous concentrations of wealth and power are overbearingly anti-democratic. In fact they reinforce themselves entirely to the exclusion of the dispossessed, and as the tie between money and power continually tightens, so the world is made captive to a tiny privileged coterie in what are already *de facto* plutocracies where the lives of workers increasingly resemble those of more visibly bonded slaves – held captive by chains of debts rather than steel. So long as the economic system is not reformed, we will head unswerving to an age when the current labour resource will be made totally redundant. If no preparatory action is taken to smooth our transition, this future prospect will leave the jettisoned and unemployable workers infinitely worse off again.

Moreover, the obstacles we face are interconnected, since for so long as a few moneyed interests hold such an iron grip on political power (as is currently the case), all technological development must remain primarily directed to serve and maintain these special interests. Rather glaringly, government money is today ceaselessly pumped into the giant hands of this military-industrial complex.

Suppose instead that this enormous expenditure on the weapons industry, and thus into weapons research, was redirected to transform methods of energy production and transportation systems. Imagine then how more wonderful our lives would be had this wasteful investment in destruction already been funnelled into peacetime projects. And here I mean real investment in the fullest, truest sense of time and human ingenuity, rather than simply investment of money – which is only ever a tool remember.

Full and final severance of financial and political power is extremely hard to achieve, of course, but there is a great deal that could be done to remedy the present crisis. However, to begin to move in the right direction we are compelled first to organise. This is as urgent as it is imperative. Seizing power from the one-percent must become the primary goal for all who sincerely wish to usher in a better age.

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I am a huge fan of ideas. I love ideas. In one sense, this book is my homage to the best ideas of others. So I have tried to create a kind of mosaic, a mosaic of ideas, and from that mosaic I hope that the bigger pattern will emerge. It has also been an adventure: an exploration of ideas and into our relationship with them.

There are three central points that I have taken as given, and these I will now state explicitly. Firstly, I acknowledge that the material universe is the only reality we can be certain of; and that we are, as we feel ourselves to be, active, free agents operating within this world. Secondly, it is upheld that our societies must permit and reflect individual freedom as an inalienable right in so far as this does not impinge upon the freedom of others. These of course are both products of Enlightenment thinking.

Unfortunately however, the Enlightenment still casts its light all too glaringly, and so I have also given voice to the Counter-Enlightenment reaction that sparked the Romantic Movement. After all, meaningful consideration of our lives and world is founded as much on emotional integrity as on intellectual inquiry, and so I have attempted to bring both to bear. A third and final axiom has been that, to quote from George Orwell:

“Socialism is such elementary common sense that I am sometimes amazed that it has not established itself already.”

The reasons he offers are excellent, and since I couldn't have put the case any better, I'll allow Orwell to complete his plea to our common sense and humanity:

“The world is a raft sailing through space with, potentially, plenty of provisions for everybody; the idea that we must all cooperate and see to it that everyone does his fair share of the work and gets his fair share of the provisions seems so blatantly obvious that one would say that no one could possibly fail to accept it”⁵

This is certainly not a book about proposing final solutions; a promise that nowadays rightly sounds like a deathly thud. Instead, it is a book that asks dumb questions in the hope of groping a way ahead through the darkness. The approach I have taken was perhaps most inspired by the

great physicist Richard Feynman, who regarded stupid questions as the royal road to understanding.

My intention is, nonetheless, to plot a course via multiple and varied disciplines that helps us to navigate to a better future; an objective that means directly challenging hard-held, often unspoken, and frequently unquestioned beliefs; beliefs that have taken on the mistaken disguise of the bleeding obvious.

To sum up: I came apparently from nowhere (as did you); I see, I sense and I make reason of these senses by awareness that is absolutely incomprehensible to me (just your own awareness is inexplicable to you); and in the pages that follow I have tried to make some sense of what I have seen, sensed and reasoned (in the hope that others might find my inquiry interesting).

My aim is modest. Not to construct serious blueprints for a new utopia, since that represents something impossible: a full stop at the end of history. Instead, I consider the nature of existing beliefs and systems that overtly or surreptitiously cloud our vision or delay our approach to making genuine improvements to the way things run. In any case, utopia, understood as some kind of ultimate destination, is a pipedream fraught with terrible dangers. It is better by far to imagine utopia, not as a terminus, but more like a compass direction – an ideal to set a reliable course towards. The road to utopia, as Wilde says, necessarily entails a journey without end.

*

Part I

Bones of contention *who do we think we are?*

“To see what is in front of one’s nose needs a constant struggle”

— George Orwell

Prologue: Signs of life

*There were nights when he thought he would
hurl himself into space towards heaven; hours
full of discovery, when he felt strong enough to
dive back down to earth and pull it up with him
on the tidal wave of his heart.*

— Rainer Maria Rilke[†]

*

Throughout most of my youth I was an ardent atheist. At university I studied physics and this early venture into hard science was no doubt an unconscious bid to prove the solid existential truth of a sterile and soulless universe. It never occurred to me there might be viable alternatives to the bleak materialist worldview I had embraced. Metaphysics, I once joked (playing on a line from John Lennon), was just Greek for bullshit. But jokes of this kind were lame attempts to laugh off an unspoken dread.

Although belief in secular materialism (and it is a belief) means contemplation of the abyss, this seemingly courageous act deliberately avoids a worse terror waiting patiently beneath in the form of more astonishing depths of an ultimately unknowable unknown. After all, it is not the lack of light that makes anyone afraid of the dark, but what might be lurking unseen. And so, as with any adopted religious creed, atheism provided me with solace by chasing the darkness away. Yet this felt like a cheat, because it is one. The fact is that *all* suppositions of ultimate truth – whether comparatively sophisticated or otherwise – obstruct your worldview and cloud your judgment.

[†] Translation from the story of “The Prodigal Son” from *The Notebooks of Malte Laurids Brigge* (1910) by poet Rainer Marie Rilke.

In the original German:

Nächte kamen, da er meinte, sich auf ihn zuzuwerfen in den Raum; Stunden voller Entdeckung, in denen er sich stark genug fühlte, nach der Erde zu tauchen, um sie hinaufzureißen auf der Sturmflut seines Herzens.

Spirituality is a funny word, however, and claiming to be “a spiritual person” always sounds a bit naff to me. What it means, I think, is that you have a religious longing (a god-shaped hole) but that religion has such a diabolical reputation, justifiably so, that you need to distance yourself from anything so moralising, so authoritarian, and so drenched in superstition. All these aspects of orthodox religion I detest of course and also find similar self-righteousness lingering in so many corners of the self-declared “new age” along with bountiful helpings of alternative mumbo jumbo.

Nevertheless, these days I am happier to say I am ‘spiritual’ (or even ‘religious’ – why should labels matter much?) if only because I no longer cling to the reductionist dogmas of scientific materialism. It is perhaps truer to say I’m a confessed agnostic! Appreciation of the wonder of life and the wider mystery of existence is more straightforward once the limits to human comprehension are firmly acknowledged. I might even venture so far as to say that I have a modicum of faith, but faith in what exactly?

This is such a huge and involved question that I am tempted to stop there. The greater half of the world’s finest literature devotes itself to matters of this kind, and effing the ineffable is the province of the great poets and other artists. But I will add just one last (albeit extended) point about an often overlooked aspect of ‘spirituality’ and how it relates to self-awareness.

Most of us go about our daily lives thoughtlessly presuming we possess autonomous free will. We presume indeed that all humans and possibly other creatures possess the same freedom to think and act at will. That is, we ordinarily presume we are not total zombies. This is an everyday act of faith. It is also the root to anything we might ever describe as ‘spirituality’.

Science sidelines free will as ‘a perception’; as if it doesn’t actually exist. Hard-boiled scientism goes so far as to actually deny the possibility of free will outright. Yet those who solemnly subscribe to this surprising opinion do not refrain from casting their own moral judgements. They congratulate, chastise and even punish behaviour (their own included) that is purportedly predetermined – I suppose praise and punishment do aid in the reprogramming of future behaviour!

The point is that we overlook many such minor everyday miracles. A whole gaggle of academic disciplines, taking their lead from science (which merely ignores the so-called “hard problem” of consciousness out of convenience), will tie themselves in knots by rejecting its priority. Surely it makes far better sense to celebrate consciousness and free will.

Consciousness is the most blatantly obvious faculty distinguishing human beings from viruses, bricks and plastic waste. (Being merely “a carbon-based life form” just doesn’t cut the mustard!)

Without consciousness there would be no science; no world that is ever experienced. And being free agents makes us the architects of our own destinies. It also means accepting responsibility for what we do and don’t do. The Golden Rule is its unavoidable corollary. But then without kindness and respect for fellow creatures, claims to being “a spiritual person” are very hollow ones in any case. When the poet Philip Larkin realised he had accidentally killed a hedgehog after mowing the lawn he wrote:

*Of each other, we should be kind
While there is still time.*⁶

In one sense there is nothing more spiritual than Larkin’s heartfelt sentiment. So I suppose the problem with lofty words like ‘spirituality’ is that they have a tendency distract us. They carry us outwards toward the heavens or else inwards to contemplate our navels and this rather misses the point. The point itself is eternally here and now and often deceptively mundane.⁷

*

Chapter 1: Aimless weather: *why I'm no longer an atheist.*

“Let no one enter here who does not have faith”

— Inscription over the door on Max Planck’s Laboratory

*

“In the beginning God created the heaven and the earth. And the earth was without form, and void; and darkness was upon the face of the deep. And the spirit of God moved upon the face of the waters. And God said, Let there be light: and there was light.”

It was Christmas Eve 1968, and these were the words spoken by the astronauts on board the Apollo 8 command module shortly after they established a lunar orbit, thereby becoming the first humans ever to leave Earth fully behind them.* As a literary choice, it was one that many found irksome. Atheists, in particular, were not best pleased. Science and religion just don’t mix.

And doubtless, there was more than a little politics to the Apollo astronauts’ decision to read from The Bible. Given that the Cold War face-off provided the main impetus for the entire space programme, and having steadily beaten off the challenge of the godless Soviets, if nothing else, these words transmitted a sort of undiplomatic rebuke, redoubled after the Eagle landing module finally touched down just a few months later, and the Apollo 11 astronauts’ first duty was to plant the Stars and Stripes in the pristine moon dust. Skipping about in delight, taking a few holiday snaps and bringing home the odd basketful of moon-rocks simply wouldn’t be good enough. No matter the official sentiments about mankind’s great leap forward, geopolitics was most definitely along for the ride too!

Not that I am trying to rain on anyone’s parade. Far from it. The moon shot represents an outstanding technical accomplishment, and more

* Apollo 8 was one of the critical reconnaissance missions necessary to lay the groundwork for the moon landing. It was also breathtaking in its own right.

than that, it required one hell of a lot of guts. Sharing the glory of their national triumph, ordinary Americans had every reason to feel pride.

Viewed in the fuller light, of course, America's achievement was also an end product of consolidated international efforts. A unique high point in a centuries-long science and engineering project set in motion by pioneers like Galileo, Kepler and, of course, Newton, which briefly culminated on July 20th 1969 with a genuinely epoch-marking event when for many minutes, the world had collectively held its breath ...*

As for the aforesaid grumbling about the recitation of passages from Genesis, this inclusion of a religious component just seemed tasteless and inappropriate. It wasn't as if the Apollo astronauts had journeyed to the moon on the power of prayer! So why pay tribute to the superstition of religion when the mission was a spotless product of science and the light of reason? And why, after touching the heavens, was science feigning to play second fiddle again? Sir Isaac Newton did all the driving, didn't he...?†

On the other hand, and playing God's advocate (well the devil has one, so why not!), the other-worldly circumstances arguably renders a strange appropriateness and charge to the plain vocabulary of Genesis: heaven and earth; void and darkness; the face of the waters. A literary passage as evocative and as sparse as the emptiness of space itself. If this was an endorsement of the biblical story of creation then it would be another matter obviously, but here perhaps we might forgive any perceived Yuletide *faux pas* – ‘one false step amidst that giant leap for mankind!’

My own gripe is a different but related kind. What a pity I feel, that when Neil and Buzz set off “to where no man had gone before,” climbing into their lunar module and sealing the airlock tight behind, they didn't forget to pack one item; it's easily done. The flag, a homely memento, might better have kept Michael Collins company. Leaving no signs of their visit behind except the landing section of the strange metal beetle they'd flown in, and beside it, those monumental, and still astonishing footprints.

*

* Not quite true actually. Apparently my father was one of a small number who decided not to bother watching the first men step onto the moon's surface. He tells me that he was so sure they would make it, he didn't see the point. My mother watched, and apparently I did too. I was not two years old and can't say I remember. Most likely I found it less impressive than *Bill and Ben: The Flowerpot Men*. But maybe it affected me at a deeper level -- seeing the first moon landing at such a tender age may be part of the reason I ended up studying comets.

† On Day 5 of the mission, Michael Collins, the Capsule Communicator on the ground in Houston famously asked “who's driving?” To which crew member William Anders replied “That's a good question. I think Isaac Newton is doing most of the driving right now.”

Very occasionally I happen to meet intelligent and otherwise rational people who hold the opinion that the biblical story of creation is broadly supported by the latest scientific discoveries. The universe began at a moment, they'll explain, just as it is written. There then followed a succession of events, leading to the eventual rise of Man. All of this, they insist, accurately checks out with the opening page of Genesis, whilst the theories of modern cosmology and evolutionary biology simply patch the occasional missing details. This is what these otherwise rational people tell me, and truly, it is a desperate line of defence!

For there is no amount of creative Biblical accountancy – of interpreting days as epochs and so forth – which can successfully reconstruct the myth of Genesis in order to make it scientifically sound. The world just wasn't created that way – wasn't created at all, apparently – and creationism, which generally claims to be an alternative theory, when it offers literally no theory at all, also fails to withstand the minutest degree of scrutiny. No, creationism survives on account merely of the blind faith of its rather desperate adherents. Here indeed is how a modern cosmologist might have gone about rewriting the Biblical version (if by chance they had been on hand to lend God a little technical assistance):

“In the beginning God created a small but intense fireball. A universal atom into which space and time itself were intrinsically wrapped. As this primordial fireball very rapidly expanded and cooled, the fundamental particles of matter condensed out of its energetic froth, and by coalescence, formed into atoms of hydrogen, helium and lithium. All this passed in a few minutes.

Clouds of those original elements, collapsing under their own weight, then formed into the first stars. The loss of gravitational potential energy heating the gases in these proto-stars to sufficiently high temperatures (many millions of degrees) to trigger nuclear fusion. In the cores of such early giants, the atoms of hydrogen and helium were now just beginning to be fused into ever-heavier elements through a series of stages known as nucleosynthesis. Happily this fusion of smaller atoms into increasingly larger ones generated an abundance of energy. Enough to keep the core temperature of each star above a million degrees; hot enough to sustain the fusion of more and more atoms. So it was that the hydrogen begat helium, helium begat lithium, lithium begat beryllium and boron... And God saw that it was good.

After a few billion years had passed, these same stars, which had hitherto been in a state of hydrostatic balance – thermal and radiation

pressure* together supporting the weight of the gases – were burning low on fuel. During this last stage, at the end of a long chain of exergonic[†] fusion reactions, atoms as large as iron were being created for the very first time. Beyond the production of iron, however, this nucleosynthesis into even heavier elements becomes energy exhaustive, and so the process of fusion could no longer remain self-sustaining. So it came to pass that the first generation stars were starting to die.

But these stars were not about to fizzle out like so many guttering candles. The final stage of their demise involved not a whimper, but bangs of unimaginable power. Beginning as a collapse, an accelerating collapse that would inevitably and catastrophically rebound, each star was torn apart within a few seconds, the remnants propelled at hyper-velocities out into deep space. And it was during these brief but almighty supernova explosions when the heavier elements (lead, gold and ultimately all the stable elements in the periodic table) came into being.

Ages came and passed. Pockets of the supernova debris, now drifting about in tenuous clouds, and enriched with those heavier elements, began to coalesce a second time: the influence of gravity rolling the dust into new stars. Our Sun is one star born not from that generation, but the next, being one of almost countless numbers of third-generation of stars: our entire Solar System emerging indeed from a twice-processed aggregation of swirling supernova debris. All this had passed around five billion years ago; approximately nine billion years after the birth of time itself.”

Now quite obviously in this modern reworking there can be no Earth at the time of creation, so the story in Genesis fails to accord with the science from the outset: from chapter one, verse one. For there is simply no room for Earth when the entire universe is no bigger than a grapefruit!

I can already hear the protests of course: for Earth we must read Universe apparently, in order to make a fair comparison. Okay, so playing along, what then becomes of heaven? For God created both heaven and earth remember. Well, if heaven was once some place above our heads (as it surely was for people living under the stars at the time when Genesis was written) then to accord with the current theories of cosmology, perhaps those who still subscribe to the Biblical story as a literal truth imagine its existence as a parallel universe; linked through a wormhole we call death. Truly, the Lord works in mysterious ways!

* Radiation pressure is the consequence of light itself (photons) having momentum.

† A process that releases energy to the surroundings in the form of work as opposed to endergonic, which means energy consuming. These terms are closely related to exothermic and endothermic, where energy release and absorption take the form of heat transfer.

*

Some readers will doubtless balk at the idea of God being the creator of anything, and yet I think we should honestly admit that nothing in modern cosmology with certainty precludes the existence of an original creative force; of God only as the *primum mobile*, the first-mover, igniting the primordial spark. Indeed, it may come as a surprise to discover (as it did for me) that one of the first proponents of the currently accepted scientific theory – now universally known as the Big Bang Theory – was by vocation a Roman Catholic priest.

Father Georges Lemaître, a Belgian professor of physics and astronomy, who quickly recognised the cosmological possibilities latent within Einstein's then still novel theory of General Relativity, published his 'hypothesis of the primeval atom' in the prestigious scientific journal *Nature* as long ago as 1931. Yet interestingly, his ideas did not receive much support at the time, in part due to lack of evidence, but also because many contemporary physicists initially rejected all such theories of spontaneous universal origin as being an entirely religious import. But science isn't built on belief, and so it can't be held hostage to orthodoxy in the same way that religious conviction can. This is where science and religion absolutely depart. Although, in order to explore this further, it is first helpful to consider two important though surprisingly difficult questions: "what is science?" and "what is religion?"

*

I have a friend who tells me that science is the search for knowledge; an idea that fits very happily with the word's etymology: from Latin *scientia*, meaning "to know". Meanwhile the dictionary itself offers another useful definition: "a branch of knowledge conducted on objective principles involving the systematized observation of, and experiment with phenomena." According to this more complete description; science is not any particular set of knowledge, but rather a system or systems that aim at objectivity.

Scientific facts exist, of course, but these are simply ideas that have been proved irrefutable. For instance, that the Earth is a ball that moves around the Sun. This is a fact and it is a scientific one. For the most part, however, scientists do not work with facts as straightforward as this. Rather than facts, the most common currency of working scientists is theories. Scientific theories are not to be believed in as such, but a means to

encompass the best understanding available. They exist in order to be challenged, and thus to be improved upon.

In science, belief begins and ends as follows: that some forms of investigation, by virtue of being objective, lead to better solutions than other, less objective approaches. This is the only orthodoxy to which all scientists are committed, and so, in the final analysis, being scientific means nothing more or less than an implicit refusal to admit knowledge aside from what can be observed and measured. For science is an inherently empirical approach, with its prime directive and perhaps also its *élan vital* being that: in testing, we trust.

I could leave the question of science right there and move on to consider the question of religion, but before I do so, I would like to put one important matter straight. Whatever it is that science is and does, it actually helps to understand that the majority of scientists seldom if ever consider this question.

As a physics undergraduate myself, I was taught literally nothing about the underlying philosophies of science (there was an addition module – a final year option – addressing this topic but unfortunately it was oversubscribed). Aside from this, I was never taught to analyse the empirical method in and of itself. I personally learnt absolutely nothing about hypotheses, let alone how to test them (and in case this should lead readers to think my university education was itself substandard, then let me also admit, at the risk of appearing an arrogant braggart, that I attended one of the best scientific academies in the country – Imperial College would no doubt say *the* best). Yet they did not teach us about hypotheses, and for the simple reason that the vast majority of physicists rarely bother their heads about them. Instead, the scientists I've known (and again, I was a research student for three years) do what might be broadly termed “investigations”.

An investigation is just that, and it might involve any variety of techniques and approaches. During the most exciting stages of the work, the adept scientist may indeed rely as much on guesswork and intuition as on academic training and logical reasoning. Famously, for example, the chemist August Kekulé dreamt up the structure of benzene in his sleep. Proving the dream correct obviously required a bit more work.

The task set for every research scientist is to find answers. Typically then, scientists are inclined to look upon the world as if it were a puzzle (the best puzzle available), and as with any other puzzle, the point is just to find a satisfactory solution.

So why then did I begin with talk of scientific methods? Well because, as with most puzzles, some methods will prove more efficacious than others, but also because in this case there is no answer to be found at

the bottom of page 42 – so we’d better be as sure as we can, that the answer we find is the best available one. Which in turn means applying the best (*i.e.*, most appropriate and reliable) methods at hand, or else developing still better ones.

By ‘method’, I do not mean simply whatever approach the scientist employs to test his or her own guesses about the puzzle, but just as importantly, a system that can be used to prove this solution to the satisfaction of a wider scientific community. For methods too are accepted only once they have been tried and tested.

So when the philosopher Karl Popper claims that the scientific method depends upon “testable hypotheses” (or as my friend calls them “detestable hypotheses”) I would say fair enough... but let’s not mistake this definition for a description of what scientists actually do. We may accept that science must make statements that can be falsified – this is indeed a useful “line of demarcation,” as Popper puts it* – and we can call these statements “testable hypotheses” if we choose – but science is simply about broadening and refining our knowledge and understanding, and any approach that is scientifically accountable will really do just fine.

*

So what of religion? Well, that’s a pricklier issue again, of course, so let me swerve clear of any direct answer for the moment so as to draw a further comparison with science.

Where a religious person may say, I have faith in such and such because it is written so, a scientist, assuming she is honest, ought only to say that “given the evidence we have thus far collected and collated, our best explanation is the following...” As more evidence becomes available, our scientist, assuming she has integrity (at least as a scientist), may humbly (or not) concur that her previously accepted best explanation is no longer satisfactory. In short, the scientist is always required by virtue of their profession to keep an open mind; the truth of their discipline being something that’s forever unfolding and producing facts that are rarely final.

For the religious-minded, however, the very opposite may apply, and for all who know that the true shape of things is already revealed to them through faith, there must be absolute restrictions to further open-minded inquiry. (Not that all religions stress the importance of such unassailable beliefs – some do not.)

* Karl Popper’s precise “line of demarcation” was that, if any theory can be shown to be falsifiable, then it can usefully be described as scientific.

Where it is the duty of every scientist to accept all genuine challenges, and to allow (as Richard Feynman once put it) for Nature to come out “the way she is,” it is the duty for many religious believers (though not, as I say, of all who are religious) to maintain a more rigidly fixed view of the world. Here again, however, it ought to be stressed that the scientist’s constant and single-minded aim for objectivity is not necessarily dependent on his or her lack of beliefs or subjective opinion – scientists are, after all, only human. So virtually all scientists come to their puzzles with preconceived hunches, and, whether determined by the head or the heart, have a preference for one solution over another. But this doesn’t much matter, so long as they are rigorous in their science.

Indeed, many of the most brilliant scientific minds have also held strongly religious convictions (Newton and Darwin spring immediately to mind). In studying that great work called Nature, Newton was implicitly trying to understand the mind of God, and finally Newton’s discoveries did not shatter his belief in God, but instead confirmed for him that there must be an intelligent agency at large, or at least one that set things initially in motion. Darwin’s faith was more fundamentally rocked (as we shall see), yet he came to study Nature as another devout believer. But the art of the scientist in every case is to recognise such prejudices and put them to one side, and this is the original reason for developing such strict and rigorous methodologies. Ultimately, to reiterate, science is no more or less powerful than its own methods for inquiry. Which is how it was that physicists and astronomers gradually put aside their reservations as the evidence grew in favour of Father Lemaître’s theory of creation.

So the lesson here is that whereas religion demands faith, science asks *always* for the allowance of doubt and uncertainty. And just as St Thomas asked to see the holes in Christ’s palms, so too every responsible scientist is called to do the same, day in and day out. Doubting Thomas should be a patron saint of all scientists.

*

I wish to change the subject. It is not my aim to pitch science against religion and pretend that science is somehow the victor, when in truth I regard this as a phoney war. On its own territory, which is within the bounds of what is observable and measurable, science must always win. This is inevitable. Those who still look for answers to scientific questions in the ancient writings of holy men are only deceiving themselves.

But science too has its boundaries, and, as the philosopher Ludwig Wittgenstein argued in his famous (if notoriously difficult) *Tractatus*

Logico-Philosophicus – proceeding via an interwoven sequence of numbered and nested propositions and aphorisms to systematically unravel the complex relationship between language, thought and the world – rational inquiry, though our most promising guide for uncovering the facts of existence, can never be complete.

Just as the Universe apparently won't allow us to capture every last drop of heat energy and make it do work for us, at least according to current thermodynamic theories, so Wittgenstein argued (to his own satisfaction and also to the exacting standards of Bertrand Russell) an analogous limitation applies to all systems of enquiry designed for capturing truth. Even the most elaborate engines in the world cannot be made 100% efficient, and likewise the most carefully constructed forms of philosophical investigation, even accepting science as the most magnificent philosophical truth engine we shall ever devise (as Wittgenstein did*), will inescapably be limited to that same extent – perfection in both cases being simply unattainable.

Many have racked their brains to think up the most cunning of contraptions, but none have invented a perpetual motion machine, and the same, according to Wittgenstein, goes for anyone wishing to generate any comprehensive theory of everything, which is just another human fantasy.† Most significantly and most controversially, Wittgenstein says that no method can be devised for securing any certain truths regarding ethics, aesthetics, or metaphysics, and that consequently all attempts at pure and detached philosophical talk of these vital matters is mere sophistry.

Having revealed the ultimate limitations to reasoning, Wittgenstein then arrives at his seventh, and perhaps most famous proposition in this most famous and celebrated of works. A stand-alone declaration: it is the metaphorical equivalent of slamming the book shut!

“What we cannot speak of we must pass over in silence.”* he says, suddenly permitting himself the licence of a poet.

* “The totality of true propositions is the whole of natural science (or the whole corpus of the natural sciences).” — Wittgenstein, *Tractatus Logico-Philosophicus*, 4.11

† “The whole modern conception of the world is founded on the illusion that the so-called laws of nature are the explanations of natural phenomena. Thus people today stop at the laws of nature, treating them as something inviolable, just as God and Fate were treated in past ages. And in fact both were right and both wrong; though the view of the ancients is clearer insofar as they have an acknowledged terminus, while the modern system tries to make it look as if everything were explained.” — Wittgenstein, *Tractatus Logico-Philosophicus*, 6.371-2.

* In German: “Wovon man nicht sprechen kann, darüber muß man schweigen.”

This was his first and also last hurrah as a philosopher (or so he thought[‡]), Wittgenstein taking the lead from his own writings – and what greater measure of integrity for a philosopher than to live according to their own espoused principles. Ditching his blossoming career at Cambridge, he set out in pursuit of a simpler life back in his Austrian homeland, first (and somewhat disastrously) as a primary school teacher, and then more humbly as a gardener at a monastery. (Although at length, of course, he did famously return to Cambridge to resume and extend his “philosophical investigations”.)

But isn't this all just a redressing of much earlier ideas of scepticism? Well, Wittgenstein is quick to distance himself from such negative doctrines, for he was certainly not denying truth in all regards (and never would). But faced by our insurmountable limitations to knowledge, Wittgenstein is instead asking those who discuss philosophies beyond the natural sciences to intellectually pipe-down. Perhaps he speaks too boldly (some would say too arrogantly). Maybe he's just missing the point that others more talented would have grasped, then stomping off in a huff. After all, he eventually turned tail in 1929, picking up where he'd left off in Cambridge, returning in part to criticise his own stumbling first attempt. But then what in philosophy was ever perfectly watertight?

The one thing he was constantly at pains to point out: that all philosophy is an activity and not, as others had believed, the golden road to any lasting doctrinal end.* And it's not that Wittgenstein was really

[‡] “the truth of the thoughts that are here communicated seems to me unassailable and definitive.” Taken from the preface to the *Tractatus Logico-Philosophicus*.

* In this first treatise of Wittgenstein (which was the only one he ever published – his later philosophy contained in “The Philosophical Investigations” being published posthumously), he begins with the totally unsupported and deeply contentious assertion that, in effect, all meaningful language involves a description, or more correctly a depiction, of fact. This follows because the use of all language involves a correlation between objects in the world and names for those objects. This is his so-called “picture theory of language” which requires, Wittgenstein claims, a one-to-one correspondence between names and objects. This given, he demonstrates that if any proposition is to be genuine it must have a definite sense, or to put it differently, for a statement to admit to any test of proof then it must at least be possible for that question to be set out absolutely clearly. For Wittgenstein this means that questions about ethics, aesthetics and theology fall outside the realm of philosophy; the reason being that they rely on words such as “goodness,” “beauty,” “truth” and “god” which have no clear one-to-one correspondence. Wittgenstein of course later changed his mind on some of this. Recognising that his picture theory was overly simplistic he returned to philosophy with a radically new idea. That the meaning of language is contained in its social usage, thereby reassigning the work of philosophers to the study of language within its natural social environment. The purpose of philosophy was now to untie the knots of these so-called “language games”. But it is easy to mistake him here – and many do – his notion being that science can properly be understood and appraised only by those who know its language, religion likewise, and so on.

stamping his feet and saying “impossible!” but rather that he was attempting to draw some necessary and useful boundaries. Trying to stake out where claims to philosophic truth legitimately begin and end. An enterprise perhaps most relevant to the natural sciences, an arena of especially precise investigation, and one where Wittgenstein’s guiding principle – that anything which can be usefully said may be said clearly or not at all – can be held as a fair measure against all theories. Indeed, I believe this insistence upon clarity provides a litmus test for claims of “scientific objectivity” from every field.

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Let me return to the question of religion itself, not to inquire further into “what it is” (since religion takes many and varied forms, the nature of which we may return to later), but rather to ask more pragmatically “whether or not we are better with or without it,” in whatever form. A great many thinkers past and present have toyed with this question; a considerable few finding grounds to answer with a very resounding “without”.

In current times there has been no more outspoken advocate of banishing all religion than the biologist Richard Dawkins. Dawkins, who aside from being a scientist of unquestionable ability and achievement is also an artful and lively writer; his books on neo-Darwinian evolutionary theory being just as clear and precise as they are wonderfully detailed and inspiring. He allows Nature to shine forth with her own brilliance, though never shirking descriptions of her darker ways. I’m very happy to say that I’ve learnt a great deal from reading Dawkins’ books and am grateful to him for that.

In his most famous (although by no means his best) book, *The Selfish Gene*, Dawkins set out to uncover the arena wherein the evolution of life is ultimately played out. After carefully considering a variety of hypotheses including competition between species, or the rivalry within groups and between individuals, he concludes that in all cases the real drama takes place at a lower, altogether more foundational level. Evolution, he explains, after a great deal of scrupulous evidential analysis, is driven by competition between fragments of DNA called genes, and these blind molecules care not one jot about anything or anyone. This is why the eponymous gene is so ‘selfish’ (and Dawkins may perhaps have chosen his title a little more carefully, since those who haven’t read beyond the cover may wrongly presume that scientists have discovered the gene for selfishness, which is most certainly not the case). But I would like to save

And not that all inquiry is merely a matter of “playing with words”.

any further discussion about theories of biological evolution, and of how these have shaped our understanding of what life is (and hence what we are), for later chapters. Here instead I want to briefly consider Dawkins' idea not of genes but "memes".

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In human society, Dawkins says in his final chapter of *The Selfish Gene*, change is effected far more rapidly by shifts in ideas rather than by those more steady shifts in our biology. So in order to understand our later development, he presents the notion of the parallel evolution between kinds of primal idea-fragments, which he calls "memes". Memes that are most successful (*i.e.*, the most widely promulgated), will, says Dawkins, like genes, possess particular qualities that increase their chances for survival and reproduction. In this case, memes that say "I am true so tell others" or more dangerously "destroy any opposition to my essential truth" are likely to do especially well in the overall field of competition. Indeed, says Dawkins, these sorts of memes have already spread and infected us like viruses.

For Dawkins, religious beliefs are some of the best examples of these successful selfish memes, persisting not because of any inherent truth, but simply because they have become wonderfully adapted for survival and transmission. His idea (a meme itself presumably) certainly isn't hard science – in fact it's all rather hand-waving stuff – but as a vaguely hand-waving response I'd have to admit that he has a partial point. Ideas that encourage self-satisfied proselytising are often spread more virulently than similar ideas that do not. Yet ideas also spread because they are just frankly better ideas, so how can Dawkins' theory of memes bring this more positive reason into account? Can his same idea explain, for instance, why the ideas of science and liberal humanism have also spread so far and wide? Aren't these merely other kinds of successful meme that have no special privilege above memes that encourage sun worship and blood sacrifice?

My feeling here is that Dawkins comes from the wrong direction. There is no rigorous theory for the evolution of memes, nor can there be, since there is no clearly discernible, let alone universal mechanism, behind the variation and selection of ideas. But then of course Dawkins knows this perfectly well and never attempts to make a serious case. So why does he mention memes at all?

Well, as an atheistic materialist, he obviously already knows the answer he wants. So this *faux*-theory of memes is just his damnedest attempt to ensure such a right result. Religion operating as a virus is an

explanation that plainly satisfies him, and whilst his route to discovering that answer depends on altogether shaky methodology, he puts aside his otherwise impeccable scientific principles, and being driven to prove what in truth he only feels, he spins a theory backwards from a prejudice. What Dawkins and others have perhaps failed to recognise is that in the fullest sense, questions of religion – of why we are here, of why we suffer, of what makes a good life – will never be cracked by the sledgehammer of reason, for questions of value lie outside the bounds of scientific analysis. Or, if he does recognise this, then the failing instead is to understand that there are many, quite different in temperament, who will always need attempted answers to these profound questions.

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I didn't grow up in a particularly religious environment. My mother had attended Sunday school, and there she'd learnt to trust in the idea of heaven and the eternal hereafter. It wasn't hell-fire stuff and she was perfectly happy to keep her faith private. My father was more agnostic. He would probably now tell you that he was always an atheist but, in truth, and like many good atheists, he was actually an agnostic. The test of this is simple enough: the fact that he quite often admitted how nice it would be to have faith in something, although his own belief was just that Jesus was a good bloke and the world would be much nicer if people tried to emulate him a bit. (Which is a Christian heresy, of course!)

I was lucky enough to attend a small primary school in a sleepy Shropshire village. Although it was a church school of sorts, religious instruction involved nothing more than the occasional edifying parable, various hymns, ancient and modern, and the Lord's Prayer mumbled daily at the end of assembly. Not exactly what you'd call indoctrination. At secondary school, religious instruction became more formalised – one hour each week, presumably to satisfy state legislature. Then, as the years went by, our lessons in R.E. shifted from a purely Christian syllabus to one with more multicultural aspirations. So we learnt about Judaism, Islam, and even Sikhism, although thinking back I feel sure that our teacher must have delivered such alternative lessons through gritted teeth. I recall once how a classmate confused the creature on top of a Christmas tree with a fairy. Hark, how you should have heard her!

Being rather devout, this same teacher – a young, highly-strung, and staunchly virginal spinster – also set up a Christian Union club that she ran during the lunch hour, and for some reason I joined up. Perhaps it had to do with a school-friend telling me about Pascal's wager: that you might as

well believe in God since you stand to gain so much for the price of so small a stake. In any case, for a few weeks or months I tried to believe, or at least tried to discover precisely what it was that I was supposed to be believing in, though I quickly gave up. Indeed, the whole process actually made me hostile to religion. So for a time I would actively curse the God in the sky – test him out a bit – which proves only that I believed in something.

Well to cut a long story short, whatever strain of religion I'd contracted, it was something that did affect me to a considerable extent in my late teens and early twenties. Of course, by then I regarded myself a fervent atheist, having concluded that "the big man in the sky" was nothing more or less than an ugly cultural artefact, something alien, someone else's figment planted in my own imagination... and yet still I found that I had this God twitch.

Occasionally, and especially for some reason whilst on long journeys driving the car, I'd find myself ruminating on the possibility of his all-seeing eyes watching over me. So, by and by, I decided to make a totally conscious effort to free myself from this mind-patrolling spectre, snuffing out all thought of God whenever it arose. To pay no heed to it. And little by little the thought died off. God was dead, or at least a stupid idea of God, a graven image, and one I'd contracted in spite of such mild exposure to Christian teachings. A mind-shackle that was really no different from my many other contracted neuroses. Well, as I slowly expunged this chimera, I discovered another way to think about religion, although I hesitate to use such a grubby word – but what's the choice?

Spirituality – yuck! It smacks of a cowardly cop-out to apply such a slippery alternative. A weasel word. A euphemism almost, to divert attention from mistakes of religions past and present. But are there any more tasteful alternatives? And likewise – though God is just such an unspeakably filthy word (especially when He bears an upper case G like a crown), what synonym can serve the same purpose? You see how difficult it is to talk of such things when much of the available vocabulary offends (and for some reason we encounter similar problems talking about death, defecation, sex and a hundred other things, though principally death, defecation and sex). So allow me to pass the baton to the greatly overlooked genius of William James, who had a far greater mastery over words than myself, and is a most elegant author on matters of the metaphysical.

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“There is a notion in the air about us that religion is probably only an anachronism, a case of ‘survival’, an atavistic relapse into a mode of thought which humanity in its more enlightened examples has outgrown; and this notion our religious anthropologists at present do little to counteract. This view is so widespread at the present day that I must consider it with some explicitness before I pass to my own conclusions. Let me call it the ‘Survival theory’, for brevity’s sake.”⁸

Here is James steadying himself before addressing his conclusions regarding “The Varieties of Religious Experience”. The twentieth century has just turned. Marx and Freud are beginning to call the tunes: science, more broadly, in the ascendant. But I shall return to these themes later in the book, restricting myself here to James’ very cautiously considered inquiries into the nature of religion itself and why it can never be adequately replaced by scientific objectivity alone. He begins by comparing the religious outlook to the scientific outlook and by considering the differences between each:

“The pivot round which the religious life, as we have traced it, revolves, is the interest of the individual in his private personal destiny. Religion, in short, is a monumental chapter in the history of human egotism... Science on the other hand, has ended by utterly repudiating the personal point of view. She catalogues her elements and records her laws indifferent as to what purpose may be shown by them, and constructs her theories quite careless of their bearing on human anxieties and fates...”⁹

This is such a significant disagreement, James argues, that it is easy to sympathise with the more objective approach guaranteed by hard-edged precision of science, and to dismiss religious attitudes altogether:

“You see how natural it is, from this point of view, to treat religion as mere survival, for religion does in fact perpetuate the traditions of the most primeval thought. To coerce the spiritual powers, or to square them and get them on our side, was, during enormous tracts of time, the one great object in our dealings with the natural world. For our ancestors, dreams, hallucinations, revelations, and cock-and-bull stories were inextricably mixed with facts... How indeed could it be otherwise? The extraordinary value, for explanation and prevision, of those mathematical and mechanical modes of conception which science uses, was a result that could not possibly have been expected in advance. Weight, movement, velocity, direction, position, what thin, pallid, uninteresting ideas! How could the richer animistic aspects of Nature, the peculiarities and oddities that make phenomena picturesquely striking or expressive, fail to have been singled out and followed by philosophy as the more promising avenue to the knowledge of Nature’s life.”¹⁰

As true heirs to the scientific enlightenment, we are asked to abandon such primeval imaginings and, by a process of deanthropomorphisation (to use James' own deliberately cumbersome term), which focuses only on the precisely defined properties of the phenomenal world so carefully delineated by science, sever the private from the cosmic. James argues, however, that such enlightenment comes at a cost:

“So long as we deal with the cosmic and the general, we deal only with the symbols of reality, but as soon as we deal with private and personal phenomena as such, we deal with realities in the completest sense of the term.”¹¹

Thus, to entirely regard one's life through the pure and impersonal lens of scientific inquiry is to see through a glass, not so much too darkly, as too impartially. Whilst being expected to leave out from our descriptions of the world “all the various feelings of the individual pinch of destiny, [and] all the various spiritual attitudes,” James compares with being offered “a printed bill of fare as the equivalent for a solid meal.” He expresses the point most succinctly saying:

“It is impossible, in the present temper of the scientific imagination, to find in the driftings of cosmic atoms, whether they work on the universal or on the particular scale, anything but aimless weather, doing and undoing, achieving no proper history, and leaving no result.”

This is the heart of the matter, and the reason James surmises, quite correctly in my opinion:

“... That religion, occupying herself with personal destinies and keeping thus in contact with the only absolute realities which we know, must necessarily play an eternal part in human history.”¹²

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“I gotta tell you the truth folks,” comedian George Carlin says at the start of his most famous and entertaining rant, “I gotta tell you the truth. When it comes to bullshit – big-time, major league bullshit! You have to stand in awe of the all-time champion of false promises and exaggerated claims: Religion! Think about it! Religion has actually convinced people that there's an invisible man! – living in the sky! – who watches everything you do, every minute of every day...”

And he's right. It's bonkers but it's true, and Carlin is simply reporting what many millions of people very piously believe. Sure, plenty of Christians, Muslims and Jews hold a more nuanced faith in their one

God, and yet for vast multitudes of believers, this same God is nothing but a bigger, more powerful, humanoid. A father figure.

“Man created God in his own image,” is the way a friend once put it to me. And as a big man, this kind of a God inevitably has a big man’s needs.

Of course, the gods of most, if not all, traditions have been in the business of demanding offerings of one kind or another to be sacrificed before them, for what else are gods supposed to receive in way of remuneration for their services? It’s hardly surprising then that all three of the great Abrahamic faiths turn sacrifice into a central theme. But then what sacrifice can ever be enough for the one-and-only God who already has everything? Well, as George Carlin points out, God is generally on the lookout for cash:

“He’s all-powerful, all-perfect, all-knowing and all-wise, but somehow just can’t handle money!” But still, cash only goes so far. Greater sacrifices are also required, and, as the Old Testament story of Abraham and Isaac makes abundantly clear, on some occasions nothing less than human blood-sacrifice will do.* The implicit lesson of this story being that the love of our Lord God requires absolute obedience, nothing less. For ours is not to reason why...

“Oh, God you are so big!” the Monty Python prayer begins – bigness being reason enough to be awed into submission. But God also wants our devotion, and then more than this, he wants our love to be unconditional and undiluted. In short, he wants our immortal souls, even if for the meantime, he’ll settle for other lesser sacrifices in lieu.

As for the more caring Christian God (the OT God restyled), well here the idea of sacrifice is up-turned. The agonising death of his own son on Golgotha apparently satisfying enough to spare the rest of us. It’s an interesting twist, even if the idea of a sacrificed king is far from novel; dividing his former wholeness, and then sacrificing one part of himself to secure the eternal favour of his other half is definitely a neat trick.

But still, why the requirement for such a bloody sacrifice at all? Well, is it not inevitable that every almighty Lord of Creation must sooner or later get mixed up with the God of Death? For what in nature is more

* Genesis Ch.22 tells how God commanded Abraham to go to the land of Moriah and there to offer up his own son Isaac as a sacrifice. The patriarch travels three days until finally he comes to the mountain, just as God had instructed, and there he tells his servant to remain until he and Isaac have ascended the mountain. Isaac, who is given the task of carrying the wood on which he will soon be sacrificed, repeatedly asks his father why there is no animal for the burnt offering. On each occasion, Abraham says that God will provide one. Finally, as Abraham draws his knife and prepares to slaughter his son, an angel stops him. Happily, a ram has been provided and it can now be sacrificed in place of Isaac.

unassailable than Death; the most fearsome destroyer who ultimately smites all. Somehow this God Almighty must have control over everything and that obviously includes Death.

“The ‘omnipotent’ and ‘omniscient’ God of theology,” James once wrote in a letter, “I regard as a disease of the philosophy shop.” And here again I wholeheartedly agree with James. Why...? For all the reasons given above, and, perhaps more importantly, because any “one and only” infinitist belief cannot stand the test at all. Allow me to elucidate.

The world is full of evils; some of these are the evils of mankind, but certainly not all. So what sort of a God created amoebic dysentery, bowel cancer and the Ebola virus? And what God would allow the agonies of his floods, famines, earthquakes, fires and all his other wondrously conceived natural disasters? What God would design a universe of such suffering that he invented the parasitic wasps that sting their caterpillar hosts to leave them paralysed, laying their eggs inside so that their grubs will eat the living flesh?

The trouble is that any One True Lord, presuming this Lord is also of infinite goodness, needs, by necessity, a Devil to do his earthly bidding. This is unavoidable because without an evil counterpart such an infinite and omnipotent God, by virtue of holding absolute power over all creation, must thereby permit every evil in this world, whether man-made or entirely natural in origin. And though we may of course accept that human cruelties are a necessary part of the bargain for God’s gift of free will – which is a questionable point in itself – we are still left to account for such evils as exist beyond the limited control of our species.

Thus, to escape the problem of blaming such “acts of God” on God himself, we may choose to blame the Devil instead for all our woes, yet this leads inexorably to an insoluble dilemma. For if the Devil is a wholly distinct and self-sustaining force we have simply divided God into two opposing halves (when He must be One), whereas if we accept that this Devil is just another of the many works of the One God, then the problem never really went away in the first place. For why would any omnipotent God first create and then permit the Devil to go about in his own evil ways? It is perhaps Epicurus who puts this whole matter most succinctly:

“Is God willing to prevent evil, but not able? Then he is not omnipotent. Is he able, but not willing? Then he is malevolent. Is he both able and willing? Then whence cometh evil? Is he neither able nor willing? Then why call him God?”*

* This is sometimes called “the riddle of Epicurus” or “the Epicurean Paradox” even though Epicurus did not in fact leave behind any written record of this statement. The first record of it appears some four hundred or more years after and in a work by the early Christian writer

It is here that we enter the thorny theological “problem of evil,” although it might equally fittingly be called the “problem of pain,” for without pain, in all its various colourations, it is hard to imagine what actual form the evil itself could take.

So confronted by the Almighty One, we might very respectfully ask, “why pain?” Or if not why pain, as such, for conceivably this God may retort that without pain we would not appreciate joy, just as we could not measure the glory of day without the darkness of night, we still might ask: but why such excessive pain, and why so arbitrarily inflicted? For what level of ecstasy can ever justify all of Nature’s cruelties?

At this point, James unceremoniously severs the Gordian knot as follows: “... the only obvious escape from paradox here is to cut loose from the monistic assumption altogether, and allow the world to have existed from its origin in pluralistic form, as an aggregate or collection of higher and lower things and principles, rather than an absolutely unitary fact. For then evil would not need to be essential; it might be, and it may always have been, an independent portion that had no rational or absolute right to live with the rest, and which we might conceivably hope to see got rid of at last...”

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There are many who have set out to find proof of God’s existence. Some have looked for evidence in archaeology – the sunken cities of Sodom and Gomorrah, the preserved remains of Noah’s Ark, and most famously, the carbon dating of the Shroud of Turin – but again and again the trails lead cold. Others turned inwards. Searching for proof of God through pure reason. But this is surely the oldest mistake in the book. For whatever God could ever be proved by reason would undoubtedly shrivel up into a pointless kind of a God.

But there is also a comparable mistake to be made. It is repeated by all who still try, and after so many attempts have failed, to absolutely refute God’s existence. For God, even the Judeo-Christian-Islamic God, can in some more elusive sense, remain subtle enough to slip all the nets. He need not maintain the form of the big man in the sky, but can diffuse into an altogether more mysterious form of cosmic consciousness. In this more mystical form, with its emphasis on immediate apprehension, history also sinks into the background.

Dawkins and others who adhere to a strictly anti-religious view of the world are in the habit of disregarding these more subtle and tolerant

Lactantius who is actually criticising the argument.

religious attitudes. Fashioning arguments that whip up indignation in their largely irreligious audience, they focus on the rigid doctrines of fundamentalists. And obviously, they will never shake the pig-headed faith of such fundamentalists, but then neither will their appeals to scientific rationalism deflect many from holding more flexible and considered religious viewpoints. The reason for this is simple enough: that man (or, at least, most people) cannot live by bread alone. So, for the genuinely agnostic inquirer, strict atheism provides only an unsatisfactory existential escape hatch.

In the year 2000, the world-renowned theoretical physicist and mathematician Freeman Dyson won the Templeton Prize for Progress in Religion.* In his acceptance speech he staked out the rightful position of religion as follows:

“I am content to be one of the multitude of Christians who do not care much about the doctrine of the Trinity or the historical truth of the gospels. Both as a scientist and as a religious person, I am accustomed to living with uncertainty. Science is exciting because it is full of unsolved mysteries, and religion is exciting for the same reason. The greatest unsolved mysteries are the mysteries of our existence as conscious beings in a small corner of a vast universe. Why are we here? Does the universe have a purpose? Whence comes our knowledge of good and evil? These mysteries, and a hundred others like them, are beyond the reach of science. They lie on the other side of the border, within the jurisdiction of religion.”

So the origins of science and religion are the same; he says, adding a little later:

“Science and religion are two windows that people look through, trying to understand the big universe outside, trying to understand why we are here. The two windows give different views, but they look out at the same universe. Both views are one-sided; neither is complete. Both leave out essential features of the real world. And both are worthy of respect. Trouble arises when either science or religion claims universal jurisdiction, when either religious dogma or scientific dogma claims to be infallible. Religious creationists and scientific materialists are equally dogmatic and insensitive. By their arrogance they bring both science and religion into disrepute.”¹³

* Freeman Dyson is undoubtedly one of the greatest scientists never to win the Nobel Prize. However, he was awarded the Lorentz Medal in 1966 and Max Planck medal in 1969. In March 2000 he was also awarded the Templeton Prize. Created in 1972 by the investor, Sir John Templeton, in an attempt to remedy what he saw as an oversight by the Nobel Prizes, which do not honour the discipline of religion. Previous Templeton Prize recipients have included the Rev. Dr. Billy Graham, Aleksandr Solzhenitsyn, Charles Colson, Ian Barbour, Paul Davies, physicist Carl Friedrich von Weizsacker, and Mother Teresa.

By restoring mystery to its proper place at the centre of our lives, Dyson's uncertainty might indeed offer the possibility for actual religious progress. It might achieve something that the purer atheism almost certainly never will. Hallelujah and amen!

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Once upon a time I was an atheist too, only slowly coming to realise that being so sure-footed about the inessential, non-spirituality of existence requires an element of faith of its own. It requires a faith in the ultimate non-mystery of the material universe. That everything is, in principle at least, fathomable. Not that this means our atheistic scientific worldview must inevitably be duller nor that it automatically considers life less wonderful. Not at all. Life and the rest of it may appear to be just as aimless as weather, to steal James' choice metaphor, but this has a kind of beauty of its own, as many an atheist will affirm. And there's security of a different, some would say higher form, in the acceptance and affirmation of perfectly aimless existence. It can feel like a weight lifted.

Yet, the rarely admitted truth is that the carriers of the scientific light of reason (of whom I remain very much one) are just as uncertain as the average Joe Churchgoer about what might loosely be termed the supernatural (or supranatural) – by which I mean both the ultimately unknowable, and also, whatever strange and various events still remain unexplained by our accepted laws of the natural world. All of which stands to reason: the inexplicable lying, by its very definition, outside the province of science, whilst, at the same time, a bristling realisation that the universe is inherently and intractably mysterious stirs unconsciously at the back of all our minds, even those of the most logical and rational of thinkers. For the stark truth is that existence itself is spooky! And consequently, scientists too are sometimes afraid of the dark.

Finally then, the practising scientist, putting aside all questions of ultimate meaning or purpose, for these concerns are beyond the scope of their professional inquiries, must admit that they sideline such matters only on the grounds of expedience. The only useful scientific questions being ones that can be meticulously framed. So whilst science is necessarily dispassionate and preoccupied with material facts, it does not follow that being scientific means to mistake the world as revealed by science for the scientific model that approximates it – any model of the universe being, at best, obviously a pale approximation to the true complexity of the original.

Scientists then are not the new high priests and priestesses of our times, because their role is cast quite differently. Gazing downwards rather

than upwards, to earth rather than heaven, they pick away at the apparently lesser details in the hope of unravelling the bigger picture. Turning outwards instead of inwards, deliberately avoiding subjective interpretations in favour of tests and measurements, they seek to avoid opinion and to rise above prejudice. All of this requires a kind of modesty, or should.

But there is also a fake religion, one that dresses itself in the brilliant white of laboratory coats. It pleads that the only true way to understanding is a scientific one, disavowing all alternatives to its own rational authority. Of course such claims to absolute authority are no less fraudulent than claims of papal infallibility or the divine right of kings, but true devotees to the new religion are blind to such comparisons. More importantly, they fail to see that all claims to an exclusive understanding, whether resting on the doctrines of religion or by the microscopic scrutiny of science, aside from being false claims, necessarily involves a diminution of life itself. That at its most extreme, this new religion of scientific materialism leads unswervingly to what William Blake called “the sleep of Newton”: a mindfulness only to what can be measured and calculated. And truly this requires a tremendous sacrifice.

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So by degrees I’ve been converted back to agnosticism, for all its shamefulness. Agnosticism meaning “without knowledge”. I really have no idea whether or not a god of any useful description exists, nor even whether this is a reasonable question, yet I can still confidently rule out many of his supposed manifestations (especially those where his name is top-heavy with its illuminated capital G). But any detailed speculation on the nature of god or, if you prefer, the spiritual, is what William James calls “passing to the limit,” and in passing that limit we come to what James called the “over-beliefs”.

Over-beliefs are the prime religious currency in which churches do the bulk of their business. They are what most distinguish the Lutherans from the Catholics; the Sunnis from the Shias; and more schismatically again, the Christians from the Muslims. All the carefully formulated dogma about the Holy Trinity, the Immaculate Conception, the virgin birth; the sacraments and the catechisms; and the ways of invocation of the One True God; or in more Easterly traditions, the karmic cycle and the various means and modes of reincarnation, and so on and so forth, all are over-beliefs, for they attempt to cross the threshold from “the sensible and merely understandable world” to “the hither side”. In his own conclusions, James

suggested a more “pluralistic hypothesis” to square the varieties of religious experience:

“Meanwhile the practical needs and experiences of religion seem to me sufficiently met by the belief that beyond each man and in a fashion continuous with him there exists a larger power which is friendly to him and to his ideals. All that the facts require is that the power should be other and larger than our conscious selves. Anything larger will do, if only it be large enough to trust for the next step. It need not be infinite, it need not be solitary. It might conceivably even be only a larger and more godlike self, of which the present self would then be but the mutilated expression, and the universe might conceivably be a collection of such selves, of different degrees of inclusiveness, with no absolute unity realized in it at all...”

These are James’ overbeliefs and they broadly concur with my own. Though mine have also been tinted a little by Eastern hues. Intuitively I am drawn by the Taoist notion of the constant flux of eternal becoming. An unnameable current of creation with an effortless strength like the strength of water, which is subtle, flexible and unstoppable. Accordingly, my intuition respects the Taoist directive to flow effortlessly with this eternal current, for there is no sense in swimming against it. And this is a philosophy that complements well the mindfulness of Zen (or Ch’an), with its playful seriousness, its snapping fingers calling the wandering attention back to the here and now. I can easily empathise with the Zen student’s search for the raw nakedness of naked existence, with its requirement to strip all veils of presumed understanding; focusing upon where the outer and inner worlds reflect, to achieve a spontaneous but ineffable awakening. I can see it as a potentiality, and it does not jar against the hard-won rationality of my scientific training. In contrast to so much of the declarative wisecracking of western philosophy, mastery of both disciplines is all about knowing when to shut up. As mythologist Joseph Campbell, author of *The Hero with a Thousand Faces*, once said:

“God is a thought, God is an idea, but its reference is to something that transcends all thinking. I mean, he’s beyond being, beyond the category of being or nonbeing. Is he or is he not? Neither is nor is not. Every god, every mythology, every religion, is true in this sense: it is true as metaphorical of the human and cosmic mystery. He who thinks he knows doesn’t know. He who knows that he doesn’t know, knows.”¹⁴

I am not of course a Taoist or a Buddhist of any kind. I am unaffiliated to any church. But I am drawn to Taoism and Zen Buddhism because of their appeals to objectivity, with emphasis on revelation above and beyond belief. For in neither Taoism nor Zen is any shape of God decreed or delineated: God being as much a zero and a one. And as a one-

nothing, or a no-thing, this no-God requires no sacrifice, no high calls to blind obedience; for the Universe is as the Universe does. Yet something of the religious remains, beyond the purely philosophical, a something that strict atheism lacks: a personal role within the cosmic drama, which escapes the absurd chance and purposeless drifting of materialist scientism.*

So it is that I choose to adopt them to an extent. To draw on their philosophies and to marry these on again with ideas found in strands of western existentialism, to aspects of liberal humanism and to the better parts of Christianity (distilled in the songs of Blake, for instance). But whilst it may be edifying to pick the best from traditions of both East and West, to satisfy my god-shaped hole, I see too that such a pick-and-mix approach is prone to make as many false turns as any traditional religious route – it is interesting to note here that the word ‘heretic’ derives from the Greek *hairetikos*, meaning “able to choose”. For there are no actual boundaries here. So what of the many shamanic traditions and tribal gods of primitive society? What about our own pagan heritage? Isn’t it time to get out the crystals and stuff some candles in my ears? Mesmerised by a hotchpotch of half-comprehended ideas and beliefs, just where are the safeguards preventing any freewheeling religious adventurer from falling into a woolly-headed New Ageism?

Well, it’s not for me or anyone else to call the tune. Live and let live – everyone should be entitled to march to the beat of their own drums, always taking care not to trample the toes of others in the process. But this idea of the New Age is a funny business, and I wish to save my thoughts on that (perhaps for another book). Meanwhile, my sole defence against charges of constructing a pick-and-mix religion is this: if you’d lost your keys where would you look for them? In your pocket? Down at your feet? Only under the streetlights? Oh, you have your keys – well then, good for you! Now, please don’t expect everyone else to stop looking around for theirs, or restricted to searching only under the most immediate and convenient lamppost.

Having said all this, and rather shamefully spoken too much on matters that better deserve silence, it now behoves me to add that I am certainly careful when it comes to choosing between personal over-beliefs, adhering to one rule: that what is discredited by steadfast and rigorous scientific trial is guaranteed baloney. Miracles, of course, are quite out of the question, failing on account of their own self-defining impossibility. Equally I have no time for animalistic gods of any persuasion, whether or not they share a human face. But my deepest distrust is not of religions *per*

* It is even tempting to envisage some grand union of these two ancient Chinese philosophies, called Zow!-ism perhaps.

se (since, to repeat, these are many and varied in form, and then good and bad in parts), but more specifically, for the seemingly numberless religious organs we call creeds, sects, churches and so on.

To contend that religion is always about power is to miss the bigger picture, as I hope I've satisfactorily shown, and yet... It would be wise for the sheep to beware the shepherd. This much agreed, however, I feel sure that religion, in some wiser form, still has an important role to play both in our individual lives and for the sake of all our futures. You may be surprised to learn that George Orwell thought similarly, and made his opinion felt in his essay *Notes on the Way* (an essay which, at intervals, I shall return to later):

“... Marx's famous saying that 'religion is the opium of the people' is habitually wrenched out of its context and given a meaning subtly but appreciably different from the one he gave it. Marx did not say, at any rate in that place, that religion is merely a dope handed out from above; he said that it is something the people create for themselves to supply a need that he recognized to be a real one. 'Religion is the sigh of the soul in a soulless world. Religion is the opium of the people.' What is he saying except that man does not live by bread alone, that hatred is not enough, that a world worth living in cannot be founded on 'realism' and machine-guns? If he had foreseen how great his intellectual influence would be, perhaps he would have said it more often and more loudly.”¹⁵

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Addendum: Mind over matter

Physicists speak about ‘quantum theory’ but when asked what the deep physical reality this ‘theory’ describes is truly like, they have no consistent answers to offer. It works, they say, and at a mathematical level is the most precise ‘theory’ so far devised, so “shut up and calculate!” Or, if you prefer (with apologies to Shelley): look upon our quantum works and do not despair... certainly not about any gaps in our understanding of the true nature of reality that underlies it.

This non-philosophical culture was the norm by the time I went to university; an outlook that was seldom if ever challenged and thus easily instilled. Of course, quantum reality does come as a shock at first. I had genuinely felt an acute anxiety on first hearing of Schrödinger’s poor cat forever half-dead in her box. Not that we learnt about this famous thought experiment in class: no, physics abandoned Schrödinger’s cat to her interminable state of limbo long ago. Issues raised with respect to any underlying ontology was reading for pleasure only; a late-night topic for post-pub discussions.

But physicists can be mistaken in their beliefs too, and have come to confuse ignorance with ultimate incomprehensibility. Schrödinger’s cat was dreamt up to shock physics out of complacency: most importantly, to challenge the accepted notion of a mysterious and discontinuous “collapse of the wavefunction” apparently caused by “observation”. Yet instead, we have incorporated the semi-corporeal cat into the mix of quantum oddities: as evidence of our unreal reality when the whole point was that such quantum half-death is totally absurd.

Moreover, what physicists today describe as ‘quantum theory’ is not strictly a theory at all but actually a powerful predictive recipe and an engineering tool, whereas the genuine theory still remains to be written: the true quest for it is disguised by language again, because this potential future theory is what physicists currently sideline under the label ‘interpretations’ – as if they don’t much matter.

Interestingly, the notion that consciousness (a subject I’m coming to) is central to resolving “the problem of measurement” in quantum mechanics was seriously considered by many of the scientific luminaries of the early Twentieth Century including John von Neumann who discussed its key role in a process of ‘psycho-physical parallelism’ in his seminal treatise *The Mathematical Foundations of Quantum Mechanics*. Theoretical physicist and Nobel Laureate Eugene Wigner likewise embraced the view that without reference to consciousness “it was not possible to formulate the

laws of quantum mechanics in a fully consistent way.”* Such interpretations have since fallen out of favour (most especially amongst physicists themselves). More recent empirical findings are perhaps beginning to challenge this scientific orthodoxy and may indeed rock the assertion that there is an irreconcilable distinction between what is sometimes popularly called “quantum choice” and our conscious choice.

The last word (in this chapter, though not on the subject) I shall leave to theoretical physicist Freeman Dyson:

“I cannot help but think that the awareness of our brains has something to do with the process that we call ‘observation’ in atomic physics. That is to say, I think our consciousness is not just a passive epiphenomenon carried along by the chemical events in our brains, but is an active agent forcing the molecular complexes to make choices between one quantum state and another. In other words, mind is already inherent in every electron, and the processes of human consciousness differ only in degree but not in kind from the processes of choice between quantum states which we call ‘chance’ when they are made by electrons.”¹⁶

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* From “Remarks on the Mind-Body Question,” *Symmetries and Reflections* by Eugene Wigner (1967) Indiana University Press, Bloomington, Indiana, pp.171-184.

In fuller context Wigner writes: “When the province of physical theory was extended to encompass microscopic phenomena, through the creation of quantum mechanics, the concept of consciousness came to the fore again: **it was not possible to formulate the laws of quantum mechanics in a fully consistent way without reference to the consciousness.** All that quantum mechanics purports to provide are probability connections between subsequent impressions (also called ‘apperceptions’) of the consciousness, and even though the dividing line between the observer, whose consciousness is being affected, and the observed physical object can be shifted towards the one or the other to a considerable degree, it cannot be eliminated.” [emphasis added]

Chapter 2: The stuff of dreams: *why I'm no longer a humanist.*

*Oats and beans and barley grow,
Oats and beans and barley grow,
Do you or I or anyone know,
How oats and beans and barley grow?*

— Traditional children's rhyme

*

One of my earliest memories at school was being told that rabbits became quick to escape foxes, and likewise, foxes had become quicker to catch rabbits. This, the teacher said, is how one type of animal can slowly change into a new type through a process known as evolution. Well, I didn't believe that for a minute. Such dramatic outcomes from such unremarkable causes. And why, I wondered, would something change simply because it had to – having to isn't any reason.

Of course in many ways my teacher had missed the point (though in fairness, perhaps it was I who missed his point, off in a daydream, or curiously intent on the inconstant fluttering of a leaf against the window, or otherwise lost to the innocent pleasures of childhood reveries). Either way it doesn't matter much. Importantly, my teacher had done his job – and done it well! He had planted a seed, which made this a most valuable lesson. But in his necessarily simplified account of evolution there was a flaw (and his version would by virtue of necessity have been a simple one, because however much I may have been distracted, the subtleties of evolution were beyond the grasp of our young minds). For what he had missed out is not why the rabbits became faster but how. The question being what “adaptive mechanism” could have driven any useful sequence of changes we might call ‘evolution’. And this is really the key point. Leaving out mention of any kind of adaptive mechanism, he was leaving open all sorts of possibilities. For instance, Lamarckism and Darwinism, though both theories of evolution, paint very different accounts of how life has developed, for they

presume quite different adaptive mechanisms. I will try to explain the matter more carefully and in terms of giraffes.

*

You might ask a great many questions about giraffes. For instance, how on earth their extraordinary and striking markings could ever provide useful camouflage, though if you're ever lucky enough to see one step almost invisibly out of dappled foliage into full light, you will certainly be sure that the effect is near perfect. Alternatively, you might ask why it is that they walk with both legs on the same side moving together. A very elegant form of locomotion. However, by far and away the most frequently asked question about giraffes is this: why do they have such long necks?

Well, here's what Lamarck would have said. Giraffes began as ordinary antelope. Some of the antelope preferred grass and others preferred leaves. The ones that preferred leaves had an advantage if they could reach higher. To achieve this they would stretch their necks a little longer. As a direct result of acquiring this new characteristic, the foals of those slightly longer necked antelope would then also be born with slightly longer necks. They too would stretch that little bit higher. Over generations some types of the antelope would develop extremely long necks and the descendants of these eventually developed into a new species called giraffes.

The basis for Lamarck's reasoning lies in a perfectly rational misunderstanding about genetics. He assumes that the "acquired characteristics" (*i.e.*, those characteristics developed or acquired during life) of the parents will somehow be passed through to their offspring. It turns out however that this isn't actually the case. He might have guessed as much I suppose. One of the oft-cited criticisms against Lamarck's theory has been the case of Jewish boys. Why, his opponents would ask, do they ever grow foreskins in the first place?

Darwin offered an alternative hypothesis. Perhaps it goes like this, he thought: there are already differences within the population of antelope; some will have shorter necks than others to start with. Or in other words, there is already a "natural variation". In times of plenty this may not be of significance, but in times of scarcity it could be that the antelope with longer necks have a slight advantage. This idea of course applies to any antelopes with other accidentally favourable characteristics, for example those that run faster, are better camouflaged, or have more efficient digestive systems; but let's not go there – let's stick to necks for a moment. The longer necked adults can reach higher and so get to those few extra leaves that will help them to survive. Having a slightly higher chance of

survival means (all other factors being equal) that they are more likely to pass on their characteristics. Within a few generations there will be an inevitable increase in the population of the long-necked variety until eventually, the long-necked population might plausibly have evolved into a separate species.

What had Darwin achieved in this alternative explanation? Well, he had abolished any requirement for heredity that depended on the transmission of “acquired characteristics.” He’d not entirely proved Lamarck wrong but only shown his ideas aren’t necessary. And although in actual fact Darwin never acknowledged Lamarck’s contribution, purely in terms of theories of heredity his own version was little better than Lamarck’s (basically, by introducing the equally flawed concept of pangenesis he had finally got around the issue of Jewish foreskins). But it is not what Darwin had undermined, so much as what he had set up, that preserves his legacy. That the true driving force of evolution depends on variation and competition, in dynamic relationship that he called “natural selection”.

According to Darwin’s new vision then, the evolution of species depends upon how individuals within that species interact with their environment. Those that are best adapted will survive longer and pass on their winning characteristics, and the rest will perish without reproducing. In short, it is “the survival of the fittest” that ensures evolutionary progress; though this catchy summary was not Darwin’s own, but one that Darwin slowly adopted. (It was actually first coined by the philosopher Herbert Spencer, whose ideas I wish to return to later.)

*

Darwin still attracts a lot of criticism and much of this criticism comes from religious sections intent on promulgating the view that “it was God what done it all” – the Creationists who refuse to acknowledge any of the overwhelming evidence whether from zoology, botany, geology, palaeontology, or embryology; rejecting reason in deference to “the word of God”. However, there are also more considered critiques.

Perhaps the most interesting of these is that Darwin’s evolutionary theory of natural selection is unscientific because it is founded on a tautology. It is after all self-evident that the fittest will survive, given that by fitness you must really be meaning “fitness for survival”. After all, it has to be admitted that sloths have survived, and in what sense can a sloth be said to “be fit” other than in its undoubted fitness to be a sloth. The assumption

then is that Darwin's idea of natural selection has added nothing that wasn't already patently obvious. Yet this is an unfair dismissal.

Firstly, it is unfair, because as I have said above, "the survival of the fittest" is Spencer's contribution – one that leads rapidly into dangerous waters – but it is also unfair because it misses the way in which Darwin's hypothesis is not only predictive, but also (as Karl Popper was so keenly aware) testable. If Darwin's theory was a mere tautology then nothing on earth could ever disprove his claims, and yet there is room here for evidence that might truly test his theory to destruction.

How? Well, Darwin, it must be understood, had put forward a theory of gradual adaptation, so there is no accounting for any sudden leaps within his slowly branching history of life – so if, for instance, a complex new order of species suddenly arose in the fossil record without ancestry, then Darwin's theory would need a radical rethink. Or let's say some fossil was found with characteristics uncommon to any discovered ancestor. Here again Darwin's theory would be seriously challenged. On the other hand, embryologists might discover discrepancies in the way eggs develop, and likewise, following the discovery of DNA and advent of modern genetics, we might find sudden abrupt shifts in the patterns of genes between species instead of gradual changes. Each of these cases would present powerful evidence to challenge Darwinian theory.

But, instead of this (at least until now), these wide and varied disciplines have heaped up the supporting evidence. For example, people used to talk a lot about "the missing link," by which they generally meant the missing link between humans and apes when scientists have in fact discovered a whole host of "missing links" in the guise of close cousins from the Neanderthals to the strange and more ancient australopithecines. For more exciting missing links, how about the fact that the jaw bone of reptiles exists in four parts and that three of those bones have slowly evolved in humans to form parts of the inner ear. How do we know? Well, there is evidence in the development of mammalian and reptilian embryos and more recently the discovery of an intermediate creature in which the bones were clearly used concomitantly for both chewing and listening. This is one of many discovered creatures that Darwin's theory has predicted – whilst the most famous is surely the bird-lizard known as *Archaeopteryx*. Where, by way of comparison, are the remains of, say, Noah's Ark?

But Darwin's theory was not correct in all details. As I have already mentioned, his notion of pangenesis was in some ways little better than Lamarck's theory of acquired characteristics, and so it is perhaps still more remarkable that whilst he looked through a wonky glass, what he gleaned was broadly correct. Although, surprisingly perhaps, it took a monk

(and one trained in physics more than in biology) to begin setting the glass properly straight. Enter Gregor Mendel.

*

If we think back to what people knew about the world (scientifically speaking) prior to the turn of the twentieth century, it seems astonishing what was about to be discovered within just a few decades. For instance, back in 1900 physicists were still in dispute about the existence of atoms, and meanwhile, astronomers were as then unaware of the existence of independent galaxies beyond the Milky Way. But then, in 1905, Einstein suddenly published three extraordinary papers. In the least well known of these, he proved mathematically how the jiggling Brownian motion of pollen grains on water (observed by Robert Brown almost a hundred years earlier) was caused by collisions of water molecules, and doing this, he had finally validated the concept of matter being formed out of particles, and so by extension, thereby proven the existence of atoms, which finally settled a debate regarding the nature of matter that was begun more than two thousand years earlier in Greece.

Moreover, it wasn't until the early 1920s, when Edwin Hubble (now better known as the father of the idea of the expanding universe) first succeeded in resolving the outer parts of other galaxies (previously called nebulae), detecting within their composition the collections of billions of individual stars. At last we knew that there were other galaxies just like our own Milky Way.

So in just twenty years, our universe had simultaneously grown and shrunk by a great many orders of magnitude. Nowadays, of course, we know that atoms are themselves composed of smaller particles: electrons, protons and neutrons, which are in turn fashioned from quarks*; while the galaxies above and beyond congregate within further clusters (the Milky Way being one of the so-called Local Group, which is surely the most understated name for any known object in the whole of science).

The universe we have discovered is structured in multiple layers – though the boundaries between these layers are only boundaries of incomprehension. Looking upwards we encounter objects inconceivably large are in turn the building blocks of objects much larger again, whilst investigating the finest details of the particle world, we've learnt how little fleas have ever smaller fleas...

* There is sound evidence for believing that protons and neutrons are made of quarks, whereas electrons it seems are a type of fundamental particle which has no further component parts.

Our first stabs at understanding the origins of the trillions of galaxies in our visible universe, and of comprehending the nature of the matter and energy that comprises them, has led to speculations based upon solid empirical findings that allow us to construct models of how the physical universe as a whole may have begun. Thus, via a joint collaboration between physicists searching on the macro- and micro-scales, we have finished up with the study of *cosmology*; the rigorous scientific study of the cosmos no less! (And to most physicists working at the turn of the twentieth century, the idea of a branch of physics solely devoted to the understanding of creation would surely have seemed like pure science fiction). I hope my digression has helped to set the scene a little...

*

Around the turn of the twentieth century, there also remained a mystery surrounding the science of heredity and the origin of genes. It was of course common sense that children tended to have characteristics reminiscent of their parents, but in precisely what manner those parental characteristics were hybridised had remained a matter of tremendous speculation. It was still widely believed that some kind of fluid-like mingling of genes occurred, little substantial scientific progress having been made on the older ideas about bloodlines.

But those early theories of blended inheritance, which imagined the infusing together of the two gene pools, as two liquids might mix, were mistaken. If genes really behaved this way then surely the characteristics of people would also blend together. Just as we add hot water to cold to make it warm, so a white man and a black woman would surely together procreate medium brown infants, becoming darker or lighter by generations depending on whether further black or white genes were added. Which is indeed true, up to a point, but it is not *strictly* true. And if it really were so simple, then the range of human characteristics might (as some racial purists had feared) gradually blend to uniformity. But the real truth about inheritance, as Mendel was quietly discovering during the middle of the 19th century, is that genes have an altogether more intriguing method of combination.

*

Mendel was a monk, who aside from observing the everyday monastic duties also taught natural science, principally physics. The work that

eventually made him world-renowned, however, involved studies on peas; this was Mendel's hobby.

He spent many years cross-fertilising varieties and making detailed observations of the succeeding generations. He compared the height of plants. He compared the positioning of flowers and pods on the stem. And he noted subtle differences in shape and colour of seeds, pods and flowers. By comparing generations, Mendel found that offspring showed traits of their parents in predictable ratios. More surprisingly, he noticed that a trait lost in one generation might suddenly re-emerge in the next. So he devised a theory to explain his findings. Like a great many scientific theories, it was ingenious in its simplicity.

Within every organism, he said, genes for each inheritable trait must occur not individually, but in pairs, and in such a way that each of these "gene-pairs" is either "dominant" or "recessive" to its partner. In this way, a gene could sometimes be expressed in the individual whilst in different circumstances it might lay dormant for a generation. But please allow me a brief paragraph to explain this modern concept of inheritance more completely and coherently.

The usual way to explain Mendelian inheritance is in terms of human eye colours. It goes like this: There is one gene for eye colour, but two gene types. These are called "alleles," meaning "each other". In this case, one allele produces brown eyes (let's call this Br), and the other produces blue eyes (Bl). You inherit one of these gene types from your mother and one from your father. So let's say you get a brown allele from each. That means you have Br-Br and will have brown eyes. Alternatively you may get a blue allele from each, and then you'll have Bl-Bl and so have blue eyes. So far so simple. But let's say you get a brown from one parent and a blue from the other. What happens then? Well, Mendel says, they don't mix, and produce green eyes or something, but that one of the genes, the brown one as it happens, will be "dominant," which means you will have brown eyes. But here's the interesting bit, since although you have brown eyes you will nevertheless carry an allele for blue eyes – the "recessive" allele. Now let's say you happen to meet a beautiful brown-eyed girl, who is also carrying the combined Br-Bl genes. What will your beautiful children look like? Well, all things being equal in terms of gene combination – so assuming that you are both equally likely to contribute a Bl allele as a Br allele (*i.e.*, that this is a purely random event) then there are only four equal possibilities: Br-Br, Br-Bl, Bl-Br, or Bl-Bl. The first three of these pairs will produce dominant brown, whilst the two recessive Bl alleles in the last pair produce blue. So if you happen to have four children, then statistically speaking, you are most like to produce three with honey brown

eyes, and one imbued with eyes like sapphires. And the milkman need never have been involved!†

What Mendel realised is that instead of the old fashioned ‘analogue’ system, in which our genes added together in some kind of satisfactory proportions – like two voices forming a new harmony – genes actually mix in an altogether more ‘digital’ fashion, where sometimes, the gene type is on and sometimes it is off. Inevitably, the full truth is more complicated than this, with alleles for different genes sometimes combining in other ways, which will indeed lead to blending of some kinds of inherited traits. Yet even here, it is not the genes (in the form of the alleles) that are blended, but only the “expressed characteristics” of that pair of alleles - something called the phenotype. Thus, for generation after generation these gene types are merely shuffled and passed on. Indeed the genes themselves have a kind of immortality, constantly surviving, just as the bits and bytes in computer code are unaltered in reproductions. Of course, errors in their copying do eventually occur (and we now know that it is precisely such accidental “mutations” which, by adding increased variety to the gene pool, have served to accelerate the process of evolution).*

Mendel’s inspired work was somehow lost to science for nearly half a century, and so although he was a contemporary of Darwin and knew of Darwin’s theory – indeed, Mendel owned a German translation of *On the Origin of Species*, in which he had underlined many passages – there is absolutely no reason to suppose that Darwin knew anything at all of Mendel’s ideas.

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When Mendel’s papers were finally recovered in 1900, they helped set in motion a search for a molecular solution to the question of biological inheritance; a search that would eventually lead to Crick and Watson’s dawning realisation that the structure of DNA must take the form of an intertwined double-helix. Such an extraordinary molecule could peel apart and reform identical copies of itself. DNA, the immortal coil, the self-replicating molecule that lay behind all the reproductive processes of life, sent biologists (not least Crick and Watson) into whirls of excitement. It was 1953 and here was the biological equivalent to Rutherford’s

† Inheritance of eye colour is not, in fact, *strictly* Mendelian although albinism, all forms of colour blindness, and a variety of diseases including sickle-cell anaemia are.

* My use of the analogue/digital comparison is simplistic, but it is only intended as a loose analogy, nothing more.

momentous discovery of an inner structure to atoms, almost half a century earlier. Here was the founding of yet another new science. Whilst nuclear and particle physicists were finding more powerful ways to break matter apart, biologists would soon begin dissecting genomes.

Aside from the direct consequences of current and future developments in biotechnology (a subject I touch on in the addendum below), the rapid developments in the field of genetics, have led to another significant outcome, for biologists have also slowly been proving Darwin's basic hypothesis. Genes really do adapt from one species to another – and we are beginning to see just precisely how. Yet in complete disregard to the mounting evidence, evolutionary theory still comes under more ferocious attack than any other established theory in science. Why does Darwinism generate such furore amongst orthodox religious groups compared say to today's equally challenging theories of modern geology? Why aren't creationists so eager to find fault with the field of Plate Tectonics? (Pardon the pun.) For here is a science in its comparative infancy – only formulated in the 1960s – that no less resolutely undermines the Biblical time-scale for creation, and yet it reaps no comparable pious fury. Rocks just aren't that interesting apparently, whereas, anyone with the temerity to suggest that human beings quite literally evolved from apes... boy, did that take some courage!*

*

Now at last, I will get to my main point, which is this: given that the question of our true origins has been formally settled, what are we to conclude and what are the consequences to be? Or put another way, what's the significance of discovering that just a million years ago – a heartbeat when gauged against the estimated four billion years of the full history of life on Earth – our own ancestors branched off to form a distinct new species of ape?

Well, first and foremost, I think we ought to be clear on the fact that being such relative terrestrial latecomers gives us no grounds for special pleading. We are not in fact perched atop the highest branch of some great evolutionary tree, or put differently; all creation was not somehow waiting on our tardy arrival. After all, if evolution is blind and not goal-orientated, as Darwinism proposes, then all avenues must be equally valid,

* Since writing this I have come upon a range of so-called Young Earth Theories of Geology that contradict my former opinion. Apparently there are indeed groups of Creationists intent on disproving ideas of a 4.5 billion year old planet in favour of a ten thousand year prehistory. Needless to say there is no supporting evidence for this contention.

even those that were never taken. So it follows that all creatures must be evolutionarily equal. Apes, dogs, cats, ants, beetles (which Darwin during his own Christian youth had noted God's special fondness for, if judged only by their prodigious profusion), slugs, trees, lettuces, mushrooms, and even viruses; his theory makes no preference. All life has developed in parallel, and every species that is alive today, evolved from the same evolutionary roots and over the same duration simply to reach the tips of different branches. The only hierarchy here is a hierarchy of succession – of the living over the dead.

In short then, Darwinism teaches that we are just part of the great nexus of life, and no more central or paramount than our planet is central to the universe. To claim otherwise is to be unscientific, and, as Richard Dawkins has pointed out, depends entirely upon anthropocentrism and the “conceit of hindsight”.

Darwin too, quietly recognised that his theory provided no justification for any such pride in human supremacy. Likewise, he refused to draw any clear distinction between human races, correctly recognising all as a single species; an admission that says much for his intellectual courage and honesty, challenging as it did, his otherwise deeply conservative beliefs. For Darwin was a Victorian Englishman, and although not a tremendously bigoted one, it must have been hard for him to accept, that amongst many other things, his own theory of evolution meant that all races of men were of equal birth.

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But if we agree that humans are a specialised kind of ape, then we need to be fair in all respects. We have got into a habit of presuming that mankind, or *Homo sapiens* – “the wise man” – to apply our own vainglorious scientific denomination – of all the countless species on Earth, is the special one. Unique because – as it has often been claimed – we alone developed the skill to use tools. Or because we have a unique capacity for complex communication. Or because we are unparalleled creators of wonderful music and poetry. Or because we are just supremely great thinkers – analytical to the point of seeking a meaning in the existence of existence itself. Or more simply, because we are self-aware, whereas most animals seem childishly oblivious even to their own reflected images. Or, most currently fashionable, because as a species we are uniquely sophisticated in an entirely cultural sense – that is, we pass on complex patterns of behaviour to one-another like no other critters.

All of our uniqueness, we owe, so it goes, to the extraordinary grey matter between our ears, with everything boiling down eventually to this: we are special because we are such brainy creatures – the cleverest around. But think about it: how can we actually be sure even in this conviction? For what solid proof have we that no other creatures on Earth can match our intellectual prowess?

Well, we might think to look immediately to brain size, but there's a catch, as it turns out that bigger animals have bigger brain-needs merely to function. Breathing, regulating blood temperature, coping with sensory input, and so on, all require more neural processing the larger a creature becomes. So we must factor this into our equations, or else, to cite a singular example, we must concede that we are much dumber than elephants.

Okay then, let's divide the weight of a brain by the weight of the animal it belongs to. We might even give this ratio an impressive label such as "the encephalisation quotient" or whatever. Right then, having recalibrated accordingly, we can repeat the measures and get somewhat better results this time round. Here goes: river dolphins have an EQ of 1.5; gorillas 1.76; chimpanzees 2.48; bottlenose dolphins 5.6; and humans an altogether more impressive 7.4. So proof at last that we're streets ahead of the rest of life's grazers. But hold on a minute: can we really trust such an arbitrary calculus? Take, for example, the case of fatter humans. Obviously they must have a lower average EQ than their thinner counterparts. So this means fatter people are stupider?*

No, measurements of EQ might better be regarded as an altogether rougher indication of intelligence: a method to sort the sheep from the apes. But then, can you actually imagine for a minute, that if say, EQ gave higher results for dolphins than humans; we would ever have adopted it as a yardstick in the first place? Would we not have more likely concluded that there must be something else we'd overlooked besides body-mass? The fact that dolphins live in water and so don't need to waste so much brain energy when standing still, or some such. For if we weren't top of the class then we'd be sure to find that our method was flawed – and this becomes a problem when you're trying to be rigorously scientific. So either we need more refinement in our tests for animal intelligence, with emphasis placed

* My account of EQ is a little bit of a caricature, deliberately so for simplicity as well as for rhetorical effect. In fact, measures of EQ are not straightforward raw brain-to-body mass ratios since the values are somewhat refined to allow for allometric scaling, which tries to account for differences in anatomy, physiology, metabolism, and even behaviour on the basis of body size and growth rates. To these ends a fudge factor has been incorporated for the purpose of enabling better comparison both within and across animal groups. These details however should not distract the reader from the main points of contention.

on being *fully* objective, or else we must concede that intelligence is too subtle a thing even to be usefully defined, let alone accurately scored.

However, a more bullish approach to our claims of greatness goes as follows: look around, do you see any other creatures that can manipulate their environment to such astonishing effect? None has developed the means to generate heat or refrigeration, to make medicines, or to adapt to survive in the most inhospitable of realms, or any of our other monumental achievements. Dolphins have no super-aqua equipment for exploring on land, let alone rockets to carry them to the Sea of Tranquility. Chimpanzees have never written sonnets or symphonies – and never will no matter how infinite the availability of typewriters. So the final proof of our superiority lies in this; whether we call it intelligence or give it any other endorsement: technological achievement, artistic awareness, and imagination of every kind.

So what then do we make of our own very early ancestors, those living even before the rise of Cro-Magnon*, and the first great renaissance which happened more than 40,000 years ago. Cro-Magnon people made tools, wore clothes, lived in huts, and painted the wonderful murals at Lascaux in France and at Altamira in Spain. They did things that are strikingly similar to the kinds of things that humans still do today. *Homo sapiens* of earlier times than these, however, left behind no comparable human artefacts, and yet, physiologically-speaking, were little different from you or I. Given their seeming lack of cultural development then, do we have justification for believing them intellectually inferior, or could it be that they simply exercised their wondrous imaginations in more ephemeral ways?

* “Cro-magnons are, in informal usage, a group among the late Ice Age peoples of Europe. The Cro-Magnons are identified with *Homo sapiens sapiens* of modern form, in the time range ca. 35,000-10,000 b.p. [...] The term ‘Cro-Magnon’ has no formal taxonomic status, since it refers neither to a species or subspecies nor to an archaeological phase or culture. The name is not commonly encountered in modern professional literature in English, since authors prefer to talk more generally of anatomically modern humans (AMH). They thus avoid a certain ambiguity in the label ‘Cro-Magnon’, which is sometimes used to refer to all early moderns in Europe (as opposed to the preceding Neanderthals), and sometimes to refer to a specific human group that can be distinguished from other Upper Paleolithic humans in the region. Nevertheless, the term ‘Cro-Magnon’ is still very commonly used in popular texts because it makes an obvious distinction with the Neanderthals, and also refers directly to people rather than to the complicated succession of archaeological phases that make up the Upper Paleolithic. This evident practical value has prevented archaeologists and human paleontologists – especially in continental Europe – from dispensing entirely with the idea of Cro-Magnons.”

Taken from *The Oxford Companion to Archaeology*. Oxford, UK: Oxford University Press. p.864.

Or let's take whales, as another example. Whales, once feared and loathed as little more than gigantic fish, are nowadays given a special privilege. Promoted to the ranks of the highly intelligent (after humans obviously), we have mostly stopped brutalising them. Some of us have gone further still, by recognising them as emotionally aware and uncommonly sensitive creatures and 'communing with them'. Swimming with dolphins is nowadays rated as one of the must-have life experiences along with white-water rafting and bungee jumping. So somehow, and in spite of the fact that whales have never mastered the ability to control or manipulate anything much – tool-use being a tricky business, of course, if you're stuck with flippers – nevertheless, whales have joined an elite class: the "almost human". Finally, we have managed to see beyond their unbridgeable lack of dexterity, because whales do at least satisfy a great many of our other supposedly defining human abilities – ones that I outlined above.

For instance, dolphins can recognise their own reflections. And they use sounds, equivalent to names, as a way to distinguish one another – so do they gossip? How very anthropomorphic of me to ask! Also, and in common with many other species of cetaceans, they sing, or at least communicate by means of something we hear as song. Indeed, quite recent research based on information theory has been revealing; mathematical analysis of the song of the humpbacked whale indicates that it may be astonishingly rich in informational content – so presumably then they do gossip! On top of which, humpbacked whales (and others of the larger whale species) share a special kind of neural cell with humans, called spindle cells. So might we gradually discover that humpbacked whales are equally as smart as humans? Oh come, come – let's not get too carried away!

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Do you remember a story about the little boy who fell into a zoo enclosure, whereupon he was rescued and nursed by one of the gorillas? It was all filmed, and not once but twice in fact – on different occasions and involving different gorillas, Jambo* and Binti Jua.† After these events, some in the

* "Jambo, Jersey Zoos world famous and much loved silverback gorilla had a truly remarkable life. He was born in Basel Zoo in Switzerland in 1961. He arrived at Jersey Zoo on the 27th April 1972. Jambo, Swahili for Hello, is perhaps better known to the public for the gentleness he displayed towards the little boy who fell into the gorilla enclosure at Jersey Zoo one afternoon in 1986. The dramatic event hit the headlines and helped dispel the myth of gorillas as fearsome and ferocious. It was a busy Sunday afternoon in August 1986 when an incredulous public witnessed Levan Merritt a small boy from Luton UK fall into the Gorilla enclosure at Jersey Zoo."

scientific community sought to discount the evidence of their own eyes (even though others who'd worked closely with great apes saw nothing which surprised them at all). The gorillas in question, these experts asserted, evidently mistook the human child for a baby gorilla. Stupidity rather than empathy explained the whole thing.[‡]

Scientists are rightly cautious, of course, when attributing human motives and feelings to explain animal behaviour, however, strict denial of any parallels which precludes all recognition of motives and feelings aside from those of humans becomes *reductio ad absurdum*. Such an overemphasis on the avoidance of anthropomorphism is no measure of objectivity and leads us just as assuredly to wilful blindness as naïve sentimentality can. Indeed, to arrogantly presume that our closest evolutionary relatives, with whom we share the vast bulk of our DNA, are so utterly different that we must deny the most straightforward evidence of complex feelings and emotions reflects very badly upon us.

But then why stop with the apes? Dolphins are notoriously good at rescuing stranded swimmers, and if it wasn't so terribly anthropomorphising it would be tempting to say that they often seem to go out of their way to help. Could it be that they find us intriguing, or perhaps laughable, or even pathetic (possibly in both senses)? – Adrift in the sea and barely able to flap around. “Why do humans decide to strand themselves?” they may very legitimately wonder.

Dogs too display all the signs of liking us, or fearing us, and, at other times, of experiencing pleasure and pain, so here again what justification do those same scientists have to assume their expressions are

Extract taken from “The Hero Jambo,” a tribute to Jambo written by the founder of Jersey Zoo, Gerald Durrell.

† “LAST SUMMER, AN APE SAVED a three-year-old boy. The child, who had fallen 20 feet into the primate exhibit at Chicago’s Brookfield Zoo, was scooped up and carried to safety by Binti Jua, an eight-year-old western lowland female gorilla. The gorilla sat down on a log in a stream, cradling the boy in her lap and patting his back, and then carried him to one of the exhibit doorways before laying him down and continuing on her way.”

Extract taken from article by F. B. M. de Waal (1997) titled “Are we in anthropodenial?” *Discover* 18 (7): 50-53.

‡ “Binti became a celebrity overnight, figuring in the speeches of leading politicians who held her up as an example of much-needed compassion. Some scientists were less lyrical, however. They cautioned that Binti’s motives might have been less noble than they appeared, pointing out that this gorilla had been raised by people and had been taught parental skills with a stuffed animal. The whole affair might have been one of a confused maternal instinct, they claimed.” *Ibid.*

mere simulacra? And do the birds really sing solely to attract potential mates and to guard their territory? Is the ecstatic trilling of the lark nothing more than a pre-programmed reflex? Here is what the eminent Dutch psychologist, primatologist and ethologist, Frans B.M. de Waal, has to say:

“I’ve argued that many of what philosophers call moral sentiments can be seen in other species. In chimpanzees and other animals, you see examples of sympathy, empathy, reciprocity, a willingness to follow social rules. Dogs are a good example of a species that have and obey social rules; that’s why we like them so much, even though they’re large carnivores.”¹⁷

Rather than investigating the ample evidence of animal emotions, for too long the scientific view has been focused on the other end of the telescope. So we’ve had the behaviourists figuring that if dogs can be conditioned to salivate to the sound of bells then maybe children can be similarly trained, even to the extent of learning such unnecessary facts and skills (at least from a survival point of view) as history and algebra. Whilst more recently, with the behaviourists having exited the main stage (bells ringing loudly behind) a new wave of evolutionary psychologists has entered, and research is on-going; a search for genetic propensities for all traits from homosexuality and obesity, to anger and delinquency. Yes, genes for even the most evidently social problems, such as criminality, are being earnestly sought after, so desperate is the need of some to prove we too are nothing more than complex reflex machines; dumb robots governed by our gene-creators, much as Davros operates the controls of the Daleks. In these ways we have demoted our own species to the same base level as the supposedly automata beasts.

Moreover, simply to regard every non-human animal as a being without sentience is scientifically unfounded. If anything it is indeed based on a ‘religious’ prejudice; one derived either directly from orthodox faith, or as a distorted refraction via our modern faith in humanism. But it is also a prejudice that leads inexorably into a philosophical pickle, inspiring us to draw equally dopey mechanical caricatures of ourselves.

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What is Darwin’s final legacy? Well, that as yet remains unclear, and though it is established that his conjectured mechanism for the development and diversity of species is broadly correct, this is no reason to believe that the whole debate is completely done and dusted. And since Darwin’s theory of evolution has an in-built bearing on our relationship to the natural world, and by interpolation, to ourselves, we would be wise to recognise its limitations.

Darwinism offers satisfactory explanations to a great many questions. How animals became camouflaged. Why they took to mimicry. What causes peacocks to grow such fabulous tails – or at least why their fabulous tails grow so prodigiously large. It also helps us to understand a certain amount of animal behaviour. Why male fish more often look after the young than males of other phylum. Why cuckoos lay their eggs in the nests of other birds. And why the creatures that produce the largest broods are most often the worst parents.

Darwinism also makes a good account of a wide range of complex and sophisticated human emotions. It copes admirably with nearly all of the seven deadly sins. Gluttony, wrath, avarice and lust present no problems at all. Sloth is a little trickier, though once we understand the benefits of conserving energy it soon fits into place, whilst envy presumably encourages us to strive harder. Pride is perhaps the hardest to fathom, since it involves an object of affection that hardly needs inventing, at least from a Darwinian perspective. But I wish to leave aside questions of selfhood for later.

So much for the vices then, but what of the virtues. How, for example are Darwinians able to account for rise of more altruistic behaviour? And for Darwinian purists, altruism arrives as a bit of a hot potato. Not that altruism is a problem in and of itself, for this is most assuredly not the case. Acts of altruism between related individuals are to be expected. Mothers that did not carry genes to make them devoted toward their own children would be less likely to successfully pass on their genes. The same may be said for natural fathers, and this approach can be intelligently elaborated and extended to include altruism within larger and less gene-related groups. It is a clever idea, one that can be usefully applied to understanding the organisation of various communities, including those of social insects such as bees, ants, termites and, of course, naked mole rats...! Yes, as strange as it may sound, one special species of subterranean rodents, the naked mole rats, have social structures closely related to those of the social insects, and the Darwinian approach explains this too, as Dawkins brilliantly elucidates in a chapter of his book *The Selfish Gene*. Yet there remains one puzzle that refuses such insightful treatment.

When I was seventeen I went off cycling with a friend. On the first day of our adventures into the wilderness that is North Wales, we hit a snag. Well, actually I hit a kerb, coming off my bike along a fast stretch of the A5 that drops steeply down into Betws-y-Coed – a route that my parents had expressly cautioned me not to take, but then as you know, boys will be boys. Anyway, as I came to a long sliding halt along the pavement (and not the road itself, as luck would have it), I noticed that a car on the opposite

side had pulled up. Soon afterwards, I was being tended to by a very kindly lady. Improvising first aid using tissues from a convenient packet of wet-wipes, she gently stroked as much of the gravel from my wounds as she could. She calmed me, and she got me back on my feet, and without all her generous support we may not have got much further on our travels. I remain very grateful to this lady, a person who I am very unlikely to meet ever again. She helped me very directly, and she also helped me in another way, by teaching me one of those lessons of life that stick. For there are occasions when we all rely on the kindness of strangers, kindness that is, more often than not, as freely given as it is warmly received. Yet even such small acts of kindness pose a serious problem for Darwinian Theory, at least, if it is to successfully explain *all* forms of animal and human behaviour. The question is simply this: when there is no reward for helping, why should anyone bother to stop?

Dawkins' devotes an entire chapter of *The Selfish Gene* to precisely this subject. Taking an idea from "game theory" called "the prisoner's dilemma," he sets out to demonstrate that certain strategies of life that aim toward niceness are actually more likely to succeed than other more cunning and self-interested alternatives. His aim is to prove that contrary to much popular opinion "nice guys finish first". But here is a computer game (and a relatively simple one at that), whereas life, as Dawkins knows full well, is neither simple nor a game. In consequence, Dawkins then grasps hold of another twig. Pointing out how humans are a special case – as if we needed telling...

As a species, he says, we have the unique advantage of being able to disrespect the programming of our own selfish genes. For supporting evidence he cites the use of contraception, which is certainly not the sort of thing that genes would approve of. But then why are we apparently unique in having this ability to break free of our instinctual drives? Dawkins doesn't say. There is no explanation other than that same old recourse to just how extraordinarily clever we are – yes, we know, we know! Yet the underlying intimation is really quite staggering: that human beings have evolved to be so very, very, very clever, that we have finally surpassed even ourselves.

As for such disinterested acts of altruism, the kind of instance exemplified by the Samaritanism of my accidental friend, these, according to strict Darwinians such as Dawkins, must be accidents of design. A happy by-product of evolution. A spillover. For this is the only explanation that evolutionary theory in its current form could ever permit.

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Allow me now to drop a scientific clanger. My intention is to broaden the discussion and tackle issues about what Darwinism has to say about being human, and no less importantly, about being animal or plant. To this end then, I now wish to re-evaluate the superficially religious notion of “souls”; for more or less everything I wish to say follows from consideration of this apparently archaic concept.

So let me begin by making the seemingly preposterous and overtly contentious statement that just as Darwin’s theory in no way counters a belief in the existence of God, or gods as such, likewise, it does not entirely discredit the idea of souls. Instead, Darwin has eliminated the apparent need for belief in the existence of either souls or gods. But this is in no means the same as proving they do not exist.

Now, by taking a more Deistic view of Creation (as Darwin more or less maintained until late in his own life), one may accept the point about some kind of godly presence, for there is certainly room for God as an original creative force, and of some ultimately inscrutable kind, and yet it may still be contended that the idea of souls has altogether perished. For evolutionary theory establishes beyond all reasonable doubt that we are fundamentally no different from the other animals, or in essence from plants and bacteria. So isn’t it a bit rich then, clinging to an idea like human souls? Well, yes, if you put it that way, though we may choose to approach the same question differently.

My contention is that ordinary human relations already involves the notion of souls, only that we generally choose not to use the word soul in these contexts, presuming it to be outmoded and redundant. But perhaps given the religious weight of the word this will seem a scandalous contention, so allow me to elucidate. Everyday engagement between human beings (and no doubt other sentient animals), especially if one is suffering or in pain, automatically involves the feeling of empathy. So what then is the underlying cause of our feelings of empathy? – Only the most hard-nosed of behaviourists would dismiss it as a merely pre-programmed knee-jerk response.

Well, empathy, almost by definition, must mean that, in the other, we recognise a reflection of something found within ourselves. But then, what is it that we are seeing reflected? Do we have any name for it? And is not soul just as valid a word as any other? Or, to consider a more negative context, if someone commits an atrocity against others, then we are likely to regard this person as wicked. We might very probably wish to see this person punished. But how can anyone be wicked unless they had freedom to choose otherwise? So then, what part of this person was actually free? Was

it the chemical interactions in their brain, or the electrical impulses between the neurons, or was it something altogether less tangible? And whatever the cause, we cannot punish the mass of molecular interactions that comprises their material being, because punishment involves suffering and molecules are not equipped to suffer. So ultimately we can only punish “the person within the body,” and what is “the person within the body” if not their soul?

But why is it, you may be wondering, that I want to rescue the idea of souls at all. For assuredly you may argue – and not without sound reason – that you have no want nor need for any woolly notions such as soul or spirit to encourage you to become an empathetic and loving person. You might even add that many of the cruellest people in history believed in the existence of the human soul. And I cannot counter you on either charge.

But let’s suppose that finally we have banished all notions of soul or spirit completely and forever – what have we actually achieved? And how do we give a fair account for that other quite extraordinary thing which is ordinary sentience. For quite aside from the subtle complexity of our moods and our feelings of beauty, of sympathy, of love, we must first account for our senses. Those most primary sensory impressions that form the world we experience – the redness of red objects, the warmth of fire, the saltiness of tears – the inexpressible, immediate, and ever-present streaming experience of conscious awareness that philosophers have called *qualia*. If there are no souls then what is actually doing the experiencing? And we should remember that here “the mind” is really nothing more or less, given our current ignorance, than a quasi-scientific synonym for soul. It is another name for the unavailable spook.

Might we have developed no less successfully as dumb automata? There is nothing in Darwin or the rest of science that calls on any requirement for self-conscious awareness to ensure our survival and reproduction. Nothing to prevent us negotiating our environment purely with sensors connected to limbs, via programmed instructions vastly more complex yet inherently no different from the ones that control this word processor, and optimised as super-machines that have no use for hesitant, stumbling, bumblingly incompetent consciousness. So what use is *qualia* in any case?

In purely evolutionary terms, I don’t need to experience the sensation of red to deal with red objects, any more than I need to see air in order to breathe. Given complex enough programs and a few cameras, future robots can (and presumably will) negotiate the world without need of actual sensations, let alone emotions. And how indeed could the blind mechanisms of dumb molecules have accidentally arranged into such elaborate forms to enable cognitive awareness at all? Darwin does not

answer these questions – they fall beyond his remit. But then no one can answer these questions (and those who claim reasons to dismiss *qualia* on philosophical grounds, can in truth only dismiss the inevitably vague descriptions, rather than the ever-present phenomenon itself – or have they never experienced warmth, touched roughness nor seen red?).

And so the most ardent of today’s materialists wish to go further again. They want to rid the world of all speculation regarding the nature of mind. They say it isn’t a thing at all, but a process of the brain, which is conceivably true. (Although I’d add why stop at the brain?)

One fashionable idea goes that really we are “minding,” which is interesting enough given our accustomed error of construing the world in terms of objects rather than actions; nouns coming easier than verbs to most of us. But then, whether the mind might be best represented by a noun or a verb seems for now, and given that we still know next to nothing in any neurological sense, to be purely a matter of taste.

The modern reductionism that reduces mind to brain, often throws up an additional claim. Such material processes, it claims, will one day be reproduced artificially in the form of some kind of highly advanced computer brain. Well, perhaps this will indeed happen, and perhaps one day we really will have “computers” that actually experience the world, rather than the sorts of machines today that simply respond to sensors in increasingly complex ways. I am speculating about machines with *qualia*: true artificial brains that are in essence just as aware as we are. But then how will we know?

Well, that’s a surprisingly tricky question and it’s one that certainly isn’t solved by the famous Turing Test, named after the father of modern computing, Alan Turing. For the Turing Test is merely a test of mimicry, claiming that if one day a computer is so cunningly programmed that it has become indistinguishable from a human intelligence then it is also equivalent. But that of course is nonsense. It is nonsense that reminds me of a very cunning mechanical duck someone once made: one that could walk like a duck, quack like a duck, and if rumours are to be believed, even to crap like a duck. A duck, however, it was not, and nor could it ever become one no matter how elaborate its clockwork innards. And as with ducks so with minds.

But let’s say we really will produce an artificial mind, and somehow we can be quite certain that we really have invented just such an incredible, epoch-changing machine. Does this mean that in the process of conceiving and manufacturing our newly conscious device, we must inevitably learn what sentience is of itself? This is not a ridiculous question. Think about it: do you need to understand the nature of light in order to

manufacture a light bulb? No. The actual invention of light bulbs precedes the modern physical understanding. And do we yet have a full understanding of what light truly is, and is such a full understanding finally possible at all?

Yet there are a few scientists earnestly grappling with questions of precisely this kind, venturing dangerously near the forests and swamps of metaphysics, in search of answers that will require far better knowledge and understanding of principles of the mind. Maybe they'll even uncover something like "the seat of the soul," figuring out from whence consciousness springs. Though I trust that you will not misunderstand me here, for it is not that I advocate some new kind of reductionist search for the soul within, by means of dissection or the application of psychical centrifuges using high strength magnetic fields or some such. As late as the turn of the twentieth century, there was indeed a man called Dr. Duncan MacDougall, who had embarked on just such a scheme: weighing people at the point of death, in experiments to determine the mass of the human soul.* A futile search, of course, for soul – or mind – is unlikely to be, at least in the usual sense, a substantial thing. And though contingent with life, we have no established evidence for its survival into death.

My own feeling is that the soul is no less mortal than our brains and nervous systems, on which it seemingly depends. But whatsoever it turns out to be, it is quite likely to be remain immeasurable – especially if we choose such rudimentary apparatus as a set of weighing scales for testing it. The truth is that we know nothing as yet, for the science of souls (or minds if you prefer) is still without its first principle. So the jury is out on whether or not science will ever explain what makes a human being a being at all, or whether it is another one of those features of existence that all philosophy is better served to "pass over in silence".

Here is what respected cognitive scientist Steven Pinker has to say of sentience in his entertainingly presented and detailed overview of our present understanding of *How the Mind Works*:

"But saying that we have no scientific explanation of sentience is not the same as saying that sentience does not exist at all. I am as certain that I am sentient as I am certain of *anything*, and I bet you feel the same.

* In 1907, MacDougall weighed six patients who were in the process of dying (accounts of MacDougall's experiments were published in the *New York Times* and the medical journal *American Medicine*). He used the results of his experiment to support the hypothesis that the soul had mass (21 grams to be precise), and that as the soul departed the body, so did its mass. He also measured fifteen dogs under similar conditions and reported the results as "uniformly negative". He thus concluded that dogs did not have souls. MacDougall's complaints about not being able to find dogs dying of the natural causes have led at least one author to conjecture that he was in fact poisoning dogs to conduct these experiments.

Though I concede that my curiosity about sentience may never be satisfied, I refuse to believe that I am just confused when I think I am sentient at all! ... And we cannot banish sentience from our discourse or reduce it to information access, because moral reasoning depends on it. The concept of sentience underlies our certainty that torture is wrong and that disabling a robot is the destruction of property but disabling a person is murder.”¹⁸

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There is a belief that is common to a camp of less fastidious professional scientists than Pinker, which, for the sake of simplicity, holds that consciousness, if it was ever attached at all, was supplied by Nature as a sort of optional add-on, in which *every* human experience is fully reducible to an interconnected array of sensory mechanisms and data-processing systems. Adherents to this view tend not to think too much about sentience, of course, and in rejecting their own central human experience, thereby commit a curiously deliberate act of self-mutilation that leaves only zombies fit for ever more elaborate Skinner boxes[†], even when, beyond their often clever rationalisations, we all share a profound realisation that there is far more to life than mere stimulus and response.

Orwell, wily as ever, was alert to such dangers in modern thinking, and reworking a personal anecdote into grim metaphor, he neatly presented our condition:

“... I thought of a rather cruel trick I once played on a wasp. He was sucking jam on my plate, and I cut him in half. He paid no attention, merely went on with his meal, while a tiny stream of jam trickled out of his severed oesophagus. Only when he tried to fly away did he grasp the dreadful thing that had happened to him. It is the same with modern man. The thing that has been cut away is his soul, and there was a period — twenty years, perhaps — during which he did not notice it.”

Whilst Orwell regards this loss as deeply regrettable, he also recognises that it was a very necessary evil. Given the circumstances, giving heed to how nineteenth century religious belief was “...in essence a lie, a semi-conscious device for keeping the rich rich and the poor poor...” he is nevertheless dismayed how all too hastily we’ve thrown out the baby with the holy bathwater. Thus he continues:

[†] An operant conditioning chamber (sometimes known as a Skinner box) is a laboratory apparatus developed by BF Skinner, founding father of “Radical Behaviourism,” during his time as a graduate student at Harvard University. It is used to study animal behaviour and investigate the effects of psychological conditioning using programmes of punishment and reward.

“Consequently there was a long period during which nearly every thinking man was in some sense a rebel, and usually a quite irresponsible rebel. Literature was largely the literature of revolt or of disintegration. Gibbon, Voltaire, Rousseau, Shelley, Byron, Dickens, Stendhal, Samuel Butler, Ibsen, Zola, Flaubert, Shaw, Joyce — in one way or another they are all of them destroyers, wreckers, saboteurs. For two hundred years we had sawed and sawed and sawed at the branch we were sitting on. And in the end, much more suddenly than anyone had foreseen, our efforts were rewarded, and down we came. But unfortunately there had been a little mistake. The thing at the bottom was not a bed of roses after all, it was a cesspool full of barbed wire.”¹⁹

On what purely materialistic grounds can we construct any system of agreed morality? Do we settle for hedonism, living our lives on the unswerving pursuit of personal pleasure; or else insist upon the rather more palatable, though hardly more edifying alternative of eudaemonism, with its eternal pursuit of individual happiness? Our desires for pleasure and happiness are evolutionarily in-built, and it is probably fair to judge that most, if not all, find great need of both to proceed through life with any healthy kind of disposition. Pleasure and happiness are wonderful gifts, to be cherished when fortune blows them to our shore. Yet pleasure is more often short-lived, whilst happiness too is hard to maintain. So they hardly stand as rocks, providing little in the way of stability if we are to build solidly from their foundations. Moreover, they are not, as we are accustomed to imagine, objects to be sought after at all. If we chase either one then it is perfectly likely that it will recede ever further from our reach. So it is better, I believe, to look upon these true gifts as we find them, or rather, as they find us: evanescent and only ever now. Our preferred expressions of the unfolding moment of life. To measure our existence solely against them is however, to miss the far bigger picture of life, the universe and everything.[†]

[†] I received a very long and frank objection to this paragraph from one of my friends when they read through a draft version, which I think is worth including here in the way of balance:

“I must explain that I’m a hedonist to a ridiculous degree, so much so that my “eudaemonism” (sounds dreadful –not like happiness-seeking at all!) is almost completely bound up with the pursuit of pleasure, as for me there is little difference between a life full of pleasures and a happy life. Mind you, pleasure in my definition (as in most people’s, I guess) covers a wide array of things: from the gluttonous through to the sensuous, the aesthetic, the intellectual and even the spiritual; and I would also say that true pleasure is not a greedy piling up of things that please, but a judicious and even artistic selection of the very best, the most refined and the least likely to cause pain as a side effect (I think this approach to pleasure is called “Epicureanism”).

“Love, of course, is the biggest source of pleasure for most, and quite remarkably,

it's not only the receiving but the giving of it that makes one truly happy, even when some pain or sacrifice is involved. This is how I explain acts of generosity like the one you describe, by the woman who helped you when you fell off your bike as a teenager: I think she must have done it because, despite the bother and the hassle of the moment, deep down it made her happy to help a fellow human being. We have all felt this way at some point or other, and as a result I believe that pleasure is not antithetical to morality, because in fact we can enjoy being kind and it makes us unhappy to see suffering around us. This doesn't mean that we always act accordingly, and we certainly have the opposite tendency, too: there is a streak of cruelty in every human that means under some circumstances, we'll enjoy hurting even those we love. But my point is, hedonism and a concern for others are not incompatible. The evolutionary reason for this must be that we are a social animal, so empathy is conducive to our survival as much as aggression and competitiveness may be in some environments. In our present environment, *i.e.*, a crowded planet where survival doesn't depend on killing lions but on getting on with each other, empathy should be promoted as the more useful of the two impulses. This isn't going to happen, of course, but in my opinion empathy is the one more likely to make us happy in the long run.

"Having attempted to clean up the name of pleasure a bit, I'll try to address your other complaints against a life based on such principles: "Yet pleasure is more often short-lived, whilst happiness too is hard to maintain." I agree, and this is indeed the Achilles heel of my position: I'm the most hypochondriac and anxiety-prone person I know, because as a pleasure-a-holic and happiness junkie I dread losing the things I enjoy most. The idea of ever losing [my partner], for example, is enough to give me nightmares, and I'm constantly terrified of illness as it might stop me having my fun. Death is the biggest bogie. I'm not blessed with a belief in the afterlife, or even in the cosmic harmony of all things. This is [my partner]'s belief as far as I can tell, and I'd like to share it, but I've always been an irrational atheist – I haven't arrived at atheism after careful thinking, but quite the opposite, I've always been an atheist because I can't feel the godliness of things, so it is more of a gut reaction with me. The closest thing to the divine for me is in beauty, the beauty of nature and art, but whether Beauty is Truth, I really don't know, and in any case beauty, however cosmic, won't make me immortal in any personal or individual sense. I'm horrified at the idea of ceasing to exist, and almost as much at the almost certain prospect of suffering while in the process of dying. This extreme fear is probably the consequence of my hedonist-epicurean-eudaemonism.

"On the other hand, since everyone, including the most religious and ascetic people, is to some extent afraid of dying, is it really such a big disadvantage to base one's life on the pursuit of pleasure and happiness? I guess not, although I must admit that I'd quite like to have faith in the Beyond. I suppose that I do have some of the agnostic's openness to the mystery of the universe – as there are so many things that we don't understand, and perhaps we aren't even equipped to ever understand, it's very possible that life and death have a meaning that escapes us. This is not enough to get rid of my fears, but it is a consolation at times.

"Finally, I also disagree with you when you say that pleasure and happiness "are not, as we are accustomed to imagine, objects to be sought after at all. If we chase either one then it is perfectly likely that it will recede ever further from our reach." There's truth in this, but I think it's also true that unless one turns these things into a priority, it is very difficult to ever achieve them. I for one find that more and more, many circumstances in my life conspire to stop me having any fun: there are painful duties to perform, ailments to cope with, bad news on a daily basis and many other kinds of difficulties, so if I didn't insist on being happy at least a little every day, I'd soon forget how to do it. I'm rather militant about it, in fact. I'm always treating myself in some way, though to be fair to myself, a coffee and a croissant can be enough to reconcile me to a bad day at work, for example, so I'm not really very demanding. But a treat of some sort there has to be to keep me going. Otherwise, I don't see the point."

We might decide, of course, to raise the social above these more individualistic pursuits: settling on the utilitarian calculus of increased happiness (or else reduced unhappiness) for the greatest number. But here's a rough calculation, and one that, however subtly conceived, never finally escapes from its own deep moral morass. For utilitarianism, though seeking to secure the greatest collective good, is by construction, blind to all evils as such, being concerned always and only in determining better or worse outcomes. The worst habit of utilitarianism is to preference ends always above means. Lacking moral principle, it grants licence for "necessary evils" of every prescription: all wrongs being weighed (somehow) against perceived benefits.

We have swallowed a great deal of this kind of poison, so much that we feel uncomfortable in these secular times to speak of "acts of evil" or of "wickedness". As if these archaic terms might soon be properly expurgated from our language. Yet still we feel the prick of our own conscience. A hard-wired sense of what is most abhorrent, combined with an innate notion of justice that once caused the child to complain "but it isn't fair... it isn't fair!" Meanwhile, the "sickness" in the minds of others makes us feel sick in turn.

On what grounds can the staunchest advocates of materialism finally challenge those who might turn and say: this baby with Down's Syndrome, this infant with polio, this old woman with Parkinson's Disease, this schizophrenic, these otherwise healthy but unwanted babies or young children, haven't they already suffered enough? When they justify a little cruelty now in order to stave off greater sufferings to come, or more savagely still, claim that the greater good is served by the painless elimination of a less deserving few, what form should our prosecution take? By adopting a purely materialistic outlook then, we are collectively drawn, whether we wish it or not, toward the pit of nihilism. Even the existentialists, setting off determined to find meaning in the here and now, sooner or later recognised the need for some kind of transcendence, or else abandoned all hope.

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Kurt Vonnegut was undoubtedly one of the most idiosyncratic of twentieth century writers.* During his lifetime, Vonnegut was often pigeonholed as a

* Kurt Vonnegut had originally trained to be a scientist, but says he wasn't good enough. His older brother Bernard trained as a chemist and is credited with the discovery that sodium iodide could be used to force precipitation through 'cloud seeding.' If you ask for Vonnegut in a library, you'll probably be directed toward the science fiction section, since many of his books

science fiction writer, and this was no doubt because his settings are very frequently in some way futuristic, because as science fiction goes, his stories are generally rather earth-bound. In general, Vonnegut seems more preoccupied with the unlikely interactions between his variety of freakish characters (many of whom reappear in different novels), than in using his stories as a vehicle to project his vision of the future itself. Deliberately straightforward, his writing is ungarnished and propelled by sharp, snappy sentences. He hated semi-colons, calling them grammatical hermaphrodites.

Vonnegut often used his talented imagination to tackle the gravest of subjects, clowning around with dangerous ideas, and employing the literary equivalent of slapstick comedy to puncture human vanity and to make fun of our grossest stupidities. He liked to sign off chapters with a hand-drawn asterisk, because he said it represented his own arsehole. As a satirist then, he treads a path that was pioneered by Swift and Voltaire; of saying the unsayable but disguising his contempt under the cover of phantasy. He has become a favourite author of mine.

In 1996, he was awarded the title of American Humanist of the Year. In his acceptance speech, he took the opportunity to connect together ideas that had contributed to his own understanding of what it meant to be a humanist; ideas that ranged over a characteristically shifting and diverse terrain. Here were his concluding remarks:

“When I was a little boy in Indianapolis, I used to be thankful that there were no longer torture chambers with iron maidens and racks and thumbscrews and Spanish boots and so on. But there may be more of them now than ever – not in this country but elsewhere, often in countries we call our friends. Ask the Human Rights Watch. Ask Amnesty International if this isn’t so. Don’t ask the U.S. State Department.

“And the horrors of those torture chambers – their powers of persuasion – have been upgraded, like those of warfare, by applied science, by the domestication of electricity and the detailed understanding of the human nervous system, and so on. Napalm, incidentally, is a gift to civilization from the chemistry department of Harvard University.

“So science is yet another human-made God to which I, unless in a satirical mood, an ironical mood, a lampooning mood, need not genuflect.”²⁰

are set in strangely twisted future worlds. However, his most famous and most widely acclaimed work draws on experiences during the Second World War, and in particular on the Allied fire-bombing of Dresden. Vonnegut had personally survived the attack by virtue of being held as prisoner of war in an underground meat locker, and the irony of this forms the title of the novel, *Slaughterhouse-five*.

*

Rene Descartes is now most famous for having declared, “cogito ergo sum,” which means of course “I think therefore I am”. It was a necessary first step, or so he felt, to escape from the paradox of absolute scepticism, which was the place he had chosen to set out at the beginning of his metaphysical meditations. What Descartes was basically saying was this: look here, I’ve been wondering whether I exist or not, but now having caught myself in the act, I can be sure that I do – for even if I still must remain unsure of everything else besides, I cannot doubt that I am doubting. It is important to realise here that Descartes’ proposition says more than perhaps first meets the eye. After all, he intends it as a stand-alone proof and thus to be logically self-consistent, and the key to understanding how is in his use of the word “therefore”. “Therefore” automatically implying his original act of thinking. If challenged then, to say how he can be certain even in that he is thinking, Descartes’ defence relies upon the very act of thinking (or doubting, as he later put it[†]) described in the proposition. Thinking is undeniable, Descartes is saying, and my being depends on this. Yet this first step is already in error, and importantly, the consequences of this error are resonant still throughout modern western thought.

Rene Descartes, a Christian brought up to believe that animals had no soul (as Christians are wont to do), readily persuaded himself that they therefore felt no pain. It was a belief that permitted him to routinely perform horrific experiments in vivisection (he was a pioneer in the field). I mention this because strangely, and in spite of Darwin’s solid refutation of man’s pre-eminence over beasts, animal suffering is still regarded as entirely different in kind to human suffering, even in our post-Christian society. And I am sorry to say that scientists are hugely to blame for this double standard. Barbaric experimentation, most notoriously in the field of psychology, alongside unnecessary tests for new products and new weapons, are still performed on every species aside from ours, whilst in more terrible (and shamefully recent) times, when scientists were afforded licence to redraw the line above the species level, their subsequent demarcations made on grounds of fitness and race, the same cool-headed objectivity was applied to the handicapped, to prisoners of war, and to the Jews. It is better that we

[†] “We cannot doubt existence without existing while we doubt...” So begins Descartes seventh proposition from his 76 “Principles of Human Knowledge” which forms Part 1 of *Principia philosophiae* (Principles of Philosophy) published in Latin in 1644 and reprinted in French in 1647 – ten years after his groundbreaking treatise *Discourse on the Method* in which “Je pense, donc je suis” (“I think, therefore I am”) had first appeared.

Read more here: <http://www.gutenberg.org/cache/epub/4391/pg4391.html>

never forget how heinous atrocities have too often been committed in the name and pursuit of coldly rational science.

Rene Descartes still has a role to play in this. For by prioritising reason in order to persuade himself of his own existence, he encouraged us to follow him into error. To mix up our thinking with our being. To presume that existence is somehow predicated on reasoning, and not, at least not directly, because we feel, or because we sense, or most fundamentally, because we are. If it is rationality that sets us apart from the beasts, then we exist in a fuller sense than the beasts ever can.

To be absolutely certain of the reality of a world beyond his mind, however, Descartes needed the help of God. Of a living God of Truth and Love. For were it not for the certainty of God's existence, Descartes argued, his mind – though irrefutably extant – might yet be prey to the illusions of some kind of a “deceitful daemon”. Being nothing more than a brain in a tank, to give his idea a modern slant, and plugged into what today would most probably be called *The Matrix*.

Thus realising that everything he sensed and felt might conceivably be an elaborately constructed illusion, only Descartes' profound knowledge of a God of Truth – a God who made the world as real and out-there as it appeared to be – could save his philosophy from descent into pure solipsism. But this primary dualism of mind and world is itself the division of mind and body – a division of self – while to regard Reason as the primary and most perfect attribute of being, obviously established the mind above the body, and, more generally, spirit above matter. This is the lasting lesson Descartes taught and it is a lesson we have committed so deeply to our western consciousness that we have forgotten we ever learnt it in the first place.

The significant difference in today's world of science, with God now entirely outside of the picture, is that Descartes' hierarchy has been totally up-ended. Matter is the new boss, and mind, its servant.*

*

* A more poetic version of Descartes' proof had already been constructed centuries earlier by early Islamic scholar, Avicenna, who proposed a rather beautiful thought experiment in which we imagine ourselves falling or else suspended, and thus isolated and devoid of all sensory input including any sense of our own body. The “floating man,” Avicenna says, in spite of complete absence of any perceptions of a world beyond, would nevertheless possess self-awareness. That he can still say “I am” proves that he is self-aware and that the soul exists. In consequence, Avicenna also places soul above material, although no priority is granted to reason above our other forms of cognition.

But we might also turn this whole issue on its head. We might admit the obvious. Concede that although we don't know what it is exactly, there is some decidedly strange and immaterial part to ourselves. That it is indeed the part we most identify with – the part we refer to so lovingly as “I”. And that it is this oh-so mysterious part of us which provides all our *prima facie* evidence for existence itself. Though in admitting this, the question simply alters. It becomes: how to account for the presence of such a ghost inside our machines? For what outlandish contrivance would we need to reconnect the matter of our brains with any such apparently in-dwelling spirit? And whereas Rene Descartes once proposed that mind and body might be conjoined within the mysterious apparatus of our pineal gland (presumably on the grounds that the pineal gland is an oddly singular organ), we know better and so must look for less localised solutions. In short then, we may finally need to make a re-evaluation of ourselves, not merely as creatures, but as manifestations of matter itself.

Yet, in truth, all of this is really a Judeo-Christian problem; a deep bisection where other traditions never made any first incision. For what is “matter” in any case? Saying it's all atoms and energy doesn't give a final and complete understanding. Perhaps our original error was to force such an irreconcilable divorce between nebulous soul (or mind) and hard matter, when they are so indivisibly and gloriously co-dependent, for though Science draws a marked distinction between the disciplines of physics and psychology, it only stands for sake of convenience; for sake, indeed, of ignorance.

To begin then, let's try to re-establish some sense of mystery regarding the nature of matter itself – such everyday stuff that we have long taken for granted that through careful measurements and mathematical projections its behaviour can be understood and predicted. Here indeed, Freeman Dyson brings his own expertise in quantum theory, combined with his genius for speculation, to consider the fascinating subject of mind and its relationship to matter:

“Atoms in the laboratory are weird stuff, behaving like active agents rather than inert substances. They make unpredictable choices between alternative possibilities according to the laws of quantum mechanics. It appears that mind, as manifested by the capacity to make choices, is to some extent inherent in every atom. The universe as a whole is also weird, with laws of nature that make it hospitable to the growth of mind.”

Dyson is drawing upon his very deep understanding of quantum physics, and yet already he has really said too much. Quantum choice is not the same as human choice. Quantum choice depends on random chance,

which is the reason Einstein famously asserted, “God does not play dice”. Indeed I’m not sure how quantum theory, as it is currently understood, could ever account for the existence of free will and volition, quite aside from the overriding mystery of sentience itself. So Dyson’s more important point is perhaps his last one: that the universe is “hospitable for the growth of mind”. This is too often overlooked. And for Dyson, it offers reason enough for religious contemplation:

“I do not make any clear distinction between mind and God. God is what mind becomes when it has passed beyond the scale of our comprehension. God may be either a world-soul or a collection of world-souls. So I am thinking that atoms and humans and God may have minds that differ in degree but not in kind.”²¹

I share with Dyson the opinion that it is better to relish these mysteries rather than to retreat to the dry deception of material certainty. For, as Shakespeare summed up so marvellously in his final play *The Tempest*: “we are such stuff as dreams are made on...”^{*} And perhaps this is still the best description we have of ourselves, even though we have no idea whatsoever, how as dream-machines, our dreams are woven.

A toast then! Feel free to join me in raising your glass... to your own mind, your psyche, your soul, call it what you will – a rose by any other name and all that. Three cheers! And to consciousness! To sentience! To uncanny awareness! That same stuff all our dreams are made on...

So with great appreciation and warm affection, here’s to that strangest of things: that thing I so very casually call my-self! But even more than this. To the actual stuff of our lives, to the brain, the entire central nervous system and far beyond. To the eyes and ears and fingertips; to the whole apparatus of our conscious awareness; and to the sentience of all our fellows, whether taking human or other forms! To the strangeness of the material world itself, from which all sentience has miraculously sparked! To the vast and incomprehensible Universe no less, whether manifestly inward or outward, for the distinction may be a finer one than we are in the habit of presume! Here’s to wondering what we are... Drink up!

*

* Prospero in Shakespeare’s *The Tempest*, Act IV, Scene 1.

Addendum: Return of Frankenstein?

The issues surrounding the use of genetically modified organisms (GMOs) are many and complex, but it is perfectly clear that new developments in genetics, like those in nuclear physics nearly a century ago, have automatically opened the door to some quite extraordinary possibilities. Possibilities that will impact our future no less dramatically than the advent of atomic reactors and the hydrogen bomb impacted our very recent past – and still continue to affect us today.

What we really need, of course, is a proper debate about the use of genetic modification. A debate that is open and public: a forum for discussion amongst leading experts (and especially those not associated with the powerful bio-tech firms); scientists from other fields, who though ignorant on specifics, might bring a detached expertise by virtue of familiarity with scientific procedures; alongside representatives from other interested parties such as ‘consumers’ (that’s the rest of us by the way – we all consume, and though I hate the word too, it at least offers a little better perspective on our role without the current system, since this is how the system itself defines us).

This is long overdue, but unsurprisingly the huge bio-tech firms prefer to keep the debate closed down. *Monsanto*, for instance, who claim it’s perfectly safe to release their GMOs directly into our environment, were once in the habit of declaring their herbicide *Roundup* so harmless they said you can drink it!* But then why on earth would anyone (or at least anyone not in their pocket) trust such self-interested and deliberately compromised risk assessments? The short answer is that the precautionary principle has once again been overridden by money and influence.

This great debate needs to be fully inclusive, welcoming intelligent opinion, whether concordant or dissenting. No reasoned objections from *any* quarters being summarily dismissed as unscientific or anti-scientific, as is so often the case, because we must never leave it to technicians alone to decide on issues that directly affect our common future. Relying on highly specialised experts alone – even when those experts are fully independent

* In 1996, the *New York Times* reported that: “Dennis C. Vacco, the Attorney General of New York, ordered the company to pull ads that said Roundup was ‘safer than table salt’ and ‘practically nontoxic’ to mammals, birds and fish. The company withdrew the spots, but also said that the phrase in question was permissible under E.P.A. guidelines.”

(as they so rarely are these days) – would be as unwise as it is anti-democratic.

Genetic manipulation is already upon us. It is already helping in the prevention and treatment of diseases, and in the production of medicines such as insulin (although even here serious questions are arising with regards to the potentially harmful side-effects of using a genetically modified product). More controversial again is the development of pest- and drought-resistant strains of crops; developments that are claimed by their producers to have alleviated a great deal of human suffering already, but which seem to have brought misery of new kinds – I will come back to this later.

And then we come to the development of *Genetic Use Restriction Technology* (Gurt), better known as ‘suicide’ or ‘Terminator’ (to use the industry term) seeds, which are promoted by the industry as a ‘biosafety’ solution. Engineered sterility being a clever way of preventing their own genetically modified plants from causing unwanted genetic contamination – which we might think of as a new form of pollution. The argument being that if modified genes (whether pharmaceutical, herbicide resistance or ‘Terminator’ genes) from a ‘Terminator’ crop get transferred to related plants via cross-pollination, the seed produced from such pollination will be sterile. End of problem.

But this is merely an excuse, of course, and if used in this way, the new technology will ultimately prevent over a billion of the poorest people in the world from continuing in their age-old practice of saving seeds for resowing, which will, as a consequence, make these same farmers totally dependent on a few multinational bio-tech companies. All of which serves as an excellent means for monopolising the world’s food supplies, and offers a satisfactory solution only for the owners of companies like *Monsanto*.[†]

In any case, do we really wish to allow patents on specific genes, opening the door to the corporate ownership of the building blocks to life itself? The world renowned physicist and futurist visionary Freeman Dyson draws a direct comparison to earlier forms of slavery:

“The institution of slavery was based on the legal right of slave-owners to buy and sell their property in a free market. Only in the nineteenth century did the abolitionist movement, with Quakers and other religious believers in the lead, succeed in establishing the principle that the free market does not extend to human bodies. The human body is God’s temple and not a commercial commodity. And now in the twenty-first

[†] For further arguments against “Terminator Technology,” I recommend the following website: www.banterminator.org/content/view/full/233

century, for the sake of equity and human brotherhood, we must maintain the principle that the free market does not extend to human genes.”²²

Nor, I would quickly add, should it extend to the ownership of genes of other higher species of animal or plant life. Moreover, I personally have no wish whatsoever for apples, tomatoes, potatoes (or even tobacco) that provides the RDA for all my nutritional needs, or any other supposed improvement on the original designs – preferring to trust to apples, tomatoes and potatoes that evolved alongside my own human digestive system. And this ought not to be treated as merely a preference, but established as a human right, since we all have the right not to eat GMO just as we have the right to be vegan (not that I’m a vegan, by the way).

Beyond this, we also need to consider the many perfectly serious and inescapable ethical issues that arise once you are tinkering with the primary source code of life itself. Take cloning as an interesting example.

Identical twins are essentially clones, having both developed from the same fertilised egg, and thus sharing the same DNA. But then nature sometimes goes one step further again:

“A form of virgin birth has been found in wild vertebrates for the first time. Researchers in the US caught pregnant females from two snake species and genetically analysed the litters. That proved the North American pit vipers reproduced without a male, a phenomenon called facultative parthenogenesis that has previously been found only in captive species.”²³

I have since learned that parthenogenesis (reproduction without fertilisation or “virgin birth”) is surprisingly common throughout the plant and animal kingdoms. Birds do it, bees do it... and even mammals have been induced to do it. So cloning is not inherently unnatural, and if carried out successfully (as it frequently is in nature), it may one day be no more harmful nor fraught with latent dangers to be a cloned individual than an individual produced by other forms of artificial reproduction. Furthermore, since we already know what human twins are like, we already know what human clones will be like. Yet many ethical questions still hang.

For instance, should anyone be allowed to clone themselves? Or more generally, who chooses which of us are to be cloned? Do we just leave it to the market to decide? And why would we ever want a world populated by identical (or rather, approximately identical – since no two twins are truly identical and there are sound biological reasons for believing clones will never be perfectly reproduced either) human beings? Such ethical questions are forced by the new biotechnologies. And there are many further reasons for why ordinary, intelligent public opinion needs to be included in the debate.

Here is Freeman Dyson again, summarising his own cautious optimism as we enter the age of the new ‘green technologies’:

“I see two tremendous goods coming from biotechnology in the next century, first the alleviation of human misery through progress in medicine, and second the transformation of the global economy through green technology spreading wealth more equitably around the world. The two great evils to be avoided are the use of biological weapons and the corruption of human nature by buying and selling genes. I see no scientific reason why we should not achieve the good and avoid the evil.

“The obstacles to achieving the good are political rather than technical. Unfortunately a large number of people in many countries are strongly opposed to green technology, for reasons having little to do with the real dangers. It is important to treat the opponents with respect, to pay attention to their fears, to go gently into the new world of green technology so that neither human dignity nor religious conviction is violated. If we can go gently, we have a good chance of achieving within a hundred years the goals of ecological sustainability and social justice that green technology brings within our reach.”²⁴

Dyson is being too optimistic no doubt with many of the dangers of GMOs slowly coming to light two decades after he uttered these words as part of his acceptance speech for the award of the Templeton Prize in 2000.

Meanwhile in 2012, *Greenpeace* issued the following press release. It contains the summary of an open letter sent by nearly a hundred Indian scientists to the Supreme Court of India:

“An official report submitted by the technical Expert committee set up by the Supreme Court of India comprising of India’s leading experts in molecular biology, toxicology and biodiversity – unanimously recommends a 10-year moratorium on all field trials of GM Bt [insecticide producing due to genes from *Bacillus thuringiensis*] food crops, due to serious safety concerns. The committee has also recommended a moratorium on field trials of herbicide tolerant crops until independent assessment of impact and suitability, and a ban on field trials of GM crops for which India is center of origin and diversity.

“The report’s recommendations are expected to put a stop to all field releases of GM food crops in India, including the controversial Bt eggplant, whose commercial release was put under an indefinite moratorium there last February 2010. Contrarily, the same Bt eggplant is currently being evaluated for approval in the Philippines.

“‘This official unanimous declaration on the risks of GMOs, by India’s leading biotech scientists is the latest nail on the coffin for GMOs around the world,’ said Daniel M. Ocampo, Sustainable Agriculture

Campaigner of Greenpeace Southeast Asia. ‘It is yet another proof that GMOs are bad for the health, bad for the environment, bad for farmers and bad for the economy.’”²⁵

For though it would be foolish to fail to recognise the enormous potential benefits of some of the new ‘green technologies’, any underestimate of the hazards is sheer recklessness. And this is where my own opinion differs significantly from enthusiasts like Dyson. This science is just so brilliantly new, and so staggeringly complex. The dangers are real and very difficult to over-estimate and so public concern is fully justified whether over health and safety issues, over the politico-economic repercussions, or due to anxieties of a more purely ethical kind.

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Chapter 3: On the side of the angels

What a piece of work is a man!

— William Shakespeare[†]

*

Two decades ago, as explosions lit up the night sky above Baghdad, I was at my parents' home in Shropshire, sat on the sofa, and watching the rolling news coverage. After a few hours we were still watching the same news though for some reason the sound was now off and the music system on.

"It's a funny thing," I remarked, between sips of whisky, and not certain at all where my words were leading, "that humans can do this... and yet also... this." I suppose that I was trying to firm up a feeling. A feeling that arose in response to the unsettling juxtaposition of images and music, and that involved my parents and myself in different ways, as detached spectators. But my father didn't understand at first, and so I tried again.

"I mean how can it be," I hesitated, "that on the one hand we are capable of making such beautiful things like music, and yet on the other, we are the engineers of such appalling acts of destruction?" Doubtless I could have gone on elaborating, but there was no need. My father understood my meaning, and the evidence of what I was trying to convey was starkly before us – human constructions of the sublime and the atrocious side-by-side.

In any case, the question, being as it is, a question of unavoidable and immediate importance to all of us, sort of hangs in the air perpetually, although as a question, it is usually considered and recast in alternative ways – something I shall return to – while mostly it remains not merely unanswered, but unspoken. We treat it instead like an embarrassing family secret, which is best forgotten. Framed hesitantly but well enough for my

[†] From Prince Hamlet's monologue to Rosencrantz and Guildenstern in *Hamlet* Act II, Scene 2. In fuller context:

"What a piece of work is a man! How noble in reason, how infinite in faculty! In form and moving how express and admirable! In action how like an angel, in apprehension how like a god! The beauty of the world. The paragon of animals. And yet, to me, what is this quintessence of dust? Man delights not me. No, nor woman neither, though by your smiling you seem to say so."

father to reply, his answer was predictable too: “that’s human nature”; which is the quick and easy answer although it actually misses the point entirely – a common fallacy technically known as *petitio principia* or ‘begging the question’. For ‘human nature’ in no way provides an answer but simply opens a new question. Just what is human nature? – This is *the* question.

The generous humanity of music and the indiscriminate but cleverly conceived cruelty of carpet bombing are just different manifestations of what human beings are capable of, and thus of human nature. If you point to both and say “this is human nature,” well yes – and obviously there’s a great deal else besides – whereas if you reserve the term only for occasions when you feel disapproval, revulsion or outright horror – as many do – then your condemnation is simply another feature of “human nature”. In fact, why do we judge ourselves at all?

So this chapter represents an extremely modest attempt to grapple with what is arguably the most complex and involved question of all questions. Easy answers are good when they cut to the bone of a difficult problem, however to explain man’s inhumanity to man as well as to his other fellow creatures, surely deserves a better and fuller account than that man is by nature inhumane – if for no other reason than that the very word ‘human’ owes its origins to the earlier form ‘humane’! Upon this etymological root is there really nothing else but vainglorious self-deception and wishful thinking? I trust that language is in truth less consciously contrived.

The real question then is surely this: When man becomes inhumane, why on this occasion or in this situation, but not on all occasions and under all circumstances? And how come we still use the term ‘inhumane’ at all, if being inhumane is so hard-wired into our human nature? The lessons to be learned by tackling such questions can hardly be overstated; lessons that might well prove crucial in securing the future survival of our societies, our species, and perhaps of the whole planet.

*

I Monkey business

“There are one hundred and ninety-three living species of monkeys and apes. One hundred and ninety-two of them are covered with hair.”

— Desmond Morris[†]

*

The scene: just before sunrise about one million years BC, a troop of hominids are waking up and about to discover a strange, rectangular, black monolith that has materialised from nowhere. As the initial excitement and fear of this strange new object wears off, the hominids move closer to investigate. Attracted perhaps by its remarkable geometry, its precise and unnatural blackness, they reach out tentatively to touch it and then begin to stroke it.

As a direct, though unexplained consequence of this communion, one of the ape-men has a dawning realisation. Sat amongst the skeletal remains of a dead animal, he picks up one of the sun-bleached thigh bones and begins to swing it about. Aimless at first, his flailing attempts simply scatter the other bones of the skeleton. In time, however, he gains control and his blows increase in ferocity, until at last, with one almighty thwack, he manages to shatter the skull to pieces. It is a literally epoch-making moment of discovery.

The following day, mingling beside a water-hole, a fight breaks out. His new weapon in hand, our hero deals a fatal blow against the alpha male of a rival troop. Previously at the mercy of predators and reliant on scavenging to find their food, the tribe can now be freed from fear and hunger too. Triumphant, he is the ape-man Prometheus, and in ecstatic celebration of this achievement, he tosses the bone high into the air, whereupon, spinning up and up, higher and higher into the sky, the scene cuts from spinning bone into an orbiting space-craft...

[†] Quote taken from the Introduction to *The Naked Ape* written by Desmond Morris, published in 1967; Republished in: “The Naked Ape by Desmond Morris,” *LIFE*, Vol. 63, Nr. 25 (22 Dec. 1967), p. 95.

*

Stanley Kubrick's *2001: A space odyssey* is enigmatic and elusive. Told in a sequence of related if highly differentiated parts, it repeatedly confounds the viewers' expectations – the scene sketched above is only the opening act to Kubrick's seminal science-fiction epic.

Kubrick said “you are free to speculate as you wish about the philosophical and allegorical meaning of the film”²⁶ So taking Kubrick at his word, I shall do just that – although not for every aspect of the film, but specifically for his first scene, up to and including that most revered and celebrated ‘match cut’ in cinema history, and its relationship to Kubrick's mesmerising and seemingly bewildering climax: moments of transformation, when reality per se is re-imagined. Although on one level, at least, all of the ideas conveyed in this opening as well as the more mysterious closing scenes (more below) are abundantly clear. For Kubrick's exoteric message involves the familiar Darwinian interplay between the foxes and the rabbits and their perpetual battle for survival, which is the fundamental driving force behind the evolutionary development of natural species.

Not that Darwin's conception should be misunderstood as war in the everyday sense, however, although this tends to be the popular interpretation; for one thing the adversaries in these Darwinian arm races, most often predator and prey, in general remain wholly unaware of any escalation in armaments and armour. Snakes, for example, have never sought to strengthen their venom, any more than their potential victims, most spectacularly the opossums that evolved to prey on them, made any conscious attempts to hone their blood-clotting agents. Today's snake-eating opossums have extraordinary immunity to the venom of their prey purely because natural selection strongly favoured opossums with heightened immunity.

Of course, the case is quite different when we come to humankind. For it is humans alone who deliberately escalate their methods of attack and response and do so by means of technology. To talk of an “arms race” between species is therefore a somewhat clumsy metaphor for what actually occurs in nature – although Darwin is accurately reporting what he finds.

And there is another crucial difference between the Darwinian ‘arms race’ and the human variant. Competition between species is not always as direct as between predator and prey, and frequently looks nothing like a war at all. Indeed, it is more often analogous to the competitiveness of two hungry adventurers lost in a forest. For it may well be that both of our adventurers are completely unaware that somewhere in the midst of the

forest there is a hamburger left on a picnic table. While neither adventurer may be aware of the presence of the other, yet they are – at least in a strict Darwinian sense – in competition, since if either one stumbles accidentally upon the hamburger, it happens that, and merely by process of elimination, the other has lost his chance of a meal. As competitors then, the faster walker, or the one with keener eyes, or the one with greatest stamina, will gain a very slight but significant advantage on the other. Thus, perpetual competition between individuals need never amount to war, or even to battles, and this is how Darwin’s ideas are properly understood.

In any case, such contests of adaptation, whether between predators and prey, or sapling trees racing towards the sunlight, can never actually be won. The rabbits may get quicker but the foxes must get quicker too, since if either species fails to adapt then it will not survive long. So it’s actually a perpetual if dynamic stalemate, with species trapped like the Red Queen in *Alice Through the Looking-Glass*, always having to keep moving ahead just to hold their ground – a paradox that evolutionary biologists indeed refer to as “the red queen hypothesis”^{*}.

We might still judge that both sides are advancing, since there is, undeniably, a kind of evolutionary progress, with the foxes growing craftier as the rabbits get smarter too, and so we might conclude that such an evolutionary ‘arms race’ is the royal road to all natural progress – although Darwin noted that other evolutionary pressures including, most notably sexual selection, has tremendous influence as well. We might even go further by extending the principle in order to admit our own steady technological empowerment, viewed objectively as being a by-product of our own rather more deliberate arms race. Progress thus assured by the constant and seemingly inexorable fight for survival against hunger and the elements, and no less significantly, by the constant squabbling of our warring tribes over land and resources.

Space Odyssey draws deep from the science of Darwinism, and spins a tale of our future. From bony proto-tool, slowly but inexorably, we come to the mastery of space travel. From terrestrial infants, to cosmically-free adults – this is the overarching story of *2001*. But wait, there’s more to that first scene than immediately meets the eye. That space-craft which Kubrick cuts to; it isn’t just any old space-craft...

Look quite closely and you might see that it’s actually one of four space-craft, similar in design, which form the components of an orbiting nuclear missile base, and though in the film this is not as clear as in Arthur C. Clarke’s parallel version of the story (the novel and film were co-

^{*} “It takes all the running you can do, to keep in the same place.”

creations written side-by-side), the missiles are there if you peer hard enough.

So *Space Odyssey* is, at least on one level, the depiction of technological development, which, though superficially from first tool to more magnificent uber-tool (*i.e.*, the spacecraft), is also – and explicitly in the novel – a development from the first *weapon* to what is, up to now, the *ultimate* weapon, and thus from the first hominid-cide to the potential annihilation of the entire human population.*

Yet 2001, the year in the title, also magically heralds a new dawn for mankind: a dawn that, as with every other dawn, bursts from the darkest hours. The meaning therefore, as far as I judge it, is that we, as parts of nature, are born to be both creators and destroyers; agents of light and darkness. That our innate but unassailable evolutionary drive, dark as it can be, also has the potential to lead us to the film’s weirdly antiseptic yet quasi-mystical conclusion, and the inevitability of our grandest awakening – a cosmic renaissance as we follow our destiny towards the stars.

Asked in an interview whether he agreed with some critics who had described *2001* as a profoundly religious film, Kubrick replied:

“I will say that the God concept is at the heart of *2001*—but not any traditional, anthropomorphic image of God. I don’t believe in any of Earth’s monotheistic religions, but I do believe that one can construct an intriguing *scientific* definition of God, once you accept the fact that there are approximately 100 billion stars in our galaxy alone, that its star is a life-giving sun and that there are approximately 100 billion galaxies in just the *visible* universe.”

Continuing: “When you think of the giant technological strides that man has made in a few millennia—less than a microsecond in the cosmology of the universe—can you imagine the evolutionary development that much older life forms have taken? They may have progressed from biological species, which are fragile shells for the mind at best, into immortal machine entities—and then, over innumerable eons, they could emerge from the chrysalis of matter transformed into beings of pure energy and spirit. Their potentialities would be limitless and their intelligence ungraspable by humans.”

* The original script for the 2001 also had an accompanying narration which reads:

“By the year 2001, overpopulation has replaced the problem of starvation but this is ominously offset by the absolute and utter perfection of the weapon. Hundreds of giant bombs had been placed in perpetual orbit above the Earth. They were capable of incinerating the entire earth’s surface from an altitude of 100 miles. Matters were further complicated by the presence of twenty-seven nations in the nuclear club.”

When the interviewer pressed further, inquiring what this envisioned cosmic evolutionary path has to do with the nature of God, Kubrick added:

“Everything—because these beings would *be* gods to the billions of less advanced races in the universe, just as man would appear a god to an ant that somehow comprehended man’s existence. They would possess the twin attributes of all deities—omniscience and omnipotence... They would be incomprehensible to us except as gods; and if the tendrils of their consciousness ever brushed men’s minds, it is only the hand of God we could grasp as an explanation.”²⁷

Kubrick was an atheist although unlike many atheists he understood and acknowledged the religious impulse; regarding it as just another instinctual drive and no less irrepressible than our hungers to eat and to procreate. Why? Because at the irreducible heart of religion lies transcendence: the urge to climb above and beyond ordinary states of being. This desire to transcend whether through shamanic communion with the ancestors and animalistic spirits, by monastic practices of meditation and devotion, or by brute technological means, is something common to all cultures.

Thus the overarching message in *2001* is firstly that human nature *is* nature, for good and ill, and secondly that our innate capacity for reason will inexorably propel us to transcendence of our terrestrial origins. In short, it is the theory of Darwinian evolution writ large. Darwinism appropriated and repackaged as an updated creation story – a new mythology and surrogate religion that lends an alternative meaning of life. We will cease to worship nature or humanity, which is nature, it says, and if we continue to worship anything at all, our new icons will be representative only of Progress (capital P). Thus, evolution usurps god! Of course, the symbolism of *2001* can be given esoteric meaning too – indeed, there can never be a final exhaustive analysis of *2001* because like all masterpieces the full meaning is open to infinitude of interpretations – and this I leave entirely for others to speculate upon.

*

I have returned to Darwin just because his vision of reality has become the accepted one. And by acknowledging that human nature is indeed another natural outgrowth, it is always tempting to look to Darwin for answers. However, as I touched upon in the previous chapter, though Darwinism as biological mechanism is extremely well-established science, interpretations that follow from those established evolutionary principles differ, and this is

especially the case when we try to make sense of patterns of animal behaviour: how much stress to place on our own innate biological drives remains an even more hotly contested matter. But if we are to adjudicate fairly on this point then it is worthwhile first to consider how Darwin's own ideas had originated and developed.

In fact, as with all great scientific discoveries, we can trace a number of precursors including the nascent theory of his grandfather Erasmus, a founder member of the Lunar Society, who wrote lyrically in his seminal work *Zoonomia*:

“Would it be too bold to imagine, that in the great length of time, since the earth began to exist, perhaps millions of ages before the commencement of the history of mankind, would it be too bold to imagine, that all warm-blooded animals have arisen from one living filament, which THE GREAT FIRST CAUSE endued with animality, with the power of acquiring new parts, attended with new propensities, directed by irritations, sensations, volitions, and associations; and thus possessing the faculty of continuing to improve by its own inherent activity, and of delivering down those improvements by generation to its posterity, world without end!”²⁸

So doubtless Erasmus sowed the seeds for the Darwinian revolution, although his influence alone does not account for Charles Darwin's central tenet that it is “the struggle for existence” which provides, as indeed it does, one plausible and vitally important mechanism in the process of natural selection, and thus, a key component in his complete explanation for the existence of such an abundant diversity of species. But again, what caused Charles Darwin to suspect that “the struggle for existence” necessarily involved such “a war of all against all” to begin with?

In fact, Darwin had borrowed this idea of “the struggle for existence,” a phrase that he uses as his title heading chapter three of *The Origin of Species*, directly from Thomas Malthus.* And interestingly, Alfred Russell Wallace, the less remembered co-discoverer of evolutionary natural selection, who had reached his own conclusions entirely independently of Darwin's work, was also inspired in part by thoughts of this same concept, which though ancient in origin was already widely attributed to Malthus.

* “In October 1838, that is, fifteen months after I had begun my systematic inquiry, I happened to read for amusement Malthus *On Population*, and being well prepared to appreciate the struggle for existence which everywhere goes on from long-continued observation of the habits of animals and plants, it at once struck me that under these circumstances favourable variations would tend to be preserved, and unfavourable ones to be destroyed. The results of this would be the formation of a new species. Here, then I had at last got a theory by which to work; but I was so anxious to avoid prejudice, that I determined not for some time to write even the briefest sketch of it.” From Charles Darwin's autobiography (1876), pp34–35

However, the notion of “a war of all against all” traces back still further, at least as far back as the English Civil War, and to the writings of highly influential political philosopher, Thomas Hobbes.²⁹ Indeed, much modern thinking on Nature and therefore, by extension, about human nature, has directly or indirectly drawn upon the writings of these two redoubtable Thomases. It is instructive therefore to examine the original context from which the formation and development of Hobbes and Malthus’s own ideas occurred; contributions that have been crucial to the evolution not only of evolutionary thinking, but foundational to the development of post-enlightenment western civilisation. To avoid too much of a digression, I have decided to leave further discussion of Malthus and his continuing legacy for the addendum below, and to focus attention here solely on the thoughts and influence of Hobbes. But to get to Hobbes, who first devoted his attention to the study of the natural sciences and optics in particular, I’d like to begin with a brief diversion by way of my own subject, Physics.

*

The title of Thomas Pynchon’s most celebrated novel *Gravity’s Rainbow* published in 1973 darkly alludes to the ballistic flight path of Germany’s V2 rockets that fell over London during the last days of the Second World War. Pynchon was able to conjure up this provocative metaphor because by the time of the late twentieth century everyone knew perfectly well and seemingly from their own direct experience, that projectiles follow a symmetrical and parabolic arc. It is strange to think, therefore, that for well over a millennium people in the western world, including the most scholarly among them, had falsely believed that motion followed a set of quite different laws, presuming the trajectory of a thrown object, rather than following any sweeping arc, must be understood instead as comprised of two quite distinct phases.

Firstly, impelled upwards by a force the object was presumed to enter a stage of “unnatural motion” as it climbed away from the earth’s surface – its natural resting place – before eventually running out of steam, and then abruptly falling back to earth under “natural motion”. This is indeed a common sense view of motion – the view that every child can instantly recognise and immediately comprehend – although as with many common sense views of the physical world, it is absolutely wrong.

As a rather striking illustration of scientific progress, this shift in modern understanding was brought to my attention by a university professor who had worked it into an unforgettable demonstration that kicked off his

lecture on error analysis. On the blackboard he first sketched out the two competing hypotheses: a beautifully smooth arc captioned ‘Galileo’ and then to the left of it, a pair of disconnected arrows indicating diagonally up and then vertically down labelled ‘Aristotle’. Obviously Galileo was about to win, but then came the punch line as he pulled out a balloon, slapped it at an approximate angle of forty-five degrees before we all watched it drift back to earth just as Aristotle would have predicted! With tremendous glee he then chalked an emphatic cross to dismiss Galileo’s model, before spelling out the message (if you didn’t understand) that above and beyond all the other considerations, it is essential to design your experiment and carry out observations with due care!*

Now, legend tells us that Newton was sitting under an apple tree in his garden, unable to fathom what force could maintain the moon in its orbit around the earth (and by extension the earth about the sun), when all of a sudden an apple fell and hit him on the head. And if this is a faithful account of Newton’s Eureka moment, then the accidental symbolism is striking. I might even venture to suggest that by implication it was this fall of Newton’s apple that redeemed humanity; snapping Newton and by extension all humanity spontaneously out of darkness and into an Age of Reason. For if expulsion from Eden involved eating an apple, symbolically at least, Newton’s apple paved the way for a new golden age. Or, as poet Alexander Pope wrote so exuberantly: “Nature and Nature’s laws lay hid in night: God said, Let Newton be! and all was light.”³⁰

Of course Newton’s journey into light was by no means a solo venture. As he famously said himself, “if I have seen further, it is by standing on the shoulders of giants.”[†] These predecessors and contemporaries whom Newton implicitly pays homage to would include Copernicus, Descartes, Huygens, and Kepler, although the name that stands

* The glee with which my old professor had jokingly dismissed Galileo was undisguised, and he was quick to add that he regarded Galileo’s reputation as greatly inflated. What other physicist, he inquired of us, is remembered only by their first name? With hindsight, I can’t help wondering to what he was alluding? It is mostly kings and saints (and the convergent category of popes) who we find on first-name historical terms. The implication seems to be that Galileo has been canonised as our first secular saint (after Leonardo presumably). Interestingly, and in support of this contention, Galileo’s thumb and middle fingers plus the tooth and a vertebra (removed from his corpse by admirers during the 18th century) have recently been put on display as relics in the Galileo Museum in Florence.

† The famous quote comes from a letter Newton sent to fellow scientist Robert Hooke, in which about two-thirds of the way down on the first page he says “if I have seen further, it is by standing on the shoulders of giants.” It has been suggested that this remark was actually intended as a snide dig at Hooke, a rival who Newton was continually in dispute with and who was known for being rather short in physical stature.

tallest today is Galileo of course. For it was Galileo's observations and insights that led more or less ineluctably to what today are called Newton's Laws, and in particular Newton's First Law, which states (in various formulations) that objects remain in uniform motion or at rest unless acted upon by a force.

This deceptively simple law has many surprising consequences. For instance, it means that when we see an object moving faster and faster or else slower and slower *or* – and this is an important point – changing its direction of motion, then we can deduce there *must* be a force impelling it. It also follows that there is a requirement for a force to arc the path of the earth about the sun, and, likewise, one causing the moon to revolve about the earth; hence gravity. Conversely, if an object is at rest (or moving in a straight line at constant speed – the law makes no distinction) then we know the forces acting on it must be balanced in such a way as to cancel to zero. Thus, we can tell purely from any object's motion whether the forces acting on it are 'in equilibrium' or not.

An alternative way of thinking about Newton's First Law requires the introduction of a related idea called 'inertia'. This is the 'reluctance' of *every* object to change its motion, and, it transpires that the more massive the object, the greater its inertia – so here I am paraphrasing Newton's Second Law. Given a situation in which there are no forces acting (so no resistive forces like friction or drag) then according to this law the object must travel continually with unchanging velocity. This completely counterintuitive discovery was arguably Galileo's finest achievement and it is the principle that permits modern hyperloop technology – high speed maglev trains that run without friction through vacuum tunnels. It also permitted Galileo's understanding of how the earth could revolve indefinitely around the sun and oddly without us ever noticing.

Where others had falsely presumed that the birds would get left behind if the earth was in motion, Galileo saw that the earth's moving platform was no different in principle from a travelling ship, and that, just like onboard a ship, nothing will be left behind as it travels forward – this is easier to envisage if you imagine sitting on a train and recall how it feels at constant speed if the rails are smooth, such that you sometimes cannot even tell whether the train you are on or the one on the other platform is moving.

Of course, when Galileo insisted on a heliocentric reality, he was directly challenging papal authority and paid the inevitable price for his impertinence. Moreover, when he implored his opponents to look through his own telescope to view the orbiting moons of Jupiter and see for themselves, they declined his honest invitation. Which is simply the nature of belief – not just religious variants but all forms – for such 'confirmation

bias' lies deep within our nature, causing most of us to have little to no desire to make new discoveries or learn new facts if these remotely threaten to disrupt our hard-won opinions on matters of central concern.

So finally the Inquisition in Rome tried him, and naturally enough they found him guilty, sentencing Galileo to lifelong house arrest with a strict ban on publishing his ideas. Given the age, this was comparatively lenient; two decades earlier the Dominican friar and philosopher Giordano Bruno, who amongst other blasphemies had dared to suggest the universe had no centre and that the stars were just other suns surrounded by planets of their own, had been burned at the stake.

Today, our temptation is to regard the Vatican's hostility to Galileo's new science as a straightforward attempt to deny physical reality because it undermines the Biblical story which places not just earth, but the holy city of Jerusalem at the centre of the universe. However, Galileo's heresy actually strikes a more fundamental blow, since it challenges not only papal infallibility, but the entire millennium-long Scholastic tradition – the tripartite dialectical synergy of Aristotle, Neoplatonism and Christianity – and by extension, the whole hierarchical establishment of the late medieval period and much more.

In the Ptolemaic arrangement of a geocentric universe, each of the planets had rotated about epicycles centred in turn within a celestial sphere formed of the perfect fifth element (quintessence), with each of these tightly nested spheres set in perfect ratios that chimed harmoniously as they moved around, giving rise to a *musica universalis*; the music of the spheres. Indeed, prior to Galileo, as my professor illustrated so expertly with his hilarious balloon demonstration, the view endured that all objects obeyed laws according to their inherent nature. Thus, rocks fell to earth because they were by nature 'earthly', whereas the sun and moon remained high above us because they were made of altogether more heavenly stuff. In short, things back then knew their place.

By contrast, Galileo's explanation is startlingly egalitarian. Since according to his radical reinterpretation, not only do *all* things obey common laws, ones that apply no less resolutely to the great celestial bodies as to everyday sticks and stones, but no longer impelled by their inherent nature – a kind of living essence – everything instead is directed always and absolutely by blind external forces. In place of celestial music, the planets revolved in total silence, propelled not by angels or divine intelligence, but continuing to move purely because of inertia. Celestial harmony is thus replaced by nothing more than an intricate and restless clockwork mechanism and, at a stroke, the deepest intricacies of the stars and the planets (once gods) were reduced to base mechanics. Indeed, it is fair to say,

not only that Galileo had levelled all stuff, but in the process he effectively killed the cosmos; all stuff being compelled to obey the same laws, because the basic constituent of all stuff is inherently inert and therefore essentially dead.

Now if Newton's apple is a symbolic reworking of the Fall of Man as humanity's redemption through scientific progress, then the best-known fable of Galileo (since the tale itself is again apocryphal), is that he once dropped cannon balls of differing sizes from the Leaning Tower of Pisa to test how objects truly fell to earth, observing that they landed together simultaneously upon the grass below.

The Apollo astronauts recreated his experiment on the moon's surface where, without the hindrance of any atmosphere, it was indeed observed that objects as remarkably different as a hammer and a feather will reliably accelerate at the same rate, landing in the dust at precisely the same instant. In another fashion I have also repeated this in class, stood on a desk and surrounded by bemused students, who unfamiliar with the principle, are reliably astonished; since intuitively we all believe that the heavier weights must fall faster.

But digressions aside, the important point is this: Galileo's experiment is really a parable of sorts, reminding us all not to jump to unscientific assumptions and instead always "to do the maths". And in common with Newton's apple it also recalls another myth from Genesis; in this case the Tower of Babel story; that wondrous architectural endeavour supposedly conceived at a time when the people of the world became united and wished to build a short-cut to heaven. Afterwards, God decided to punish us all (as He likes to do) with a divide and conquer strategy; our myriad nations confused by the introduction of a multiplicity of languages. But then along came Galileo to unite us once more with his own special gift: the universal application of a universal language called mathematics. For as he wrote:

"Philosophy is written in this grand book, which stands continually open before our eyes (I say the 'Universe'), but cannot be understood without first learning to comprehend the language and know the characters as it is written. It is written in mathematical language, and its characters are triangles, circles and other geometric figures, without which it is impossible to humanly understand a word; without these one is wandering in a dark labyrinth."³¹

*

Thomas Hobbes was very well studied in the works of Galileo, and on his travels around Europe in the mid 1630s he may very well have visited the great man in Florence.³² In any case, Hobbes fully adopts Galileo's mechanistic conception of the universe and draws what he sees as its logical conclusion, interpolating from what is true for external nature and determining that this must also be true of human nature – a step Galileo never ventured.

All human actions, Hobbes posits, whether voluntary or involuntary, are the direct outcomes of physical bodily processes occurring inside our organs and muscles.³³ Of the precise mechanisms, he ascribes the origins to “insensible” actions that he calls ‘endeavours’; a matter he then leaves for physiologists to study and comprehend.³⁴

Fleshing out his bio-mechanical model, Hobbes next explains how all human motivations – which he calls ‘passions’ – that must necessarily function on the basis of these material processes, are thereby likewise reducible to forces of attraction and repulsion; in his own terms ‘appetites’ and ‘aversions’.³⁵ In the manner of elaborate machines, Hobbes says, humans operate in accordance with responses that entail either the automatic avoidance of pain or the increase of pleasure; the manifestation of apparent ‘will’ being nothing more than our overarching ‘passion’ of all these lesser ‘appetites’. Concerned solely with improving his lot, Man, he concludes, is inherently ‘selfish’.

Having presented his strikingly modern conception of life as a whole and human nature more particularly, Hobbes next considers what he calls “the natural condition of mankind” (or ‘state of nature’) and this in turn leads him to consider why “there is always war of everyone against everyone”:

“Whatsoever therefore is consequent to a time of war, where every man is enemy to every man; the same is consequent to the time, wherein men live without other security, than what their own strength, and their own invention shall furnish them withall. In such condition, there is no place for industry; because the fruit thereof is uncertain; and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving, and removing such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and which is worst of all, continual fear, and danger of violent death; And the life of man, solitary, poor, nasty, brutish, and short.”³⁶

According to Hobbes, this ‘state of nature’ becomes inevitable whenever our laws and social conventions cease to function and no longer protect us from our otherwise fundamentally rapacious selves. Once

civilisation gives way to anarchy, then anarchy, according to Hobbes, is inevitable hell because our automatic drive to improve our own situation comes into immediate conflict with every other individual. To validate this claim, Hobbes then reminds us of the fastidious counter measures everyone takes to defend against their fellows:

“It may seem strange to some man that has not well weighed these things; that nature should thus dissociate, and render men apt to invade, and destroy one another: and he may therefore, not trusting to this inference, made from the passions, desire perhaps to have the same confirmed by experience. Let him therefore consider with himself, when taking a journey, he arms himself, and seeks to go well accompanied; when going to sleep, he locks his doors; when even in his house he locks his chests; and this when he knows there be laws, and public officers, armed, to revenge all injuries shall be done him; what opinion he has of his fellow subjects, when he rides armed; of his fellow citizens, when he locks his doors; and of his children, and servants, when he locks his chests. Does he not there as much accuse mankind by his actions, as I do by my words?”³⁷

Hobbes is not making any moral judgment here, since he regards all nature, drawing no special distinctions for human nature, as equally compelled by these self-same ‘passions’ and so in his conceived ongoing war of all on all, objectively the world he sees is value neutral. As he continues:

“But neither of us accuse mans nature in it. The desires, and other passions of man, are in themselves no sin. No more are the actions, that proceed from those passions, till they know a law that forbids them; which till laws be made they cannot know: nor can any law be made, till they have agreed upon the person that shall make it.”³⁸

We might conclude indeed that all’s fair in love and war because fairness isn’t the point, at least according to Hobbes. What matters here are the consequences of actions, and so Hobbes’ stance is again surprisingly modern.

Nevertheless, Hobbes wishes to ameliorate the flaws he perceives in human nature, in particular those born of selfishness, by constraining behaviour to accord with what he deduces to be ‘laws of nature’: precepts and general rules found out by reason. This, says Hobbes, is the only way to overcome what is otherwise man’s sorry state of existence in which a perpetual war of all against all otherwise ensures everyone’s life is “nasty, brutish and short”. Thus to save us from a dreadful ‘state of nature’ he demands conformity to more reasoned ‘laws of nature’ – in spite of the seeming contradiction!

In short, not only does Hobbes' prognosis speak to the urgency of securing a social contract, but his whole thesis heralds our bio-mechanical conception of life and of the evolution of life. Indeed, following from the tremendous successes of the physical sciences, Hobbes' radical faith in materialism, which must have been extremely shocking to his contemporaries, has gradually come to seem commonsensical; so much so that its overlooked presumptions led philosopher Karl Popper to coin the phrase "promissory materialism": adherents to the physicalist view casually relegating concerns about gaps in understanding as problems to be worked out in future – just as Hobbes does, of course, when he delegates the task of comprehending all human actions and 'endeavours' to the physiologists.

*

But is it really the case, as Hobbes concludes, that individuals can be restrained from barbarism only by laws and social contracts? If so, then we might immediately wonder why acts of indiscriminate murder and rape are comparatively rare crimes given how these are amongst the toughest crimes of all to foil or to solve. By contrast, most people, most of the time, appear to prefer not to commit everyday atrocities, and it would be odd to suppose that they refrain purely because they fear arrest and punishment. Everyday experience tells us instead that most people don't really have much inclination for committing violence or other acts of grievous criminal intent.

Moreover, if we look for supporting evidence of Hobbes' conjecture then we can actually find an abundance that also refutes him. We know for instance that the appalling loss of life during the last world war would have been far greater still, were it not for a very deliberate lack of aim amongst the combatants. A lack of zeal for killing even during the heat of battle turns out to be the norm as US General S. L. A. Marshall learned from firsthand accounts gathered at the end of the war when he debriefed thousands of returning GIs in efforts to learn more about their combat experiences.³⁹ What he heard was almost too incredible: not only had three-quarters of combatants never actually fired at the enemy – not even when coming under direct fire themselves – but amongst those who did shoot a tiny two-percent had trained their weapons to kill the enemy.

Nor is this lack of bloodlust a modern phenomenon. At the end of Battle of Gettysburg during the American Civil War, the Union Army collected up the tens of thousands of weapons and discovered that the vast majority were still fully loaded. Indeed, more than half of the rifles had multiple loads – one had an incredible 23 loads packed all the way up the

barrel.* Many of the soldiers had obviously never pulled the trigger; the majority preferring to feign combat rather than actually fire off shots.

It transpires that contrary to the depictions of battles in Hollywood movies, by far the majority of servicemen take no pleasure at all in killing one another. Modern military training from Vietnam onwards has even developed methods to compensate for the ordinary lack of ruthlessness: heads are shaven, identities stripped, and conscripts are otherwise desensitised, turning men into better machines for war. But then, if there is one day in history more glorious than any other surely it has to be the Christmas Armistice of 1914. The war-weary and muddied troops huddling for warmth in no-man's land, sharing food, singing carols together, before playing the most beautiful games of football ever played: such outpourings of sanity in the face of lunacy that no movie screenplay could reinvent. Indeed, it takes artistic genius even to render such scenes of universal comradeship and brotherhood as anything other than sentimental and clichéd, and yet they happened nonetheless.

*

In his autobiography Hobbes relates that his mother's shock on hearing the news of the approaching Spanish Armada had induced his premature birth, famously saying: "my mother gave birth to twins: myself and fear." Doing his utmost to avoid getting caught up in the tribulations of the English Civil War, Hobbes lived through exceptionally fearful times, and doubtless this accounts for why his political theory reads like a reaction and an intellectual response to fear. But fear produces monsters and Hobbes' solution to societal crisis involves an inbuilt tolerance for tyranny. In fact Hobbes understood perfectly well that the power to protect is derived from the power to terrify; indeed to kill.

In response, Hobbes manages to conceive of a system of government whose authority is sanctioned – indeed sanctified – through

* "In the aftermath of the Battle of Gettysburg, the Confederate Army was in full retreat, forced to abandon all of its dead and most of its wounded. The Union Army and citizens of Gettysburg had an ugly cleanup task ahead of them. Along with the numerous corpses littered about the battlefield, at least 27,574 rifles (I've also seen 37,574 listed) were recovered. Of the recovered weapons, a staggering 24,000 were found to be loaded, either 87% or 63%, depending on which number you accept for the total number of rifles. Of the loaded rifles, 12,000 were loaded more than once and half of these (6,000 total) had been loaded between three and ten times. One poor guy had reloaded his weapon twenty-three times without firing a single shot."

From *On Killing: The Psychological Cost of Learning to Kill in War and Society* (1996) by Dave Grossman.

terrifying its subjects to consent to their own subjugation. On this same Hobbesian basis, if a highwayman demands “your money or your life?” by agreeing to the robbery you have likewise entered into a contract! In short, this is government by way of protection racket; Hobbes’ keenness for an overarching unassailable but (hopefully) benign dictatorship perhaps best captured by the absolute power he grants the State right down to the foundational level of determining morality as such:

“I observe the diseases of a commonwealth that proceed from the poison of seditious doctrines; whereof one is, ‘That every private man is judge of good and evil actions.’ This is true in the condition of mere nature, where there are no civil laws; and also under civil government, in such cases as are not determined by the law. But otherwise, it is manifest, that the measure of good and evil actions, is the civil law...”⁴⁰

Keeping in mind that for Hobbes every action proceeds from a mechanistic cause, it follows that the very concept of ‘freedom’ actually struck him as a logical fallacy. Indeed, as someone who professed to be able to square the circle[†] – which led to a notoriously bitter mathematical dispute

* The same passage concludes: “Another doctrine repugnant to Civil Society, is, that “Whatsoever a man does against his Conscience, is Sin;” and it dependeth on the presumption of making himself judge of Good and Evil. For a man’s Conscience, and his Judgement is the same thing; and as the Judgement, so also the Conscience may be erroneous. Therefore, though he that is subject to no Civil Law, sinneth in all he does against his Conscience, because he has no other rule to follow but his own reason; yet it is not so with him that lives in a Commonwealth; because the Law is the public Conscience, by which he hath already undertaken to be guided.”

Quote from, *Leviathan* (1651), The Second Part, Chapter 29, by Thomas Hobbes (with italics and punctuation as in the original but modern spelling).

† Hobbes had actually tried to found his entire philosophy on mathematics but in characteristically contrarian fashion was also determined to prove that mathematics itself was fully reducible to materialistic principles. This meant rejecting an entire tradition that began with Euclid and that continues today and which recognises the foundations of geometry lie in pure abstractions such as points, lines and surfaces. In response to Hobbes, John Wallis, Oxford University’s Savilian Professor of Geometry and founding member of the Royal Society, had publicly engaged with the “pseudo-geometer” in a dispute that raged from 1655 until Hobbes’s death in 1679. To illustrate the problem with Hobbes various “proofs” of unsolved problems including squaring the circle (all of which were demonstrably incorrect), Wallis had asked rhetorically: “Who ever, before you, defined a point to be a body? Who ever seriously asserted that points have any magnitude?”

You can read more about this debate in a paper published by *The Royal Society* titled *Geometry, religion and politics: context and consequences of the Hobbes–Wallis dispute* written by Douglas Jesseph, published October 10, 2018. It is available here: doi.org/10.1098/rsnr.2018.0026

with Oxford professor John Wallis – Hobbes explicit dismissal of ‘freedom’ is suitably fitting:

“[W]ords whereby we conceive nothing but the sound, are those we call absurd, insignificant, and non-sense. And therefore if a man should talk to me of a round quadrangle; or accidents of bread in cheese; or immaterial substances; or of a free subject; a free will; or any free, but free from being hindred by opposition, I should not say he were in an error; but that his words were without meaning; that is to say, absurd.”⁴¹

According to Hobbes then, the idea of individual freedom is reducible to absurdity – or to ‘a round quadrangle’! – a perspective that understandably opens the way for totalitarian rule: and perhaps no other thinker was ever so willing as Hobbes to trade freedom for the sake of security. But finally, Hobbes is mistaken in an important way. As a famous experiment carried out originally by psychologist Stanley Milgram – and since repeated many times – amply illustrates, his cure is worse than the disease.

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For those unfamiliar with Milgram’s experiment, here is the set up:

Volunteers are invited to what they are told is a scientific trial investigating the effects of punishment on learning. Having been separated into groups, they are then assigned the roles either of teachers and learners. At this point, the learner is strapped into a chair and fitted with electrodes before in an adjacent room the teacher is given control of apparatus that enables him or her to deliver electric shocks. In advance of this, the teachers are given a low voltage sample shock just to give them a taste of the punishment they are about to inflict.

The experiment then proceeds with the teacher administering electric shocks of increasing voltage which he or she must incrementally adjust to punish wrong answers. As the scale on the generator approaches 400V, a marker reads “Danger Severe Shock” and beneath the final switches there is simply XXX. Proceeding beyond this level evidently runs the risk of delivering a fatal shock, but in the experiment participants are encouraged to proceed nonetheless.

How, you may reasonably wonder, could such an experiment have been ethically sanctioned? Well, it’s a deception. All of the learners are actors, and their increasingly desperate pleading is as scripted as their ultimate

screams. Importantly, however, the true participants (who are all assigned as ‘teachers’) are led to believe the experiment and the shocks are for real.

The results – repeatable ones, as I say – are certainly alarming: two-thirds of the subjects will go on to deliver what they are told are potentially fatal shocks. In fact, the experiment is continued until a teacher has administered three shocks at 450V level, by which time the actor playing the learner has stopped screaming and must therefore be presumed either unconscious or dead.

“The chief finding of the study and the fact most urgently demanding explanation,” Milgram wrote later, is that: “Ordinary people, simply doing their jobs, and without any particular hostility on their part, can become agents in a terrible destructive process. Moreover, even when the destructive effects of their work become patently clear, and they are asked to carry out actions incompatible with fundamental standards of morality, relatively few people have the resources needed to resist authority.”⁴²

Milgram’s experiment has occasionally been misrepresented as some kind of proof of our innate human capacity for cruelty and for doing evil. But this was neither the object of the study nor the conclusion Milgram makes. The evidence instead led him to conclude that the vast majority take no pleasure in inflicting suffering, but that surprising numbers will carry on nevertheless when they have been placed under a certain kind of duress and especially when an authority figure is instructing them to do so:

“Many of the people were in some sense against what they did to the learner, and many protested even while they obeyed. Some were totally convinced of the wrongness of their actions but could not bring themselves to make an open break with authority. They often derived satisfaction from their thoughts and felt that – within themselves, at least – they had been on the side of the angels. They tried to reduce strain by obeying the experimenter but ‘only slightly’, encouraging the learner, touching the generator switches gingerly. When interviewed, such a subject would stress that he ‘asserted my humanity’ by administering the briefest shock possible. Handling the conflict in this manner was easier than defiance.”⁴³

Milgram thought that it is this observed tendency for compliance amongst ordinary people that had enabled the Nazis to carry out their crimes and that led to the Holocaust. But his study might also account for why those WWI soldiers, even after sharing food and songs with the enemy, returned ready to fight on in the hours, days, weeks and years that followed the Christmas Armistice. While disobedience was severely punished, often with the ignominy of court martial and the terror of a firing squad, it is likely that authority alone would be persuasive enough to ensure

compliance for many of those stuck in the trenches. Most people will follow orders no matter how horrific the consequences – this is Milgram’s abiding message.

In short, what Milgram’s study shows is that Hobbes’ solution is, at best, deeply misguided, because it is authoritarianism (his proposed remedy) that mostly leads ordinary humans to commit the worst atrocities. So Milgram offers us a way of considering Hobbes from a top down perspective: addressing the issue of how obedience to authority influences human behaviour.

But what about the bottom up view? After all, this was Hobbes’ favoured approach, since he very firmly believed (albeit incorrectly) that his own philosophy was solidly underpinned by pure mathematics – his grandest ambition had been to derive an entire philosophy that follows logically and is directly derived from the theorems of Euclid. Thus, according to Hobbes’ derived but ‘promissory materialism’, which sees Nature as wholly mechanistic and reduces actions to impulse, all animal behaviours – including human ones – are fully accountable and ultimately determined by, to apply a modern phrase, ‘basic instincts’. But again, is this actually true? What does biology have to say on the matter, and most specifically, what are the findings of those who most closely study real animal behaviour?

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“This chapter is concerned with words rather than birds...”

So writes pioneering British ornithologist David Lack who devoted much of his life to the study of bird behaviour, conducting field work for four years while he also taught at Dartington Hall School in Devon; his spare-time spent observing populations of local robins; his findings delightfully written up in a seminal work titled straightforwardly *The Life of the Robin*. The passage I am about to quote follows on from the start of chapter fifteen in which he presents a thoughtful aside under the heading “A digression upon instinct”. It goes on:

“A friend asked me how swallows found their way to Africa, to which I answered, ‘Oh, by instinct’, and he departed satisfied. Yet the most that my statement could mean was that the direction finding of migratory birds is part of the inherited make-up of the species and is not the result of intelligence. It says nothing about the direction-finding process, which remains a mystery. But man, being always uneasy in the presence of the unknown, has to explain it, so when scientists abolish the gods of the earth, of lightning, and of love, they create instead gravity, electricity and instinct.

Deification is replaced by reification, which is only a little less dangerous and far less picturesque.”

Frustrated by the types of misunderstanding generated and perpetuated by misuse of the term ‘instinct’, Lack then ventures at length into the variety of ambiguities and mistakes that accompany it both in casual conversation or academic contexts; considerations that lead him to a striking conclusion:

“The term instinct should be abandoned... Bird behaviour can be described and analysed without reference to instinct, and not only is the word unnecessary, but it is dangerous because it is confusing and misleading. Animal psychology is filled with terms which, like instinct, are meaningless, because so many different meanings have been attached to them, or because they refer to unobservables or because, starting as analogies, they have grown into entities.”⁴⁴

When I first read Lack’s book I quickly fell under the spell of his lucid and nimble prose and marvelled at how the love for his subject was infectious. As ordinary as they may seem to us, robins live surprisingly complicated lives, and all of this was richly told, but what stood out most was Lack’s view on instinct: if its pervasive stink throws us off the scent in our attempts to study bird behaviour, then how much more alert must we be to its bearing on perceived truths about human psychology? Lack ends his own brief digression with a germane quote from philosopher Francis Bacon that neatly considers both:

“It is strange how men, like owls, see sharply in the darkness of their own notions, but in the daylight of experience wink and are blinded.”⁴⁵

*

The wolves of childhood were creatures of nightmares. One tale told of a big, bad wolf blowing your house down to eat you! Another reported a wolf sneakily dressing up as an elderly relative and climbing into bed. Just close enough to eat you! Still less fortunate was the poor duck in Prokofiev’s enchanting children’s suite *Peter and the Wolf*, swallowed alive and heard in a climatic diminuendo quaking from inside his belly. When I’d grown a little older, I also came to hear about stories of werewolves that sent still icier dread coursing down my spine...

I could go on and on with similar examples because wolves are invariably portrayed as rapacious and villainous throughout folkloric traditions across the civilised world of Eurasia, which is actually quite curious when you stop to think about it. Curious because wolves are not especially threatening to humans and wolf attacks are comparatively rare

occurrences – while other large animals including bears, all of the big cats, sharks, crocodiles, and even large herbivores like elephants and hippos, pose a far greater threat to us. To draw an obvious comparison, polar bears habitually stalk humans, and yet rather than being terrifying we are taught to see them as cuddly. Evidently, our attitudes towards the wolf have been shaped, therefore, by factors other than the observed behaviour of wolves themselves.

So now let us consider the rather extraordinary relationship our species actually has with another large carnivore: man's best friend and cousin of the wolf, the dog – and incidentally, dogs kill (and likely have always killed) a lot more people than wolves.

The close association between humans and dogs is incredibly ancient. Dogs are very possibly the first animal humans ever domesticated, becoming so ubiquitous that no society on earth exists that hasn't adopted them. This adoption took place so long ago in prehistory that conceivably it may have played a direct role in the evolutionary development of our species; and since frankly we will never know the answers here, I feel free to speculate a little. So here is my own brief tale about the wolf..

One night a tribe was sat around the campsite finishing off the last of their meal as a hungry wolf secretly watched on. A lone wolf, and being a lone wolf, she was barely able to survive. Enduring hardship and eking out a precarious existence, this wolf was also longing for company. Drawn to the smell of the food and the warmth of the fire, this wolf tentatively entered the encampment and for once wasn't beaten back with sticks or chased away. Instead one of the elders at the gathering tossed her a bone to chew on. The next night the wolf returned, and the next, and the next, until soon she was welcomed permanently as one of the tribe: the wolf at the door finding a new home as the wolf by the hearth.

As a story, it sounds plausible enough that something like it may have happened countless times perhaps and in many locations. Having enjoyed the company of the wolf, the people of the tribe later adopting her cubs (or perhaps it all began with cubs). In any case, as the wolves became domesticated they changed, and within just a few generations of selective breeding, had been fully transformed into dogs.

The rest of the story is more or less obvious too. With dogs, our ancestors enjoyed better protection and could hunt more efficiently. Dogs run faster, have far greater endurance, keener hearing and smell. Soon they became our fetchers and carriers too; our dogsbodies.

Speculating a little further, our symbiotic relationship might also have opened up the possibility for evolutionary development at a physiological level. Like cave creatures that lose pigmentation and in which

eyesight atrophies to favour greater tactile sense or sonar*, we likewise might have reduced acuity in those senses we needed less, as the dogs compensated for our loss, which could then have reset our brains to other tasks. Did losses in our faculties of smell and hearing enable more advanced dexterity and language skills? Did we perhaps also lose our own snarls to replace them with smiles?†

I shan't say much more about wolves, except that we know from our close bond with dogs that they are affectionate and loyal creatures. So why did we vilify them as the "big, bad wolf"? My hunch is that they represent symbolically, something we have lost, or perhaps more pertinently, that we have repressed in the process of our own self-domestication. In a deeper sense, this psychological severance involved our alienation from all of nature. It has caused us to believe, like Hobbes, that all of nature is nothing but rapacious appetite, red in tooth and claw, and that morality must therefore be imposed upon it by something other; that other being human rationality.

*

“One school views morality as a cultural innovation achieved by our species alone. This school does not see moral tendencies as part and parcel of human nature. Our ancestors, it claims, became moral by choice. The

* Morphological changes such as albinism and loss of sight are common to all cave-dwelling species including invertebrates, fish and also birds. It is presumed that these changes have come about because they save energy and thus confer an evolutionary advantage although biologists find it difficult to explain loss of pigmentation since there seems to be very little energy saved in this way.

† Curiously since the beginning of the last ice age about 20,000 years ago human brain size has shrunk by approximately 10% from 1,500 cubic centimetres to 1,350 cc. This dramatic loss of mainly grey matter equivalent to the size of a tennis ball has actually accelerated during the last 3,000 years and cannot be accounted for solely on the basis of an overall shrinkage in human body mass that also occurred following the rise of agriculture. One hypothesis that tries to explain why this happened involves human self-domestication. A more recent theory proposed by Temple Grandin is based on evidence that human-wolf cohabitation began as long as 100,000 years ago.

In *Animals in Translation* (2006) she writes: “Archaeologists have discovered that 10,000 years ago, just at the point when humans began to give their dogs formal burials, the human brain began to shrink. . . It shrank by 10 percent, just like the dog's brain. And what's interesting is what part of the human brain shrank. In all of the domestic animals the forebrain, which holds the frontal lobes, and the corpus callosum, shrank. But in humans it was the midbrain, which handles emotions and sensory data, and the olfactory bulbs, which handle smell.”

second school, in contrast, views morality as growing out of the social instincts that we share with many other animals. In this view, morality is neither unique to us nor a conscious decision taken at a specific point in time: it is the product of gradual social evolution. The first standpoint assumes that deep down we are not truly moral. It views morality as a cultural overlay, a thin veneer hiding an otherwise selfish and brutish nature. Perfectibility is what we should strive for. Until recently, this was the dominant view within evolutionary biology as well as among science writers popularizing this field.”⁴⁶

These are the words of Dutch primatologist Frans de Waal, who became one of the world’s leading experts in chimpanzee behaviour. Based on his studies, de Waal applied the term “Machiavellian intelligence” to describe the variety of cunning and deceptive social strategies used by chimps. A few years later, however, de Waal came across their and our pygmy cousins the bonobos that were also captive in a zoo in Holland, and says they had an immediate effect on him:

“They’re totally different. The sense you get looking them in the eyes is that they’re more sensitive, more sensual, not necessarily more intelligent, but there’s a high emotional awareness, so to speak, of each other and also of people who look at them.”⁴⁷

Sharing a common ancestor with chimps and bonobos, humans are equally closely-related to both species, and interestingly when de Waal was asked do you think we’re more like bonobo or chimp he replied:

“I would say there are people in this world who like hierarchies, they like to keep people in their place, they like law enforcement, and they probably have a lot in common, let’s say, with the chimpanzee. And then you have other people in this world who root for the underdog, they give to the poor, they feel the need to be good, and they maybe have more of this

* The same abstract begins: “The *Homo homini lupus* [“Man is wolf to man.”] view of our species is recognizable in an influential school of biology, founded by Thomas Henry Huxley, which holds that we are born nasty and selfish. According to this school, it is only with the greatest effort that we can hope to become moral. This view of human nature is discussed here as ‘Veneer Theory,’ meaning that it sees morality as a thin layer barely disguising less noble tendencies. Veneer Theory is contrasted with the idea of Charles Darwin that morality is a natural outgrowth of the social instincts, hence continuous with the sociality of other animals. Veneer Theory is criticized at two levels. First, it suffers from major unanswered theoretical questions. If true, we would need to explain why humans, and humans alone, have broken with their own biology, how such a feat is at all possible, and what motivates humans all over the world to do so. The Darwinian view, in contrast, has seen a steady stream of theoretical advances since the 1960s, developed out of the theories of kin selection and reciprocal altruism, but now reaching into fairness principles, reputation building, and punishment strategies. Second, Veneer Theory remains unsupported by empirical evidence.”

kinder bonobo side to them. Our societies are constructed around the interface between those two, so we need both actually.”⁴⁸

De Waals and others who have studied primates are often astonished by the kinship with our own species. When we look deep into the eyes of bonobos, chimps, gorillas, or even those of our dogs, we find ourselves reflected in so many ways. It is actually not hard at all to fathom where morality came from, and the ‘veneer theory’ of Hobbes reeks of a certain kind of religiosity, infused with a deep insecurity born of the hardship and terrors of civil strife.

*

II Between two worlds

*I was of three minds,
Like a tree
In which there are three blackbirds.*

— Wallace Stevens[†]

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Of all the creatures on earth, apart from a few curiosities like the kangaroo and giant pangolin, or some species of long-since extinct dinosaurs, only the birds share our bipedality. The adaptive advantage of flight is so self-evident that there's no need to ponder why the forelimbs of birds morphed into wings, but the case for humans is more curious. Why it was that around three and a half million years ago, a branch of hominids chose to stand on two legs rather than four, enabling them to move quite differently from our closest living relatives (bonobos *and* chimps) with all of the physiological modifications this involved, still remains a mystery. But what is abundantly clear and beyond all speculation is that this single evolutionary change freed up our hands for purposes no longer restricted by their formative locomotive demands, and that having liberated our hands, not only did we become supreme manipulators of tools, but this sparked a parallel growth in intelligence, causing us to become supreme manipulators per se – the very etymological root of the word coming from 'man-' meaning 'hand' of course.

With our evolution as manual apes, humans also became constructors, and curiously here is another trait that we have in common with many species of birds. That birds are able to build elaborate structures to live in is indeed a remarkable fact, and that they necessarily achieve this by organising and arranging the materials using only their beaks is surely more remarkable again. Storks with their ungainly bills somehow manage to arrange large piles of twigs so carefully that their nests often overhang impossibly small platforms like the tips of telegraph poles. House martins construct wonderfully symmetrical domes just by patiently gluing together globules of mud. Weaver birds, a range of species similar to finches, build

[†] The second stanza of Wallace Steven's poem *Thirteen Ways of Looking at a Blackbird*.

the most elaborate nests of all, and quite literally weave their homes from blades of grass. How they acquired this ability remains another mystery, for though recent studies have found that there is a degree of learning involved in the styles and manner of construction, this general ability of birds to construct nests is an innate one. According to that throwaway term, they do it 'by instinct'. By contrast, in one way or another, all human builders must be trained. As with so much about us, all our constructions are therefore cultural artefacts.

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With very few exceptions, owls have yellow eyes. Cormorants instead have green eyes. Moorhens and coots have red eyes. The otherwise unspectacular satin bowerbird has violet eyes. Jackdaws sometimes have blue eyes. Blackbirds have extremely dark eyes – darker even than their feathers – jet black pearls set within a slim orange annulus which neatly matches their strikingly orange beaks. While eye colour is common to birds within each species, the case is clearly different amongst humans, where eye colour is one of a multitude of variable physical characteristics including natural hair and skin colour, facial characteristics, and height. Nonetheless, as with birds and other animals where there is significant uniformity, most of these colourings and other identifying features are physical expressions of the individual's genetic make-up or genotype; an outward expression of genetic inheritance known technically as the phenotype.

Interestingly, for a wide diversity of species, there is an inheritance not only of morphology and physiology but also of behaviour. Some of these behavioural traits may then act in turn to shape the creature's immediate environment – so the full phenotypic expression is often observed to operate outside and far beyond the body of the creature. These 'extended phenotypes' as Dawkins calls them are discovered within such wondrous but everyday structures as spiders' webs, delicate tube-like homes formed by caddis fly larvae, the larger scale constructions of beavers' dams and of course bird nests. It is reasonable therefore to speculate on whether the same evolutionary principle applies to our human world.

What, for instance, of our own houses, cars, roads, bridges, dams, fortresses, cathedrals, systems of knowledge, economies, music and other works of art, or even languages...? Once we have correctly located our species as just one amongst many, existing at a different tip of an otherwise unremarkable branch of our undifferentiated evolutionary tree of life, why wouldn't we judge our own designs as similarly latent expressions of human genes interacting with their environment? Indeed, Dawkins

addresses this point directly but points out that tempting as it may be, such broadening of the concept of phenotype stretches his ideas too far, since, to offer his own example, scientific justification must then be sought for genetic differences between the architects of different styles of buildings!⁴⁹

In fact, the distinction here is clear: artefacts of human conception which can be as wildly diverse as Japanese Noh theatre, Neil Armstrong's footprints on the moon, Dadaist poetry, recipes for Christmas pudding, TV footage of Geoff Hurst scoring a World Cup hat-trick, and as mundane as flush toilets, or rarefied as Einstein's thought experiments, are all categorically different from such animal artefacts as spiders' webs and beavers' dams. They are patterns of culture not nature. Likewise, all human behaviour right down to the most ephemeral including gestures, articulations and tics, is profoundly patterned by culture and not fully shaped only by pre-existing and underlying patterns within our human genotypes.

Vocabulary – another human artefact – makes this plain. We all know that eggs are 'natural' whereas Easter eggs are distinguishable as 'artificial', and that the eye is 'natural' while cameras are 'technological' with both of our antonyms deriving roots in words for 'art'. Which means that while 'nature' is a strangely slippery noun that in English points to a whole host of interrelated objects and ideas, it is found nonetheless that throughout other languages equivalent words do exist to distinguish our manufactured worlds – of arts and artifice – from the surrounding physical world comprised solely of animals, plants and landscapes. A reinvention of this same word-concept that occurs for a simple yet important reason: the difference it labels is inescapable.

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As a species, we are incorrigibly anthropomorphising; constantly imbuing the world with our own attributes and mores. Which brings up a related point: what animal besides the human is capable of reimagining things in order to make them conform to preconceived notions of any kind? Dogs may mistake us for other dogs – although I doubt this – but still we are their partners within surrogate packs, and thus, in a sense, surrogate dogs. But from what I know of dogs, their world is altogether more direct. Put simply it is... food chomping, thirst quenching, stick chasing, crap taking and crap sniffing, hark or lark barking (if you get my drift), deep sleeping... and (most entertaining of all) going out for a big walk – a hunting expedition with your best mates! There's no effort in savouring the moment, because

there only is the moment. Moments that must all be thoroughly enjoyed or painfully endured.

In short, dogs live so close to the immediate present, because straightforwardly they have nowhere else to live. In contrast, humans mostly cannot. Instead we drift in and out of our past or in anticipation of our future. Recollections and goals fill our thoughts repeatedly and it is exceedingly difficult to attend constantly to the present moment and almost impossible to hold our attention there.

Moreover, for us the world is nothing much beyond humanity, meaning both human companionship and culture. Without culture, any world worthy of the name is barely conceivable at all, since humans are primarily creatures of culture. We might in some very deep sense admire the wondrous works of nature, but there would be no art beyond, and no music except for the occasional bird-song and the wind in the trees: nothing but nothing beyond the things-in-themselves that surround us, and without human companionship, no need to communicate our feelings about any of this. In fact, there could be no means to communicate at all, since no language could ever form in strict isolation. Instead, we would float through a wordless existence, which might be blissful or grindingly dull, but either way our sense impressions and emotions would remain forever unnamed.

So it is extremely hard to imagine any kind of world without words, although such a world quite obviously exists. It exists for animals and it exists in exceptional circumstances for humans too. The abandoned children who have been nurtured by wild animals (very often wolves) provide an uneasy glimpse into this world beyond words. So too, for different reasons, do a few of the profound and congenitally deaf. On very rare occasions, these children have gone on to learn how to communicate, and when this happens, what they tell us is how uniquely important language is.

In his book *Seeing Voices*, neurologist Oliver Sacks, describes the awakening of a number of remarkable individuals. One such was Jean Massieu. Almost without language until the age of fourteen, Massieu had been admitted as a pupil at Roch-Ambroise Cucurron Sicard's pioneering school for the deaf. Astonishingly, he went on to become eloquent both in sign language and written French. On the basis of Sicard's original account, Sacks examines Massieu's steep learning curve, and observes close similarities to his own experiences with a deaf child.

What Sicard discovered was that simply by attaching names to objects in the pictures Massieu drew, the eyes of his student became increasingly opened. Labels that had, to begin with, left Massieu "utterly mystified," were abruptly understood as the penny dropped and Massieu

“got it”. And here Sacks emphasises how Massieu understood not merely the abstract connection between the pencil lines of his own drawing and all of the initially incongruous additional strokes of his tutor’s labels, but importantly, and nearly instantaneously, how he recognised the remarkable value of such a shorthand tool: “... from that moment on, the drawing was banished, we replaced it with writing.”

The most magical part of Sacks’ retelling comes in the description of Massieu and Sicard’s walks together through the woods. “He didn’t have enough tablets and pencils for all the names with which I filled his dictionary, and his soul seemed to expand and grow with these innumerable denominations...” Sicard later wrote.

Massieu’s epiphany brings to mind the story of Adam who was set the task of naming all the animals in Eden, and Sacks tells us: “With the acquisition of names, of words for everything, Sicard felt, there was a radical change in Massieu’s relation to the world – he had become like Adam: ‘This newcomer to earth was a stranger on his own estates, which were restored to him as he learned their names.’”⁵⁰

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Our human gift for language clearly sets us apart from fellow creatures. Not that we ever dreamed up language from scratch, since plainly it grew up both with us and within us: one part phenotype and one part invention. It evolved within other species too, but for reasons unclear, we totally excelled, and as a consequence became adapted to live in two worlds, or as Aldous Huxley preferred to put it: we became “amphibian,” in that we simultaneously occupy “the given and the home-made, the world of matter, life and consciousness and the world of symbols.”⁵¹

* In his collection of essays *Adonis and the Alphabet* (1956), the first chapter titled “The Education of an Amphibian” begins as follows:

“Every human being is an amphibian— or, to be more accurate, every human being is five or six amphibians rolled into one. Simultaneously or alternately, we inhabit many different and even incommensurable universes. To begin with, man is an embodied spirit. As such, he finds himself infesting this particular planet, while being free at the same time to explore the whole spaceless, timeless world of universal Mind. This is bad enough; but it is only the beginning of our troubles. For, besides being an embodied spirit, each of us is also a highly self-conscious and self-centred member of a sociable species. We live in and for ourselves; but at the same time we live in and, somewhat reluctantly, for the social group surrounding us. Again, we are both the products of evolution and a race of self-made men. In other words, we are simultaneously the subjects of Nature and the citizens of a strictly human republic, which may be anything from what St Paul called ‘no mean city’ to the most squalid of material and moral slums.”

It is through words and symbols that we relate the here and now to the there and then. Many animals have memories and intentions too, of course, but with complex language these can then become incomparably elaborate and abstracted. Words help us to reconstruct our past and perhaps to reinvent it. Likewise through language we are able to envisage futures of intricate potentiality. This moves us outside time, or, if you prefer, it animates us within the higher dimension of time; as other animals also move and operate within a higher dimension than plants which must remain fixed in location. In this sense, humans alone exist in a higher dimension than the rest of creation (at least, as we currently recognise it).

This amazing manoeuvrability through time allows us to remember with far greater clarity, a faculty that not only enables us to better reflect on past events, but to be prepared for a future of unknowns: to expect the unexpected! And no less importantly, language provides a solid anchor as life streams by and reality continually shifts around us. Its tether lets us feel safe and comfortable, while correspondingly and of necessity, it holds us back from the onrushing currents of endlessly unfolding experience of our endlessly unfolding existence. For whereas the preponderance of living organisms exist (or appear to exist) wholly within the immediate awareness of their physical reality, human beings occupy a parallel ideational space where we are entirely embedded in language.

Now think about that for a moment... no really do!

Stop reading this.

Completely ignore this page of letters, and silence your mind.

Okay, close your eyes and turn your attention to absolutely anything you like and then continue reading...

So here's my question: when you were engaged in your thoughts; and whatever you thought about, did you use any words at all? Very likely you literally "heard" them: your inner voice filling the silence in its busy, if generally unobtrusive and familiar way. Pause again and now contemplate the everyday noise of being oneself. Notice how exceedingly difficult it is to exist if only for a moment without any recourse to language. Perhaps what Descartes really meant to say was: *I am therefore I think!*

For as the 'monkey mind' goes wandering off, simultaneously, the words have crept back in, and with the words we are partially detached from the present. Every instructor of mindfulness, every guru or sage knows this, of course, recognising that we cannot be wholly present to the here and now while our mind darts off to visit memories, wishes, opinions, descriptions, concepts and plans: the same memories, wishes, opinions, descriptions, concepts and plans that gave us an evolutionary advantage over our fellow creatures. And the spiritual teacher understands too how the art of

meditation rests in acceptance of our nature: that we will never succeed in silencing all excitable thoughts by mere exertion alone, but finally by ignoring any thoughts as repeatedly and inevitably they arise. Negation of thought is not thinking no thought; it is not thinking at all: no words!

It is evident therefore how in this essential way we are indeed oddly akin to amphibious beings since we occupy and move between two distinct habitats. Put differently, our sensuous, tangible outside world of thinginess (philosophers sometimes call this 'sense data') is totally immersed within the inner realms of language and symbolism. So when we see a blob with eight thin appendages we very likely observe something spider-like. If we hate spiders then we are equally likely to recoil from it. If we have a stronger aversion then we will recoil even after we are completely sure that it's just a picture of a spider or, in extreme cases, a tomato stalk. On such occasions, our feelings of fear or disgust arise not as the result of failing to distinguish the likeness of a spider from a real spider, but from the power of our own imagination: we literally jump at the thought of a spider.

Moreover, words are sticky. They coagulate together in streams of association and these mould our future ideas. Religion = goodness. Religion = stupidity. If we hold the first opinion then crosses and pictures of saints will automatically generate a different affect than if we hold the latter. Or how about replacing the word 'religion' with say 'patriotism': obviously our relationship to the world alters in another way – and not only our relationships to words and symbols, but by extension our perception of reality is subtly but significantly altered too. In fact, just as the pheromones in the animal kingdom cause the direct transmission of behavioural effects between members of a species, the language secreted by humans, since it alters our perceptions, is likewise capable of *directly* impacting the behaviour of others. For instance, through extreme denigration and demonisation hatred of an individual or minority group may become so intense that the other hardly appears akin to us at all. Dehumanised people are always far easier to kill and enslave. The reverse also applies.

Automatically, the modern tendency is to suppose that the arrow which connects these strikingly different domains points unerringly in one direction: that when not issuing commands or making promises, language primarily describes the world, while the material world as such is relatively unmoved by our descriptions of it. Though our attitudes are evidently shaped by language, the underlying fact still remains unaltered. This is basically the presumed scientific arrangement.

By contrast, all kinds of magical reinterpretation of reality involve a deliberate reversal of the direction of the arrow such that symbols and

language are treated as potent agents that operate directly and actively to cause change within the material realm through spells and incantations. Scientific opinion holds that this is false, and yet, at a societal and on a deeply personal level, language and symbolism not only comprise the living world, but do quite literally shape and transform it.* It is as if our human tongue and lips became prehensile in a peculiarly literal way, enabling us ‘to grasp’ beyond any immediate spheres of temporal and spatial influence in order to grapple solidly what is otherwise wholly intangible. Thanks to language, we can stuff the whole world into our mouths and roll it around a new axis of our choosing.

As Aldous Huxley writes: “Without language we should merely be hairless chimpanzees. Indeed, we should be something much worse. Possessed of a high IQ but no language, we should be like the Yahoos of *Gulliver’s Travels*—creatures too clever to be guided by instinct, too self-centred to live in a state of animal grace, and therefore condemned to remain forever, frustrated and malignant, between contented apehood and aspiring humanity. It was language that made possible the accumulation of knowledge and the broadcasting of information. It was language that permitted the expression of religious insight, the formulation of ethical ideals, the codification of laws. It was language, in a word, that turned us into human beings and gave birth to civilization.”⁵²

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As I look outside my window I see a blackbird sitting on the TV aerial of a neighbouring rooftop. This is what *I* see, but what does the blackbird see? Obviously I cannot know for certain though merely in terms of what he senses, we know that his world is remarkably different from ours. For one thing, birds have four types of cone cells in the retinas of their eyes while we have only three. Our cone cells collect photons centred on red, green and blue frequencies and different combinations generate a range of colours that

* At a societal level we most often create real ‘institutional facts’ purely by the act of saying they are. Thus, a wide variety of our institutions ranging from limited liability corporations and governmental bodies down to private property, money and marriage are decreed into existence and then codified by declarations that are in turn *written* into law. Based on a recognition that human institutions are created and maintained by “representations that have the logical form of the speech act of declaration,” American philosopher John Searle came to the conclusion that civilisation arose spontaneously because of this innate quality of human language “to create powers that go beyond the language.” He says: “the shorthand is simply to say all of human institutional reality – that is, all of what is distinctive about human societies and how we differ from other animal societies – is created by repeated applications of the same type of speech act: the declaration.”

can be graphically mapped as a continuously varying two-dimensional plane of colours, however if we add another colour receptor then the same mapping requires an additional axis that extends above the original plane. For this reason we might justifiably say that the bird sees colours in ways that differ not merely by virtue of the extent of the detectable range of frequencies, but that a bird's vision involves a range of colour combinations of a literally higher dimension.

Beyond these immediate differences in sense data, there is another way in which a bird's perceptions – or more strictly speaking its apperceptions – are utterly different from our own, for though the blackbird evidently sees the aerial, it does not recognise it as such. Presumably it sees nothing beyond a convenient metal branch to perch upon decked with unusually regular twigs. For even the most intelligent of all blackbirds is incapable of knowing more, since this is all any bird can ever understand about the aerial.

No species besides our own is capable of discovering why the aerial was actually put there, or how it is connected to an elaborate apparatus that turns the invisible signals it captures into pictures and patterns of sounds, leave aside gathering the knowledge of how metal can be manufactured by smelting rocks or the still more abstruse science of electromagnetism.

My point here is not to disparage the blackbird's inferior intellect, since it very possibly understands things that we cannot; but to stress how we are unknowingly constrained in ways we very likely share with the bird. As Hamlet checks his friend: "There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy."^{*}

Some of these things – and especially the non-things! – may slip us by forever as unknown unknowns purely by virtue of their inherently undetectable nature. Others may be right under our nose and yet, just like the oblivious bird perched on its metal branch who can never consider reasons for why it is there, we too may lack any capacity even to understand that there is any puzzle at all.[†]

^{*} From Shakespeare's *Hamlet* Act 1 Scene 5.

[†] The allusion here is not so much to Plato's 'allegory of the cave' in which this phenomenal world of appearances is better understood as a shadow play of a higher reality of ideal forms or essences, although intriguingly in our scientific age when the physical world is routinely comprehended in purely mathematical terms, such a mathematical underpinning is in ways reminiscent of Plato's forms. But here instead, I am drawing more on Immanuel Kant's realisation that the mind is limited not solely because of our lack of immediate and direct knowledge of the world, but that our inbuilt modes of processing of all sensory inputs are similarly restricted and thus even if mediated through the most sophisticated instruments and

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I opened the chapter with a familiar Darwinian account of human beings as apex predators struggling for survival on an ecological battlefield; perpetually fighting over scraps, and otherwise competing over a meagre share of strictly limited resources. It is a vision of reality founded upon our collective belief in scientific materialism, and although a rather depressing vision, it has become today's prevailing orthodoxy – the *Weltanschauung* of our times* – albeit seldom expressed so antiseptically as it might be.

Indeed, to boil this down further, as doctrinaire materialist hardliners really ought to insist, we might best comprehend ourselves as biological robots. Why robots? Because according to this shared doctrine humans are genetically coded not to experience life, or even purely for survival, but for reproductive success. This is our function – we consume, compete and procreate – and we are evolved to function for just such time as to fulfil this sole objective. Our death is indeed as inconsequential as it is inevitable.

Accordingly, propagation of every species goes on blindly until such time the species as a whole inevitably becomes extinct. If this process is extended by technological means beyond even the death of the earth and solar system, then it will end when the entire universe succumbs to its own overarching and insignificant end. No amount of space colonisation can finally save us from such a fate.

More nakedly told, it is not merely that, as Nietzsche famously lamented, “God is dead,” which has some upsides, but, that while richly animated, there is nothing going on whatsoever besides machine process, anywhere in this universe or the next. In fact, this reduction of the cosmos to machine process is Hobbes' vision in a nutshell too.

In common with the old religions, the domain of this new mechanistic belief system extends boundless and absolute and thereby encompasses whatever remnants of any god or gods we might try to

complex theories, we will never acquire knowledge of what he called the *things-in-themselves* (in German *Ding an sich*) or ‘noumenon’. To Kant's doctrine of so-called transcendental idealism in which space, time and causality must all be understood as mere subjective “forms of intuition”, Arthur Schopenhauer's immediate correction is also admitted: that beneath this everyday world of appearances the numinous coexistent reality which is wholly mysterious and unfathomable is therefore entirely undifferentiated except by our inevitably limited perceptions of it, which then recognises Kant's somewhat careless mistake of speaking of any plurality of *things-in-themselves* in the first place.

* *Weltanschauung* means in approximately literal translation ‘the world view of an individual or group.’ Here I mean those everyday philosophies that we never really bother to think about.

salvage. There exists no location for any god within, or even the apparatus to exercise free will. Virtue, compassion and love are all epiphenomenal illusions. Remission comes in the form only of a compensatory genetic subroutine enabling us to carry on regardless of the painful irrelevance of our human situation.

Unsurprisingly, we seldom reflect on the deep existential ramifications of our given materialist mythos, which is, for the most part, unconsciously inculcated; and pretty much no-one lives a life in strict nihilistic accord. Instead, we mostly bump along trying to be good people (a religious hangover perhaps), with an outlook that approximates to the one most succinctly expressed by Morty Smith: “Nobody exists on purpose, nobody belongs anywhere, everybody’s gonna die. Come watch TV.”⁵³

This is our modern story and we’re stuck with it. Unless, of course, we can dream up a better one...

*

III Blinded by history

“All history is nothing but a continuous transformation of human nature”

— Karl Marx[†]

*

History, someone once joked, is just one damn thing after another! A neat one-liner, since disassembling history by such vulgar *reductio ad absurdum* is amusing. And glanced at, whether by highlighting a few isolated and sporadic peculiarities or skipping across centuries in search of repetitions, the sequences of too-often terrible events may indeed appear to follow with little to no apparent connection or purpose; the rise and fall of civilisations happening without rhyme nor reason and scarcely more intent than the random walk of a drunkard. Advancement may be admitted in both cases, of course, for in spite of deficiencies in one’s sense of direction the inebriated still generally make it back home!

Unfortunately, such disjointed views of history are actually rather hard to avoid. For one thing, there’s an awful lot of history out there and comparatively little time to learn about it. Nevertheless, any sort of ‘one damn thing after another’ approach, irrespective of the earth-shattering relevance of the facts in themselves, represents a kind of freeze-dried version; our human world shrivelled up to the most desiccated of husks, and completely devoid of the life that made it.

In fact, why bother studying it at all when it is so detached from reality and makes so little sense? To paraphrase Henry Ford, history thus reduced truly is bunk, although traditionally and especially at school, history has very often been taught in this fashion: as one damned thing after another... all significant dates to be learned by rote.

[†] The quote is directly addressed to political philosopher and anarchist Pierre-Joseph Proudhon in Chapter 2: “The Metaphysics of Political Economy”; Part 3: “Competition and Monopoly” of Karl Marx’s *The Poverty of Philosophy*, a critique of the economic and philosophical doctrine of Proudhon, first published in 1847. In full the quote reads: “M. Proudhon does not know that all history is nothing but a continuous transformation of human nature.”

Read more here: www.marxists.org/archive/marx/works/1847/poverty-philosophy/

By contrast, real historians are primarily interested in connecting the dots. Their goal is to reconstruct the past much as palaeontologists reconstruct dinosaurs by attempting to put plausible flesh back on to the real bones from excavations. And difficulties of similar kinds have to be confronted and overcome by experts in both fields. When you are working entirely from bones, all of the muscle, skin, fur, patterns of behaviour is added on the basis of what you know about living, or at least, more recently extinct creatures. If there is a close living relative then the task may be comparatively easy, less so when it's a Stegosaurus or T. rex. Likewise, it is obviously far easier to understand the motives and behaviour of people in societies anthropologically similar to our own. Once we venture into prehistory – something I am coming back to consider – this complication is massively compounded.

As a child, I learnt about an enormously long, herbivorous monster called the Brontosaurus – the wonderfully named *thunder lizard*! Its discoverer, Yale professor of palaeontology, Othniel Charles Marsh, had previously catalogued the first and second specimens of less celebrated dinosaur genus he aptly christened the Apatosaurus. This 'deceptive lizard' was very well-named because in his rush to establish a new species, bones from the original find had been accidentally jumbled up with a different species during transit. Worse still, having excavated a nearly complete skeleton of a second Apatosaurus – lacking only the feet and skull – Marsh then creatively added a composite head constructed with finds from other locations. So it transpires that no such creatures ever walked the Earth... at least not quite these creatures. Marsh similarly contrived a composite skull for his Brontosaurus find, but an even worse fate befell the creature when subsequently it was identified as just a specimen of Marsh's already classified group, the Apatosaurus. Thus, Brontosaurus suffered extinction a second time!*

While palaeontologists depend on fossil records, historians work from the surviving remnants of a quite different kind of course: books, documents, diaries, and during more recent times, photographs and audio-visual recordings. For interpretations beyond living memory (which is rather short) the historian is obliged to rely on such documentary sources. The difficulty faced is thereby magnified, since, unlike bones and rocks,

* These sorts of confusion have happened quite often throughout the history of palaeontology but most especially during a period of intense rivalry between competing American fossil hunters Edward Drinker Cope and Othniel Charles Marsh towards the end of nineteenth century. Known today as the Bone Wars, Cope and Marsh engaged in a variety of dirty tricks including smear campaigns, bribery, theft and even vandalism of specimens in efforts to gain a competitive advantage and get the upper hand.

human records can and do frequently distort the truth (both accidentally and wilfully – and human memory is extremely flaky).

How, then, does a scrupulous historian know which records to trust when faced with contradictory evidence? How to ascribe greater reliability to some sources above others? Or determine whether a freshly unearthed primary source is reliable or unreliable; authentic or a hoax? Well basically they turn detective and begin performing cross-checks, just as a good police detective or criminal lawyer will cross-examine witnesses to corroborate evidence and ascertain the truth. Although there remains an ineluctable circularity here – something palaeontologists do not encounter – as new records are commonly informed or founded on the basis of previous ones, and so updated accounts are generally preformed by the older stories.

In 1983, when the Hitler Diaries turned up out of the blue, they were quickly authenticated by three different expert historians, Hugh Trevor-Roper, Eberhard Jäckel and Gerhard Weinberg. As it happened, the diaries were shortly afterwards proven to be forgeries, and soon after that totally discredited by processes of direct forensic analysis. Handwriting turned out to be the biggest immediate give-away. This embarrassing episode is mostly forgotten today, although it remains instructive. Hitler had only been dead for half a century, well within living memory, and there were ample surviving handwritten documents to compare against. Such unassailable forensic evidence is the exception rather than the rule for the greatest tracts of history.

So historians have their work cut out, since if history is to be a living subject then even beyond the reliable facts surrounding its central events care must be taken to nurture the warm, moist uncertainty of the real lives that not just made it, but lived it. On the one hand, history is a sketchbook, while on the other, as archaeologist and historian John Romer once elegantly put it: “History is only myth: stories trying to make sense of reality”⁵⁴

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Two decades ago, I embarked on an adventure to the USA. Travelling with Neil, a friend and post-graduate colleague, to the International Conference on Asteroids, Comets and Meteors in Flagstaff, Arizona, we were wined and dined and given tours of the Grand Canyon and Meteor Crater. It was a most splendid jolly!

After the conference, we took a tour to explore a little further into the great continent. We hired a car and headed west on Route 66, only reaching our final destination, San Francisco, after a solid week of driving.

Along the way, we stopped to admire the great Hoover Dam, Las Vegas, Death Valley, Los Angeles, the giant redwoods and the towering rocks of Monument Valley which form such a spectacular backdrop to so many Westerns. En route we had also encountered the occasional roadside stalls where the Native Americans who sold trinkets would try to entice passing trade with off-road signs and promises of dinosaur footprints.

On one of these excursions in Arizona we had visited perhaps the most famous of all petrified forests (known straightforwardly as Petrified Forest National Park) with fossilised trees laid strewn like ancient bronze-casts, and nearby, where we also wandered the ruined remains of human settlements. The ruins had signs too; ones that told us the houses were built some six hundred years ago, or, as the notes put it: “prehistoric”. Well that had made us laugh, although we shouldn’t have. The idea that a mere six hundred years old could be designated “prehistoric” was not another fine example of dumbass American thinking, but a straightforward fact that two ignorant Europeans misunderstood: history, as I said above, is a discipline that arises purely out of documentation. Automatically, therefore, we – meaning all modern people – have, to put matters mildly, an historical bias.

At the risk of sounding worthy (or, in more current parlance ‘woke’), I’d like to draw attention to a few related misconceptions. First, Christopher Columbus did not discover America. Today most people are well aware of this indisputable fact and academics once marginalised simply for reminding us of this and other more painful truths are fully vindicated.

For one thing, literally millions of people were already living in North America prior to that fateful date of fourteen hundred and ninety-two: a forgotten civilisation. Today, having lost their land to settlers, most descendants remain on reservations, where they may earn a few bucks, lured from passing tourists with those promises of dinosaur footprints.

But more than this, Columbus wasn’t the first European to sail to the ‘New World’. Again, as many people know today, the real honour goes to Erik Thorvaldsson – better known as Erik the Red – the Viking explorer credited in the Icelandic sagas with founding the first settlement in Greenland. Nor was Columbus the first European ever to set foot on continental American soil. The plaudits here go instead to Thorvaldsson’s son, Lief Erikson, who according to the sagas established a Norse settlement in Vinland, now called Newfoundland. All of this took place an astonishing five centuries before the voyage of Genoese pretender Columbus.

So, if not discovery, what did Columbus’ arrival really bring to this story? Well, the answer can be found and understood simply by reading

between the lines of his captain's log. Here, for instance, is what he writes about the ship's first encounter with the Arawak Indians who inhabited the archipelago known today as the Bahamas:

"They go as naked as when their mothers bore them, and so do the women, although I did not see more than one young girl. All I saw were youths, none more than thirty years of age. They are very well made, with very handsome bodies, and very good countenances... They neither carry nor know anything of arms, for I showed them swords, and they took them by the blade and cut themselves through ignorance... They should be good servants and intelligent, for I observed that they quickly took in what was said to them, and I believe they would easily be made Christians, as it appeared to me that they had no religion."

On the very next day, Columbus writes:

"I was attentive, and took trouble to ascertain if there was gold. I saw that some of them had a small piece fastened in a hole they have in the nose, and by signs I was able to make out that to the south, or going from an island to the south, there was a king who had great cups full, and who possessed a great quantity."

The following day, a Sunday, Columbus decided to explore the other side of the island, and once again was welcomed by the villagers. He writes:

"I saw a piece of land which appeared like an island, although it is not one, and on it there were six houses. It might be converted into an island in two days, though I do not see that it would be necessary, for these people are very simple as regards the use of arms, as your Highnesses will see from the seven that I caused to be taken, to bring home and learn our language and return; unless your Highnesses should order them all to be brought to Castile, or to be kept as captives on the same island; for with fifty men they can all be subjugated and made to do what is required of them."⁵⁵

Having failed in his original quest for gold, Columbus' subsequent expeditions sought out a different cargo to bring back to Spain. In 1495, they corralled 1,500 Arawak men, women and children in pens and selected the fittest five hundred specimens for transportation. Two hundred died onboard the ships and the survivors were all sold in slavery. Unfortunately for Columbus, however, and by turns for the native people of the Caribbean, this trade in humans was insufficiently profitable to pay back his investors, and so Columbus adopted a different strategy and intensified his search for gold again.

* From Christopher Columbus's log for Friday, Saturday and Sunday October 12 -14, 1492.

In Haiti, where he believed the precious metal lay in greatest abundance, Columbus soon demanded that everyone over the age of fourteen must find and exchange a quarterly tribute for a copper token. Failure to comply was severely punished by the amputation of limbs; the victim left to bleed to death, and those who tried out of desperation to escape would be hunted down with dogs and then summarily executed.

Bartolome de las Casas, a young priest who had arrived to participate in the conquest and was indeed for a time a plantation owner, afterwards became an outspoken critic and reported on the many atrocities he witnessed.† In his own three-volume chronicle, *History of the Indies*, las Casas later wrote:

“The Indians were totally deprived of their freedom and were put into the harshest, fiercest, most horrible servitude and captivity which no one who has not seen it can understand. Even beasts enjoy more freedom when they are allowed to graze in the field.”⁵⁶

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† The following are separate entries:

“With my own eyes I saw Spaniards cut off the nose and ears of Indians, male and female, without provocation, merely because it pleased them to do it. ...Likewise, I saw how they summoned the caciques and the chief rulers to come, assuring them safety, and when they peacefully came, they were taken captive and burned.”

“They laid bets as to who, with one stroke of the sword, could split a man in two or could cut off his head or spill out his entrails with a single stroke of the pike.”

“They took infants from their mothers’ breasts, snatching them by the legs and pitching them headfirst against the crags or snatched them by the arms and threw them into the rivers, roaring with laughter and saying as the babies fell into the water, ‘Boil there, you offspring of the devil!’”

“They attacked the towns and spared neither the children nor the aged nor pregnant women nor women in childbed, not only stabbing them and dismembering them but cutting them to pieces as if dealing with sheep in the slaughter house.”

“They made some low wide gallows on which the hanged victim’s feet almost touched the ground, stringing up their victims in lots of thirteen, in memory of Our Redeemer and His twelve Apostles, then set burning wood at their feet and thus burned them alive.”

From the *History of the Indies* (1561) by Bartolome de las Casas.

Napoleon has been attributed with the utterance that “History is written by the winners” or alternatively, “What is History but a fable agreed upon”*, and for one with such a prodigious record both of winning and ‘making history’, who doubts that he knew whereof he spoke. Strange, therefore, how little attention is generally paid to Napoleon’s straight-talking, no-nonsense maxim. How instead we eagerly absorb the authorised versions of our histories, trusting that by virtue of scholastic diligence and impartiality, these reconstructions of the past represent a close facsimile to the actuality of the real events.

Of course, when it comes to the centuries-long fractious infighting between the European monarchies, we are at least privy to the accounts of both adversaries. So in general we have – at minimum – two sides to each story of every conflict, plus competing and alternative versions to reports of criminal acts and in the case of many other scandals. In stark contrast, however, when the British and the other European powers sailed off to unconquered lands soon after to be known collectively as “the colonies,” only one side of the story remains extant.

For during the period of the last five hundred years or so, the era when western records have been most replete, a world once teeming with a diversity of alternative cultures, was slowly wiped away: the inhabitants of these forgotten worlds either annihilated or wholly assimilated by the great European powers. Thus, an increasingly homogeneous culture, by the terror of cannons and on other occasions by the softer coercions of the sermons of missionaries, has steadily erased and replaced the heterogeneous confusion very nearly as swiftly as it was encountered. Defeated cultures, if not entire indigenous populations, not just swept aside and defeated, but utterly and irreversibly deleted.

* As with many of the best known quotes, the first appears to be misattributed and the second is very possibly the reworking of an utterance by Voltaire. While it is true that Napoleon is reported as once saying in conversation: “What then is, generally speaking, the truth of history? A fable agreed upon,” the phrase certainly predates him. The first quote “History is written by the winners” can however be traced to the pen of George Orwell from one of a series of articles published by the *Tribune* under the title “As I please,” in which he wrote: “During part of 1941 and 1942, when the Luftwaffe was busy in Russia, the German radio regaled its home audience with stories of devastating air raids on London. Now, we are aware that those raids did not happen. But what use would our knowledge be if the Germans conquered Britain? For the purpose of a future historian, did those raids happen, or didn’t they? The answer is: If Hitler survives, they happened, and if he falls they didn’t happen. So with innumerable other events of the past ten or twenty years. Is the Protocols of the Elders of Zion a genuine document? Did Trotsky plot with the Nazis? How many German aeroplanes were shot down in the Battle of Britain? Does Europe welcome the New Order? In no case do you get one answer which is universally accepted because it is true: in each case you get a number of totally incompatible answers, one of which is finally adopted as the result of a physical struggle. **History is written by the winners.**” [*bold emphasis added*]

Oral traditions leave little if anything by way of an historical trace, and so back in the fifteenth century, America was indeed “prehistoric”; its history having been established only after the alien invaders first stepped ashore (and Europeans must surely have appeared to the wide eyes of the native peoples they were about to overwhelm, literally as creatures from another world). And as in the Americas, so too in Australia and the other ‘new worlds’, where, of the novelties we brought along, arguably the most significant was History itself.

Bear in mind, therefore, that throughout most regions of the world and most of human time, people didn’t have history at all, because history per se begins with writing; another largely Eurasian preoccupation. Thus history in most parts of the world starts with our arrival: its origins, an indirect consequence of conquest, oppression, exploitation and enslavement.

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At this juncture, it is tempting to set out a comprehensive list of all the barbarisms of history (one damned thing after another), although to do justice I would certainly need to double the length of the current chapter. Instead, just a few examples more than serve my purpose of illustrating the point...

Invasions from the north took the dreadful shape of Viking longships, their crews remembered today for rape and pillage; from the east, came the marauding Huns and then the Mongol horde, later followed by the butchery of tyrants such as Vlad the Impaler; in the Mediterranean south, entertainment was once provided by the sadistic spectaculars of the Roman circuses, and afterwards came the more ideologically entrenched, atrocities of the Spanish Inquisition. When the first Europeans had explored the lands of the west, the ruthless conquistadors came face to face with the blood-curdling atrocities of the Aztec and Mayan empires in which human sacrificial victims were regularly slaughtered in the hundreds and thousands. Which was the more fearsome and savage?

In former times, the Christians marched across whole continents to slay innocents in the name of the Prince of Peace, and, in astonishingly recent times, other Christians dispatched heathens and heretics by drowning, burning and lynching, especially at the height of the witch craze that swept Europe and America well into the Enlightenment period.

Muslims, by comparison, have preferred to kill their enemies in the name of Jihad and Fatwa, or else to inflict judicial cruelties by means of stoning, flagellation, amputation and decapitation, all in strict accordance to a holy Sharia Law. Not that the irreligious have been any less diabolical,

whether we consider Hitler and the Nazi death camps, or the Soviet gulags, or the killing fields of Cambodia, and Mao Tse-tung's "Cultural Revolution" in China. Given how little time has passed since the decline of religion, the sheer number of victims tortured and murdered by these surrogate atheistic (or perhaps neo-pagan in the case of the Nazis) regimes is as gut-wrenching as it is perplexing.

Britain itself witnessed centuries of religious intolerance, brutal repression and outright thuggery. Henry VIII, one of the most celebrated monsters in history, is chiefly remembered for his penchant for uxoricide, not to mention the land-grabbing and bloodletting of the English Reformation that followed from the convenience of his divorce from Catherine of Aragon. And like father, like daughter: a radical transformation of the sectarian landscape under Henry was partially undone by Bloody Mary's reign of terror and her ultimately failed restoration of Catholicism (had she been more successful, doubtless her epithet would not now be "Bloody").

Meanwhile, the sudden rise and spread of the British and other European empires meant such commonplace domestic atrocities could, during the next four hundred years, be committed as far afield as Africa, North and South America, India, China, and Australia. All of this facilitated by, and, in turn facilitating and encouraging, the international trade in human slaves. And though the European place in world history has been a repeatedly shameful one, man's inhumanity to man can be and has been legitimised and justified for a hundred other reasons beneath dozens of alternative flags. According to historical records then, human nature is infernally bad, and incurably so.

Cruel, bellicose, sneaky, and selfish; according to the historic record we ought to plead guilty on all counts. But then the historical record is a limited one, as outlined above – the meek have been disinherited from the world. Almost systematically so.

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The French writer Voltaire is nowadays best remembered for his marvellous satire, *Candide* (1759), which he subtitled with characteristic irony: "or the Optimist". A savage critique of the unenlightened politics and obscurantist metaphysics of his time, *Candide* is an historical fantasy, with many episodes in the book cleverly interwoven with factual events of the period. It is rightly celebrated, and I reference its central theme in the addendum below. A decade earlier, however, Voltaire had road-tested similar ideas, choosing not an historical backdrop, but one that we might today describe

as science fiction. A forgotten classic, Voltaire's *Micromegas* (1750) is a story about the adventures of two philosophical aliens. Here is a brief synopsis.

Micromegas, the eponymous hero, is a gigantic inhabitant of the star Sirius, who ventures to Earth, stopping off at Saturn along the way. Being many miles tall, the Saturnians who are themselves as tall as small hills, nevertheless appear to Micromegas as pigmies, and so his initial response is to deride them: "accustomed as he was at the sight of novelties, he could not for his life repress that supercilious and conceited smile which often escapes the wisest philosopher, when he [first] perceived the smallness of that globe, and the diminutive size of the inhabitants".

Eventually, however, and once the Saturnians ceased to be amazed by his gigantic presence, he befriends the secretary of the Academy of Saturn. Having discussed the comparative differences between their two worlds, Micromegas and the Saturnian resolve to set off on a grand tour of the Solar System. Shortly afterwards they arrive on Earth.

Upon landing, they decide to search around for evidence of intelligence but discover no signs of life at all except, eventually, for a whale, which the Saturnian catches between his fingers and shows to Micromegas, "who laughed heartily at the excessive smallness peculiar to the inhabitants of our globe". As luck would have it, however, a ship of philosophers happens to be returning from a polar expedition, and aboard this ship, the aliens soon encounter "a creature very different from the whale".

Having established contact with the "intelligent atoms" aboard the ship, the alien philosophers are curious to learn about a life so "unencumbered with matter, and, to all appearance, little else than soul" conjecturing that such tiny earthlings must spend their lives "in the delights of love and reflection, which are the true enjoyments of the perfect spirit". Of course, they are very quickly disabused of such idealist illusions by those on-board:

"We have matter enough," said [one of the philosophers], "to do abundance of mischief, if mischief comes of matter; and too much understanding, if evil flows from understanding. You must know, for example, that at this very moment, while I am speaking, there are one hundred thousand animals of our own species, covered in hats, slaying an equal number of fellow-creatures who wear turbans; or else are slain by them; and this hath been nearly the case all over the earth from time immemorial..."

"The dispute is about a mud-heap, no bigger than your heel," continued the philosopher. "It is not that any one of those millions who cut

one another's throats pretends to have the least claim to that clod; the question is to know, whether it shall belong to a certain person who is known by the name of Sultan, or to another whom (for what reason I know not) they dignify with the appellation Caesar. Neither the one nor the other has ever seen, or ever will see, the pitiful corner in question; and scarcely one of those wretches who slay one another hath ever beheld the animal on whose account they are mutually slain!"

Sadly, little has changed since Voltaire wrote his story more than two hundred and fifty years ago.⁵⁷

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But now a related question: why did Europe become such a dominant force in the first place? This, arguably, is the greatest, most important question in all of our History, though one that until contemporary times was met with the most hubristic of lame answers:

"The white race is the most versatile, has the most initiative, a greater facility for organization, and a more practical outlook in life. This has led to its mastery of the material side of living, urged it to invention and discovery, and to the development of industry, commerce and science."

So begins an explication outlined under an horrifically racist heading "why is the white race dominant?" as quoted from a pre-war children's 'book of facts' titled *How Much Do You Know?*; a copy of which I happen to own. The author's deep-seated yet unconscious white supremacist mindset presumes such an excruciating air of colonial haughtiness that, immediately after, the book summarises the other "races" as follows:

"The black race, enervated by the heat of the tropics, has never shown great capacity for sustained or combined effort. The brown race, also found in hot climates, has produced the world's main religions, and is excelled in artistic handicrafts. The yellow race is said still to have a slave mentality: the individual matters nothing, the community all."⁵⁸

When I showed this passage to my father he was rightly outraged. Those opinions were outdated and unacceptable when I was at school, he told me. But then my father went to school a full decade after the book's publication. A world war had since been and gone. Perceptions and attitudes had evidently changed – greatly for the better.

And yet, if we hold our nose to the overwhelming stench of casual racism, there is within the same passage, one idea that might – if expressed more sensitively – resonate with a somewhat permissible and rather commonly held opinion that still abounds today:

“It [the white race – Europeans] has had the advantage also of living for the most part in temperate climates, where the struggle for existence has been neither too difficult nor too easy.”

In a sense, it was this very assumption that Jared Diamond attempted not so much to dispel, as to correct in his best-selling book, *Guns, Germs and Steel*. In pursuit of that end, he dedicated thirty years of life on the road, trying to understand precisely why Europe did come to dominate the world, and he makes the intriguing and largely convincing case that the roots to present global inequality were basically an outcome of freak circumstances and coincidence. Not simply “the advantage also of living for the most part in temperate climates,” although, according to Diamond at least, climate has had a vital part to play in the ascent of the West, but also due to other advantages conferred by location and historical timing.

His book begins by reminding us how the very origins of human civilisation in the Fertile Crescent of the Middle East depended upon the accidental occurrence of arable crops and animals suitable for domestication. These two factors opened the way to a land of plenty. For given that the rise of agriculture was inevitable, Diamond says, then since its origins so happened to occupy a central geographical location in the Eurasian landmass, which has the fortuitous geographical orientation in so much as this super-continent spreads out east and west, thus providing similar lengths of day, and of seasons and climates, then it was comparatively easy for these new modes of agriculture to propagate as the people slowly migrated. Thus A led to B led to C if only because the advent of A, B and C had been so perfectly compatible.

Thanks to the development of agriculture, the population enjoyed a surplus, and this in turn brought about the rise of trade, and no less importantly, of free-time. So the people in the new settlements would spend extended periods preoccupied with otherwise unproductive activities, such as making stylistic improvements to their houses and other amenities, rather than, as in former times, gathering nuts or trapping pigs. This new freedom resulted in the rise of new technologies which, with time to spare, could also then be refined – undoubtedly the most significant of which was the production of metals and development of metal-working skills. Ploughshares that were later turned into swords.

Trade routes lead to the transmission of new ideas, and once the discovery of gunpowder in China reached the shores of the Middle East, then its military use was quickly perfected. It was thanks to the early invention of writing – which arose on a very few occasions worldwide, and just once outside of the super-continent of Eurasia with the development of

Mayan Script in Mexico – that this steady transmission of ideas and innovations thereafter accelerated.

As a consequence, the Eurasian civilisations had everything in place to begin their takeover, and also a secret weapon in reserve which they weren't even aware of – germs. Our 10,000 years of domestication of so many species had inadvertently equipped these Eurasian invaders with an arsenal of new biological agents: diseases they themselves had considerable immunity to: smallpox from cattle, chicken-pox and influenza from poultry, to name but three examples. Whereas in North and South America, many people did not live in such close proximity to domesticated animals, and so had neither immunity nor exotic infections of their own to spread. Conquests by war were thus very often followed by pandemics more devastating than even our swords and cannons – although more recently, once the genocidal effect of disease had been better understood, the contamination of Native Americans became chillingly deliberate. The rest is history... our history.

Following on the vanguard of conquerors and explorers, a variety of enterprising European settlers made land grabs for King and Country, and as the empires grew, so a few European superpowers came to dominance. According to Diamond's version then, it was by virtue of the happenstance of circumstance, the stars very firmly in our favour, that these new kingdoms of the West were first won and then overrun.

The rise of agriculture, a fluke, and the inventions of the printing press and the gun, lucky but likely consequences, Diamond presents us with a timeline of evidence to show how European dominance had nothing to do with superior intelligence, or, even that less racist presupposition, superior ideology. We would have won with or without the Protestant work-ethic, and with or without the self-righteous and assertive arrogance that often comes with worship of a One True God; a god who permits unlimited belligerence for holy ends.

In reaching this conclusion, however, Diamond is surely being too much the professor of geography, the scientist, and the archaeologist, and not sufficiently the historian, because even his own evidence doesn't entirely lend support to such an overarching claim. For when it came to Europe's seizure of Africa, the tables were to some extent turned, the European settlers now highly susceptible to the ravages of tropical disease, and our advantages, including, of course, the superiority of our weaponry, more than ever buttressed by an unshakeable ideology: that pseudo-religio-scientific notion of racial superiority so imprinted on the minds of the colonisers. It is the European mindset that finally retorts the balance. For the natives needed "civilising," and despite the ever-present dangers of famine

and disease, more than enough Europeans were driven by the profit motive and a deep-seated belief in the virtue of “carrying the white man’s burden”.

*

All of the stories we tell fall within two broad categories. First there are our quotidian tales of the everyday. What happened when and to whom? Loosely we might say that all of these are our ‘histories’ whether biographical, personal, anecdotal, or traditional histories that define nations, and where it may be noted the words ‘story’ and ‘history’ are synonymous in many languages.* But there are also stories of a second, more fundamental kind: those of fairytale, myth and allegory that sometimes arise as if spontaneously, and though deviating from the strict if mundane ‘truth of accountants’, are able to penetrate and bring to light otherwise occluded insights and wisdom.

Stories of the second kind have sprung forth in all cultures, often sharing common themes and characters. These include stories of creation; of apocalypse; of the wantonness of gods; of murder and revenge; of cosmic love and of battles between superheroes. Interestingly, the songlines of Australian aboriginals map their own stories of origin directly to the land. Less fantastical and wondrous, in the civilised world too, there are nationalistic versions of what might also be more loosely considered ‘songlines’. In England, for instance, we might trace the nation’s genealogy via Stonehenge, Runnymede, Sherwood Forest, Hastings, Agincourt, the white cliffs of Dover and Avalon (today called Glastonbury). Accordingly, Stonehenge tells us we are an ancient people; Runnymede that we are not slaves; Sherwood Forest that we are rebellious and cheer for the underdog; Hastings, Agincourt and the white cliffs of Dover that we are a warrior nation seldom defeated, in part because our isle is all but impregnable; while Avalon, to steal from Shakespeare, makes ours a “blessed plot”:

*This royal throne of kings, this sceptred isle,
This earth of Majesty, this seat of Mars,
This other Eden, demi-paradise;
This fortress built by Nature for herself,
Against infection and the hand of war,
This happy breed of men, this little world,
This precious stone set in the silver sea,
Which serves it in the office of a wall,*

* For instance, in German, *Geschichte*, in Spanish *historia*, in Russian *история*, in Icelandic *sögu* in Mongolian *мүүх*, in French *histoire*, in Italian *storia*, and in Greek *ιστορία* (istoria).

*Or as a moat defensive to a house,
Against the envy of less happier lands;
This blessed plot, this earth, this realm, this England...[†]*

So here we find history and myth indistinguishably entwined as if they were stories of a single kind. But then what is the past when it is not fully-fleshed and retold in stories? Unlike the rest of the extinct world, it cannot be preserved in jars of formaldehyde and afterwards pinned out on a dissecting table. To paraphrase George Orwell, the stories of our past are not just informed by the present, they are in part reconstituted from it, and thereafter those same stories ineluctably propel us into the future. Not that there is some future already fixed and inescapable, since we have no reason to presume it is, but that what unfolds is already prefigured in our stories, which then guide it like strange attractors, just as today's world was prefigured by stories told yesterday. If things were otherwise, history would indeed be bunk – nothing more or less than a quaint curiosity. Instead it is an active creator, and all the more dangerous for that.[‡]

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[†] Quote from William Shakespeare's *The Tragedy of King Richard the Second*, Act II, Scene 1, spoken by John of Gaunt.

[‡] In their book *Trump and the Puritans* (2020), authors James Roberts and Martyn Whittock point to the remarkable coincidence that on almost precisely the 400th anniversary of the landing of the Mayflower at Plymouth Rock, if Donald Trump were to be re-elected in 2020 (obviously this did not transpire), then it would be thanks not only to his strong base amongst Christian Right but down to the more pervasive and enduring belief in Manifest Destiny, American exceptionalism, the making of the New Jerusalem and “the city on the hill”, that can be traced all the way back to the Pilgrim Fathers.

IV Mostly harmless

“*Human nature is not of itself vicious*”

— Thomas Paine[†]

*

In the eyes of many today, it follows that since our evil acts far exceed our good deeds, and indisputably so given the innumerable massacres, pogroms, genocides and other atrocities that make up so much of our collective history, the verdict on ‘human nature’ is clear and unequivocal. With the evidence piled so precipitously against us as a species, we ought to plead guilty in the hope of leniency. However, and even though at first glance the case does indeed appear an open-and-shut one, this is not a full account of human nature. There is also the better half to being human, although our virtues are undoubtedly harder to appraise than our faults.

Firstly, we must deal with what might be called ‘the calculus of goodness’. I’ve already hinted at this but let me now be more explicit: Whenever a person is kind and considerate, the problem with ‘the calculus’ is how those acts of kindness are to be counted against prior acts of indifference or malevolence? Or to broaden this: how is any number of saints to make up for the actions of so many devils? Can the accumulation of lesser acts of everyday kindness in aggregation, ever fully compensate

[†] The quote is taken from Chapter 4: “Of Constitutions”; Part 2 of Thomas Paine’s *Rights of Man*, a defence of the French Revolution against charges made by Edmund Burke in his *Reflections on the Revolution in France* (1790). *Rights of Man* was first published in two parts in 1791 and 1792 respectively. In fuller context, Paine writes:

“Man will not be brought up with the savage idea of considering his species as his enemy, because the accident of birth gave the individuals existence in countries distinguished by different names; and as constitutions have always some relation to external as well as to domestic circumstances, the means of benefitting by every change, foreign or domestic, should be a part of every constitution. We already see an alteration in the national disposition of England and France towards each other, which, when we look back to only a few years, is itself a Revolution. Who could have foreseen, or who could have believed, that a French National Assembly would ever have been a popular toast in England, or that a friendly alliance of the two nations should become the wish of either? It shows that man, were he not corrupted by governments, is naturally the friend of man, and that human nature is not of itself vicious.”

Read more here: www.gutenberg.org/files/3742/3742-h/3742-h.htm

for a single instance of rape, torture or cold-blooded murder? Or, to raise the same issue on the larger stage again, how did the smallpox and polio vaccines, which undoubtedly saved a great deal of suffering and the lives of millions, compensate against the bombings of Guernica, Coventry, Dresden, Hiroshima and Nagasaki? For aside from the moral dubiousness of all such utilitarian calculations, the reality is that inflicting harm and causing misery is on the whole so much easier than manufacturing any equivalence of good.

And this imbalance is partly an unfortunate fact of life; a fact that new technologies can and will only exacerbate. So here is a terrible problem that the universe has foisted upon us. For destruction is, as a rule, always a much more likely outcome than creation. It happens all of the time. As things erode, decay, go wonky and simply give up the ghost. If you drop a vase onto a hard floor, then your vase will reliably shatter into a pile of shards, and yet, if you toss those same hundred shards back into the air they will never reform into a vase again. Or, as Creationists like to point out (entirely missing the bigger point that evolution is not a purely random process) no tornado could ever blow the parts from a scrapyard together again to reform a Jumbo Jet. Destruction then – *i.e.*, the turning of order into chaos – turns out to be the way our universe prefers to unwind. And it's tough to fight against this.

The random forces of extreme weather, earthquakes, and fires, are inherently destructive, just because they are erratic and haphazard. So if destruction is our wish, the universe bends rather easily to our will; and this is the diabolical asymmetry underlying the human condition.

In short, it will always be far easier to kill a man than to raise a child to become a man. Killing requires nothing else than the sudden slash of a blade, or the momentary pull on a trigger; the sheer randomness of the bullet's tumbling wound being more than enough to destroy life. As technology advances, the push of a button increases that same potentiality and enables us to flatten entire cities, nations, civilisations. Today we enjoy the means for mega-destruction, and what was unimaginable in Voltaire's day becomes another option forever "on the table," in part, as I say, because destruction is an easy opinion, comparatively speaking – comparative to creation, that is.

Nevertheless, our modern weapons of mass destruction have all been wilfully conceived, and at great expense in terms both of time and resources, when we might instead have chosen to put such time and resources to a wholly profitable use, protecting ourselves from the hazards of nature, or else thoroughly ridding the world of hunger and disease, or by

more generally helping to redress the natural though diabolical asymmetry of life.*

Here then is a partial explanation for malevolent excesses of human behaviour, although I concede, an ultimately unsatisfactory one. For however easily we are enabled to harm others with soft bodies given that we live in such a world beset by sharp objects and less visible perils, we do nevertheless have the freedom to choose not to do so. To live and let live and to commit ourselves to the Golden Rule that we “do unto others as we would have others do unto us”. So my principle objection to any wholesale condemnation of our species will have little to do with the estranging and intractable universal laws of nature, however harshly those laws may punish our human condition; instead, it entails a defence founded on anthropocentric considerations.

For if human nature is indeed so fundamentally rotten, then what ought we to make of our indisputable virtues? Of friendship and love; to select a pair of shining examples. And what of the great social reformers and the peacemakers like Gandhi and Martin Luther King? What too of our most beautiful constructions in poetry, art and music? Just what are we to make of this better half to our human nature? And why did human beings formulate the Golden Rule in the first instance?

Of course, even apparent acts of generosity and kindness can, and frequently do have, unspoken selfish motivations, so the most cynical adherents of the ‘dark soul hypothesis’ go further again, reaching the conclusion that all human action is either directly or indirectly self-serving.

* The Second Law of Thermodynamics can be stated in a variety of different ways but is probably best known as follows: that the total entropy of any isolated macroscopic system must always decrease. Where entropy is the precise measure of something that can be loosely described as the total microscopic disorder within the system. The second law has many implications. Firstly, there is insistence upon a direction whenever any system changes, with order changing increasingly to disorder. This itself implies an irreversibility to events and suggests a propelling “arrow of time”. The Second Law also prohibits the possibility for any kind of perpetual motion, which by extension, sets a limit to the duration of the universe as a whole, since the universe can also be considered as an isolated thermodynamic system, and is therefore, and as a whole, subject to the Second Law. For this reason the universe is now expected to end in a cosmic whimper, known in Physics as “the heat death of the universe” – with all parts having reached a very chilly thermodynamic equilibrium. It almost seems then that the Second Law of Thermodynamics might be the physical axis about which the diabolical asymmetry of destruction over creation is strung. Just how any universe of intricate complexity could ever have formed in the first instance is mysterious enough, and though the Second Law of Thermodynamics does not prohibit all orderly formation, so long as the pockets of order are counterbalanced by regions of increasing chaos, the law does maintain that the overall tendency is always towards disorder. Form it did, of course, which perhaps implies the existence of an as yet undiscovered but profoundly forceful creative principle – something that may prove to be nothing more or less than another law of thermodynamics.

That friendship, love, poetry and music, along with every act of philanthropy (which literally means “love of man”), are all in one way or another products of the same innate selfishness. According to such surprisingly widespread opinion, even at our finest and most gallant the underlying motivation is always reducible to “you scratch my back...”

Needless to say, *all* of human behaviour really can, if we choose, be costed in such a one-dimensional utilitarian terms. Every action evaluated on the basis of outcomes and measured in terms of personal gain, whether actual or perceived. Indeed, given the mountains of irrefutable evidence that people are all-too-often greedy, shallow, petty-minded and cruel, it is not irrational to believe that humans are invariably and unalterably out for themselves. It follows that kindness only ever is selfishness dressed up in mischievous disguise, and challenging such cynicism is far from easy and can feel like shouting over a gale. The abrupt answer here is that not all personal gain ought to be judged equivalently. Since even if our every whim were, in some ultimate sense, inseparable from, contingent upon, and determined by self-interest, then who is this “self” in which our interests are so heavily vested?

Does the interest of the self include the wants and needs of our family and friends, or even, in special circumstances, the needs of complete strangers, and if so, then do we still call it ‘selfish’? If we love only because it means we receive love in return, or for the love of God (whatever this means), or simply for the pleasure of loving, and if in every case this is deemed selfish, then by definition all acts have become selfish. The meaning of selfishness is thus reduced to nothing more than “done for the self,” which misses the point entirely that selfishness implies a deficiency in the consideration of others. Thus, if we claim that all human action is born of selfishness, as some do, we basically redefine and reduce the meaning of ‘selfish’.

Having said this, I certainly do not wish, however tempting it may be, to paint a false smile where the mouth is secretly snarling. There is nothing to be usefully gained by naivety or sentimentality when it comes to gauging estimates of human nature. Nonetheless, there is an important reason to make a case in defence of our species, even if our defence must be limited to a few special cases. For if there is nothing at all defensible about ‘human nature’ it is hard to see past a paradox, which goes as follows: if human beings are innately and thus irredeemably bad (in accordance with our own estimation obviously), then how can our societies, with structures that are unavoidably and unalterably human, be anywise superior to the ‘human nature’ that designs them, and thus inherently and unalterably bad

also. After all, *ex nihilo nihil fit* – nothing comes from nothing. This is, if you like, the Hobbesian Paradox. (And I shall return to it shortly.)

*

There have been many occasions when writing this book has felt to me a little like feeling around in the dark. Just what is it that I am so urgently trying to say? That feeling has never been more pronounced than when working on this chapter and the one ensuing. For human nature is a subject that leads into ever more divergent avenues and into deeper and finer complexities. What does it even mean to delve into questions about ‘human nature’? Already this presumes some general innate propensity that exists and provides a common explanation for all human behaviour. But immediately, this apparently simple issue brings forth a shifting maze of complications.

Firstly, there is the vital but unresolved debate over free will as opposed to determinism, which at one level is the oldest and most impenetrable of all philosophical problems. All attempts to address this must already presuppose sound concepts of the nature of Nature and of being. However, once we step down to the next level, as we must, we find no certain answers are provided by our physical sciences, which basically posit determinism from the outset in order to proceed.

Then there is a related issue of whether as biological organisms, humans are predominantly shaped by ‘nature or nurture’. In fact, it has become increasingly clear that the question itself is subtly altering, since it becomes evident that the dichotomy is a false one. What can be said with certainty is that inherited traits are encouraged, amplified, altered and sometimes prohibited by virtue of our environment due to processes occurring both at biological and social levels. Beyond this, nature and nurture cannot be so easily disentangled.

The tree grows and develops in accordance not merely with biochemical instructions encoded within its seed but in response to the place where that seed germinates, whether under full sunlight or deep shade, whether its roots penetrate rich or impoverished soil, and in accordance with temporal variations in wind and rainfall. We too are shaped not only as the flukes of genealogy, but by adapting moment by moment to environmental changes from the very instant our father’s sperm penetrated and merged with our mother’s egg. We are no more reducible to Dawkins’ ‘lumbering robots’, those vehicles “blindly programmed to preserve the selfish

molecules known as genes”^{*} that bloodlessly echo Hobbes, than we are to the ‘tabula rasa’ of Aristotle, Locke, Rousseau and Sartre. Yet somehow this argument lurches on, at least in the public consciousness, always demanding some kind of binary answer as though this remains a possibility.

As for the question of free will or determinism at a cosmic level, my personal belief is the one already presented in the book’s introduction, although to make matters absolutely unequivocal allow me to proffer my equivalent to Pascal’s famous wager: that one ought to live without hesitation as though free will exists, because in the case you are right, you gain everything, whereas if you lose, you lose nothing. Moreover, the view that we are without agency and altogether incapable of shaping our future involves a shallow pretence that also seeks to deny personal responsibility; it robs us of our dignity and self-respect, and disowns the god that dwells within.

As for proof of this faculty, I have none, and the best supporting evidence is that on occasions when I have most compellingly perceived myself as a thoroughly free agent in the world, there has spontaneously arisen a corresponding anxiety: the sense that given one’s possession of such an extravagant gift involves the acknowledgment of the sheer enormity of one’s responsibility. An overwhelming feeling that freedom comes with an excessively heavy price attached.

Indeed, my preferred interpretation of the myth of Eve’s temptation in the Garden of Eden follows from this: that the eating of “the apple” – *i.e.*, the fruit of the tree of the knowledge of good and evil – miraculously and instantly gave birth to free will and conscience as one, with each sustaining the other (like the other snake, Ouroboros, perpetually eating its own tail). It follows that The Fall is nothing besides our human awakening to the contradistinction of good and evil actions, and thus interpreted, this apprehension of morality is simply the contingent upshot of becoming free in a fully conscious sense.[†]

^{*} “We are survival machines – robot vehicles blindly programmed to preserve the selfish molecules known as genes. This is a truth which still fills me with astonishment.”

From *The Selfish Gene* by Richard Dawkins.

[†] This variant on the myth with its rather Buddhist overtones does at least account for God’s rage and instant reaction. For according to Genesis, God thereafter says, to no-one in particular: “... the man is become as one of us [sic], to know good from evil.” Our expulsion from the Garden of Eden is not simply His punishment for our disobedience (which is, naturally enough, the doctrine the church authorities are keen to play up), but a safeguard to protect and secure His own divine monopoly. God fearing that left alone in paradise we might now, and as the same passage goes on to elucidate, “take also of the tree of life, and eat, and live for ever.”

For we might justifiably wonder upon what grounds the most dismal critiques of human nature are founded, if not for the prior existence of a full awareness of moral failings that is itself another component aspect and expression of that same nature. Or, as French writer La Rochefoucauld put it in one of his most famous and eloquent maxims: “Hypocrisy is the homage which vice renders to virtue.”* That is, whenever the hypocrite says one thing then does another, he does it because he recognises his own iniquity but then feigns a moral conscience to hide his shame. Less succinctly, it might be restated that acting with good conscience is hard-wired and for most people (sociopaths presumably excluded) doing otherwise automatically involves us in compensatory acts of dissemblance, denial and in self-delusion also.

We have no reason to say humans are wholly exceptional in possessing a conscience, of course, although it seems that we are uncommonly sensitive when it comes to detecting injustice, and the reason is perhaps because (admittedly, this a hunch) we are uniquely gifted empathisers. Unfortunately, such prodigious talent for getting into the minds of others is one that also makes our species uniquely dangerous.

*

The Enlightenment struck many blows, one of which effectively killed God (or at least certain kinds of Theism). In the process, it more inadvertently toppled the pedestal upon which humanity had earlier placed itself, as Darwinism slowly but inevitably brought us all back down to earth with a bump. No longer the lords of creation, still the shibboleth of anthropocentrism is much harder to shake.

Hobbes convinced us that ‘human nature’ is dangerous because it is Nature. Rousseau then took the opposing view arguing that our real problems actually stem from not behaving naturally enough. His famous declaration that “Man is born free, and everywhere he is in chains” forms the opening sentence of his seminal work *The Social Contract*; the spark that had helped to ignite revolutions across Europe.† Less than a century

Extracts taken from Genesis 3:22. The full verse is as follows: “And the Lord God said, Behold, the man is become as one of us, to know good and evil: and now lest he put forth his hand, and take also of the tree of life, and eat, and live for ever:”

* *L'hypocrisie est un hommage que le vice rend à la vertu.* – François de La Rochefoucauld, *Maximes* (1665–1678), 218. Alternative translation: “Hypocrisy is a tribute vice pays to virtue.”

† *L'homme est né libre, et partout il est dans les fers. Tel se croit le maître des autres, qui ne*

later, Marx and Engels concluded *The Communist Manifesto*, echoing Rousseau with the no less famous imperative often paraphrased: “Workers of the world unite! You have nothing to lose but your chains”⁵⁹

In the place of freedom and perhaps out of a desperate sense of loss, we soon recreated ourselves as gods instead and then set about constructing new pedestals based on fascist and Soviet designs. But finally, the truth was out. Humans make terrible gods. And as we tore down the past, remembering in horror the death camps and the gulags, we also invented new stories about ourselves.

In the process, the post-Hobbesian myth of ‘human nature’ took another stride. Rather than being on a level with the rest of creation and mechanically compelled to lust for power and material sustenance like all animals, our species was recast once again as *sui generis* in a different way. Beyond the ability to wield tools, and to manipulate the world through language and indeed by virtue of culture more generally, we came to the conclusion that the one truly exceptional feature of humans – the really big thing that differentiates ‘human nature’ from the whole of the rest of nature – was our species outstanding tendency to be rapacious and cruel. Thanks to our peculiar desire for self-aggrandisement, this has become the latest way we flatter ourselves.

It is sometimes said that humans are the only creatures to derive pleasure in cruelty. Indeed, at first glance this sounds like a perfectly fair accusation, but then just a little consideration finds it to be false. Take the example of the well-fed cat that is stalking the bird: does it not find amusement of a feline kind in its hunt? When it toys with a cornered mouse, meting out a slow death from the multiple blows of its retractable claws, is it not enjoying itself? And what other reason can explain why killer whales will often toss a baby seal from mouth to mouth – shouldn’t they just put it out of its misery?

Ah yes, comes the rejoinder, but still we are the only creatures to engage in full-scale warfare. Well, again, yes and no. The social insects go to war too. Chemical weapons are deployed as one colony defends itself from the raids of an aggressor. When this is granted, here’s the next comeback: ah, but we bring malice aforethought. The social insects are

laisse pas d’être plus esclave qu’eux. Translated by G. D. H. Cole (1913) as: “Man is born free; and everywhere he is in chains. One thinks himself the master of others, and still remains a greater slave than they.”

From Part I, Chapter 1 of *Du contrat social ou Principes du droit politique* [trans: *Of The Social Contract, Or Principles of Political Right*] (1762) by Jean-Jacques Rousseau. A book in which Rousseau theorises about the best way to establish a political community.

merely acting in response to chemical stimuli. They have pheromones for war, but no savage intent.

This brings us a little closer to home – too close perhaps – since it is well documented that chimpanzees gang up to fight against a rival neighbouring troop. How is this to be differentiated from our own outbreaks of tribal and sectarian violence?

That chimpanzees are capable of malice aforethought has long been known too. Indeed, they are observed on occasions to bring a weapon to the scene of the attack. But then, you might expect our immediate evolutionary cousins to share a few of our vices! However, in the 1970s, primatologist Jane Goodall was still more dismayed when she saw how the wild chimps she was studying literally descended into a kind of civil war: systematically killing a group of ‘separatists’ one-by-one and apparently planning their campaign in advance.* So yes, without any doubt, humans are best able of all creatures to act with malice aforethought, yet even in this we are apparently not alone.

Okay then... and here is the current fashion in humanity’s self-abasement... we are the only creatures that deliberately destroy their own environment. But again, what does this really mean? When rabbits first landed in Australia (admitted introduced by humans), did they settle down for a fair share of what was available? When domestic cats first appeared in New Zealand (and sorry to pick on cats again), did they negotiate terms with the flightless birds? And what of the crown of thorns starfish that devours the coral reefs, or of the voracious Humboldt squid swarming in some parts of our oceans and reportedly consuming every fish and other living thing?† Or consider this: when the continents of North and South

* This behaviour was first observed by Jane Goodall when she observed what happened after the splintering of a community of chimpanzees in Gombe Stream National Park in Tanzania. Over the next four years the adult males of the separatists were systematically killed one-by-one by members of the remaining original group. She was profoundly disturbed by this revelation and wrote in her memoir *Through a Window: My Thirty Years with the Chimpanzees of Gombe*:

“For several years I struggled to come to terms with this new knowledge. Often when I woke in the night, horrific pictures sprang unbidden to my mind—Satan [one of the apes], cupping his hand below Sniff’s chin to drink the blood that welled from a great wound on his face; old Rodolf, usually so benign, standing upright to hurl a four-pound rock at Godi’s prostrate body; Jomeo tearing a strip of skin from Dé’s thigh; Figan, charging and hitting, again and again, the stricken, quivering body of Goliath, one of his childhood heroes.”

† Even when it comes to environmentalism it seems that fashions come and go. A decade ago when I began writing the book, there was mounting concern both over the impact of crown of thorns starfish on coral reefs and the expanding population of Humboldt squid on fish populations. In 2010 *Scientific American* reported:

America first collided and a land bridge allowed the Old World creatures of the North to encounter the New World creatures of the South, the migration of the former caused mass extinction of the latter. The Old World creatures being better adapted to the new circumstances simply ate the competition. There was not a man in sight.[†]

In short, Nature's balance is not maintained thanks to the generosity and co-operation between species: this is a human conceit. Her ways are all-too often cruel. Foxes eat rabbits and in consequence their populations grow and shrink reciprocally. Where there is an abundance of prey the predators thrive, but once numbers reach a critical point that feast becomes a famine, which restores the original balance. This is how 'Nature's balance' is usually maintained – just as Malthus correctly describes (more below). But modern humans have escaped this desperate battle for survival, and by means of clever artificial methods, enable our own populations to avoid both predation and famine; an unprecedented situation that really does finally set us apart from all of our fellow species.

*

When Donald, son of psychologists, Winthrop and Luella Kellogg, turned ten-months old, his parents took the extraordinary decision of adopting Gua, a seven and a half-month female chimp to bring up in their home as a surrogate sibling. It was the 1930s and this would be a pioneering experiment in primate behaviour; a comparative study that caused some

“Although many of the Pacific Ocean's big species are floundering, one large creature of the deep seems to be flourishing. The Humboldt squid (*Dosidicus gigas*, also known as jumbo squid, owing to its sizable nature) has been steadily expanding its population and range: whereas sightings north of San Diego were rare 10 years ago, the squid are now found as far north as Alaska... A growing mass of these hungry squid could have a large impact on some fish stocks, especially those that are already faltering.”

From an article titled “Humboldt Squid Seem to Be Thriving – Thanks to Ocean Dead Zones” written by Katherine Harmon, published on April 8, 2010. Read more here: www.scientificamerican.com/article/humboldt-squid-expansion/

[†] About 2.7 million years ago, the so-called Great American Interchange happened after the volcanic Panama isthmus rose from the seabed and formed a land bridge between the two continents. Almost half of the South American mammals alive today descend from North American immigrants. By comparison only about 10% of the North American mammals are derived from South American ancestors, such as opossums, porcupines and armadillos. Understanding the relative success and failure of species remains a subject of speculation amongst palaeontologists. Earlier biotic interchanges also occurred when the formerly isolated land masses of India and Africa made contact with Eurasia about 50 and 30 million years ago, respectively.

deal of dismay in academia and amongst the public. But irrespective of questions of ethics and oblivious to charges of sensationalism, the Kelloggs proceeded and Donald and Gua finally lived together for nine months.

They soon developed a close bond. Although younger, Gua was actually more mature than Donald both intellectually and emotionally. Being protective, she would often hug him to cheer him up. Her development was remarkably swift, and she quickly learned how to eat with a spoon and to drink from a glass. She also learned to walk and to skip – obviously not natural behaviours for a chimp – as well as to comprehend basic words; all of this before Donald had caught up.

This comparative developmental study had to be cut short, however, because by the age of two, Donald’s behaviour was becoming disconcertingly apelike. For one thing, he was regressing back to crawling. He had also learned to carry things in his mouth, picking up crumbs with his lips and one day chewing up a shoe, and far more than ordinary toddlers, he took delight in climbing the furniture and trees. Worse still, his language skills were seriously delayed and by eighteen-months he knew just three words, so that instead of talking he would frequently just grunt or make chimp-like gesticulations instead. The story ends tragically, of course, as all of the concerns over ethics became confirmed. Gua died of pneumonia less than a year after the study was curtailed and she had been abandoned by the Kelloggs family. Donald committed suicide later in life when he was 43 years old.

This is a sad story and by retelling it I am in no way endorsing the treatment of Donald and Gua. No such experiment should ever have been conducted, but it was, and the results are absolutely startling nonetheless. Instead of “humanizing the ape,” as the Kelloggs hoped to achieve, the reverse had been occurring. What they had proved inadvertently is that humans are simply more malleable than chimps, or for that matter any other creature on earth. It is humans that learn best by aping and not the other way around.

*

However much we may try to refine our search for answers, it is remarkably difficult just to get beyond the most rudimentary formulation which ponders upon whether ‘human nature’ is for the most part good or bad. Rephrased, as it often is, this same inquiry generally receives one of four responses that can be summarised as follows: –

- i) that human nature is mostly good but corruptible;

- ii) that human nature is mostly bad but can be corrected;
- iii) that human nature is mostly bad but with flaws that can be ameliorated – rather than made good; or,
- iv) most misanthropically, that human nature is atrocious, and irredeemably so, but that’s life.

The first is the Romanticism of Rousseau, whereas the third and fourth hinge around the cynicism of Hobbes. Whereas Hobbes had regarded the ‘state of nature’ as the ultimate threat, Rousseau implores us instead to return to a primitive state of authentic innocence. And it is these extremes of Hobbes and Rousseau that still prevail, informing the nuclear-armed policy of Mutual Assured Destruction on the one hand, and the counterculture of The New Age on the other. Curiously, both peer back distantly to Eden and reassess The Fall from different vantages too. Although deeply unreligious, Hobbes holds the more strictly Christian orthodox view. As undertaker and poet Thomas Lynch laid it out:

“[T]he facts of the matter of human nature – we want, we hurt and hunger, we thirst and crave, we weep and laugh, dance and desire more and more and more. We only do these things because we die. We only die because we do these things. The fruit of the tree in the middle of Eden, being forbidden, is sexy and tempting, tasty and fatal.

“The fall of Man and Free Market Capitalism, no less the doctrines of Redemptive Suffering and Supply and Demand are based on the notion that enough is never enough... A world of carnal bounty and commercial indifference, where men and women have no private parts, nor shame nor guilt nor fear of death, would never evolve into a place that Darwin and Bill Gates and the Dalai Lama could be proud of. They bit the apple and were banished from it.”⁶⁰

Forever in the grip of the passions, our ‘appetites’ and ‘aversions’, together these conjoined and irrepressible Hobbesian forces of attraction and repulsion continually incite us. In our desperation to escape we flee blindly from our fears, yet remaining hopeful always of somehow satisfying our desires entirely. It’s pain and pleasure all the way: sex and death! And I imagine if you had asked Hobbes whether without the apple “we’d still be blissfully wandering about naked in paradise,” as Dudley Moore put it to Peter Cook’s Devil in the marvellous Faustian spoof *Bedazzled*, you’d very likely get a similar reply to the one Cook gave him: “they [Adam and Eve] were pig ignorant!”*

* **Stanley Moon** [Dudley Moore]: If it hadn’t been for you... we’d still be blissfully wandering about naked in paradise.

Ostensibly a story all about disobedience to an old-fashioned, authoritarian and vengeful god (which usefully props up the overbearing demands for obedience to old-fashioned, authoritarian and vengeful ecclesiastic authorities), the myth of Adam and Eve still manages to titillate a modern secular audience through its sheer naughtiness while I think it speaks to us all on deeper psychological levels. Importantly it unfolds in two rather distinct acts: crime and punishment. In which only the first part is *directly* concerned with sin and temptation (*i.e.*, lack of obedience), whereas the denouement is all about banishment and shame. So let's consider shame for a moment, because shame appears to be unique as an emotion, and though we habitually confuse it with guilt – both being unpleasant reactions to bad conscience – shame has an inescapable social quality. To summarise this, guilt involves what you do, whereas shame is *intrinsically* bound up with one's immediate sense of self.

*

The American academic Brené Brown describes shame as “the intensely painful feeling or experience of believing that we are flawed and therefore unworthy of love and belonging”⁶¹ and says imagine how you would feel if you were in a room with all the people you most loved but when you walked out you began to hear the worst things imaginable about yourself; so bad that you don't think you'll ever be able to walk back into the room to face everyone again.

In fact, shame is ultimately tied up with fears of being unworthy, unloveable, and of abandonment that we learn to feel as infants, when isolation and rejection are actual existential threats. So it triggers instinctual responses that humans probably evolved in order to avoid being rejected and ostracised by the group, when this again involved an actual existential threat. Shame is an overwhelming feeling accompanied by lots of physiological sensations such as blushing, the tightening of the chest, feelings of not being able to breathe, and a horrible doubt that also runs to the pit in your stomach. It is really no exaggeration to say that shame feels like death. And while guilt leads us to make apologies, which is a healthy

George Spiggott aka The Devil [Peter Cook]: You're welcome, mate. The Garden of Eden was a boggy swamp just south of Croydon. You can see it over there.

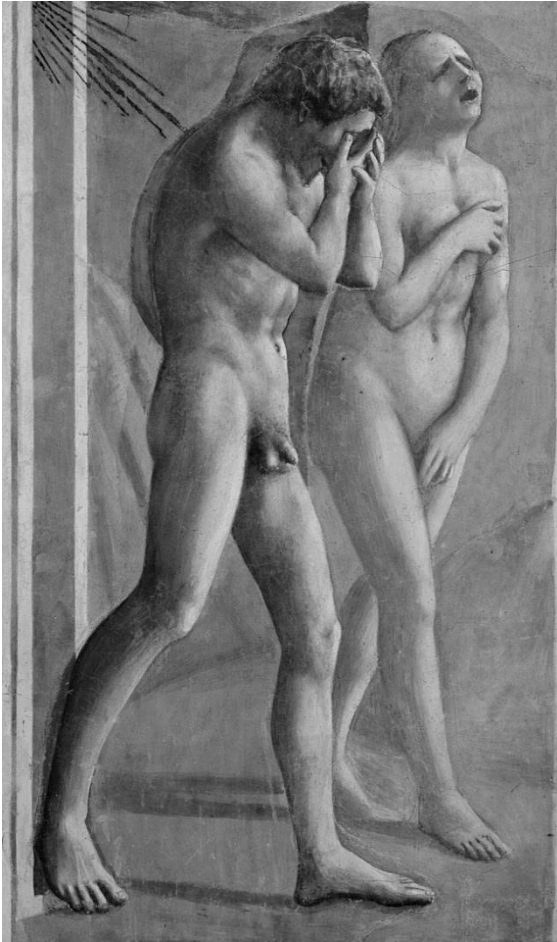
Stanley Moon: Adam and Eve were happy enough.

The Devil: I'll tell you why... they were pig ignorant.

From the 1967 British comedy *Bedazzled*, directed and produced by Stanley Donen, screenplay by Peter Cook. Full transcript is available here:

www.scripts.com/script.php?id=bedazzled_3792&p=11

response for wrongdoing, you cannot usefully apologise just for straightforwardly *being* bad.*†



Moreover, and unlike our other emotions, shame can be a response to just about anything: our appearance, our own attention-seeking, when we get too boisterous, too over-excited, talking too much (especially about oneself); or when we retreat into isolation, feeling shy and avoidant; or feeling inauthentic, fake; or for being taken advantage of; or conversely being unable to drop our guard, and being judgmental and quick to anger; or just for a lack of ability, skills, or creativity; our failure to communicate properly, including being able to speak up or speak honestly;

* It is worth noting how in the ancient world exile and banishment were forms of judicial punishment; in general, a death sentence commuted for those who could afford it. Under Roman Law, exile (*exsilium*) was a form of capital punishment reserved for the ruling classes as a way of commuting the death penalty. In ancient Greece, exile was also a punitive measure chiefly applied in cases of homicide, although the alternative of ostracism, which involved banishment without charge, was more often imposed for political reasons.

† Image above shows detail from *The Expulsion from the Garden of Eden* (Italian: **Cacciata dei progenitori dall'Eden**), a fresco by the Italian Early Renaissance artist Masaccio, ca. 1427. Based on image from Wikimedia Commons.

or when we are lazy, or weak, with low energy or lack of motivation, perhaps sexually; or finally – not that my list is in anyway exhaustive – shame can be triggered by anxiety, nervousness, defensiveness, when we display our weakness by blushing or showing other visual signs of nervousness or shame. Note the circularity.

Strangely, we can even feel shame without recognising the symptoms, and this may again generate escalating confusion and a terrifying sense of spiralling: a fear that we won't survive the feeling itself. In fact, shame and fear have a co-existent relationship such that we can alternate between both, and both may leave deep and lasting psychological scars as memories are repressed and we form our social mask – the psyche becoming deeply divided into conscious and unconscious aspects (a topic I return to in the next chapter).

Interestingly, Jean-Paul Sartre is often paraphrased saying “hell is other people”*, which is then widely misinterpreted to mean that our relationships with others are invariably poisoned. In fact, what Sartre had meant is closer to the idea that hell is the judgment of our own existence in the eyes of other people, so then again, perhaps what he finally intended to say is “hell is our sense of rejection in the eyes of others”. If so, then he was surely right.

Seen in this way, the Rousseauian standpoint becomes intriguing. Is it possible that the root cause of all human depravity is finally shame? And if we could get beyond our shame, would this return to innocence throw open the gates to paradise once more?

In this chapter I have already tried to expose some of the chinks in our rather well-worn armour of Hobbesianism, because for the reasons expounded upon above, it has been collectively weighing us down. Hobbes'

* The quote comes from Sartre's play *No Exit* [French: *Huis clos*] first performed in 1944. Three characters find themselves trapped and forever waiting in a mysterious room which depicts the afterlife. The famous phrase “L'enfer, c'est les autres” or “Hell is other people” is a reference to Sartre's idea that seeing oneself as apprehended by and thus the object of another person's view of conscious awareness involves a perpetual ontological struggle. It seems that Sartre offered his own clarification, saying:

“‘Hell is other people’ has always been misunderstood. It has been thought that what I meant by that was that our relations with other people are always poisoned, that they are invariably hellish relations. But what I really mean is something totally different. I mean that if relations with someone else are twisted, vitiated, then that other person can only be hell. Why? Because ... when we think about ourselves, when we try to know ourselves ... we use the knowledge of us which other people already have. We judge ourselves with the means other people have and have given us for judging ourselves.”

The quote above is from a talk that preceded a recording of the play issued in 1965. Read more here: rickontheater.blogspot.com/2010/07/most-famous-thing-jean-paul-sartre.html

adamancy that human nature is rotten to the core with its corollary that there is little that can be done about it, is actually rather difficult to refute; the measure of human cruelty vastly exceeding all real or apparent acts of generosity and kindness. But Hobbes' account is lacking and what it lacks in abundance is any kind of empathy. Our capacity for empathy is, Brené Brown points out, obstructed primarily by shame. Why? Because empathy can only flourish where there is vulnerability and this is precisely what shame crushes.

So yes, we must concede that the little boy who pulls the legs off flies greatly amuses himself. There can be a thrill to malice, if of a rather shallow and sordid kind. But much greater happiness is found in acts of creation than in wanton destruction; more fulfilment in helping than hindering; and there is far more comfort in loving than in hating. Even Hobbes, though "twinned with fear," deep down must have known this too.

*

On the whole, we are not very much into the essence of things these days. Essentialism is out and various forms of relativism are greatly in vogue. That goes for all things except perhaps our 'human nature', for which such an essence is very commonly presumed. Yet it seems to me that the closer one peers, the blurrier any picture of our human nature actually becomes; and the harder one tries to grasp its essence, the less tangible it is. In any case, each of the various philosophies that inform our modern ideas of 'human nature' are intrinsically tainted by prior, and in general, hidden assumptions, which arise from vestigial religious and/or political dogma.

For instance, if we take our cue from Science (most especially from Natural History and Biology) by seeking answers in the light of Darwin's discoveries, then we automatically inherit a view of human nature sketched out by Malthus and Hobbes. Malthus who proceeded directly from (his own version of) God at the outset, and Hobbes, who in desperately trying to circumvent the divine, finished up constructing an entire political philosophy based on a notion barely distinguishable from Augustine's doctrine of Original Sin. Meanwhile almost all of the histories that commonly inform our opinions about human nature are those written about and in service of the battle-hardened conquerors of empires.

But why suppose that there really is anything deserving the grandiose title 'human nature' in the first place, especially given what is most assuredly known about our odd species: that we are supremely adaptable and very much more malleable and less instinctive than all our fellow creatures. Indeed the composite words strike me as rather curious,

once I can step back a little. After all, 'human' and 'nature' are not in general very comfortable bedfellows. 'Human' meaning 'artificial' and 'nature' meaning, well... 'natural'... and bursting with wholesome goodness! Or else, alternatively, 'human' translating as humane and civilised, leaving 'nature' to supply synonyms for wild, primitive and untamed... and, by virtue of this, red in tooth and claw.

In short, the very term 'human nature' is surely an oxymoron, doubly so as we see above. The falsehood of 'human nature' concealing the more fascinating if unsettling truth that in so many respects humans conjure up their nature in accordance with how we believe ourselves to be, which rests in turn on what limits are set by our family, our acquaintances and the wider culture. Human nature and human culture are inextricable, giving birth to one another like the paradoxical chicken and egg. As Huxley writes:

“‘Existence is prior to essence.’ Unlike most metaphysical propositions, this slogan of the existentialists can actually be verified. ‘Wolf children’, adopted by animal mothers and brought up in animal surroundings, have the form of human beings, but are not human. The essence of humanity, it is evident, is not something we are born with; it is something we make or grow into. We learn to speak, we accumulate conceptualized knowledge and pseudo-knowledge, we imitate our elders, we build up fixed patterns of thought and feeling and behaviour, and in the process we become human, we turn into persons.”⁶²

Alternatively, we might give a nod to Aristotle who famously declared “man is by nature a political animal,” an assessment seemingly bound up in contradictions while yet abundantly true, and which he then expounds upon saying:

“And why man is a political animal in a greater measure than any bee or any gregarious animal is clear. For nature, as we declare, does nothing without purpose; and man alone of the animals possesses speech. The mere voice, it is true, can indicate pain and pleasure, and therefore is possessed by the other animals as well (for their nature has been developed so far as to have sensations of what is painful and pleasant and to indicate those sensations to one another), but speech is designed to indicate the advantageous and the harmful, and therefore also the right and the wrong; for it is the special property of man in distinction from the other animals that he alone has perception of good and bad and right and wrong and the other moral qualities, and it is partnership in these things that makes a household and a city-state.”⁶³

Two millennia later and half a millennium after the Aristotelian star had finally waned, Benjamin Disraeli reflected on the latest

developments in science and specifically the new theory of evolution, saying:

“The question is this— Is man an ape or an angel? My Lord, I am on the side of the angels.”*

To end, therefore, I propose a secular update to Pascal’s wager, which goes as follows: if, and in direct contradiction to Hobbes, we trust in our ‘human nature’ and promote its more virtuous side, then we stand to gain amply in the circumstance that we are right to do so and at little cost, for if it turns out we were mistaken and ‘human nature’ is indeed intrinsically rotten to our bestial cores, our lot as a species is inescapably dreadful whatever we wish to achieve. For in the long run, as new technologies supply ever more creative potential for cruelty and destruction (including self-annihilation), what chance do we have to survive at all if we are so unwilling to place just a little trust in ourselves to do a whole lot better?

*

* From a speech made to the Oxford Diocesan Conference (25 November 1864), quoted in William Flavelle Monypenny and George Earle Buckle in *The Life of Benjamin Disraeli, Earl of Beaconsfield. Volume II. 1860–1881* (1929), p. 108.

Addendum: Malthusian population bomb scare

Thomas Malthus was a man of many talents. A student of Cambridge University, where he had excelled in English, Latin, Greek and Mathematics, he later became a Professor of History and Political Economy and a Fellow of the Royal Society. There is, however, chiefly one subject above all others that Malthus remains closely associated with, and that is the subject of demography – human populations – a rather single-minded preoccupation that during his tenure as professor is supposed to have earned him the nickname “Pop” Malthus.

Malthus big idea was precisely this: that whereas human population increases geometrically, food production, upon which the growing population inevitably depends, can only increase in an arithmetic fashion. He outlines his position as follows:

“I think I may fairly make two postulata. First, That food is necessary to the existence of man. Secondly, That the passion between the sexes is necessary and will remain nearly in its present state. These two laws, ever since we have had any knowledge of mankind, appear to have been fixed laws of our nature, and, as we have not hitherto seen any alteration in them, we have no right to conclude that they will ever cease to be what they now are...”⁶⁴

Given that populations always grow exponentially whereas food production must inevitably be arithmetically limited, Malthus concludes that the depressing, but unassailable consequence is a final limit not simply to human population but to human progress and “the perfectibility of the mass of mankind”:

“This natural inequality of the two powers of population and of production in the earth, and that great law of our nature which must constantly keep their effects equal, form the great difficulty that to me appears insurmountable in the way to the perfectibility of society. All other arguments are of slight and subordinate consideration in comparison of this. I see no way by which man can escape from the weight of this law which pervades all animated nature. No fancied equality, no agrarian regulations in their utmost extent, could remove the pressure of it even for a single century. And it appears, therefore, to be decisive against the possible existence of a society, all the members of which should live in ease, happiness, and comparative leisure; and feel no anxiety about providing the means of subsistence for themselves and families.”⁶⁵

It's a truly grim message, although in fairness to Malthus, the gloom is delivered in a lively and frequently entertaining style. That said, however, Malthus was wrong. Terribly wrong.

Firstly, he was wrong in terms of specifics, since he wildly over-estimated the rate of population growth*, thereby exaggerating the number of future mouths needing to be fed and, by extension, the amount of food needed to fill them. Obviously what Malthus was lacking here was actual available statistics, and it is perhaps not surprising therefore, that he later became one of the founder members of the Statistical Society in London†: the first organisation in Britain dedicated to the collection and collation of national statistics. Charles Babbage, who is nowadays best remembered as the inventor of early calculating machines, known as “difference engines” – machines that helped to lead the way to modern computing – was another founder member of the group, and obviously took statistics very seriously indeed. He even once corrected the poet Alfred Tennyson in a letter as follows:

“In your otherwise beautiful poem, one verse reads, ‘Every moment dies a man,/ Every moment one is born’: I need hardly point out to you that this calculation would tend to keep the sum total of the world’s population in a state of perpetual equipoise whereas it is a well-known fact

* “Taking the population of the world at any number, a thousand millions, for instance, the human species would increase in the ratio of -- 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, etc. and subsistence as -- 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, etc. In two centuries and a quarter, the population would be to the means of subsistence as 512 to 10: in three centuries as 4096 to 13, and in two thousand years the difference would be almost incalculable, though the produce in that time would have increased to an immense extent.” is a prediction taken from chapter 2 of *An Essay on the Principle of Population...* by T. Malthus (1798).

Here's the maths: Malthus is assuming a population exponentially doubling in 25 years (every generation). In two and a quarter centuries this would allow 9 generations, so 2 to the power of 9 increase, which represents a 512-fold increase as he correctly claims.

Well, what actually happened? At the time of Thomas Malthus, Britain also conducted its first census recording in 1801 a population of 8,308,000 (which is thought likely to have been an under-estimate). Meanwhile, the world population is estimated to have just reached around 1 billion (precisely as Malthus estimates). So then, according to Malthus' calculations, the population of Britain should now be more than 4 billion! (which is approaching close to the current global population)

Taking the same approach, the population of the world should now have exploded past half a trillion! This is at the extreme upper limit of estimates for the Earth's carrying capacity: “The estimates of the Earth's carrying capacity range from under 1 billion to more than 1,000 billion persons. Not only is there an enormous range of values, but there is no tendency of the values to converge over time; indeed, the estimates made since 1950 exhibit greater variability than those made earlier.” From *UN World Population Report 2001*, p.30.

† Now known as The Royal Statistic Society (after receiving Royal Charter in 1887).

that the said sum total is constantly on the increase. I would therefore take the liberty of suggesting that in the next edition of your excellent poem the erroneous calculation to which I refer should be corrected as follows: 'Every moment dies a man / And one and a sixteenth is born.' I may add that the exact figures are 1.167, but something must, of course, be conceded to the laws of metre."^{*}

It may be noted then, that such a rate of increase (presumably based on real statistics), although still exponential, is far below the presumed rates of growth in Malthus's essay. But then Malthus's estimate may be fairly excused; his famous essay having been first published about four decades before any statistics would have been available. Malthus was, however, also more fundamentally wrong in his thesis; for such catastrophic oscillations as he envisaged through cycles of overpopulation and famine are not the order of our times, and less so now than even during his own times of relatively small populations. In fact contrary to Malthus' prophesies of doom, we have a great plenty of food to go around (lacking merely the political and economic will to distribute it fairly), with official UN estimates indicating that we shall continue to have such abundance for the foreseeable future.

*

I can still recall when, as a sixth-former, I'd first heard about Malthus' theory of population, and how it had sounded like altogether the daftest, most simplistic theory I'd ever come across – an opinion that remained for at least a few months before I'd heard about Abraham Maslow's "hierarchy of needs" which I then considered still dafter and more simplistic again. In both cases, it was clear to me that supposition and conjecture is being presented as quasi-scientific fact. In Maslow's case, with his hierarchical stacking of physical and psychological needs, it was also self-evident that no such ascending pyramid really existed anywhere outside of Maslow's own imaginings. That you might just as well construct a dodecahedron of pleasures, or a chocolate cheesecake of motivational aspirations, as make-up any kind of pyramid of human needs.

I was judging his ideas unfairly, however, and in hindsight see I was prejudiced by my scientific training. As a student of Physics, Chemistry and Mathematics, I'd become accustomed to rigorously grounded theories

^{*} Letter sent to Tennyson in response to his poem *Vision of Sin* published 1842. The exact details of this letter seem to vary according to sources. In another version he signs off saying, "Strictly speaking, the actual figure is so long I cannot get it into a line, but I believe the figure 1 1/16 will be sufficiently accurate for poetry."

in which predictions can and must be made and tested against actual data. But Maslow's theory is not a theory of this kind. It is inherently nonrigorous, and yet it may still be valuable in another way. As a psychologist he had diverged from the contemporary practice of expanding the field purely on the basis of neuroses and complexes, and he sought instead, a more humanistic approach to analysing what he thought constituted healthy-mindedness. His main concern was how people might achieve "self actualization". So his 'theory' is better understood and judged within this context, and the same goes for other nonrigorous formulations.[†]

With Malthus, however, my irritation was coloured differently. His theory may have been simply an educated and carefully considered hunch, but it did at least present us with outcomes that could be scientifically reviewed. Plainly, however, all the available facts confounded his case absolutely.

After all, it had been two centuries since Malthus first conjectured on the imminence of food shortages, yet here we were, hurtling towards the end of the twentieth century, still putting too many leftovers in our bins. And though people living in the third world (as it was then called) were desperately poor and undernourished – as remains the case – this was already the consequence of our adopted modes of distribution rather than any consequence of insufficient production of food as such. Indeed, as a member of the EEC, the United Kingdom was responsible for its part in the storage of vast quantities of food and drink that would never be consumed: the enormous 'mountains of cheese' and the 'lakes of milk and wine' being such prominent features of the politico-economic landscape of my adolescence.

So where precisely did Malthus go wrong? In fact, both of his purportedly axiomatic postulates are unfounded. Regarding food production being an arithmetic progression, he completely failed to factor in the staggering ingenuity of human beings. He seems curiously oblivious to how, even at the turn of the nineteenth century when his essay was written, food production was already undergoing some dramatic technological

[†] Maslow's ideas have fallen by the wayside, which is a pity because his study of human need was a worthwhile project. Maslow's reductionism is simplistic, but perhaps by considering a more intricate and dynamic interconnectedness between human needs, his theory can be usefully revised. The trouble with Maslow is any insistence on hierarchy, something that other academics, and especially those working in the social sciences, are inclined to mistake as a kind of verified truth. Just calling an idea, 'a theory', doesn't make it so, certainly not in any rigorous sense, but those not trained in the hard sciences are often inclined to treat speculative formulations as though they are fully-fledged theories. This is grave and recurring error infuriates many people, me included, and especially those who have received specialist scientific training.

shifts, including methods of selective breeding, and with the advent of mechanised farming equipment. The more recent developments of artificial fertilisers and pesticides have enabled cultivation of far greater acreage, with crop yields boosted far in excess of any arithmetic restriction. With the latest “green technologies” permitting genetic manipulation, the amounts of food we are able to produce might be vastly increased again, if this is what we should chose to do – and I do not say that we should automatically resort to such radical and potentially hazardous new technologies, only that there are potential options to forestall our supposed Malthusian fate.

Meanwhile, on the other side of Malthus’s inequality, we see that his estimates of rates of population growth were wrong for different but perhaps related reasons. Again, he underestimates our adaptive capability as a species, but here the error is born out of an underlying presumption; one that brings me right back to the question of ‘human nature’.

*

Perhaps the most interesting and intriguing part of Malthus’ famous essay are not the accounts of his discredited formulas that illustrate the mismatch between population growth and food production, but the concluding pages. Here are chapters not about geometric and arithmetic progressions, nor of selected histories to convince us of the reality of our predicament, nor even of the various criticisms of progressive thinkers who he is at pains to challenge – no, by far the most interesting part (in my humble opinion) are the final chapters where he enters into discussion of his real specialism, which was theology. For Reverend Malthus was first and foremost a man of the cloth, and it turns out that his supposed axiomatic propositions have actually arisen from his thoughts about the nature of God, of Man, of the Mind, and of Matter and Spirit.*⁶⁶

* His ideas on these daunting topics are rather cleverly-conceived, unusual if not wholly original, and tread a line that is unorthodox and close to being heretical. So it’s really in these closing chapters that Malthus is most engaging and most at ease. Here, for example, is the Malthusian take on mind and matter:

“It could answer no good purpose to enter into the question whether mind be a distinct substance from matter, or only a finer form of it. The question is, perhaps, after all, a question merely of words. Mind is as essentially mind, whether formed from matter or any other substance. We know from experience that soul and body are most intimately united, and every appearance seems to indicate that they grow from infancy together... As we shall all be disposed to agree that God is the creator of mind as well as of body, and as they both seem to be forming and unfolding themselves at the same time, it cannot appear inconsistent either with reason or revelation, if it appear to be consistent with phenomena of nature, to suppose that God is constantly occupied in forming mind out of matter and that the various impressions that

In short, Malthus argues here that God fills us with needs and wants in order to stimulate action and develop our minds; necessity being such a constant and reliable mother of invention. And Malthus draws support from the enlightenment philosophy of empiricist and humanist John Locke:

“If Locke’s idea be just, and there is great reason to think that it is, evil seems to be necessary to create exertion, and exertion seems evidently necessary to create mind.” This given, it must follow, Malthus says, that the hardships of labour required for survival are “necessary to the enjoyment and blessings of life, in order to rouse man into action, and form his mind to reason.”[†] Whilst adding further that: “The sorrows and distresses of life form another class of excitements, which seem to be necessary, by a peculiar train of impressions, to soften and humanize the heart, to awaken social sympathy, to generate all the Christian virtues, and to afford scope for the ample exertion of benevolence.”

The perennial theological “problem of evil” is thus surmountable, Malthus says, if one accepts “the infinite variety of forms and operations of nature,” since “evil exists in the world not to create despair, but activity.” In other words, these things are sent to try us, or rather, because Malthus is very keen to distance himself from more traditional Christian notions of reward and punishment, “not for the trial, but for the creation and formation of mind”. Without pain and distress there would be no pricks to kick

man receives through life is the process for that purpose. The employment is surely worthy of the highest attributes of the Deity.” Having safely negotiated the potential minefield of Cartesian dualism, Malthus now applies himself to the tricky problem of evil, and its relationship to “the wants of the body”:

“The first great awakers of the mind seem to be the wants of the body... The savage would slumber for ever under his tree unless he were roused from his torpor by the cravings of hunger or the pinchings of cold, and the exertions that he makes to avoid these evils, by procuring food, and building himself a covering, are the exercises which form and keep in motion his faculties, which otherwise would sink into listless inactivity. From all that experience has taught us concerning the structure of the human mind, if those stimulants to exertion which arise from the wants of the body were removed from the mass of mankind, we have much more reason to think that they would be sunk to the level of brutes, from a deficiency of excitements, than that they would be raised to the rank of philosophers by the possession of leisure.”

[†] Malthus, aware of the dangers of over-generalisation, adds a little later that: “There are undoubtedly many minds, and there ought to be many, according to the chances out of so great a mass, that, having been vivified early by a peculiar course of excitements, would not need the constant action of narrow motives to continue them in activity.” Saying later again that:

“Leisure is, without doubt, highly valuable to man, but taking man as he is, the probability seems to be that in the greater number of instances it will produce evil rather than good.”

against, and thus no cause to perfect ourselves. This, at least, is Malthus' contention.

In this he echoes a theodicy already well developed by one of the true Enlightenment geniuses, Gottfried Wilhelm Leibniz. Best remembered now as the independent discoverer of calculus, unaware of Newton's parallel development, Leibniz also left us an astonishing intellectual legacy with published articles on almost every subject including politics, law, history and philosophy. In a collection of essays from 1710, and in making his own case for the goodness of God, it was Leibniz who first described our world as "the best of all possible worlds".⁶⁷

Famously, Voltaire stole Leibniz's aphorism and, by reworking it into the central motif of his marvellous satire *Candide* (written 1759), invested it with characteristically biting irony. In *Candide's* adventures, Voltaire turns the phrase into the favourite maxim and motto of the learned companion and teacher Dr Pangloss. A Panglossian faith in an unimpeachable acceptance of the divine and cosmic beneficence that is maintained in spite of every horror and irrespective of all disasters they witness and that befall them. Shipwrecks, summary executions, and even being tortured by the Inquisition; all is justifiable in this best of all possible worlds. For Malthus, although writing half a decade after Voltaire's no-nonsense lampooning, an underpinning belief in a world that was indeed "the best of all possible worlds" remained central to his thesis; Malthus even declaring with Panglossian optimism that:

"... we have every reason to think that there is no more evil in the world than what is absolutely necessary as one of the ingredients in the mighty process [of Life]."^{*}

* Malthus also offers us reasons to be cheerful and indeed grateful for our world of apparent imperfection:

"Uniform, undiversified perfection could not possess the same awakening powers. When we endeavour then to contemplate the system of the universe, when we think of the stars as the suns of other systems scattered throughout infinite space, when we reflect that we do not probably see a millionth part of those bright orbs that are beaming light and life to unnumbered worlds, when our minds, unable to grasp the immeasurable conception, sink, lost and confounded, in admiration at the mighty incomprehensible power of the Creator, let us not querulously complain that all climates are not equally genial, that perpetual spring does not reign throughout the year, that all God's creatures do not possess the same advantages, that clouds and tempests sometimes darken the natural world and vice and misery the moral world, and that all the works of the creation are not formed with equal perfection. Both reason and experience seem to indicate to us that the infinite variety of nature (and variety cannot exist without inferior parts, or apparent blemishes) is admirably adapted to further the high purpose of the creation and to produce the greatest possible quantity of good."

So what does all of this mean for Malthus's God? Well, God is mysterious and ultimately unfathomable, because "infinite power is so vast and incomprehensible an idea that the mind of man must necessarily be bewildered in the contemplation of it." This accepted, Malthus then argues that we do have clues, however, for understanding God through objective analysis of his handiwork, by "reason[ing] from nature up to nature's God and not presum[ing] to reason from God to nature."

Yes, says Malthus, we might fancy up "myriads and myriads of existences, all free from pain and imperfection, all eminent in goodness and wisdom, all capable of the highest enjoyments, and unnumbered as the points throughout infinite space," but these are "crude and puerile conceptions" born of the inevitable and unassailable ignorance and bewilderment we have before God. Far better then, to:

"... turn our eyes to the book of nature, where alone we can read God as he is, [to] see a constant succession of sentient beings, rising apparently from so many specks of matter, going through a long and sometimes painful process in this world, but many of them attaining, ere the termination of it, such high qualities and powers as seem to indicate their fitness for some superior state. Ought we not then to correct our crude and puerile ideas of infinite Power from the contemplation of what we actually see existing? Can we judge of the Creator but from his creation?"

So God, at least according to Rev. Malthus, is to be understood directly through Nature – an idea that is bordering on the heretical. But what of the Principle of Population? How does this actually follow from the Malthusian "God of nature"?†

Here we must remind ourselves again that what nowadays are sometimes called our instinctual drives, and what Malthus describes as "those stimulants to exertion which arise from the wants of the body," are to Malthus but necessary evils. They are evils but with a divine purpose, and this purpose alone justifies their existence. In particular, those wants of the body which Malthus coyly refers to as "the passion between the sexes" are, in this scheme, the necessary means for the human race to perpetuate itself. With sex directly equated to procreation.

† "This view of the state of man on earth will not seem to be unattended with probability, if, judging from the little experience we have of the nature of mind, it shall appear upon investigation that the phenomena around us, and the various events of human life, seem peculiarly calculated to promote this great end, and especially if, upon this supposition, we can account, even to our own narrow understandings, for many of those roughnesses and inequalities in life which querulous man too frequently makes the subject of his complaint against the **God of nature.**" From chapter 18 of *An Essay on the Principle of Population...* [bold highlight added]

On the face of it then, Malthus must have been entirely ignorant of the sorts of sexual practices that can never issue progeny. (To rework a line from Henry Ford) sex might be any flavour you like, so long as it is vanilla! More likely, however, he dismissed any such ‘contraceptive’ options not because of ignorance but on the grounds of his deep-seated Christian morality. Rum and the lash, in moderation possibly, but sodomy... we are British!

If Malthus could be brought forward to see the western world today, what he’d find would doubtless be a tremendous shock in many ways. Most surprisingly, however, he would discover a culture where ‘the passions’ are endlessly titillated and aroused, and where “the wants of the body” are very easily gratified. Quite aside from the full-frontal culture shock, Malthus would surely be even more astonished to hear that our libidinous western societies have solved his supposedly insoluble population problem; our demographics flattening off, and our numbers in a slow but annual decline.

Malthus had argued very strongly against the poor laws, calling for their eventual abolition. He firmly believed that all kinds of direct intervention only encouraged a lack of moral restraint which was the underlying root to all the problems. He earnestly believed that it would be better to let nature take care of these kinds of social diseases. Yet we can now see that one solution to his population problem has been the very thing he was fighting against. That the populations in our modern societies have stabilised precisely because of our universal social welfare and pension systems: safety nets that freed us all from total reliance upon the support of our children in old age.

We also see that as child mortality has markedly decreased, parents have little reason to raise such large families in the first instance. And that once more people – women especially – won access to a basic education, the personal freedom this affords gave them further opportunity and better reason to plan ahead and settle for smaller families. It is thanks to all of these social changes, combined with the development of the contraceptive pill, that “the passion between the sexes” has been more or less surgically detached from population growth.

Making life tougher, Malthus reasoned, would be the bluntest tool for keeping down the numbers, especially of the lower classes. Yet if he landed on Earth today, he would discover irrefutable proof that the exact opposite is the case. That where nations are poorest, populations are rising

fastest. There is much that Malthus presumed to be common sense but that, in fact, turns out to be false.*

* There are of course modern reinventions of the Malthusian message, which still play a significant role in our current political debate. These depend on extending Malthus' idea into considerations of resource shortages of other kinds such as energy (and after all, food is the primary form of energy for human beings) and water. This however is an area that I wish to save possibly for future writing.

Interlude: The life lepidopteran

“Once upon a time, I, Chuang Chou, dreamt I was a butterfly, fluttering hither and thither, to all intents and purposes a butterfly. I was conscious only of my happiness as a butterfly, unaware that I was Chou. Soon I awaked, and there I was, veritably myself again. Now I do not know whether I was then a man dreaming I was a butterfly, or whether I am now a butterfly, dreaming I am a man.”

— Chuang Tzu[†]

*

Before proceeding further, I'd like to tell a joke:

A man walks into a doctor's.

“Doctor, Doctor, I keep thinking I'm a moth,” the man says.

The doctor gives him a serious look. “Sorry, but I am not strictly qualified to help you” he replies, rubbing his chin earnestly before adding after a momentary pause, “You really need to see a psychiatrist.”

“Yes,” says the man, “but your light was on.”

*

[†] Quoted from the poet known as Zhuangzi (also transliterated as Chuang Tzu or Chuang Chou). Translation by Lin Yutang

There can be no doubting that each of us acts to a considerable extent in accordance to mental processes that are distantly beyond and often alien to our immediate conscious awareness and understanding. For instance, in general we draw breath without the least consideration, or raise an arm, perhaps to scratch ourselves, with scarcely a thought and zero comprehension of how we actually moved our hand and fingers to accomplish the act. And this everyday fact becomes more startling once we consider how even complex movements and sophisticated patterns of behaviour seem to originate without full conscious direction or awareness.

Consider walking for instance. After admittedly painstaking practice as infants, we soon become able to walk without ever thinking to swing our legs. Likewise, if we have learnt to drive, eventually we are able to manoeuvre a large vehicle with hardly more conscious effort than we apply to walking. The same is true for most daily tasks which are performed no less thoughtlessly and that, in spite of the intricacies, we often find boring and mundane. For instance, those who have been smokers may be able to perform the rather complicated art of rolling a cigarette without pausing from conversation. Indeed, deep contemplation will probably leave us more bewildered than anything by the mysterious coordinated manipulation of all eight fingers and opposing thumbs.

Stranger still is that our ordinary conversational speech proceeds before we have formed the fully conscious intent to utter our actual words! When I first heard this claim, it struck me as so unsettling that I automatically rejected it outright in what ought perhaps to be called a tongue-jerk reaction. (Not long afterwards I was drunk enough to stop worrying about the latent implications!) For considered dispassionately, it is self-evident that there isn't remotely sufficient time to construct each and every utterance consciously and in advance of the act of speaking; so our vocal ejaculations (as they once were unashamedly called) are just that – they are thrown out! Still further proof is provided by instances when gestures or words emerge in direct conflict to our expressed beliefs and ideas. Those embarrassing occasions when we blurt out what we know must never be spoken we call Freudian slips (and more on Freud below).

More positively, and especially when we enter 'the zone', each of us is able to accomplish complex physical acts – for instance throwing, catching, or kicking a ball – and again before any conscious thought arises to do so. Those who have played a sport long enough can probably recall many joyous moments when they have marvelled not only at their own impossible spontaneity, but the accompanying accuracy, deftness, nimbleness, and on very rare occasions even of enhanced physical strength. Likewise, urges, feelings, fears and sometimes the most profound insights

will suddenly spring forth into “the back of our minds,” as if from nowhere. And as a consequence, this apparent nowhere acquired a name: coming to be known as “the preconscious,” “the subconscious” and more latterly, “the unconscious”.

What this means, of course, is that “I” am not what I ordinarily think I am, but in actuality a lesser aspect of a greater being who enjoys remarkable talents and abilities beyond what are ordinarily thought “my own” since they lie outside “my” immediate grasp. In this way, we all have hidden depths that can and do give rise to astonishment, although for peculiar reasons of pride, we tend in general to feign ignorance of this everyday fact.

*

The person most popularly associated with the study of the human unconscious is Sigmund Freud, a pioneer in the field but by no means a discoverer. In fact philosopher and all-round genius Gottfried Leibniz is someone with a prior claim to the discovery; making the suggestion that our conscious awareness may be influenced by “insensible stimuli” that he called *petites perceptions*.^{*} Another giant of German philosophy, Immanuel Kant, also subsequently proposed the existence of ideas lurking of which we are not fully aware, while admitting the apparent contradiction inherent in such a conjecture:

*“To have ideas, and yet not be conscious of them, – there seems to be a contradiction in that; for how can we know that we have them, if we are not conscious of them? Nevertheless, we may become aware indirectly that we have an idea, although we be not directly cognizant of the same.”*⁶⁸

Nor is it the case that Freud was first in attempting any kind of formal analysis of the make-up and workings of the human psyche as an entity. Already in 1890, William James had published his own ground-breaking work *Principles of Psychology*, and though James was keen to explore and outline his principles for human psychology by “the description and explanation of states of consciousness,” rather than to plunge more deeply into the unknown, he remained fully aware of the potentiality of unconscious forces and made clear that any “‘explanation’ [of

^{*} “insensible perceptions are as important to [the science of minds, souls, and soul-like substances] as insensible corpuscles are to natural science, and it is just as unreasonable to reject the one as the other on the pretext that they are beyond the reach of our senses.” From Preface of *New Essays concerning Human Understanding* by Gottfried Leibniz, first published in 1704, translation courtesy of *Stanford Encyclopedia of Philosophy*.

consciousness] must of course include the study of their causes, conditions and immediate consequences, so far as these can be ascertained.”*69

*

William James’ own story is both interesting and instructive. As a young man he had been at somewhat of a loss to decide what to do with himself. Having briefly trained as an artist, he quickly realised that he’d never be good enough and became disillusioned with the idea, declaring that “there is nothing on earth more deplorable than a bad artist”. He afterwards retrained in chemistry, enrolling at Harvard in 1861 (a few months after the outbreak of the American Civil War), but restless again, twelve months or so later, transferred to biology. Still only twenty-one, James soon felt that he was running out of options, writing in a letter to his cousin:

“I have four alternatives: Natural History, Medicine, Printing, Beggary. Much may be said in favour of each. I have named them in the ascending order of their pecuniary invitingness. After all, the great problem of life seems to be how to keep body and soul together, and I have to consider lucre. To study natural science, I know I should like, but the prospect of supporting a family on \$600 a year is not one of those rosy dreams of the future with which the young are said to be haunted. Medicine would pay, and I should still be dealing with subjects which interest me – but how much drudgery and of what an unpleasant kind is there!”

Three years on, James then entered the Harvard Medical School, where he quickly became disillusioned. Certain that he no longer wished to become a practicing doctor, and being more interested in psychology and natural history than medicine, a fresh opportunity arose, and he soon set sail to the Amazon in hopes of becoming a naturalist. However, the expedition didn’t work out well either. Fed up with collecting bugs and bored with the company of his fellow explorers, to cap everything, he fell quite ill. Although desperate to return home, he was obliged to continue, and, slowly he regained his strength, deciding that in spite of everything it had been a worthwhile diversion; no doubt heartened too by the prospect of finally returning home.

* “The definition of Psychology may be best given... as the *description and explanation of states of consciousness as such*. By states of consciousness are meant such things as sensations, desires, emotions, cognitions, reasonings, decisions, volitions, and the like. Their ‘explanation’ must of course include the study of their causes, conditions, and immediate consequences, so far as these can be ascertained.” From opening paragraph of “Introduction: Body and Mind” *The Principles of Psychology* by William James.

It was 1866, when James next resumed medical studies at Harvard although the Amazon adventure had left him physically and (very probably) psychologically weakened; a continuing sickness that forced James to break off from his studies yet again. Seeking rest and recuperation, for the next two years James sojourned in Europe, where, to judge from his own accounts, he again experienced a great deal of isolation, loneliness and boredom. Returning to America at the end of 1868 – now approaching twenty-seven years old – he picked up his studies at Harvard for the last time, successfully passing his degree to become William James M.D. in 1869.

Too weak to find work anyway, James had stayed resolute in his unwillingness to become a practicing doctor. So for a prolonged period, he did nothing at all, or next to nothing. Three years passed when, besides the occasional publication of articles and reviews, he devoted himself solely to reading books or thinking thoughts, and often quite gloomy ones. Suddenly, one day, he then had a semi-miraculous revelation: a very dark revelation that made him exceedingly aware not only of his own mental fragility, but the likely prognosis:

“Whilst in this state of philosophic pessimism and general depression of spirits about my prospects, I went one evening into the dressing room in the twilight... when suddenly there fell upon me without any warning, just as if it came out of the darkness, a horrible fear of my own existence. Simultaneously there arose in my mind the image of an epileptic patient whom I had seen in the asylum, a black-haired youth with greenish skin, entirely idiotic, who used to sit all day on one of the benches, or rather shelves, against the wall, with his knees drawn up against his chin, and the coarse gray undershirt, which was his only garment, drawn over them, inclosing his entire figure. He sat there like a sort of sculptured Egyptian cat or Peruvian mummy, moving nothing but his black eyes and looking absolutely non-human. This image and my fear entered into a species of combination with each other. *That shape am I*, I felt, potentially. Nothing that I possess can defend me against that fate, if the hour for it should strike for me as it struck for him. There was such a horror of him, and such a perception of my own merely momentary discrepancy from him, that it was as if something hitherto solid within my breast gave way entirely, and I became a mass of quivering fear. After this the universe was changed for me altogether. I awoke morning after morning with a horrible dread at the pit of my stomach, and with a sense of the insecurity of life that I never knew before, and that I have never felt since. It was like a revelation; and although the immediate feelings passed away, the experience has made me sympathetic with the morbid feelings of others ever since.”⁷⁰

Having suffered what today would very likely be called ‘a nervous breakdown’, James was forced to reflect on the current theories of the mind. Previously, he had accepted the materialist ‘automaton theory’ – that our ability to act upon the world depends not upon conscious states as such, but upon the brain-states that underpin and produce them – but now he felt that if true this meant he was personally trapped forever in a depression that could only be cured by the administering of some kind of physical remedy. However, no such remedy was obtainable, and so he was forced instead to tackle his disorder by means of further introspection and self-analysis.

James read more and thought more since there was nothing else he could do. Three more desperately unhappy years would pass before he had sufficiently recuperated to rejoin the ordinary world, accepting an offer to become lecturer in physiology at Harvard. But as luck would have it, teaching suited James. He enjoyed the subject of physiology itself, and found the activity of teaching “very interesting and stimulating”. James had, for once, landed on his feet, and his fortunes were also beginning to improve in other ways.

Enjoying the benefits of a steady income for the first time in his life, he was soon to meet Alice Gibbons, the future “Mrs W.J.” They married two years later in 1878. She was a perfect companion – intelligent, perceptive, encouraging, and perhaps most importantly for James, an organising force in his life. He had also just been offered a publishing contract to write a book on his main specialism, which was by now – and in spite of such diversity of training – most definitely psychology. With everything now in place, James set to work on what would be his *magnum opus*. Wasting absolutely no time whatsoever, the opening chapters were drafted while still on their honeymoon together.

“What is this mythological and poetical talk about psychology and Psyche and keeping back a manuscript composed during honeymoon?” he wrote in jest to the taunts of a friend, “The only psyche now recognized by science is a decapitated frog whose writhings express deeper truths than your weak-minded poets ever dreamed. *She* (not Psyche but the bride) loves all these doctrines which are quite novel to her mind, hitherto accustomed to all sorts of mysticisms and superstitions. She swears entirely by reflex action now, and believes in universal *Nothwendigkeit*. [determinism]”[†]

It would take James more than a decade to complete what quickly became the definitive university textbook on the subject, ample time for such ingrained materialist leanings to have softened. For the most part sticking to what was directly and consciously known to him, his attempts to dissect the psyche involved much painstaking introspection of what he

[†] From a letter to William James’ friend, Francis Child.

famously came to describe as his (and our) “stream of consciousness”. Such close analysis of the subjective experience of consciousness itself had suggested to James the need to distinguish between “the Me and the I” as separate component parts of what in completeness he called “the self”.* In one way or another, this division of self into selves, whether these be consciously apprehensible or not, has remained a theoretical basis of all later methods of psychoanalysis.

There is a joke that Henry James was a philosopher who wrote novels, whereas his brother William was a novelist who wrote philosophy. But this does WJ a disservice. James’ philosophy, known as pragmatism, is a later diversion. Unlike his writings about psychology, which became the standard academic texts, as well as popular best-sellers (and what better tribute to James’ fluid prose); his ideas on pragmatism were rather poorly received (they have gained more favour over time). But then James was a lesser expert in philosophy, a situation not helped by his distaste for logical reasoning; and he would be better remembered for his writings on psychology, a subject in which he excelled. Freud’s claim to originality is nothing like as foundational.

James was at the vanguard during the period psychology irreparably pulled apart from the grip philosophy had held on it (which explains why James was notionally professor of philosophy at the time he was writing), and as it was grafted back to form a subdiscipline of biology. For this reason, and regardless that James remained as highly critical of the developing field of experimental psychology; as he was too of the deductive reasoners on both sides of the English Channel – the British Empiricists of Locke and Hume, and the continental giants Leibniz, Kant and Hegel – to some of his contemporaries, James’ view appeared all too dangerously materialistic. If only they could have seen how areas of psychology were to so ruinously develop, they would have appreciated that James was, as always, a moderate.

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* According to James, the first division of “the self” that can be discriminated is between “the self as known,” the *me*, and “the self as knower,” the *I*, or “pure ego”. The *me* he then suggests might be sub-divided in a constituent hierarchy: “the material me” at the lowest level, then “the social me” and top-most “the spiritual me”. It was not until very much later in the 1920s when Freud had fully developed his own tripartite division of the psyche into id, ego and super-ego, a division that surely owes much to James.

While James had remained an academic throughout his whole life, Freud, though briefly studying zoology at the University of Vienna, with one month spent unsuccessfully searching for the gonads of the male eel[†], and another spell doing neurology, decided then to return to medicine and open his own practice. He had also received expert training in the new-fangled techniques of hypnosis.

‘Hypnosis’ comes from the Greek *hypnos* and means, in effect, “artificial sleep”. To induce hypnosis, the patient’s conscious mind needs to be distracted briefly, and achieving this opens up regions of the mind beyond the usual conscious states. The terms “sub-conscious” and “unconscious” had been in circulation already and prior to the theories of Freud or James. And whether named or not, mysterious evidence of the unconscious had always been known. Dreams, after all, though we consciously experience them, are neither consciously conceived nor willed. They just pop out from nowhere – or from “the unconscious”.

From his clinical experiences, Freud soon discovered what he believed to be better routes to the unconscious than hypnosis. For instance, he found that it was just as effective to listen to his patients, or if their conscious mind was unwilling to give up some of its defences – as it commonly was – then to encourage their free association of words and ideas. He also looked for unconscious connections within his patients’ dreams, gradually uncovering, what he came to believe were the deeply repressed animalistic drives that govern the patient’s fears, attitudes and behaviour. Having found the unconscious root to their problems, the patient

[†] “In the spring of 1876, a young man of nineteen arrived in the seaside city of Trieste and set about a curious task. Every morning, as the fishermen brought in their catch, he went to meet them at the port, where he bought eels by the dozens and then the hundreds. He carried them home, to a dissection table in a corner of his room, and—from eight until noon, when he broke for lunch, and then again from one until six, when he quit for the day and went to ogle the women of Trieste on the street—he diligently slashed away, in search of gonads.

“My hands are stained by the white and red blood of the sea creatures’, he wrote to a friend. ‘All I see when I close my eyes is the shimmering dead tissue, which haunts my dreams, and all I can think about are the big questions, the ones that go hand in hand with testicles and ovaries—the universal, pivotal questions.’

“The young man, whose name was Sigmund Freud, eventually followed his evolving questions in other directions. But in Trieste, elbow-deep in slime, he hoped to be the first person to find what men of science had been seeking for thousands of years: the testicles of an eel. To see them would be to begin to solve a profound mystery, one that had stumped Aristotle and countless successors throughout the history of natural science: Where do eels come from?”

From an article titled “Where Do Eels Come From?” written by Brooke Jarvis, published in *New Yorker* magazine on May 18, 2020. Read more here: www.newyorker.com/magazine/2020/05/25/where-do-eels-come-from

could finally begin to grapple with these repressed issues at an increasingly conscious level. It was a technique that apparently worked, with many of Freud's patients recovering from the worst effects of their neuroses and hysteria, and so "the talking cure" became a lasting part of Freud's legacy. You lay on the couch, and just out of sight, Freud listened and interpreted.

But Freud also left a bigger mark, of course, by helping to shape the way we see ourselves. The types of unconscious repression he discovered in his own patients, he believed were universally present, and through drawing directly on his experiences as doctor, he slowly excavated, as he found it, the entire human unconscious piece by piece. Two of these aspects he labelled as the 'superego' and the 'id': the one a seat of primal desires, the other a chastising moral guide – these are reminiscent of the squabbling devil-angel duo that pop up in cartoons, jostling for attention on opposite shoulders of the character whenever he's plunged into a moral quandary.*

In a reboot of philosopher Arthur Schopenhauer's concept of blind and insatiable 'will', Freud also proposed the existence of the libido: a primary, sexual drive that ceaselessly operates beneath our conscious awareness, prompting desires for pleasure and avoidance of pain irrespective of consequence and regardless to whether these desires conflict with ordinary social conventions. In concert with all of this, Freud discerned a natural process of psychological development[†] and came to believe that whenever this development is arrested or, more generally, whenever normal appetites are consciously repressed, then lurking deep within the unconscious, such repressed but instinctual desires will inevitably and automatically resurface in more morbid forms. This, he determined, the common root cause of all his patient's various symptoms and illnesses.

Had Freud stopped there, his contribution to psychology would have been fully commendable, for there is tremendous insight in these ideas. He says too much no doubt (especially when it comes to the specifics of human development), but he also says something that needed to be said very urgently: that if you force people to behave against their natures you will make them sick. So it seems a pity that Freud carried some of the ideas a little too far.

* In the BBC TV sci-fi comedy *Red Dwarf* (Series 1 Episode 5), first broadcast on BBC2 on March 14 1988. The eponymous characters "Confidence and Paranoia" form an alternative superego-id partnership, existing as physical manifestations, which appear onboard as symptoms of Lister's illness.

[†] Fixing on specific erogenous zones of the body, Freud believed that libidinous desire shaped our psychological development in a very specific fashion, naturally progressing, if permitted, through early stages from oral, to anal, and, then reaching adulthood, to genital.

Let's take the 'Oedipus complex', which of the many Freudian features of our supposed psychological nether regions, is without doubt the one of greatest notoriety. The myth of Oedipus is enthralling; the eponymous hero compelled to deal with fate, misfortune and prophesy.* Freud finds in this tale, a revelation of deep and universal unconscious repression, and though plausible and intriguing, his interpretation basically narrows its far grander scope:

"[Oedipus's] destiny moves us only because it might have been ours – because the Oracle laid the same curse upon us before our birth as upon him. It is the fate of all of us, perhaps, to direct our first sexual impulse towards our mother and our first hatred and our first murderous wish against our father. Our dreams convince us that this is so."⁷¹

Freud generally studied those with minor psychological problems (and did not deal with cases of psychosis), determining on the basis of an unhappy few, what he presumed true for healthier individuals too, and this is perhaps a failure of all psychoanalytic theories. For though it may seem odd that he came to believe in the universality of the Oedipus Complex, who can doubt that his clients didn't suffer from something like it? Who can doubt that Freud didn't suffer the same dark desires? Perhaps, he also felt a 'castration anxiety' as a result of the Oedipal rivalry he'd had with his own father. Maybe he actually experienced 'penis envy', if not of the same intensity as he said he detected in his female patients, but of a compensatory masculine kind! After all, such unconscious 'transference' of attitudes and

* Jocasta, the queen of Thebes, is barren, and so she and her husband, the king Laius, decide to consult the Oracle of Delphi. The Oracle tells them that if Jocasta bears a son, then the son will kill his father and marry her. Later, when Jocasta does indeed have a son, Laius demands that a servant take the baby to a mountain to be abandoned, his ankles pinned together just in case. But Oracles are rarely mistaken, fate is hard to avoid, and so as it happens the servant spares the infant, giving him to a shepherd instead. Eventually, as fortune will have it, the infant is adopted by the king and queen of Corinth, and named Oedipus because of the swellings on his feet. Years pass. Then, one day Oedipus learns that the king and queen are not his parents, but when he asks them, they deny the truth. So Oedipus decides put the question to the Oracle of Delphi instead, who being an enigmatic type, refuses to identify his true parents, but foretells his future instead, saying that he is destined to kill his father and marry his mother. Desperate to avoid this, Oedipus determines not to return home to Corinth, heading to, you guessed it, Thebes instead. He comes to an intersection of three roads and meets Laius driving a chariot. They argue about who has the right of way and then, in an early example of road rage, their rage spills into a fight and thus Oedipus unwittingly kills his real father. Next up, he meets the sphinx, who asks its famous riddle. This is a question of life and death, all who fail being killed and eaten, but Oedipus gets the answer right and so obligingly the sphinx kills itself instead. Having freed the people of Thebes from the sphinx, Oedipus next receives the hand of the recently widowed Jocasta in marriage. All is well for a while, but then it comes to pass that Jocasta learns who Oedipus really is, and hangs herself. Still later again, Oedipus discovers that he was the murderer of his own father, and gouges his eyes out in anguish.

feelings from one person to another – from patient onto the doctor, or vice versa in this relevant example – is another concept that Freud was first to identify and label.

*

Given the strait-laced age in which Freud had fleshed out his ideas, the swiftness with which these theories received widespread acceptance and acclaim seems surprising, although there are surely two good reasons why Freudianism took hold. The first is straightforward: that society had been very badly in need of a dose of Freud, or something very like Freud. After such excessive prudishness, the pendulum was bound to swing the other way. But arguably the more important reason – indeed the reason his theories have remained influential – is that Freud picked up the baton directly from where Darwin left off. By restricting his explanations to biological instincts and drives, Freudianism has the mantle of scientific legitimacy, and this is a vital determining factor that helped to secure its prominent position within the modern epistemological canon.

Following his precedent, students of Freud, most notably Carl Jung and Alfred Adler, also drew on clinical experiences with their own patients, but gradually came to the conclusion, for different reasons, that Freud's approach was too reductionist, and that there is considerably more to a patient's mental well-being than healthy appetites and desires, and thus more to the psychological underworld than matters solely of sex and death.

Where Freud was a materialist and an atheist, Jung went on to incorporate aspects of the spiritual into his extended theory of the unconscious, though he remained respectful to biology and keen to anchor his own theories upon an evolutionary bedrock. Jung nevertheless speculates following a philosophical tradition that owes much to Immanuel Kant, while also drawing heavily on personal experience, and comes to posit the existence of psychical structures he calls 'archetypes' operating again at the deepest levels within a collective unconscious; a shared characteristic due to our common ancestry.

Thus he envisions 'the ego' – the aspect of our psyche we identify as "I" – as existing in relation to an unknown and finally unknowable sea inhabited by autonomous entities which have their own life. Jung actually suggests that Freud's Oedipus complex is just one of these archetypes, while he finds himself drawn by the bigger fish of the unconscious beginning with 'The Shadow' – what is hidden and rejected by the ego – and what he determines are the communicating figures of 'Animus/Anima' (or simply 'The Syzygy') – a compensatory masculine/feminine

unconscious presence within, respectively, the female and male psyche – that prepare us for incremental and never-ending revelations of our all-encompassing ‘Self’.

This lifelong psychical development, or ‘individuation’, was seen by Jung as an inherently religious quest and he is unapologetic in proclaiming so; the religious impulse being a product too of human evolutionary development along with opposable thumbs and upright posture. More than a mere vestigial hangover, religion is, Jung says, fundamental to the deep nature of our species.

Unlike Freud, Jung was also invested in understanding how the human psyche varies greatly from person to person, and to these ends introduced new ideas about character types, adding ‘introvert’ and ‘extrovert’ to the psychological lexicon to draw a division between individuals characterised either by primarily subjective or objective orientations to life – an introvert himself, Jung was able to observe such a clear distinction. Meanwhile, greatly influenced by Friedrich Nietzsche’s “will to power,” Adler switched attention to issues of social identity and specifically to why people felt – in very many cases quite irrationally – inferior or superior amongst their peers. These efforts culminated in the development of his theory of the ‘inferiority complex’ – which might also be thought of as an aspect of the Jungian ‘Shadow’.

These different schools of psychoanalysis are not irreconcilable. They are indeed rather complementary in many ways: Freud tackling the animal craving and want of pleasure; Jung looking for expression above and beyond what William Blake once referred to as “this vegetable world”; and Adler delving most directly into the mud of human relations, the pervasive urge to dominate and/or be submissive, and the consequences of personal trauma associated with interpersonal and societal inequalities.

Freud presumes that since we are biological products of Darwinian evolution, then our minds have been evolutionarily pre-programmed. Turning the same inquiry outward, Jung goes in a search of common symbolic threads within mythological and folkloric traditions, enlisting these as evidence for the psychological archetypes buried deep within us all. And though Jung held no orthodox religious views of his own, he felt comfortable drawing upon religious (including overtly Christian) symbolism. In one of his most contemplative passages, he wrote:

“Perhaps this sounds very simple, but simple things are always the most difficult. In actual life it requires the greatest art to be simple, and so acceptance of oneself is the essence of the moral problem and the acid test of one’s whole outlook on life. That I feed the beggar, that I forgive an insult, that I love my enemy in the name of Christ—all these are

undoubtedly great virtues. What I do unto the least of my brethren, that I do unto Christ.

“But what if I should discover that the least amongst them all, the poorest of all beggars, the most impudent of all offenders, yea the very fiend himself—that these are within me, and that I myself stand in need of the alms of my own kindness, that I myself am the enemy who must be loved—what then? Then, as a rule, the whole truth of Christianity is reversed: there is then no more talk of love and long-suffering; we say to the brother within us “Raca,” and condemn and rage against ourselves. We hide him from the world, we deny ever having met this least among the lowly in ourselves, and had it been God himself who drew near to us in this despicable form, we should have denied him a thousand times before a single cock had crowed.”^{*72}

Of course, “the very fiend himself” is the Jungian ‘Shadow’, the contents of which without recognition and acceptance then inevitably remain repressed, causing these unapproachable and rejected aspects of our own psyche to be projected out on to the world. ‘Shadow projection’ onto others fills the world with enemies of our own imagining; and this, Jung believed, was the root of nearly all evil. Alternatively, by taking Jung’s advice and accepting “that I myself am the enemy who must be loved,” we come back to ourselves in wholeness. It is only then that the omnipresent threat of the Other diminishes, as the veil of illusion forever separating the ego and reality is thinned. And Jung’s psychological reunification also grants access to previously concealed strengths (the parts of the unconscious discussed at the top), further enabling us to reach our fullest potential.^{†73}

Today there are millions doing “shadow work” as it is now popularly known: self-help exercises often combined with traditional practices of yoga, meditation or the ritual use of entheogens: so here is a new meeting place – a modern mash-up – of religion and psychotherapy. Quietly and individually, a shapeless movement has arisen almost spontaneously as a reaction to the peculiar rigours of western civilisation. Will it change the world? For better or worse, it already has.

* The word ‘Raca’ is an insult translated as ‘worthless’ or ‘empty’ taken from a passage in the Sermon on the Mount from Matthew 5:22.

† Jung described the shadow in a key passage as “that hidden, repressed, for the most part inferior and guilt-laden personality whose ultimate ramifications reach back into the realm of our animal ancestors... If it has been believed hitherto that the human shadow was the source of evil, it can now be ascertained on closer investigation that the unconscious man, that is his shadow does not consist only of morally reprehensible tendencies, but also displays a number of good qualities, such as normal instincts, appropriate reactions, realistic insights, creative impulses etc”

Now what about my joke at the top? What's that all about? Indeed, and in all seriousness, what makes it a joke at all? Well, not wishing to delve deeply into theories of comedy, there is one structure that arises repeatedly and nearly universally: that the punch line to every joke relies on some kind of unexpected twist on the set up.

To illustrate the point, let's turn to the most hackneyed joke of all: "Why did the chicken cross the road?" Here we find an inherent ambiguity that lies within use of the word 'why' and this is what sets up the twist. However, in the case of the joke about the psychiatrist and the man who thinks he's a moth, the site of ambiguity isn't so obvious. But here the humour I think comes down to alternative and finally conflicting notions of 'belief'.

A brief digression then: What is belief? To offer a salient example, when someone tells you "I believe in God," what are they intending to communicate? No less importantly, what would you take them to mean? Put differently, atheists will very often say "I don't believe in anything" – so again, what are they (literally) trying to convey here? And what would a listener take them to mean? Because in all these instances the same word is used to describe similar but distinct attitudinal relationships to reality, when it is all-too-easy to presume that everyone is using the word in precisely the same way. But first, we must acknowledge that the word 'belief' actually carries two quite distinct meanings.

According to the first definition, it is "a mental conviction of the truth of an idea or some aspect of reality". Belief in UFOs fits this criterion, as does a belief in gravity and that the sun will rise again tomorrow. How about belief in God? When late in life Jung was asked if he believed in God, he replied straightforwardly "I know".* Others reply with the same degree of conviction if asked about angels, spirit guides, ghosts or the power of healing and crystals. As a physicist, I believe in the existence of atoms, electrons and quarks – although I've never "seen one," like Jung I know!

So belief in this sense is more often than not grounded in a person's direct experience/s which obviously doesn't go to validate the objective truth of their belief. He saw a ghost. She was healed by the touch of a holy man. We ran experiments to measure the charge on an electron. Again, in this sense I have never personally known of anyone who did not

* In response to a question in an interview completed just two years before his death by John Freeman and broadcast as part of the BBC *Face to Face* TV series in 1959. Asking about his childhood and whether he had to attend church, he then asked: "Do you now believe in God?" Jung replies: "Now? Difficult to answer... I know. I don't need to believe; I know."

believe in the physical reality of a world of solid objects – for who doesn't believe in the existence of tables and chairs?† In this important sense everyone has many convictions about the truth of reality, and we surely all believe in something – even the most hardline of atheists!

But there is also a second kind of belief: “of an idea that is believed to be true or valid without positive knowledge.” The emphasis here is on the lack of knowledge or indeed of direct experience. So this belief involves an effort of willing on the part of the believer often because they have been convinced, cajoled or, in the worst instances, coerced, by higher authorities. Having been ‘made to believe’ (or not) we can come to believe in make-believe, or we might just say “to make-believe”; to pretend or wish that something is real: the suspension of disbelief. Transubstantiation, the tooth fairy, Santa Claus and unicorns all fit this bill...

As a child, all religion had been utterly mystifying, since what was self-evidently make-believe, for instance Jesus walking on water, Mary's virgin birth, and even Noah's Ark, for reasons I was unable to fathom, weren't just told as fabulous stories but held as sacrosanct matters of fact. Based on casual encounters with Christians, it seemed evident also that the harder you tried to make-believe in this inherently maddening mystification of being, the better a person it made you! So here's the point: when someone tells you they believe in God, does it all boil down to this? Trying with tremendous exertion, but little firm conviction founded on actual experience, to make-believe in impossibilities.

Indeed, is this striving alone mistaken not only as virtuous but as actual believing in the first sense? Yes, quite possibly – and not only for religious types. Alternatively, it may be that someone truly believes in God – or whatever synonym they choose to approximate to ‘cosmic higher consciousness’ – with the same conviction that all physicists believe in gravity and atoms. They may come to know ‘God’, as Jung said he did.

Now back to the joke and apologies for killing it: The man complains that he feels like a moth and this is so silly that we automatically presume his condition is entirely one of make-believe. But then the twist,

† Questions about the ontological reality of chairs and tables actually run deeper than trivial skepticism along the lines of “the whole existence of our material universe is a simulation.” More serious philosophical questions arise once we consider what strictly makes a chair a chair or a table a table. Since these and all other material things are entirely made of the atoms and the subatomic particles (or ‘strings’ or whatever) that compose them, then if we imaginatively dismantle a thing particle by particle at what point does it suddenly stop being a chair or table at all? A paradox arises here that points to a different and better description in which we might say the atoms are arranged ‘chair-wise’ and ‘table-wise’, or alternatively that fundamental stuff is ‘chairing’ or ‘tabling’. Considered this way all our everyday nouns ought to be reduced to adjectives or replaced altogether with verbs. A world no longer solid and filled with discrete objects but comprised wholly of processes, change and activity that is unfolding.

when we learn that his actions correspond to his belief, which means, of course, he has true belief of the first kind. Finally, here's my hunch then for why we find this funny: it spontaneously reminds us of how true beliefs – rather than make-believe – both inform reality as we perceive it, and fundamentally direct our behaviour. Yet we are always in the process of forgetting altogether that this is how we live too, until abruptly the joke reminds us again – and in our moment of recollecting, spontaneously we laugh.

Which also raises a question: To what extent do beliefs of the second 'make-believe' kind determine our behaviour too? Especially when the twin definitions show just how easy it can be to get confused over beliefs. Because as Kurt Vonnegut wrote in the introduction to his cautionary novel *Mother Night*: "This is the only story of mine whose moral I know," continuing: "We are what we pretend to be, so we must be careful about what we pretend to be."^{*74}

*

I would like to return now to an idea I earlier disparaged, Dawkins's concept 'memes': ideas, stories, and other cultural fragments, the development and transmission of which can be considered similar to the mutation and survival of genes. In evoking this concept of memes, Dawkins had hoped to wrest human behaviour apart from the rest of biology in order to present an account of how it came to be that our species alone is capable of surpassing the hardwired instructions encoded in our genes. For Dawkins this entailed some fleeting speculation upon the origins of human culture set out in the final pages of his popular science book, *The Selfish Gene*. Others later picked up on his idea and have reworked it into a pseudo-scientific discipline known as memetics; something I have already criticised.

In fact, the notion of some kind of evolutionary force actively driving human culture had occurred to authors before Dawkins. In *The Human Situation*, for example, Aldous Huxley outlined his own thoughts on the matter, while already making the significant point that such kinds of "social heredity" must be along Lamarckian rather than Darwinian lines:

"While it is clear that the Lamarckian conception of the inheritance of acquired characteristics is completely unacceptable, and untrue biologically, it is perfectly true on the social, psychological and linguistic level: language does provide us means for taking advantage of the fruits of

* The quote in full reads: "This is the only story of mine whose moral I know. I don't think it's a marvelous moral, I just happen to know what it is: We are what we pretend to be, so we must be careful about what we pretend to be."

past experience. There is such a thing as social heredity. The acquisitions of our ancestors are handed down to us through written and spoken language, and we do therefore enjoy the possibility of inheriting acquired characteristics, not through germ plasm but through tradition.”

Like Dawkins, Huxley recognised that culture was the singular feature distinguishing our species from others. Culture on top of nature, dictated by education, religious upbringing, class status, and so forth, establishes the social paradigms according to which individuals in general behave. However, in Huxley’s version, as in Dawkins, this is only figuratively speaking an evolutionary process, while both evidently regard the progress of cultural development as most similar to evolution in one key respect: that it is partially haphazard.

Indeed, Dawkins and Huxley are similarly keen to stress that human culture is therefore a powerful but ultimately ambiguous force that brings about good and ill alike. As Huxley continues:

“Unfortunately, tradition can hand on bad as well as good items. It can hand on prejudices and superstitions just as effectively as it can hand on science and decent ethical codes. Here again we see the strange ambivalence of this extraordinary gift.”⁷⁵

We might also carry these ideas a little further by adding a very important determinant of individual human behaviour which such notions of ‘memetics’ have tended to overlook. For memes are basically ideas, and ideas are, by definition, a product and manifestation of conscious thought and transmission; whereas people, on the other hand, as I have discussed above, often behave in ways that are in conflict with their conscious beliefs and desires, which means to some extent, we act according to mental processes that are beyond or even alien to our immediate understanding.

Acknowledging the influence of the unconscious on our thoughts and behaviours, my contention here is straightforward enough and I think hard to dispute: that just as our conscious minds are moulded and differentiated by local customs and conventions; our unconscious minds are presumably likewise formed and diversified. That, to offer a more concrete example, the Chinese unconscious that was shaped and informed by almost three millennia of Taoism, Buddhism and Confucianism, is likely to be markedly different from the unconscious mind of anyone of us raised within the European tradition. Besides the variations due to religio-philosophical upbringing, divergence is likely to be further compounded due to the wide disparities in our languages, with dissimilarities in all elements from vocabulary, syntax and morphology down to the use of characters rather than letters.

Native tongue (or *mother tongue*) is a very direct and primary filter that not only channels what we are able to articulate, but governs what we are able to fully conceptualise or even to think at all.* It is perfectly conceivable therefore that anyone who learned to communicate first in Mandarin or Cantonese will be unconsciously differentiated from someone who learnt to speak English, Spanish or Arabic instead.† Indeed, to a lesser degree perhaps, all who speak English as a first language may have an alternate, if more subtly differentiated unconscious relationship to the world, from those whose mother tongue is say French or German.‡

So now I come back to the idea of memes in an attempt to resurrect it in an altered form. Like Dawkins original proposal, my idea is not

* This is the premise behind Orwell's 'Newspeak' used in his dystopian novel *Nineteen Eighty-Four*. In Chapter 5, Syme, a language specialist and one of Winston Smith's colleagues at the Ministry of Truth, explains enthusiastically to Winston:

"Don't you see that the whole aim of Newspeak is to narrow the range of thought? In the end we shall make thoughtcrime literally impossible, because there will be no words in which to express it. Every concept that can ever be needed, will be expressed by exactly one word, with its meaning rigidly defined and all its subsidiary meanings rubbed out and forgotten."

† I should note that the idea proposed here is not altogether original and that the original concept of 'linguistic relativity' is jointly credited to linguists Edward Sapir and Benjamin Whorf who whilst working independently came to the parallel conclusion that (in the strong form) language determines thought or (in the weak form) language and its usage influences thought. Whorf also inadvertently created the urban myth that Eskimos have hundred words for snow after he wrote in a popular article "We [English speakers] have the same word for falling snow, snow on the ground, snow hard packed like ice, slushy snow, wind-driven snow – whatever the situation may be. To an Eskimo, this all-inclusive word would be almost unthinkable..." The so-called "Sapir-Whorf hypothesis" continues to inspire research in psychology, anthropology and philosophy.

‡ After writing this, I then read Richard Dawkins *The Ancestor's Tale*. Aside from being a most wonderful account of what Dawkins poetically describes as his 'pilgrimage to the dawn of life', here Dawkins also returns to many earlier themes of other books, occasionally moderating or further elucidating previous thoughts and ideas. In chapter titled 'The peacock's tale' [pp 278–280], he returns to speculate more about the role memes may have had on human development. In doing so he presents an idea put forward by his friend, the philosopher Daniel Dennett, from his book *Consciousness Explained*, which is that local variation of memes is inevitable:

"The haven all memes depend on reaching is the human mind, but the human mind is itself an artifact created when memes restructure a human brain in order to make it a better habitat for memes. The avenues for entry and departure are modified to suit local conditions, and strengthened by various artificial devices that enhance fidelity and prolixity of replication: native Chinese minds differ dramatically from native French minds, and literate minds differ from illiterate minds." I should add: is it not also implicit here, that the unconscious brain must be differently 'restructured' due to different environmental influences?

rigorous or scientific; it's another hunch: a way of referencing perhaps slight but characteristic differences in the collective unconscious between nations, tribes and also classes of society. Differences that then manifest perhaps as neuroses and complexes which are entirely planted within specific cultural identities – a British complex, for instance (and certainly we talk of having “an island mentality”). We might say therefore that alongside the transmission of memes, we also need to include the transmission of ‘dremes’ – cultural fragments from our direct social environment that are unconsciously given and received.

*

If this is accepted, then my further contention is that one such dreme has become predominant all around the world, and here I am alluding to what might be christened the ‘American Dreme’. And no, not the “American Dream,” which is different. The American Dream is in fact an excellent example of what Dawkins has labelled a meme: a cultural notion that on this occasion encapsulates a collection of ideas about how life can and ought to be. It says that life should be better, richer and fuller for everyone. Indeed, it is written indelibly into the American constitution in the wonderful phrase: “Life, Liberty and the pursuit of Happiness.” Because the American Dream is inspiring and has no doubt been tremendous liberation for many; engendering technological progress and motivating millions with hopes that anyone living in “The Land of Opportunity” “can make it” “from rags to riches” – all subordinate memes to encapsulate different aspects of the fuller American Dream.

E pluribus unum – “Out of many one” – is the motto inscribed on the scroll held so firmly by the beak of the bald eagle on the Seal of the United States.* Again, it is another sub-meme at the heart of the American Dream meme: an emblematic call for an unbound union between the individual and collective; inspiring a loose harmony poetically compared to

* Barack Obama, whose election was acclaimed by some and witnessed by many as proof of the American Dream in remarks made at the University of Indonesia in Jakarta once compared *E pluribus unum* to an Indonesian motto *Bhinneka Tunggal Ika* – unity in diversity.

“But I believe that the history of both America and Indonesia should give us hope. It is a story written into our national mottos. In the United States, our motto is *E pluribus unum* – out of many, one. *Bhinneka Tunggal Ika* – unity in diversity. We are two nations, which have traveled different paths. Yet our nations show that hundreds of millions who hold different beliefs can be united in freedom under one flag.” Press release (unedited) from The White House, posted November 10th, 2010.

the relationship of flowers in a bouquet – thus, not a mixing-pot, but a richer mosaic that maintains the original diversity.

Underlying this American Dream, a related sub-meme, cherishes “rugged individualism”. The aspiration of individuals, not always pulling together, nor necessarily in one direction, but constantly striving upwards: pulling themselves up by their own bootstraps! Why? Because according to the dream at least, if you try hard enough, then you must succeed. And though this figurative pulling yourself up by your own bootstraps involves a physical impossibility that contravenes Newton’s Laws, even this does not detract from the idea. Believers in the American Dream apparently don’t notice any contradiction, despite the fantastical image of their central metaphor. The dream is buoyed so high on hope, when deep down most know it’s actually a fairy tale.

So finally there is desperation and sickliness about the American Dream. A harsh reality in which “The Land of Opportunity” turns out to be a steep-sided pyramid spanned by labyrinthine avenues that mostly run to dead-ends. A promised land but one riven by chasms as vast as the Grand Canyon; disparities that grew out of historical failures: insurmountable gulfs in wealth and real opportunity across a population always beset by class and racial inequalities. Indeed, the underclass of modern America is no less stuck within societal ruts than the underclass of the least developed regions on earth, and in relative terms many are worse off.* “It’s called the American Dream,” said the late, great satirist George Carlin, “because you have to be asleep to believe it”.

In short, to keep dreaming the American Dream involves an unrelenting commitment. Its most fervent acolytes live in a perpetually suspended state of ignorance or outright denial; denial of the everyday miseries and cruelties that ordinary Americans daily suffer: the ‘American Reality’.

* Summary of statistical analysis by the Center for American Progress, “Understanding Mobility in America,” by Tom Hertz, American University, published April 26th, 2006.

Amongst the key findings was a discovery that: “Children from low-income families have only a 1 percent chance of reaching the top 5 percent of the income distribution, versus children of the rich who have about a 22 percent chance [of remaining rich].” and that “By international standards, the United States has an unusually low level of intergenerational mobility: our parents’ income is highly predictive of our income as adults.” The report adds that “Intergenerational mobility in the United States is lower than in France, Germany, Sweden, Canada, Finland, Norway and Denmark. Among high-income countries for which comparable estimates are available, only the United Kingdom had a lower rate of mobility than the United States.”



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But just suppose for a moment that the American Dream actually did come true. That America somehow escaped from this lingering malaise and blossomed into a land of real freedom and opportunity for all as it always promised to be. Yet still an unassailable problem remains. For as with every ascent, the higher you reach the more precarious your position becomes: as apes we have never entirely forgotten how branches are thinner and fewest at the top of the tree.

Moreover, built into the American Dream is its emphasis on material enrichment: to rise towards the heavens therefore means riding up and up and always on a mountain of stuff. And, as you rise, others must, in relative terms, fall. Not necessarily because there isn't enough stuff to go around, but because success depends upon holding ownership of the greatest share. Which means that as the American Reality draws closer to the American Dream (and it could hardly get much further away), creating optimal social mobility and realisable opportunities for all, then even given this best of all circumstances, the rise of some at the expense of others will cultivate anxious winners and a disadvantaged underclass for whom relative material gain of the winners comes at their own cost of bearing the stigma of comparative failure.

Why am I not nearer the top of the tree? In the greatest land on earth, why do I remain subservient to the gilded elites? Worries that nowadays plague the insomniac hours of many a hopeful loser; of those who landed up, to a large extent by accidental circumstance, in the all-too-fixed trailer parks of "The Land of the Free" (yet another sub-meme – ironically linked to the country with the highest incarceration rate on earth^{*76}).

But worse, there is an inevitable shadow cast by the American Dream: a growing spectre of alienation and narcissism that abounds from such excessive emphasis on individual achievement: feelings of inferiority for those who missed the boat, and superiority, for those who caught the gravy train. Manipulation is celebrated. Machiavellianism, narcissism and psychopathy come to reign. This shadow is part of what we might call the 'American Dreme'; an unconscious offspring that contains within it a truly abysmal contrast to the American Dream which bore it. A dreme, that being carried upon the coat-tails of the Dream, was spread far and wide by Hollywood, by Disney, radiated out in radio and television transmissions, and in consequence is now becoming the 'Global Dreme'.

* "The United States is the world leader in incarceration, despite the national incarceration rate being at its lowest in 20 years, with about 25% of the world's prison population being in the US. The United States currently has over 2.1 million total prisoners."

Being unconscious of it, however, we are mostly unaware of any affliction whatsoever; the dreme being insidious, and thus very much more dangerous than the meme. We might even mistake it for something else – having become such a pandemic, we might easily misdiagnose it as a normal part of ‘human nature’.

*

And the joke was hilarious wasn't it? No, you didn't like it....? Well, if beauty is in the eye of the beholder, comedy surely lies in the marrow of the funny bone! Which brings me to ask why there is comedy? More broadly, why is there laughter – surely the most curious human reflex of all – or its very closely-related reflex cousin, crying. In fact, the emission of tears from the nasolacrimal ducts other than in response to irritation of our ocular structures and purely for reasons of joy or sorrow is a very nearly uniquely human secretomotor phenomenon. (Excuse my Latin!)^{†77}

[†] In his follow-up to the more famous *On the Origin of Species* (1859) and *The Descent of Man* (1871), Charles Darwin reported in Chapter VI titled “Special Expressions of Man: Suffering and Weeping” of his third major work *The Expression of the Emotions in Man and Animals* (1872), that:

“I was anxious to ascertain whether there existed in any of the lower animals a similar relation between the contraction of the orbicular muscles during violent expiration and the secretion of tears; but there are very few animals which contract these muscles in a prolonged manner, or which shed tears. The *Macacus maurus*, which formerly wept so copiously in the Zoological Gardens, would have been a fine case for observation; but the two monkeys now there, and which are believed to belong to the same species, do not weep. Nevertheless they were carefully observed by Mr. Bartlett and myself, whilst screaming loudly, and they seemed to contract these muscles; but they moved about their cages so rapidly, that it was difficult to observe with certainty. No other monkey, as far as I have been able to ascertain, contracts its orbicular muscles whilst screaming.

“The Indian elephant is known sometimes to weep. Sir E. Tennent, in describing these which he saw captured and bound in Ceylon, says, some “lay motionless on the ground, with no other indication of suffering than the tears which suffused their eyes and flowed incessantly.” Speaking of another elephant he says, “When overpowered and made fast, his grief was most affecting; his violence sank to utter prostration, and he lay on the ground, uttering choking cries, with tears trickling down his cheeks.” In the Zoological Gardens the keeper of the Indian elephants positively asserts that he has several times seen tears rolling down the face of the old female, when distressed by the removal of the young one. Hence I was extremely anxious to ascertain, as an extension of the relation between the contraction of the orbicular muscles and the shedding of tears in man, whether elephants when screaming or trumpeting loudly contract these muscles. At Mr. Bartlett’s desire the keeper ordered the old and the young elephant to trumpet; and we repeatedly saw in both animals that, just as the trumpeting began, the orbicular muscles, especially the lower ones, were distinctly contracted. On a subsequent occasion the keeper made the old elephant trumpet much more loudly, and invariably both the upper and lower orbicular muscles were strongly contracted, and now in an equal degree. It is a singular fact that the African elephant, which, however, is so different from

The jury is still out on evolutionary function of laughing and crying, but when considered in strictly Darwinian terms (as science currently insists), it is hard to fathom why these dangerously debilitating and even potentially life threatening responses ever developed in any species. It is acknowledged indeed that a handful of unlucky (perhaps lucky?) people have literally died from laughter. So why do we laugh? Why do we love laughter, whether ours or others, so much? Your guess is as good as mine, and, more importantly, as good as Darwin's:

“Many curious discussions have been written on the causes of laughter with grown-up persons. The subject is extremely complex. Something incongruous or unaccountable, exciting surprise and some sense of superiority in the laugher, who must be in a happy frame of mind, seems to be the commonest cause.”*

the Indian species that it is placed by some naturalists in a distinct sub-genus, when made on two occasions to trumpet loudly, exhibited no trace of the contraction of the orbicular muscles.”

* Quote from *The Expression of the Emotions in Man and Animals* (1872), Chapter VIII “Joy, High Spirits, Love, Tender Feelings, Devotion” by Charles Darwin. He continues:

“The circumstances must not be of a momentous nature: no poor man would laugh or smile on suddenly hearing that a large fortune had been bequeathed to him. If the mind is strongly excited by pleasurable feelings, and any little unexpected event or thought occurs, then, as Mr. Herbert Spencer remarks, ‘a large amount of nervous energy, instead of being allowed to expend itself in producing an equivalent amount of the new thoughts and emotion which were nascent, is suddenly checked in its flow.’ . . . ‘The excess must discharge itself in some other direction, and there results an efflux through the motor nerves to various classes of the muscles, producing the half-convulsive actions we term laughter.’ An observation, bearing on this point, was made by a correspondent during the recent siege of Paris, namely, that the German soldiers, after strong excitement from exposure to extreme danger, were particularly apt to burst out into loud laughter at the smallest joke. So again when young children are just beginning to cry, an unexpected event will sometimes suddenly turn their crying into laughter, which apparently serves equally well to expend their superfluous nervous energy.

“The imagination is sometimes said to be tickled by a ludicrous idea; and this so-called tickling of the mind is curiously analogous with that of the body. Every one knows how immoderately children laugh, and how their whole bodies are convulsed when they are tickled. The anthropoid apes, as we have seen, likewise utter a reiterated sound, corresponding with our laughter, when they are tickled, especially under the armpits... Yet laughter from a ludicrous idea, though involuntary, cannot be called a strictly reflex action. In this case, and in that of laughter from being tickled, the mind must be in a pleasurable condition; a young child, if tickled by a strange man, would scream from fear.... From the fact that a child can hardly tickle itself, or in a much less degree than when tickled by another person, it seems that the precise point to be touched must not be known; so with the mind, something unexpected – a novel or incongruous idea which breaks through an habitual train of thought – appears to be a strong element in the ludicrous.”

Less generously, Thomas Hobbes, who explained all human behaviour in terms of gaining social advantage, wrote that:

“Joy, arising from imagination of a man’s own power and ability, is that exultation of the mind which is called glorying... Sudden glory, is the passion which maketh those grimaces called LAUGHTER; and is caused either by some sudden act of their own, that pleaseth them; or by the apprehension of some deformed thing in another, by comparison whereof they suddenly applaud themselves.”⁷⁸

And indeed, it is true that a great deal of laughter is at the expense of some butt of our joking, however not all mockery involves an inflicted party and there’s a great deal more to humour and laughter than merely ridicule and contempt. So Hobbes’ account is at best a very desiccated postulation for why humans laugh, let alone what constitutes joy.

Indeed, Hobbes’ reductionism is evidently mistaken and misinformed not only by his deep-seated misanthropy, but also by a seeming lack of common insight which leads one to suspect that when it came to sharing any jokes, he just didn’t get it. But precisely what didn’t he get?

Well, apparently he didn’t get how laughter can be a straightforward expression of *joie de vivre*. Too French I imagine! Or that when we apprehend anything, this momentarily snaps us from a prior state of inattention and on the occasion of and finding amusement in an abrupt, often fleeting, but totally fresh understanding, the revelation itself may elicit laughter (as I already outlined above). Or that it is simply impossible to laugh authentically or infectiously unless you not only understand the joke, but fully acknowledge it. In this way, humour, if confessional, can be liberating at a deeply personal level, or if satirical, liberating at a penetrating societal level. Lastly (in my necessarily limited rundown), humour serves as

* Hobbes continues: “And it is incident most to them, that are conscious of the fewest abilities in themselves; who are forced to keep themselves in their own favour, by observing the imperfections of other men. And therefore much Laughter at the defects of others is a signe of Pusillanimity. For of great minds, one of the proper workes is, to help and free others from scorn; and compare themselves onely with the most able.”

Interestingly, Hobbes then immediately offers his account of weeping as follows:

“On the contrary, Sudden Dejection is the passion that causeth WEEPING; and is caused by such accidents, as suddenly take away some vehement hope, or some prop of their power: and they are most subject to it, that rely principally on helps externall, such as are Women, and Children. Therefore, some Weep for the loss of Friends; Others for their unkindnesse; others for the sudden stop made to their thoughts of revenge, by Reconciliation. But in all cases, both Laughter and Weeping, are sudden motions; Custome taking them both away. For no man Laughs at old jests; or Weeps for an old calamity.”

a wonderfully efficient and entertaining springboard for communicating insight and understanding, especially when the truths are dry, difficult to grasp or otherwise unpalatable. Here is a rhetorical economy that Hobbes might actually have approved were it not for his somewhat curmudgeonly disposition.

And why tell a joke here? Just to make you laugh and take your mind off the gravity of the topics covered and still more grave ones to come? To an extent, yes, but also to broaden out our discussion, letting it drift off into related philosophical avenues. For existence is seemingly absurd, is it not? Considered squarely, full-frontal, what's it all about...? And jokes – especially ones that work beyond rational understanding – offer a playful recognition of the nonsensicalness of existence and of our species' farcical determination to comprehend it and ourselves fully. What gives us the gall to ever speculate on the meaning of life, the universe and everything?

Meanwhile, we are free to choose: do we laugh or do we cry at our weird predicament. Both responses are surely sounder than cool insouciance, since both are flushed with blood. And were we madder, we might scream instead, whether in joy or terror. As Theseus says in Shakespeare's *A Midsummer Night's Dream*:

*Lovers and madmen have such seething brains,
Such shaping fantasies, that apprehend
More than cool reason ever comprehends.
The lunatic, the lover, and the poet
Are of imagination all compact.*[†]

*

French existentialist Albert Camus famously made the claim: “There is but one truly serious philosophical problem and that is suicide.”**79 Camus was not an advocate of suicide, however; far from it. In fact, he saw it as perfectly vain attempt to flee from the inescapable absurdity of life, something he believed we ought to embrace in order to live authentically.

Of course, the deep tragedy to suicide is that *everybody* is filled with an intense desire to live; including those who out of desperation take their own lives. Life loves life! Camus acknowledges this and goes further.

[†] From *A Midsummer Night's Dream* Act 5, Scene 1.

* In the original French: “Il n'y a qu'un problème philosophique vraiment sérieux: c'est le suicide.”

To live fully and authentically, he says, we must never deny the primacy of meaninglessness. For in a universe apparently as indifferent to our suffering as to our existence, such denial involves a surrogate form of psychological suicide. And rather than blankly staring into the abyss, he encourages us each to rebel and in rebellion face life's absurdity without ever flinching away. Only then are we able to rediscover meaning at a personal level, albeit paradoxically, and reach what he calls extreme rationality.

Doubtless he goes too far, and takes such an uncompromising position that few can follow: his Sisyphean outlook[‡] appearing too bleak to many eyes, and his impassioned exhortation to authenticity almost infinitely taxing. Unsurprisingly, it didn't catch on. Kierkegaard's "leap of faith" is arguably more forgiving of our human condition – but enough glum thoughts. Enough philosophising!*

[‡] In Greek mythology Sisyphus was punished in hell by being forced to roll a huge boulder up a hill only for it to roll down every time, repeating his action for eternity. In his philosophical essay *The Myth of Sisyphus* (1942) Camus compares this unremitting and unrewarding task of Sisyphus to the lives of ordinary people in the modern world, writing: "The workman of today works every day in his life at the same tasks, and this fate is no less absurd. But it is tragic only at the rare moments when it becomes conscious."

In sympathy he also muses on Sisyphus' thoughts especially as he trudges in despair back down the mountain to collect the rock again. He writes: "You have already grasped that Sisyphus is the absurd hero. He is, as much through his passions as through his torture. His scorn of the gods, his hatred of death, and his passion for life won him that unspeakable penalty in which the whole being is exerted toward accomplishing nothing. This is the price that must be paid for the passions of this earth. Nothing is told us about Sisyphus in the underworld. Myths are made for the imagination to breathe life into them."

Continuing: "It is during that return, that pause, that Sisyphus interests me. A face that toils so close to stones is already stone itself! I see that man going back down with a heavy yet measured step toward the torment of which he will never know the end. That hour like a breathing-space which returns as surely as his suffering, that is the hour of consciousness. At each of those moments when he leaves the heights and gradually sinks toward the lairs of the gods, he is superior to his fate. He is stronger than his rock.

"If this myth is tragic, that is because its hero is conscious. Where would his torture be, indeed, if at every step the hope of succeeding upheld him? The workman of today works everyday in his life at the same tasks, and his fate is no less absurd. But it is tragic only at the rare moments when it becomes conscious. Sisyphus, proletarian of the gods, powerless and rebellious, knows the whole extent of his wretched condition: it is what he thinks of during his descent. The lucidity that was to constitute his torture at the same time crowns his victory. There is no fate that can not be surmounted by scorn."

* Søren Kierkegaard never actually coined the term "leap of faith" although he did use the more general notion of "leap" to describe situations whenever a person is faced with a choice that cannot be fully justified rationally. Moreover, in this instance the "leap" is perhaps better described as a leap "towards" or "into" faith that finally overcomes what Kierkegaard saw as an inherent paradoxical contradiction between the rational and the religious. However,

This pause is meant for reflection and introspection. Having started out by telling a joke: a surreal quip about psychiatry (the subject I'll be returning to next chapter) – one that hopefully made you smile if not laugh out loud – I shall close by returning to the perennial wisdom encapsulated in Chuang Tzu's dream of being a butterfly quoted at the top; mystical percipience from the 4th century BC juxtaposed to the plain silliness of a doctor-doctor joke about the moth-man. The ancient clashing with the modern. The sublime bumping into the ridiculous!

The running theme is of transformation, and so at the risk of killing Chuang's message by dissection too, I add merely (and unnecessarily from the Taoist perspective) that all existence appears intrinsically and cyclically transformative; at personal, collective and more fundamentally cosmic scales. To give this process a name, we might even call it 'the dance'.[†]

Innermost to the dance are the dancers – you and I – who innately are a strange combination of conscious and unconscious aspects: the creative partners and/or constraints that perpetually give rise to each other again like the ever-blooming yin and yang. From these together, inseparably, arise our intentions and actions. Hardened into habits, they construct the locus to what very often appears to be our destiny.

Swung around by these conjoined and centrifugal forces, we may indeed find a repeating quality to our lives. An everyday low-level feeling of *déjà vu*. Most likely we also experience an accompanying sense that somewhere in the middle of our head a character looks out and witnesses the world as if watching it happen on a movie screen. The precise seat of his or her residence remains a bit fuzzy, but in any case this homunculus is a creature wholly of our own devising. There is no little man peeking out

Kierkegaard never advocates "blind faith," but instead recognises that faith ultimately calls for action in the face of absurdity.

In Part Two, "The Subjective Issue," of his 1846 work and impassioned attack against Hegelianism, *Concluding Unscientific Postscript to the Philosophical Fragments* (Danish: *Afsluttende uvidenskabelig Efterskrift til de filosofiske Smuler*), which is known for its dictum, "Subjectivity is Truth," Kierkegaard wrote:

"When someone is to leap he must certainly do it alone and also be alone in properly understanding that it is an impossibility... the leap is the decision... I am charging the individual in question with not willing to stop the infinity of [self-]reflection. Am I requiring something of him, then? But on the other hand, in a genuinely speculative way, I assume that reflection stops of its own accord. Why, then, do I require something of him? And what do I require of him? I require a *resolution*."

[†] Like 'the dream', in recent years 'the dance' has become something of a cliché, overworked and a little stale, but unfortunately both metaphors are difficult to better.

from inside our skull. No character implanted inside the mind and nothing else at all that is comparably fixed and unalterable.

Nevertheless, the constant temptation is to identify directly with our preferences and desires, except when those likes and desires have matured and become modified; or with our opinions and beliefs, except once we've 'changed our minds' and lost faith in prior beliefs; and to imagine we are nothing more or less than the stream of thoughts we perceive, even as these are seamlessly evolving too; or by what we feel, except that all feelings are likewise shifting and transitory... so sometimes we are carried upwards into apparent light and other times deep into darkness, always moving in ways that are transformative and never static. As maverick clinical psychiatrist R. D. Laing once wrote:

“Most people most of the time experience themselves and others in one way or another that I... call *egoic*. That is, centrally or peripherally, they experience the world and themselves in terms of a consistent identity, a me-here over against you-there, within a framework of certain ground structures of space and time shared with other members of their society... All religious and all existential philosophies have agreed that such *egoic* experience is a preliminary illusion, a veil, a film of maya—a dream to Heraclitus, and to Lao Tzu, the fundamental illusion of all Buddhism, a state of sleep, of death, of socially accepted madness, a womb state to which one has to die, from which one has to be born.”⁸⁰

Returning from the shadowlands of alienation to contemplate the glinting iridescent radiance of Chuang's butterfly's wings is an invitation to scrape away the dross of habituated semi-consciousness that veils the playful mystery of our minds. On a different occasion, Chuang wrote:

“One who dreams of drinking wine may in the morning weep; one who dreams of weeping may in the morning go out to hunt. During our dreams we do not know we are dreaming. We may even dream of interpreting a dream. Only on waking do we know it was a dream. Only after the great awakening will we realize that this is the great dream. And yet fools think they are awake, presuming to know that they are rulers or herdsmen. How dense! You and Confucius are both dreaming, and I who say you are a dream am also a dream.”⁸¹

The world about us is real enough yet our impressions of it are scarcely less a construct of imagination than our dreams; deconstructed by the senses and harmoniously reconstructed in its fullness. Our celebrated five gateways of vision, sound, touch, taste and smell, working alongside a

⁸⁰ Chuang Tzu continues: “Such is my tale. It will probably be called preposterous, but after ten thousand generations there may be a great sage who will be able to explain it, a trivial interval equivalent to the passage from morning to night.”

host of other inputs including those of equilibrioception (sense of balance), proprioception (sense of one's bodily motion and orientation), memory, intuition, and conscious reason too. After all, it is curious that 'sense' is also synonymous to 'reason', and how we even speak of having 'a sense of humour.' Well, do we have... a *sense* of reason and a *sense* of humour? If you have followed this far then I sense you may share my own.

*

Addendum: Anyone with half a brain

“The intuitive mind is a sacred gift and the rational mind is a faithful servant. We have created a society that honours the servant and has forgotten the gift.”

— attributed to Albert Einstein[†]

*

The development of split-brain operations for the treatment of severe cases of epilepsy, which involves the severing of the *corpus callosum*, a thick web of nerves that allow communication between the two hemispheres, first drew attention to how left and right hemispheres have quite different attributes. Unfortunately, the early studies in this field produced erroneous since superficial notions about left and right brain functions that were in turn vulgarised and popularised when they percolated down into pop psychology and management theory. The left brain was said to generate language and logic; while it was only the right brain which supposedly dealt with feelings and was the creative centre. In reality, both hemispheres are involved in all aspects of cognition, and as a consequence the study of what is technically called the lateralisation of brain function fell to some extent into academic disrepute.

In fact, important differences do occur between the specialism of the left and right hemispheres, although as psychiatrist Iain McGilchrist

[†] Although in all likelihood a reworking of a passage from a book titled *The Metaphoric Mind: A Celebration of Creative Consciousness* written by Bob Samples and published in 1976 in which the fuller passage reads [with emphasis added]:

“The metaphoric mind is a maverick. It is as wild and unruly as a child. It follows us doggedly and plagues us with its presence as we wander the contrived corridors of rationality. It is a metaphoric link with the unknown called religion that causes us to build cathedrals — and the very cathedrals are built with rational, logical plans. When some personal crisis or the bewildering chaos of everyday life closes in on us, we often rush to worship the rationally-planned cathedral and ignore the religion. *Albert Einstein called the intuitive or metaphoric mind a sacred gift. He added that the rational mind was a faithful servant. It is paradoxical that in the context of modern life we have begun to worship the servant and defile the divine.*”

proposes in his book *The Master and His Emissary* (which he sees as the proper roles of the right and left hemispheres respectively)*, it is often better to understand the distinctions in terms of where conscious awareness is placed. In summary, the left hemisphere attends to and focuses narrowly but precisely on what is immediately in front of you, allowing you to strike the nail with the hammer, thread the eye of the needle, sort the wheat from the chaff (or whatever activity you might be actively engaged with), while the right hemisphere remains highly vigilant and attentive to the surroundings. Thus, the left brain operates tools and usefully sizes up situations, while the right brain's immediate relationship to the environment and to our bodies makes it the mediator to social activities and to a far broader conscious awareness. However, according to McGilchrist, the left brain is also convinced of its primacy, whereas the right is incapable of comprehending such hierarchies, which is arguably the root of a problem we all face, since it repeatedly leads humans to construct societal arrangements and norms in accordance with left brain dominance and so to the inevitable detriment of less restricted right brain awareness.

Supported by many decades of research, this has become the informed view of McGilchrist, and given that his overarching thesis has merit – note that the basic distinctions between left and right brain awareness are uncontroversial and well understood in psychology, whereas what he sees as the socio-historical repercussions is more speculative – then it raises brain function lateralisation as major underlying issue that needs to be incorporated in any final appraisal of ‘human nature’, the implications of which McGilchrist propounds at length in his own writing. In the preface to the new expanded edition of *The Master and His Emissary* (2009), he writes:

“I don’t want it to be possible, after reading this book, for any intelligent person ever again to see the right hemisphere as the ‘minor’ hemisphere, as it used to be called – still worse the flighty, impetuous, fantastical one, the unreliable but perhaps fluffy and cuddly one – and the left hemisphere as the solid, dependable, down-to-earth hemisphere, the one that does all the heavy lifting and is alone the intelligent source of our understanding. I might still be to some extent swimming against the current, but there are signs that the current may be changing direction.”

*

* The book is subtitled *The Divided Brain and the Making of the Western World*

Part II

Coming to our senses
what in the world are we doing?

“Even if you win the rat race, you’re still a rat”

— attributed to William Sloane Coffin

Chapter 4: Keep taking the tablets

“Psychiatry could be, or some psychiatrists are, on the side of transcendence, of genuine freedom, and of true human growth. But psychiatry can so easily be a technique of brainwashing, of inducing behaviour that is adjusted, by (preferably) non-injurious torture. In the best places, where straitjackets are abolished, doors are unlocked, leucotomies largely forgone, these can be replaced by more subtle lobotomies and tranquillizers that place the bars of Bedlam and the locked doors inside the patient.”

— R. D. Laing in a later preface to *The Divided Self*.[†]

*

A few notes of caution before proceeding:

From this point onwards I shall use the words ‘madness’ and ‘insanity’ interchangeable and to denote mental illness of different kinds in an entirely general and overarching way. Beyond the shorthand, I have adopted this approach for two principle reasons.

Firstly, given the nature of the field and on the basis of historical precedent, technical labels tend to be transitory and superseded, and so traditional and non-technical language avoids our need to grapple constantly with the elaborate definitions found in medical directories of psychiatry (more later), while taking this approach also keeps clear of the euphemism

[†] Extract from *The Divided Self: An Existential Study in Sanity and Madness* by R. D. Laing, first published 1959/60; “Preface to the Pelican Edition” written September 1964.

treadmill. Secondly, the older terms have simplicity which, if used with sensitivity, bestow weight on the day-to-day misery of mental illness and dignify its suffering. R. D. Laing, who spent a lifetime treating patients with the most severe schizophrenia, unflinchingly talked about ‘madness’. A flawed genius, I return to Laing in the final section of the chapter.

Moreover, I wish to highlight how illnesses associated with the workings of the mind, will sadly, but in all likelihood, remain a cause for social prejudice and discrimination. In part, this is due to the detrimental effect mental illness often has on interpersonal relationships. And since ‘the person’ – whatever this entity can be said to fully represent – is presupposed to exist in a kind of one-to-one equivalence to the mind, it is basically taken for granted not only that someone’s behaviour correlates to unseen mental activity, but that it is a direct expression of a person’s character. Indeed, personality, mind and behaviour are usually apprehended as a sort of coessential three-in-one.

Suffering of all kinds is difficult to face, of course, for loved ones as for the patient; however our degree of separation becomes heightened once someone’s personality is significantly altered through illness. I contend however that beyond these often practical concerns, there are further barriers that lie in the way of our full acceptance of mental illness, ones automatically instilled by everyday attitudes and opinions that may cause us to register a greater shock when faced with the sufferings of an unsound mind; some features of the disease not just directly clashing with expectations of acceptable human behaviour, but threatening on occasion to fundamental notions of what it means to be human.

For these reasons mental illness tends to isolate its victims, with those already suffering profound existential detachment becoming further detached from ordinary human contact. In extreme circumstances, mental illness makes its victims appear as monstrosities – the freaks who ordinary folks once visited asylums simply to gawp at when it only cost a shilling to see “the beasts” rave at Bedlam.^{*82} Whom the gods would destroy they first make mad, the ancient saying goes[†], and it is difficult indeed to conjure up any worse fate than this.

* as London’s Bethlem Royal Hospital was once popularly known.

† Sometimes quoted in Latin as *Quos Deus vult perdere, prius dementat* (literally: Those whom God wishes to destroy, he first deprives of reason) or *Quem Iuppiter vult perdere, dementat prius* (literally: Those whom Jupiter wishes to destroy, he first deprives of reason). These expressions have been used in English literature since at least the 17th century. In the form presented here it first appeared in the Reverend William Anderson Scott’s book *Daniel, a Model for Young Men* and then later in Longfellow’s poem *The Masque of Pandora*. Although falsely attributed to Euripides, earlier versions of this phrase do indeed have classical Greek

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Before returning to the main issues around mental illness, I wish briefly to consider the changing societal attitudes toward behaviour in general. The ongoing trend for many decades has been for society to become more tolerant of alternative modes of thinking and acting. Indeed, a plethora of interpersonal norms have either lapsed altogether, or are now regarded as old-fashioned and outmoded, with others in the process of slow abandonment. For successive generations, the youth has looked upon itself as more liberated than its parents' generation which it then regards, rightly or wrongly, as repressive and rigid.

To cite a rather obvious example, from the 1950s onwards sex has become gradually unhitched from marriage and commensurate with this detachment there is more and more permission – indeed encouragement – to be sexually experimental: yesterday's magnolia has been touched up to include a range of fifty thousand shades of grey![‡] But the zone of the bedroom remains an exception rather than the rule, and outside its liberally sanctioned walls much that was seen as transgressive remains so and in fact continues to be either prohibited by law or else proscribed by customs or just 'plain common sense' – thus we are constrained by restrictions sometimes imposed for perfectly sound reasons plus others that lack clear ethical or rational justification.

Arguably indeed, there are as many taboos today as yesterday that inform our oftentimes odd and incoherent relationships to our own bodies and minds. As another illustrative example, most of us have probably heard how the Victorians were so prudish that they concealed the nakedness of their piano legs behind little skirts of modesty (in fact an urban myth), when surely it is more scandalous (at least by today's standards) that over the counter at the local apothecary, mind-altering drugs including laudanum (tincture of opium) were freely available to all.

origins.

[‡] The shift in attitude towards sexual practices as extreme as sadomasochism is a curious one. I take the liberal view that it is right to be fully tolerant of activities that do not injure innocent parties and so do not wish to infringe individual freedoms when they do not violate the freedom of others. Nevertheless, I tend to regard sexual practices such as sadomasochism as perverse, and not because I do not understand them, but because I do. I recognise the urge that twists pleasure and pain together; the same one that mixes up vulnerability with humiliation. The psychological dangers are abundantly clear to me and the fact that our society today actively promotes and normalises S/M is perhaps indicative of a traumatic breakdown in human relations. It is wonderful that society has overcome so many of its hang-ups, but all taboos aren't equal. Taboos against inflicting severe pain, even when consensual, do make sense.

It seems indeed that just as we loosened restraints on sexuality, new anxieties began to spring up concerning our relationship with our bodies as such. Suddenly perhaps we had more to measure up to, especially once all the bright (and rather scantily-clad) young things began to parade themselves indecorously, if alluringly, throughout our daily lives: ubiquitous in movies, on TV, billboards, and in magazines and newspapers. The most intriguing aspect of this hypersexualisation, however, is that modern society has simultaneously remained prudish in many other regards, most curiously in the case of public nudity; an ‘indecent’ that goes completely unrecognised within so-called primitive societies.

In parallel with these changes, our own culture, which increasingly fixates on youthfulness, has simultaneously fallen into the habit of marginalising old age and death. Not that death, as often presumed, now represents some final unuttered taboo, because arguably more shunned even than death is madness; presumably because its spectre still remains so uniquely terrifying to us.

The overarching point is that no society, however permissive, is ever well-disposed toward individuals who fail to measure up against established norms. The rule is perfectly straightforward in fact: in every society and throughout historical times, social deviants are prone to be ostracised. And as a rule, this applies whether one’s behavioural aberrance happens to be a matter of personal choice or not.

I conjecture, moreover, that our abhorrence of madness is deeply informed by the very biological classification of our species and sub-species: *Homo Sapiens Sapiens*. The wise, wise man! By which we discreetly imply (in our determinedly positivist account) the rational, rational man! Thus, to “lose your mind,” as we often say colloquially, involves a loss of *the* singular vital faculty – dare I say our ‘essential’ defining feature? – being the very thing that taxonomically differentiates us as a biological species.

Of course, we are trespassing on hugely controversial territory and into areas I am (by profession) totally unqualified to enter. This must be conceded, whilst nevertheless, I do have privileged access whenever it comes to entering and exploring the field, as do you. Because we all have insider knowledge and deeply vested interest when it comes to comprehending the fathomless intricacies of human consciousness, while no-one has the superhuman immunity that ensures perfect mental health – indeed, most people quietly experience episodes, whether passing or more prolonged, when our minds may go a little wonky.

Lastly then, my main purpose is not to dwell on what madness may be, but, arguably more importantly, to consider the consequences of being

treated as mad; and in both senses of ‘treated’. So let’s just slip into these white coats. Ready...? Now to begin some informal examination of this rather delicate matter that is of such immediate and absolutely central importance.

*

I Sorting the sheep from the goats

“Not all who rave are divinely inspired”

— Morris Raphael Cohen

*

“The sole difference between myself and a madman is the fact that I am not mad!” said Salvador Dalí.* Dalí, with his dangerous flare for showmanship, was keen to impress upon his audience the exceptionally deranged quality of his genius, yet this well-known quip appeals in part because genius and madness are already romantically entwined, especially in the popular imagination.

Genius equates to madness presumably because both elude ordinary forms of thinking, and thus, a rather banal accountancy goes: genius appears as madness when it is anything but. Alternatively, however, and as Dalí intimates, genius truly is a form of madness, at least for some. The artistic visionary in particular draws inspiration, if not upon literal hallucinatory visions – as the poet William Blake did – then from the upwelling of deep and uncertain psychological forces within.

Fascinated by the half-light and the liminal, impelled upon occasion to peer into the abyss, the genius in extreme cases, will indeed tread close to the verge of madness. Yet, most geniuses have not gone mad, nor does genius seem especially vulnerable or susceptible to such self-destructive forces. Even amongst the greatest artists, exceptions prove to be the rule – the manic depression of Vincent van Gogh, the profound melancholia of Robert Schumann, the self-destructive alcoholism of Jackson Pollack (and it is noteworthy that van Gogh had a taste for the more deadly alcoholic beverage absinthe), the severe neurosis of Edvard Munch (another excessive drinker), and the depression and tragic suicide of Sylvia Plath. There is nothing however to suggest that Shakespeare or Bach were anything other than entirely sane, or that Mozart, Goethe and Beethoven suffered from frailties or maladies of any lasting psychological kind. The same goes for such modern masters as Picasso, Matisse, Stravinsky, and Mahler – though Mahler did consult Sigmund Freud once for advice on a

* Salvador Dalí is certainly attributed with a quote along these lines.

marital crisis shortly before he died. I could go on and on listing countless sane individuals who excelled in the field of the arts or in other disciplines – indeed Salvador Dalí was another: madness for Dalí being primarily an affectation, as cultured and considered as his trademark moustache, rather than a debilitating affliction.

The problem with all romanticised notions of insanity, especially when upholding insanity as the more honest and thus valid conception of an insane world, is twofold. Not only does it detract from the terrible suffering of those victims most truly lost to the world, but also, and vitally, it mistakes madness for freedom. And there is still a further step. Since madness appears to be a natural manifestation, the most extreme of romanticists have more fervently contended that rather than delusionary, such alternative awareness is no less valid, indeed more valid, than more normalised and thus artificial states of domesticated consciousness. This is a wonderfully tempting fancy for all of us who've ever had concerns over a loosening "grip on reality". Consider, for instance, the following syllogistic fallacy: all geniuses are mad, I'm mad ergo...

But this again is a very lazy method for cancelling madness, in which unpleasant reality is cheaply dismissed basically out of arithmetic convenience, and the two negatives – the horrors of the world and the terrors of the mind – are determined to add to zero. It simply isn't good enough to say that madness doesn't exist, or that madness does exist but it is natural and thus wholesome, or even that madness is really just sanity in disguise. That said, and albeit in a more inspirational way, Dalí is speaking for most of us. For the greatest barrier keeping many of us outside the padded cell is that, like him, "we are not mad".

*

"If sanity and insanity exist, how shall we know them? The question is neither capricious nor itself insane."

So begins a paper published by the journal *Science* in January 1973 and written by David L. Rosenhan, a Professor of Psychology at Stanford University. The "Rosenhan experiment," as it is now known, had in fact involved two related studies, the first of which was certainly one of the most daring ever conducted in the social sciences.

Rosenhan would send seven mentally healthy volunteers, with himself making eight, on a mission to be admitted as patients within the American psychiatric system. These eight courageous 'pseudopatients' soon after arrived at the doors of selected hospitals with instructions to say only that they were hearing a voice which pronounced these three words:

“empty,” “hollow” and, most memorably, “thud”. If admitted the volunteers were then further instructed to act completely normally and say that had had no recurrence of those original symptoms.^{†83}

† “After calling the hospital for an appointment, the pseudopatient arrived at the admissions office complaining that he had been hearing voices. Asked what the voices said, he replied that they were often unclear, but as far as he could tell they said ‘empty’, ‘hollow’, and ‘thud.’ The voices were unfamiliar and were of the same sex as the pseudopatient. The choice of these symptoms was occasioned by their apparent similarity to existential symptoms. Such symptoms are alleged to arise from painful concerns about the perceived meaninglessness of one’s life. It is as if the hallucinating person were saying, ‘My life is empty and hollow.’ The choice of these symptoms was also determined by the absence of a single report of existential psychoses in the literature.

“Beyond alleging the symptoms and falsifying name, vocation, and employment, no further alterations of person, history, or circumstances were made. The significant events of the pseudopatient’s life history were presented as they had actually occurred. Relationships with parents and siblings, with spouse and children, with people at work and in school, consistent with the aforementioned exceptions, were described as they were or had been. Frustrations and upsets were described along with joys and satisfactions. These facts are important to remember. If anything, they strongly biased the subsequent results in favor of detecting insanity, since none of their histories or current behaviors were seriously pathological in any way.

“Immediately upon admission to the psychiatric ward, the pseudopatient ceased simulating any symptoms of abnormality. In some cases, there was a brief period of mild nervousness and anxiety, since none of the pseudopatients really believed that they would be admitted so easily. Indeed, their shared fear was that they would be immediately exposed as frauds and greatly embarrassed. Moreover, many of them had never visited a psychiatric ward; even those who had, nevertheless had some genuine fears about what might happen to them. Their nervousness, then, was quite appropriate to the novelty of the hospital setting, and it abated rapidly.

“Apart from that short-lived nervousness, the pseudopatient behaved on the ward as he ‘normally’ behaved. The pseudopatient spoke to patients and staff as he might ordinarily. Because there is uncommonly little to do on a psychiatric ward, he attempted to engage others in conversation. When asked by staff how he was feeling, he indicated that he was fine, that he no longer experienced symptoms. He responded to instructions from attendants, to calls for medication (which was not swallowed), and to dining-hall instructions. Beyond such activities as were available to him on the admissions ward, he spent his time writing down his observations about the ward, its patients, and the staff. Initially these notes were written ‘secretly’, but as it soon became clear that no one much cared, they were subsequently written on standard tablets of paper in such public places as the dayroom. No secret was made of these activities.

“The pseudopatient, very much as a true psychiatric patient, entered a hospital with no foreknowledge of when he would be discharged. Each was told that he would have to get out by his own devices, essentially by convincing the staff that he was sane. The psychological stresses associated with hospitalization were considerable, and all but one of the pseudopatients desired to be discharged almost immediately after being admitted. They were, therefore, motivated not only to behave sanely, but to be paragons of cooperation. That their behavior was in no way disruptive is confirmed by nursing reports, which have been obtained on most of the patients. These reports uniformly indicate that the patients were ‘friendly’, ‘cooperative’, and ‘exhibited no abnormal indications.’“

Extract taken from Rosenhan DL (January 1973) titled “On being sane in insane places”.

What transpired came as a surprise, not least to Rosenhan himself. Firstly, although none of the volunteers had any prior history of mental illness and none were exhibiting behaviour that could be deemed seriously pathological in any way – Rosenhan having ensured that “[t]he choice of these symptoms was also determined by the absence of a single report of existential psychoses in the literature” – every one of his ‘pseudopatients’ were admitted and so became real patients. More alarmingly, and as each quickly realised, they had landed themselves in a seemingly intractable catch-22 situation: for how does anyone prove their sanity, once certified insane?

If you say that you are fine, then who is to decide whether or not your expressed feelings of wellness are not delusional? It was certainly not lost on Rosenhan that this is a position all psychiatric patients inevitably find themselves in. In the event, it would take the eight ‘pseudopatients’ almost three weeks on average (19 days to be precise, and in one instance 52 days) to convince the doctors that they were sane enough to be discharged. But it didn’t end there, because all but one were finally discharged with a diagnosis of schizophrenia “in remission,” and as Rosenhan notes:

“The label ‘in remission’ should in no way be dismissed as a formality, for at no time during any hospitalization had any question been raised about any pseudopatient’s simulation. Nor are there any indications in the hospital records that the pseudopatient’s status was suspect. Rather, the evidence is strong that, once labeled schizophrenic, the pseudopatient was stuck with that label. If the pseudopatient was to be discharged, he must naturally be ‘in remission’; but he was not sane, nor, in the institution’s view, had he ever been sane.”⁸⁴

For a second experiment, Rosenhan then cleverly turned the tables. With results from his first test released, he now challenged a different research and teaching hospital where staff fervently denied that they would have made comparable errors, telling them that over the period of three months he would send an undisclosed number of new ‘pseudopatients’ and it was up to them to determine which patients were the imposters. Instead Rosenhan sent no one:

“Judgments were obtained on 193 patients who were admitted for psychiatric treatment. All staff who had had sustained contact with or primary responsibility for the patient – attendants, nurses, psychiatrists, physicians, and psychologists – were asked to make judgments. Forty-one patients were alleged, with high confidence, to be pseudopatients by at least one member of the staff. Twenty-three were considered suspect by at least one psychiatrist. Nineteen were suspected by one psychiatrist and one other

staff member. Actually, no genuine pseudopatient (at least from my group) presented himself during this period.”⁸⁵

Rosenhan provocatively although accurately titled his paper “On being sane in insane places”. The results of his study had not only undermined the credibility of the entire psychiatric establishment, but his main conclusion that “we cannot distinguish the sane from the insane in psychiatric hospitals,” touched on a far bigger issue. For aside from challenging existing methods of diagnosis, and calling into question the treatment and stigmatisation of mental illness – in view of what he described in the paper as “the stickiness of psychodiagnostic labels”^{*} – the results of his study more fundamentally (and thus controversially) cast doubt on how psychological ‘normality’ can ever be differentiated decisively from ‘abnormality’ in all instances? Buried within his paper, Rosenhan posits:

“... there is enormous overlap in the behaviors of the sane and the insane. The sane are not ‘sane’ all of the time. We lose our tempers ‘for no good reason.’ We are occasionally depressed or anxious, again for no good reason. And we may find it difficult to get along with one or another person – again for no reason that we can specify. Similarly, the insane are not always insane.”

So the ‘sane’ are not always ‘sane’ and the ‘insane’ are not always ‘insane’, although Rosenhan never leaps to the erroneous conclusion (as others have and do) that there is no essential difference between sanity and insanity. He simply responds to the uncomfortable facts as revealed by his studies and implores other professionals who are involved in care and treatment of psychiatric patients to be extra vigilant. Indeed, he opens his paper as follows:

“To raise questions regarding normality and abnormality is in no way to question the fact that some behaviors are deviant or odd. Murder is deviant. So, too, are hallucinations. Nor does raising such questions deny the existence of the personal anguish that is often associated with ‘mental illness.’ Anxiety and depression exist. Psychological suffering exists. But

^{*} “A psychiatric label has a life and an influence of its own. Once the impression has been formed that the patient is schizophrenic, the expectation is that he will continue to be schizophrenic. When a sufficient amount of time has passed, during which the patient has done nothing bizarre, he is considered to be in remission and available for discharge. But the label endures beyond discharge, with the unconfirmed expectation that he will behave as a schizophrenic again. Such labels, conferred by mental health professionals, are as influential on the patient as they are on his relatives and friends, and it should not surprise anyone that the diagnosis acts on all of them as a self-fulfilling prophecy. Eventually, the patient himself accepts the diagnosis, with all of its surplus meanings and expectations, and behaves accordingly.” *Ibid.*

normality and abnormality, sanity and insanity, and the diagnoses that flow from them may be less substantive than many believe them to be.”

So though his albeit small experiment had objectively undermined the credibility both of the academic discipline and clinical practice of psychiatry, his conclusions remained circumspect (no doubt he wished to tread carefully), with the closing remarks to his paper as follows:

“I and the other pseudopatients in the psychiatric setting had distinctly negative reactions. We do not pretend to describe the subjective experiences of true patients. Theirs may be different from ours, particularly with the passage of time and the necessary process of adaptation to one’s environment. But we can and do speak to the relatively more objective indices of treatment within the hospital. It could be a mistake, and a very unfortunate one, to consider that what happened to us derived from malice or stupidity on the part of the staff. Quite the contrary, our overwhelming impression of them was of people who really cared, who were committed and who were uncommonly intelligent. Where they failed, as they sometimes did painfully, it would be more accurate to attribute those failures to the environment in which they, too, found themselves than to personal callousness. Their perceptions and behaviors were controlled by the situation, rather than being motivated by a malicious disposition. In a more benign environment, one that was less attached to global diagnosis, their behaviors and judgments might have been more benign and effective.”⁸⁶

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Before pursuing this matter by delving into deeper complexities, I would like to reframe the central concept almost algebraically. In this regard I am taking the approach of the stereotypical physicist in the joke, who when asked how milk production on a dairy farm might be optimised, sets out his solution to the problem as follows: “Okay – so let’s consider a spherical cow...”[†]

[†] Physicists – at least all the one I’ve known – whether they’ve heard it before or not (and they generally *have* heard it before), get the joke immediately; non-physicists, on the other hand, I refer to the old saw that “many a true word is spoken in jest.” For such blunt reductionism does indeed lie at the heart of physics, as in all ‘hard science’; disciplines that are founded upon the simplification of the infinitely complex processes of the natural world. With its especial penchant for ‘elegance’ and parsimoniousness, every physicist is trained through repeated worked examples, and eventually hard-wired to consider the most straightforward and ideal case as the most productive first step in solving every problem: hence the spherical cow. But the really funny thing is, how often it works!

Consider a Spherical Cow became the title of a book about methods of problem solving using

By applying this spherical cow approach to psychiatry, I have produced the following three crude equivalences, which are listed below (each accompanied by brief explanatory notes).

#1. Insanity = abnormality

Normality, a social construct [from etymological root ‘right-angled’], implies conventionality, conformity and being in good relation to the orthodoxy [from *orthos* ‘straight or right’] such that a person is adjudged sane when they appear to be well-balanced, rational, and functional.

#2. Insanity = unhealthiness

Health, a medical consideration [from root ‘whole’] indicates a lack of pathology and in this case emphasises something akin to good mental hygiene. ‘Health’ in the sense of mental health will correspond to low levels of stress and anxiety; high self-awareness and self-assuredness; to happiness and well-being.

And lastly,

#3. Insanity = psychological maladjustment to reality [from late Latin *realis* ‘relating to things’], with emphasis here placed on authenticity and realism as opposed to fantasy and delusion.

There is, of course, a good measure of crossover between these three pseudo-identities. For instance, if you are ‘normal’ (*i.e.*, adjusted to society) then you have a greater likelihood of being ‘happy’ than if you are at variance. Moreover, if you’re well-adjusted socially, society as a whole will likely attest to you being ‘well adjusted’ in a broader psychological sense, because ‘reality’ is always to some extent socially construed. Imagine, for instance, being suddenly transported to the caste ossified and demon-haunted worlds of the Middle Ages; would the people determined sane today be thought sane as they disembarked from our imagined time machine, and would they stay sane for long?*

simplified models written by Environmental Scientist John Harte, published in 1988. In a letter to *Science* journal published in 1973 the author Steven D. Stellman instead postulated “A Spherical Chicken”. Read more here: science.sciencemag.org/content/182/4119/1296.3

* The fact that no-one is actually able to answer this question says a lot about time machines – but that’s for a separate discussion!

I have included this rather crude and uncertain section in order to highlight how appearances of ‘madness’ and ‘sanity’ can often be coloured by alternative societal interpretations. As we venture forward, keep this in mind too: societal influences that shape and inform the prevailing notions of ‘normality’, ‘reality’ and even ‘happiness’ are more often latent than manifest.

*

Did you ever stride warily over the cracks in the pavement? Have you crossed your fingers, or counted magpies, or stepped around a ladder, or perhaps ‘touched wood’ to ward off some inadvertently tempted fate? Most of us have. Are we mad? Not really, just a little delusional perhaps. Though does superstition itself contain the kernel of madness?

What if that compulsion to step across the cracks becomes so tremendous that the pavement exists as a seething patchwork of uncertain hazards? Or if we really, really feel the urge to touch the wooden object over and over until our contact is quite perfect and precise. When the itch is so irresistible and the desire to scratch quite unbearable, this otherwise silly superstition embroils the sufferer (today diagnosed with Obsessive Compulsive Disorder or OCD) in extended rituals that must be fastidiously completed; a debilitating affliction in which everyday routine becomes a torment as life grinds nearly to a halt, the paralysed victim reduced to going round and round interminably in the completely pointless loops of their own devising: life reduced to a barmy and infuriating assault course that is nearly impossible to complete.

As a child, to entertain yourself, did you ever look out for familiar shapes within the amorphous vapour of clouds or the random folds of a curtain? Doubtless you looked up into the night sky to admire the ‘Man in the Moon’, or if you are Chinese, then to spot the rabbit. Both are wrong, and right – connecting the dots being a marvellous human capacity that allows us to be creators extraordinaire. Yet the same aptitude holds the capacity to drive us literally crazy. How about those monsters at the back of your wardrobe or lurking in wait under the bed... and did the devil live around the U-bend of the toilet ready to leap out and catch you if you failed to escape before the flush had ended? It is fun to indulge in such fantasies. Everyone loves a ghost story.

Not that reconstructing faces or other solid forms where none exist involves hallucinating in the truest sense. However, these games, or harmless tics of pattern recognition – which psychologists call pareidolia – do involve our latent faculty for hallucinations – a faculty that is more fully

expressed in dreams or just as we are falling asleep and during waking; images technically described as hypnagogic and hypnopompic respectively. Some of us also hear imaginary things: and not only “things that go bump in the night,” but occasionally things that go bang upon waking (or on the brink of sleeping). This highly disconcerting experience even has the technical name “exploding head syndrome” – just to let you know, in case you ever suffer from it. Alongside still more frightening and otherworldly apparitions (the worst ones are usually associated with sleep paralysis) auditory hallucinations happen to billions of perfectly sober and otherwise sane individuals.

In fact, it is now known that about one percent of people with no diagnosed mental health problem hear voices on a regular basis – this happens to be approximately equivalent to the number of people who are diagnosed with schizophrenia (and it is important to note here that while not all schizophrenics hear voices, nor is schizophrenia the single mental illness in which hearing voices is a symptom). Within the general population, still more of us have fleeting episodes of hearing voices, while very nearly everyone will at some time experience the auditory hallucination of voices on the brink of sleep and waking.

Of course in a different though related sense, we all hear voices: the familiar inner voice that speaks softly as we think, as we read and perhaps as we console ourselves. And how many of us articulate that voice by talking to ourselves from time to time? As young children between the ages of two to eight we *all* would have done so. Then sometimes as we literally speak our minds, we also find ourselves listening attentively to what we ourselves just said aloud in these unaccompanied chinwags; although catching yourself fully in the act as an adult can often come as a bit of a shock – but a shock to whom exactly? So are we mad to talk to ourselves... or as the joke would have it, just seeking a more intelligent conversation!

In talking to ourselves we immediately stumble upon a remarkable and unexpected division in consciousness too. One—self becomes two selves. The ‘I’ as subjective knower abruptly perceiving a ‘me’ as a separate entity – perhaps this known ‘me’ perceived by the knower ‘I’ is deemed worthy of respect (but perhaps not, the knower can decide!) Curiously this is not just a mind becoming vividly aware of its existence as a manifestation (modern science would say ‘epiphenomenon’, as if this is an adequate explanation) of the brain-body (and such consciousness of the material self is strange enough), but the mind becoming literally self-aware and this self-awareness having endlessly self-reflecting origins, since if ‘I’ begin to think about ‘me’ then there can now exist a further ‘I’ which is suddenly aware of

both the original knower and the already known. Fuller contemplation of this expanding hall of mirrors where the self also dwells is very possibly a road to madness: yet this habit of divorcing ‘I’ from ‘me’ is a remarkably familiar one. As usual, our language also gives us away: we “catch ourselves” in the act, afterwards commenting “I can’t believe I did it!” But what if our apprehension of the one—self becomes more broken still, and our sense of being can only be perceived as if refracted through shattered glass: the splintered fragments of the anticipated ‘me’ (whatever this is) appearing horrifically other?

Perhaps we’ve even had intimations of a feeling that we are entirely disconnected from every other part of the universe, and as such, then felt profoundly and existentially cast adrift with no recall of who we are. Such altered states of detachment are known in psychology as ‘derealisation’ and ‘depersonalisation’ are not uncommon, especially to those with any appetite for ‘recreational substances’. Even alcohol is known to sometimes elicit temporary ‘dissociative’ states. And if these are representative of some of our everyday brushes with madness, then what of our more extended nocturnal lapses into full-blown irrationality: the hallucinations we call dreams and nightmares, and those altogether more febrile deliriums that occasionally take hold when we are physically ill?

These are the reflections of Charles Dickens, after one of his night walks brought on by insomnia led him to nocturnal contemplation of Bethlehem Hospital:

“Are not the sane and the insane equal at night as the sane lie a dreaming? Are not all of us outside this hospital, who dream, more or less in the condition of those inside it, every night of our lives? Are we not nightly persuaded, as they daily are, that we associate preposterously with kings and queens, emperors and empresses, and notabilities of all sorts? Do we not nightly jumble events and personages and times and places, as these do daily? Are we not sometimes troubled by our own sleeping inconsistencies, and do we not vexedly try to account for them or excuse them, just as these do sometimes in respect of their waking delusions? Said an afflicted man to me, when I was last in a hospital like this, ‘Sir, I can frequently fly.’ I was half ashamed to reflect that so could I by night. Said a woman to me on the same occasion, ‘Queen Victoria frequently comes to dine with me, and her Majesty and I dine off peaches and macaroni in our night-gowns, and his Royal Highness the Prince Consort does us the honour to make a third on horseback in a Field-Marshal’s uniform.’ Could I refrain from reddening with consciousness when I remembered the amazing royal parties I myself had given (at night), the unaccountable viands I had put on table, and my extraordinary manner of conducting myself on those distinguished

occasions? I wonder that the great master who knew everything, when he called Sleep the death of each day's life, did not call Dreams the insanity of each day's sanity."⁸⁷

Meanwhile, obsessing over trifling matters is a regular human compulsion. The cap is off the toothpaste. The sink is full of dishes. That's another tin gone mouldy in the fridge... during times when our moods are most fraught, seething with dull anger and impatient to explode at the slightest provocation, it is the fridge, sink, and the toothpaste that fills our head with troubles. Presumably again there is a limit beyond which such everyday obsessing becomes pathological. Indeed, I dare to suggest that obsessing over mundanities may be a kind of displacement activity: another distraction from the greatest unknown we all face – our certain endpoint with its dread finality. For we may, without lack of justification, dread our entire future; and with it the whole world outside our door: just as we may with due reason, based on past experiences, panic at the prospect of every encounter.

But whereas normal levels of fear act as a helpful defence mechanism and a necessary hindrance, the overbearing anxiety of the neurotic comes to stand in full opposition to life. Likewise, although indignation can be righteous and rage too is warranted on occasions, a constantly seething ill temper that seldom settles is corrosive to all concerned. In short, once acute anxiety and intense irritability worsen in severity and manifest as part of a chronic condition, life is irredeemably spoiled; in still greater severity, anxiety and anger will likely be attributed to symptoms of a psychiatric condition. The threshold to mental illness is once again crossed, but whereabouts was the crossing point?

Each of us has doubtless succumbed to moments of madness, and not just momentary lapses of reason, but perhaps entered into more extended periods when we have been caught up in obsessive and incoherent patterns of thought and behaviour. Loops of loopiness. Moreover, the majority of us will have had occasions of suicidal ideation, which again remain unspoken in part because they signal a psychological frailty that may point to a deeper pathology, or be mistaken as such. Because madness is not really such a faraway and foreign country, and even the sanest among of us (so far as this can be judged), are from time to time permitted entry at its gates.

*

II Conspiracies against the laity

“That a dictator could, if he so desired, make use of these drugs for political purposes is obvious. He could ensure himself against political unrest by changing the chemistry of his subjects’ brains and so making them content with their servile condition. He could use tranquillizers to calm the excited, stimulants to arouse enthusiasm in the indifferent, hallucinants to distract the attention of the wretched from their miseries. But how, it may be asked, will the dictator get his subjects to take the pills that will make them think, feel and behave in the ways he finds desirable? In all probability it will be enough merely to make the pills available.”

— Aldous Huxley[†]

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In earlier chapters I have discussed how science is soon out of its depth when it comes to understanding the mind and states of consciousness because the province of science is restricted to phenomena that not only can be observed and unambiguously categorised, but thereafter measured with known precision and modelled to an extent that is reliably predictive. Of course, hidden within that statement is an awful lot of maths, however, use of maths is not the issue here, measurement is.

For measurement becomes scientifically applicable once and only once there is a clear demarcation between the quantities we wish to measure. Length and breadth are easy to separate; time and space, likewise. The same case applies to many physical properties – all of the quantities that physicists and chemists take for granted in fact.

When we come to psychology and psychiatry we are likewise restrained. Brain-states are measurable and so we investigate these and then attempt to map our findings back onto sense-impressions, memories and

[†] From Aldous Huxley’s *Brave New World Revisited* (1958), chapter 8 “Chemical Persuasion”

moods. For instance, if we locate a region of the brain where these sense-impressions, memories and moods can be stimulated then we can begin the partial mapping of conscious experience onto brain-states. But we still have not analysed consciousness itself. Nor do we know how the brain-states permit volition – the choice of whether to move, and how and where to move, or, just as importantly, the freedom to think new thoughts. In short, how does our brain actually produce our states of minds, our personalities, and the entity we each call I? As neurologist Oliver Sacks noted in his book *A Leg to Stand On* in which he drew on his personal experience of a freak mountaineering accident to consider the physical basis of personal identity:

“Neuropsychology, like classical neurology aims to be entirely objective, and its great power, its advances, come from just this. But a living creature, and especially a human being, is first and last active – a subject, not an object. It is precisely the subject, the living ‘I’, which is being excluded. Neuropsychology is admirable, but it excludes the psyche – it excludes the experiencing, active, living ‘I’”⁸⁸

We as yet have no grounds whatsoever to suppose that science will ever be able to *objectively* observe and measure states of consciousness. In fact, what would that actually entail? For we do not have even the slightest inkling what consciousness is, or, far more astonishingly, as yet understand how consciousness is routinely and reversibly switched off with use of general anaesthetics, even though general anaesthetics have been widely and effectively used in surgery for over a century and a half.

Moreover, having acknowledged its non-measurability, it is seen as permissible by some scientists to casually relegate consciousness to the status of an epiphenomenon. That is, science takes the singular certainty of our everyday existence and declines from taking any serious interest in its actual reality; in the most extreme case, proclaiming that it is purely illusory... Now think about that for a second: how can you have the ‘illusion of consciousness’? For what vehicle other than a conscious one can support or generate any kind of illusion at all? Although language permits us frame the idea, inherently it is self-contradictory, and proclaiming the illusoriness of consciousness is akin to deciding on the insubstantiality of substance or the unwetness of water.

Furthermore, the literal root to our modern terms ‘psychology’, ‘psychoanalysis’ and ‘psychiatry’ is a derivative of the Greek word ‘psyche’ with its origins in ‘spirit’ and ‘soul’, and yet each of the disciplines have altogether abandoned this view in order to bring a strictly biomedical approach to questions of mind. No longer divorced from the brain, mind is thus presumed to be nothing more or less than outputs of brain function, and so the task of today’s clinicians becomes one of managing these outputs by

means of physical or chemical adjustments. To these ends, the origins and causes of mental illness are often presumed to be fully intelligible and detectable in abnormalities of brain physiology and most specifically in brain chemistry – this is something I will discuss in greater detail.

Taking such a deeply biochemical approach to mental illness also leads inexorably to questions of genetics since there is no doubt that genes do predispose every person to certain illnesses, and so, with regards to the issue at hand, we might envisage some kind of psychological equivalent to the physical immune system. There is indeed no controversy in saying that the individual propensity to suffering mental illness varies, or that, if you prefer, we inherit differing levels of psychological immunity. Some people are simply more resilient than the average, and others less so and this difference in propensity – one’s ‘psychological immune system’ – is to some extent innate to us.

Of course, if genetic propensity was the primary determinant for rates of mental illness then within any given gene pool we ought to expect a steady level in the rates for diagnosis given that variations within any gene pool change comparatively slowly and over multiple generations. Evidently genetics alone cannot therefore explain any kind of sudden and dramatic rise in incidence of health problems, whether mental or otherwise. One note of caution here: the newer field of epigenetics may yet have something to add to this discussion.

But psyche, to return to the main point, is not a purely biological phenomenon determined solely by genetics, and other wholly material factors such as diet, levels of physical activity and so forth. For one thing, mind has an inherent and irreducible social component and this is the reason solitary confinement or similar forms of deprivation of social stimulus are exceedingly cruel forms of punishment. Taking the still more extreme step of subjecting a victim to the fullest sensory deprivation becomes a terrifying form of torture and one that rapidly induces psychological breakdown. All of this is well-established and yet still the scientific tendency is treat minds just as highly sophisticated programmes running on the wetware of our brains. But the wetware unlike the hardware and software of this computer in front of me possesses both subjectivity and agency. Put another way around: the brain isn’t the conscious agent; you are. And it is equally true to say, as the great theoretical physicist Max Planck elegantly pointed out, that consciousness is absolutely foundational:

“I regard consciousness as fundamental. I regard matter as derivative from consciousness. We cannot get behind consciousness. Everything that we talk about, everything that we regard as existing, postulates consciousness.”⁸⁹

Planck is precisely right to say we cannot get behind consciousness. And by everything he quite literally means *everything* including of course the brain, although unfortunately we are very much in the bad habit of forgetting this glaring fact.

With developments in neurology and biochemistry, science becomes ever more accomplished at measuring and, again with increasing refinement, is able to alter brain function, and in doing so, to alter states of consciousness. Yet even while a scientist or doctor is manoeuvring a patient's mind, he remains deeply ignorant of how the change is achieved, and it is worth bearing in mind that methods for alteration of states of consciousness have been known and practiced throughout all cultures long before the advent of science.

To offer a hopefully useful analogy, when tackling problems of consciousness, our best scientists remain in the position of a motorist who lacks mechanical understanding. The steering wheel changes direction and two of pedals make the car go faster or slower – yet another pedal does something more peculiar again that we needn't dwell on here! Of course, our imaginary driver is able to use all these controls to manoeuvre the car – increasingly well with practice. Added to which he is free to lift the bonnet and look underneath, however, without essential knowledge of engineering or physics, it provides no eye-opening additional insights. Although such an analogy breaks down (if you'll pardon my pun), as every analogy here must, because as Planck says, when it comes to consciousness all our understanding of the world, all concepts, are contingent on it, including in this instance, the concept of mechanisms.

For these reasons we might quite reasonably ask which factors the psychiatrist ought to invest greater faith in: definite quantities or indefinite qualities? Measureable changes in electrical activity or a patient's reports of mood swings? Rates of blood flow or recognisable expressions of anxiety? Levels of dopamine or the unmistakable signs of the patient's sadness and cheerfulness?

More philosophically, we might wonder deeply into what awareness is. How do we navigate the myriad nooks and crannies of the world that our minds (in a very real sense) reconstruct – our perceptions informed by sensory inputs then reanimated to give the appearance of external reality – in order to inquire into the nature of both the world and the organs of perception and cognition when the precursory nature of awareness somehow remains tantalisingly beyond all reconstruction? When confronted by these questions science is struck dumb – it is dumbfounded. Obviously, so too is psychiatry.

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In the early 1960s, tired of signing his name on the skin of naked women, transforming them instantly into living sculptures (and what's not to like about that?), avant-garde Italian artist, Piero Manzoni turned his hand instead to canning his own excrement and selling his tins to galleries. In May 2007, a single tin of Manzoni's faeces was sold at Sotheby's for more than £100,000; more recently in Milan another tin of his crap fetched close to a quarter of a million! It would be madness, of course, to pay anything at all for bona fide excrement (and it remains uncertain whether Manzoni's labels reliably informed his customers of their literal contents), was it not for the fact that other customers were queuing up and happy to pay as much or more. Indeed, if anyone can ever be said to have had the Midas touch, then surely it was Manzoni; just a flick of his wrist miraculously elevating anything at all to the canonised ranks of high art – literally turning shit into gold.

But then the art world is an arena that excels in perversity and so pointing out its bourgeois pretensions and self-indulgent stupidities has itself become a cheap pursuit, while to the initiated it simply marks me out as another unenlightened philistine. What is blindingly obvious to the rest of us has instead become undetectable to the connoisseur, the banality obscured by fashion and their own self-gratification. In an era that is exceptionally cynical and commercial, it comes as no surprise therefore to find the art world reflecting and extolling works of commensurate cynicism and degeneracy. What is more interesting, however, is this contemporary notion that art has finally become anything done by an artist: for we might reasonably ask, does this same approach to validation apply across other disciplines too? For instance, if scientists collectively decide to believe in a particular method or theory, does this automatically make their shared belief somehow 'scientific'? I pose this as a serious question.

What is more important here is to understand and recognise how all intellectual fields face a similar risk of losing sight of what is inherently valuable, becoming seduced by collective self-deception and wrapped up in matters of collective self-importance. Peer pressure. Groupthink. The bandwagon effect. If you've never seen the footage before then I highly recommend watching Solomon Asch's 'conformity experiments' in which test subjects were found to consistently and repeatedly defer to false opinion and in blatant contradiction to what they could see perfectly clearly and right in front of their own eyes.*

* In 1951, Solomon Asch conducted his first conformity laboratory experiments inviting groups of male college students to participate in a simple "perceptual" task, which involved

In short, most people will “go along to get along” and this maxim applies across all levels of society and in all spheres of activities including the sciences. Moreover, it is very seldom the case that any scientific paradigm changes because its opponents are suddenly won over by a novel framework of ideas due to its intrinsic elegance or power, but rather as Max Planck put it most bluntly (at least as it is usually paraphrased): “Science progresses one funeral at a time”.⁹⁰

These problems are additionally compounded by reification: the mistaking of abstractions for solid aspects of reality; of confusing the map with the territory. Related to this is something William James once described as the “Psychologist’s fallacy”:

“The great snare of the psychologist is the confusion of his own standpoint with that of the mental fact about which he is making his report. I shall hereafter call this the ‘psychologist’s fallacy’ par excellence.”⁹¹

There are actually three ways of interpreting James’ statement here and each of these is equally applicable. The first and most general cautions against mistaking one’s personal perception and interpretation of an event as a perfectly accurate account – this strictly applies to all fields of objective research. The next is that it is easy to mistake another person’s experience and falsely imagine it is identical to your own. This ‘confusion of standpoints’ can cause you to believe you know why someone did what they did believing they are motivated in just the same way you are. Then finally, there is an error that applies in situations whenever you are involved in studying another person’s mental state (for whatever reason and not necessarily in a clinical setting) and you suppose that the subject is likewise critically aware of their own thoughts and actions. This is called ‘attribution of reflectiveness’ and it may occur for instance if you come across someone blocking your way once you then presume that they are fully aware of the

distinguishing between three lines labelled A,B and C to decide which matched the length of another comparator line on a different card. In reality, all but one of the participants was an actor, and the true focus of the study was how the remaining participant would react to the actors’ behaviour. Each participant was asked in turn to say aloud which line matched the length of that on the first card and seated such that the real participant always responded last.

In the control group, with no pressure to conform to actors, the error rate on the critical stimuli was less than 1%. In the actor condition also, the majority of participants’ responses remained correct (63.2%), but a sizable minority of responses conformed to the actors’ (incorrect) answer (36.8 percent). The responses revealed strong individual differences: 5% of participants were always swayed by the crowd and only 25% consistently defied majority opinion; the rest conforming on some trials. Overall, 75% of participants gave at least one incorrect answer out of the 12 critical trials. In his opinion regarding the study results, Asch put it this way: “That intelligent, well-meaning, young people are willing to call white black is a matter of concern.”

obstruction they have caused to your progress and are obviously being inconsiderate.

Besides the issues of groupthink and the fallacies outlined above, there is a related difficulty that arises whenever you are constrained by any systems of classification, and given how incredibly useful categories are (especially in the sciences), this is again hard to avoid. Whenever a system comes to be defined and accepted, the tendency will always be for adherents to look for and find examples that fit and support it; and if this means cherry-picking the facts then so be it. Within no time an entire discipline can spring up this way, as was the case of phrenology (a subject I shall come back to in a later chapter).

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George Bernard Shaw nattily remarked that “all professions are conspiracies against the laity”. In the same spirit, we might extend his concern adding that such conspiracies will tend to feign understanding, disguise ambiguity and perpetuate fallacies. The quip itself comes from Shaw’s play *The Doctor’s Dilemma*, and was most pointedly aimed toward the medical profession.[†] But then in defence of doctors, medicine as a discipline is arguably the science most plagued by vagueness; a nearly intractable problem given how symptoms of so many diseases can be easily muddled just because of their inherent similarities. Consider, for instance, the thousand and one ailments that all have “flu-like symptoms”.

In turn, patients are equally prone to vagueness when giving accounts of their own symptoms, in part because symptoms are often rather difficult to describe – just how do you distinguish the various feelings of pain, for instance. To make matters worse, human biology is already fiendishly complex. Textbooks provide only textbook examples: they show ideal anatomy, while real anatomies are seldom ideal and it is a surprisingly common occurrence for actual patients to have organs with structures or locations that are very markedly different.

[†] “[But] the effect of this state of things is to make the medical profession a conspiracy to hide its own shortcomings. No doubt the same may be said of all professions. They are all conspiracies against the laity; and I do not suggest that the medical conspiracy is either better or worse than the military conspiracy, the legal conspiracy, the sacerdotal conspiracy, the pedagogic conspiracy, the royal and aristocratic conspiracy, the literary and artistic conspiracy, and the innumerable industrial, commercial, and financial conspiracies, from the trade unions to the great exchanges, which make up the huge conflict which we call society.”

Taken from *The Doctor’s Dilemma* by George Bernard Shaw published by Penguin, 1946.

The unavoidable outcome of all this uncertainty and peculiarity is that medical professionals do not understand nearly half so much as those without medical training are given to believe – and, importantly, choose to believe. Because, as patients, not only do we seek clear diagnoses, but we look to medicine for sure-fire remedies, all of which encourages an inclusion in medical nomenclature of elaborate – and preferably Latinised labels – for the full gamut of our daily complaints. A complete taxonomy that catalogues and accounts for every combination of symptoms and one or two half-glimpsed maladies. All of which brings us to the consideration of ‘syndromes’ and ‘disorders’.

When your doctor diagnoses abc-itis, then presuming the diagnosis is a correct one, it is very certain that you have inflammation of your abc. Diagnoses of thousands of complaints and diseases are absolutely clear-cut like this. However, if told you are suffering from xyz syndrome, it may mean instead that you are presenting a cluster of symptoms which are recognised to occur in a specific combination; a grouping that crops up often enough to have acquired its label ‘xyz syndrome’, rather than a disease with a well-established or single underlying cause. In short, the term ‘syndrome’ will sometimes hide a lot more than it reveals.

Whenever patterns of symptoms have been rolled together and labelled for the sake of convenience under a single catch-all name, here is the shorthand for saying we recognise the signs, and though can’t tell you the cause and as yet remain unable to recommend a cure, we are working on it! And if the shorthand was unavailable, then instead the clinician would have to shrug their shoulders and usher you away, which, given how patients usually have a strong preference for receiving (at the very least) a name for the cause of their suffering, this more customary exchange allows both parties to leave the consultation far happier. We are often content therefore to indulge our medical (and other experts) in maintaining many of these Shavian “conspiracies” against us.

Returning to consider psychiatry, it is necessary to appreciate that all but the rarest of psychiatric diagnoses fall under the category of ‘disorders’ rather than diseases – and that the underlying aetiology in many cases is not just unknown but more or less unconsidered. It follows that historically, the development of diagnosis and treatments has very often had recourse to little more than educated hunches and trial-and-error testing on (all-too often) unwilling patients. As former National Institute of Mental Health (NIMH) Director, Thomas Insel, pointed out:

“While DSM [*Diagnostic and Statistical Manual of Mental Disorders*] has been described as a “Bible” for the field, it is, at best, a dictionary, creating a set of labels and defining each. The strength of each

of the editions of DSM has been ‘reliability’ – each edition has ensured that clinicians use the same terms in the same ways. The weakness is its lack of validity. Unlike our definitions of ischemic heart disease, lymphoma, or AIDS, the DSM diagnoses are based on a consensus about clusters of clinical symptoms, not any objective laboratory measure. In the rest of medicine, this would be equivalent to creating diagnostic systems based on the nature of chest pain or the quality of fever. Indeed, symptom-based diagnosis, once common in other areas of medicine, has been largely replaced in the past half century as we have understood that symptoms alone rarely indicate the best choice of treatment. Patients with mental disorders deserve better.”⁹²

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Psychiatrist: Have you ever heard of the old saying “a rolling stone gathers no moss?”

Patient: Yeah.

Psychiatrist: Does that mean something to you?

Patient: Uh... it’s the same as “don’t wash your dirty underwear in public.”

Psychiatrist: I’m not sure I understand what you mean.

Patient: [*smiling*] I’m smarter than him, ain’t I? [*laughs*] Well, that sort of has always meant, is, uh, it’s hard for something to grow on something that’s moving.

If you’ve seen the film *One Flew Over the Cuckoo’s Nest*^{*} then you may recognise the dialogue above. It comes when the central protagonist Randle McMurphy (brilliantly cast as the young Jack Nicholson) is subjected to a follow-up evaluation carried out by a team of three psychiatrists trying to determine whether or not he is fit enough to be discharged.

Released only a couple of years after Rosenhan and his ‘pseudopatients’ had sneaked under the diagnostic radar, and like Rosenhan and his associates, but for reasons which we need not go into, in the film

^{*} The film (released 1975) was the adaptation of a novel of the same name written by Ken Kesey and published more than a decade earlier in 1962. Kesey based his story on experiences he had had working late shifts as an orderly at a mental health institution, as well as his personal experiences of using psychedelics.

McMurphy is an apparently sane inmate plunged into an infuriating and intractable catch-22 situation.

Now the question posed to McMurphy appears an odd one, yet questions of precisely this kind, commonly based around well known proverbs, were once used routinely for such diagnostic purposes. Just as with the better known Rorschach inkblot test, there is no single ‘correct’ answer, but there were built-in ways a patient might fail such an examination. In this case, responses considered too literal were taken as evidence of pathology on the grounds that they show an inability for the patient to think in ways other than concretely. Simply re-expressing the proverb in order to precisely account for how a rolling rock is an inhospitable environment for vegetation is therefore an ill-advised response.

Indeed, McMurphy’s second answer conclusively fails the test, whereas his first stab at saying something deliberately obtuse merely confuses the three doctors. Of course, in the film it is McMurphy’s deeply rebellious nature and truculent behaviour, rather than the results of tests of this sort that ultimately seal his fate – and again there is no need for details here, but merely to add that whilst the ramifications of Rosenhan’s experiment challenged opinions within academic and professional circles, the multiple Academy Award-winning *One Flew Over the Cuckoo’s Nest*, reached out to a far wider audience and helped to change the public perception of how we care for the mentally ill. Moreover, Rosenhan’s criticisms had been restrained, whereas the film – like the book – went straight for the jugular.

In the wake of Rosenhan’s experiment (1972) and Kesey’s fictional portrayal of life inside the asylum (published in 1962, released as a film in 1975), the ‘anti-psychiatry’ movement (a term coined by one of its most prominent advocates, South African psychiatrist David Cooper in 1967) soon began to gain political traction. With the legitimacy of mainstream psychiatry subject to sustained attack and the very concept of mental illness suddenly coming under scrutiny, in the midst of this crisis, the American Psychiatric Association (APA) made a decision to release its new manual: a fully updated directory that would authoritatively categorise and thus authenticate all forms of ‘mental disorder’.

The *Diagnostic and Statistical Manual of Mental Disorders* – soon after known as ‘the bible of psychiatry’ – is now in its fifth edition, *DSM-V*, and with each updated edition it has become an ever weightier tome, expanding at a faster rate than almost any other technical manual in history. And this snowballing really started in 1968 when the revised second edition introduced an additional seventy-six ‘disorders’, thereby expanding the original 1952 catalogue by more than 70 percent. When revised again in

1980, the *DSM-III* added a further 83 diagnostic categories; its list growing from 182 (*DSM-II*) to 265 (*DSM-III*) – this represents a 150 percent increase on the original. Although less conspicuously, the same trend continued when *DSM-IV* was released in 1994, which catalogues a total of 410 disorders – almost a three-fold increase on the original.

James Davies is a Reader in Social Anthropology and Mental Health at the University of Roehampton, a psychotherapist, and co-founder of the Council for Evidence Based Psychiatry. In trying to understand how the present manual had come to be constructed he decided to speak to the many of authors directly, and so in May 2012 he took a trip to Princeton. There he was welcomed by Dr Robert Spitzer who had chaired the core team of nine people who put together the seminal third edition of the DSM, which amongst other things established the modern diagnostic system still broadly in operation. It was this edition of the manual that had introduced such household-name disorders as Borderline Personality Disorder and Post-Traumatic Stress Disorder. For these reasons, Spitzer is widely regarded as the most influential psychiatrist of the last century.

Davies began his interview by asking Spitzer what was the rationale behind his significant expansion in number of disorders in the *DSM-III* edition and Spitzer told him:

“The disorders we included weren’t really new to the field. They were mainly diagnoses that clinicians used in practice but which weren’t recognised by the DSM or the ICD.”⁹³

Davies then pressed further and asked how many of these disorders had been discovered in a biological sense. In reply Spitzer reminded him that “there are only a handful of mental disorders... known to have a clear biological cause” adding that these organic disorders like epilepsy, Alzheimer’s and Huntington’s are “few and far between”; conceding that no biological markers have been identified for any of the remaining disorders in DSM. With this established, Davies then asked how the DSM taskforce did determine which new disorders to include. Spitzer explained:

“I guess our general principle was that if a large enough number of clinicians felt that a diagnostic concept was important in their work, then we were likely to add it as a new category. That was essentially it. It became a question of how much consensus there was to recognise and include a particular disorder.”⁹⁴

Davies also spoke to Dr Theodore Millon, another of the leading lights on Spitzer’s taskforce, to ask more about the construction of their manual. Millon told him:

“There was little systematic research, and much of the research that existed was really a hodgepodge – scattered, inconsistent, and

ambiguous. I think the majority of us recognised that the amount of good, solid science upon which we were making our decisions was pretty modest.”⁹⁵

Afterwards, Davies had put Millon’s points directly to Spitzer, who responded:

“Well it’s true that for many of the disorders that were added, there wasn’t a tremendous amount of research, and certainly there wasn’t research on the particular way that we defined these disorders... It is certainly true that the amount of research validating data on most psychiatric disorders is very limited indeed.”

Adding that:

“There are very few disorders whose definition was a result of specific research data.”⁹⁶

On the basis of Spitzer’s surprising admissions, Davies then tracked down other members of the same DSM team. For instance, he spoke on the phone to Professor Donald Klein, another leader on the taskforce, who said:

“We thrashed it out basically. We had a three-hour argument... If people [at the meeting] were still undecided the matter would be eventually decided by a vote.”⁹⁷

And Davies finally decided to check what he was hearing from these members by looking through the minutes of taskforce meetings which are still held in the archives, discovering that voting did indeed take place to make such determinations. Renee Garfinkel, a psychologist who participated in two DSM advisory subcommittees, told Davies more bluntly:

“You must understand what I saw happening in these committees wasn’t scientific – it more resembled a group of friends trying to decide where they want to go for dinner.”

She then cited the following concrete example of how one meeting had proceeded:

“As the conversation went on, to my great astonishment one Taskforce member suddenly piped up, ‘Oh no, no, we can’t include that behaviour as a symptom, because *I* do that!’ And so it was decided that that behaviour would not be included because, presumably, if someone on the Taskforce does it, it must be perfectly normal.”⁹⁸

Although comprised of a rather small team, *DSM-III* has had far-flung and long-lasting influence on psychiatry. Spitzer told Davies:

“Our team was certainly not typical of the psychiatry community, and that was one of the major arguments against *DSM-III*: it allowed a small group with a particular viewpoint to take over psychiatry and change it in a fundamental way.

“What did I think of that charge? Well, it was absolutely true! It was a revolution, that’s what it was. We took over because we had the power.”⁹⁹

In any case, reliance upon a single definitive and encyclopaedic work of this kind presents a great many hazards. As Allen Frances, the former chairman of the psychiatry department at Duke University School of Medicine who led the taskforce that produced *DSM-IV* has publicly admitted:

“At its annual meeting this week [in May 2012], the American Psychiatric Association did two wonderful things: it rejected one reckless proposal that would have exposed nonpsychotic children to unnecessary and dangerous antipsychotic medication and another that would have turned the existential worries and sadness of everyday life into an alleged mental disorder.

“But the association is still proceeding with other suggestions that could potentially expand the boundaries of psychiatry to define as mentally ill tens of millions of people now considered normal.”

In the same op-ed published by the *New York Times*, Frances continued:

“Until now, the American Psychiatric Association seemed the entity best equipped to monitor the diagnostic system. Unfortunately, this is no longer true. D.S.M.-5 promises to be a disaster — even after the changes approved this week, it will introduce many new and unproven diagnoses that will medicalize normality and result in a glut of unnecessary and harmful drug prescription. The association has been largely deaf to the widespread criticism of D.S.M.-5, stubbornly refusing to subject the proposals to independent scientific review.

“Many critics assume unfairly that D.S.M.-5 is shilling for drug companies. This is not true. The mistakes are rather the result of an intellectual conflict of interest; experts always overvalue their pet area and want to expand its purview, until the point that everyday problems come to be mislabeled as mental disorders. Arrogance, secretiveness, passive governance and administrative disorganization have also played a role.

“New diagnoses in psychiatry can be far more dangerous than new drugs.”¹⁰⁰

In an earlier interview speaking with *Wired* magazine, Frances – credited as “the guy who wrote the book on mental illness” – made an even more startling confession, telling Gary Greenberg, who is himself a practicing psychotherapist:

“[T]here is no definition of a mental disorder. It’s bullshit. I mean, you just can’t define it... these concepts are virtually impossible to define precisely with bright lines at the boundaries.”¹⁰¹

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The entry of psychiatry into the province of science is a comparatively recent one. Indeed, in the ancient world and times prior to the Enlightenment, some severe forms of mental illness would most likely have appeared the work of demons. And if a person was believed to be possessed, then religious protocols, informed by the opinion that their soul was in existential peril and without intervention would suffer eternal damnation, called for extremely drastic measures.

Indeed, the very word psychiatry derives (as mentioned above) from the Greek *psukhē* for ‘breath, life, soul’ (*Psyche* also the Greek goddess of the Soul), though in accordance to the strict biomedical model of mind, psychiatry today takes no interest in these ‘spiritual’ matters. Nevertheless, the interventions of psychiatry to save a person’s mind have often been as drastic, and, if anything, crueller than those inflicted throughout prior ages. The dark arts of exorcism or trepanning superseded and upgraded by the aid of technological means: the unfortunate victims, at first, subjected to induced convulsions by the administration of an overdose of insulin, then more latterly by means of high voltage electric shocks passed between the temples (electroconvulsive therapy or ECT). Still more invasive treatments were also introduced throughout the twentieth century that excised a patient’s demons by means of irreversible surgical mutilation.

When we retrace the short but terrible history of psychiatry, it is rather easy to overlook how many of these barbaric pseudoscientific treatments were once lauded as state-of-the-art. As recently as 1949, Portuguese neurologist António Egas Moniz actually shared the Nobel Prize for Medicine for his invention of a routine procedure for carrying out lobotomies; his original procedure refined by Moniz’s mentor, American neurologist Walter Freeman, who used an ice-pick hammered through the eye socket to sever the frontal lobes. Such horrific procedures were frequently performed without anaesthetic and led to the destruction of the minds – although I am tempted to say souls – of tens of thousands of people; the majority of whom were women (also predominant amongst victims were homosexuals). This use of so-called ‘psychosurgery’ was

phased out gradually but lobotomies continued to be performed into the 1970s and even later.*

Today it is also an open, if dirty, secret that throughout modern times, psychiatry has played a pivotal role in the coercion of political opponents of the state. Many authoritarian regimes – the former Soviet Union the most frequently cited – operating their mental health systems as a highly efficient means for cracking down on dissidents (who more or less by definition failed to think ‘normally’). The abuse of psychiatry by western governments is less known, however, at the height of the Cold War, the CIA carried out a whole range of experiments under Sidney Gottlieb’s MKUltra mind control programme.

One of the MKUltra researchers was Ewan Cameron, the then-President of the American Psychiatric Association, who went so far as to attempt to entirely erase his patients’ existing memories by means of massive doses of psychotropics and ECT in attempts to reprogramme the victim’s psyche from scratch. Decades later, some the survivors won financial rewards as compensation for their part in this secret regime of state-sponsored torture.† Moreover, this very close collaboration between military intelligence agencies and the APA has continued and during the “War on Terror” a number of ‘operational psychologists’ are now known to have worked on CIA’s “enhanced interrogation” torture programme.¹⁰²

Of course, state coercion is not always to control political enemies. Minorities who have suffered discrimination for different reasons have likewise fallen victim to psychiatric abuse. In fact, prior to 1973, when homosexuality was designated a disease and placed on the list of ‘mental disorders’ according to the DSM ‘bible’, otherwise healthy gay men were forcibly subjected to treatments involving aversion ‘therapies’ that included

* In fact, the practice continued in France into the 1980s, whereas, perhaps surprisingly, it had been banned already on moral grounds by 1950 in the Soviet Union.

† The Montreal Experiments were carried out on patients suffering from schizophrenia that used sensory deprivation, ECT and drugs (included drug induced coma) combined with “psychic driving” which was an early form of brainwashing involving pre-recorded audio tapes played non-stop for days with up to half a million repetitions altogether. One of Cameron’s victims was Jean Steel, whose daughter Alison (only four and a half at the time of her mother’s treatment) told CBC News in an interview: “She was never able to really function as a healthy human being because of what they did to her.”

From an article titled “Federal government quietly compensates daughter of brainwashing experiments victim” written by Elizabeth Thompson, published by *CBC News* on October 26, 2017.

Read more here: www.cbc.ca/news/politics/cia-brainwashing-allanmemorial-mentalhealth-1.4373590

electric shock to the genitals and nausea-inducing drugs administered simultaneously with the presentation of homoerotic stimuli. In the Anthony Burgess novel *Clockwork Orange* (1962) this was called “the Ludovico Technique”.

Thus historically, the insane subject – *i.e.*, anyone who is diagnosed as mentally ill – has been uniquely deprived their basic human rights. Downgraded in social status and transformed *de facto* into a kind of second class human. Even today, when clinical procedures are kinder, patients are routinely subjected to many involuntary treatments including the long-term administration of powerful drugs and ECT.

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Leaving aside the moral questions, this terrible history also casts a shadow over the whole science underpinning these treatments. What do we really know about the efficacy of ECT today that we didn’t know in the middle of the last century?

Or consider the now familiar labelling of drugs as ‘antipsychotic’ and ‘antidepressant’: terms that are wholly misleading and deeply unscientific, since the implication is that these are antidotes much like antibiotics, acting to cure specific disease by targeting the underlying pathology. But this is entirely false, and the reason it is misleading can be best understood by once again reviewing the history of psychiatry.

Firstly, it is important to recognise that none of the first generation of psychiatric drugs was ever developed for the purpose either of alleviating neurological dysfunction or enhancing brain activity. Chlorpromazine (CPZ) – marketed under the brand names *Thorazine* and *Largactil* – the earliest of these ‘antipsychotics’ had previously been administered as an antihistamine to relieve shock in patients undergoing surgery, although it was in fact derived from a family of drugs called phenothiazines originally used as antimalarials and to combat parasitic worm infestations.¹⁰³

It had been noticed, however, that many of the patients who received *Thorazine* would afterwards manifest mood changes and in particular experience a deadening in their emotional response to the external world while otherwise retaining full consciousness. In short, the drug happened to reproduce the effects observed in patients who underwent a surgical lobotomy (which in 1950 was still considered a highly effective treatment for psychosis of course).

On the other hand, ‘antidepressants’ emerged as a by-product of research into tuberculosis, after it was noticed that some patients in the trials became more roused following their medication. Only in the aftermath of

studies carried during in the 1960s, did science finally begin to understand how these pharmaceuticals were having direct effects within the brains of patients, and specifically on processes involving, respectively, the neurotransmitters dopamine and serotonin. In patients suffering psychosis there was found to be an excess of the former, whereas those suffering depression showed an apparent deficit of the latter. The conclusion followed that the drugs must have been acting to correct an existing imbalance, very much as insulin does in the case of diabetes.

So the conclusions from these early studies were drawn wholly from understanding the mechanism of action of the drugs. Since the antipsychotics were found to block dopamine receptors, the hypothesis formed that the condition of psychosis must be due to an excess of dopamine activity; likewise, since antidepressants held serotonin longer in the synaptic cleft (the space that separates and forms a junction between neurons) boosting the activity, it followed that depression was a result of low serotonin activity. However, this reasoning turns out to be inherently flawed, and as subsequent research had quickly revealed, actual differences in brain chemistry detected in patients were a feature not of the underlying pathology associated with their disorder, but instead a direct effect of the medications used to treat them. Indeed for decades, clued-up pharmacologists and many psychiatric practitioners have regarded the theory of ‘chemical imbalance’ not as a scientific model, but nothing more than a metaphor: a means of explaining the use of the treatment to patients as well as an encouragement.

This is what Ronald W. Pies, Editor-in Chief Emeritus of *Psychiatric Times*, wrote a decade ago about the ‘theory of chemical imbalance’:

“I am not one who easily loses his temper, but I confess to experiencing markedly increased limbic activity whenever I hear someone proclaim, ‘Psychiatrists think all mental disorders are due to a chemical imbalance!’ In the past 30 years, I don’t believe I have ever heard a knowledgeable, well-trained psychiatrist make such a preposterous claim, except perhaps to mock it. On the other hand, the ‘chemical imbalance’ trope has been tossed around a great deal by opponents of psychiatry, who mendaciously attribute the phrase to psychiatrists themselves. And, yes—the ‘chemical imbalance’ image has been vigorously promoted by some pharmaceutical companies, often to the detriment of our patients’ understanding. In truth, the ‘chemical imbalance’ notion was always a kind of urban legend – never a theory seriously propounded by well-informed psychiatrists.”¹⁰⁴

Today we have become habituated to the routine ‘medication’ of our youth with children as young as six years old being administered tranquilisers relabelled as ‘antidepressants’ and ‘antipsychotics’ that are intended ‘to cure’ dysfunctions like “oppositional defiant disorder”. These considerations bring us to the broader issue of what constitutes ‘mental health’, and by extension, what it is to be ‘normal’.

Moreover, it hardly needs saying that increased diagnosis and prescription of medication of every variety is demanded by the profit motive of the pharmaceutical industry, so for now, I wish merely to add that we have no demonstrable proof that the identified rise in mental illness is *wholly* attributable to a commensurate rise in mental illness rather than an artefact bound up with the medicalisation of the human condition. However, given that mental health is expressly bound up with, and to a great extent defined by a person’s feelings of wellness, attempts to downgrade or dismiss patient testimony or to overrule personal accounts of psychological distress, declaring some parts of it illusory, are not only callous but another kind of category mistake. Whatever terminology we apply it is evident that more people than ever are suffering forms of psychological distress. I shall consider this at greater length in the final section.

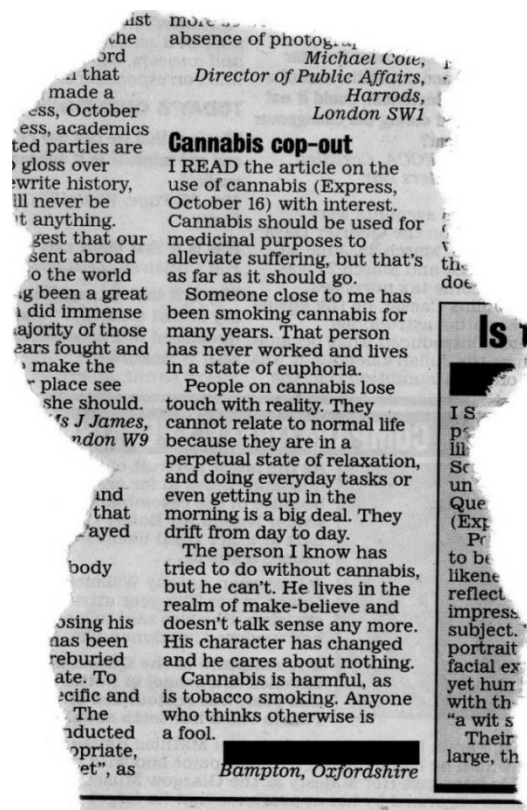
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Before continuing, I would like to introduce a genuinely serendipitous finding – a newspaper clipping torn out by someone I have never met, and left inside the cover of a second-hand book for reasons I shall never know. I cannot even reference this item because I have no idea in which newspaper it was originally printed, and so will simply label it Exhibit A (the author’s name is also redacted out of courtesy): “Someone close to me has been smoking cannabis for many years,” the author tells us, adding “That person has never worked and lives in a state of euphoria.”

From these preliminary remarks it is actually hard to tell whether the writer is issuing a caution or an endorsement for pot smoking – or at least it would be hard to tell, were it not for our informed social prejudices, and since the presumed social norm is that work is always good and drugs (meaning illegal ones) unconditionally bad. Suppose, however, this surmised state of euphoria had been ascribed to quite different causes. Let’s say, for example, that the person in question was in love, or that s/he’d found God, or alternatively that s/he had been proscribed a legally sanctioned medicine lifting them from a prior state of depression and anxiety, and this lasting euphoria was the outcome. Would this not be a good thing? But the next part of the letter is perhaps the most interesting

part. It begins: "People on cannabis lose touch with reality. They cannot relate to normal life because they are in a perpetual state of relaxation, and doing everyday tasks or even getting up in the morning is a big deal. They drift from day to day."

At this point, I ought to make a personal confession. The person described here is me – not me in all actuality, but another me, another drifter. It is me and a considerable number of my closest friends, who have



spent a great many years smoking pot and "losing touch with reality". Doubtless, it will describe the lives of some of the people who happen to read this too. Personally, I gave up smoking pot years ago for health reasons, and I do not advise others to follow my lead either way. Undeniably, there is some truth within the letter, but there is also a great deal of misunderstanding.

Do pot smokers live in realms of make-believe? Do we care about nothing? Interestingly, we could just as easily ask the same question of those proscribed SSRI (selective serotonin reuptake inhibitor)

antidepressants like *Prozac*, and all of the other legally sanctioned mind-altering substances. Leaving aside social acceptance, which surely owes much to the profit motive, what other distinction can we make here once we dismiss the false hypothesis of redressing chemical imbalance?

Of course, none of us ever knows what might otherwise have been had they not done such and such. The road not taken is forever unknown.

The only fair question therefore must involve regret, and I confess that I do not regret my decision to smoke pot, nor do I know any friends who have told me they regret their own choice in this regard. The important point I wish to emphasise is that legal determinations do not automatically establish what is to our better health and well-being, and nor do they determine what is right and wrong in a moral sense. Indeed, who dares to tell another adult how they ought to think, and equally who dares to say how one may or may not alter their consciousness by whatever means they see fit? If we are not entirely free to think as we choose, then as creatures so fully submerged in our thoughts, we can hardly be said to be free at all.

*

III Driven crazy?

“People who experience themselves as automata, as robots, as bits of machinery, or even as animals... are rightly regarded as crazy. Yet why do we not regard a theory that seeks to transmute persons into automata or animals as equally crazy?”

— R. D. Laing[†]

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Type the words ‘mental health crisis’ into any search engine and you will find more than a million pages with links to reports from Australia, Canada, Europe and America all presenting stark evidence that the western world is in the grip of what in other contexts would certainly be called a pandemic: a plague of disease that is horribly debilitating, too often fatal, and affecting nearly one in ten of our population: men and women, children and the old alike. According to the latest surveys in any given week in England, 1 in 6 people (15%) report experiencing some kind of mental health problem. In just twenty years (1993 to 2014) the number of people experiencing mental health problems went up by 20%, while the number reporting severe mental health symptoms in any given week has risen from 7% in 1993 to over 9% in 2014.¹⁰⁵ Indeed, this issue has now become such a grave one that it receives serious attention in political debates. Still more positively, ways to deal with it are today widely discussed, and the stigma associated with mental illness is at last aired and challenged across the mainstream. But one question very seldom addressed is this: what has generated so much suffering and distress in the first place? What is the cause of this now admitted mental health crisis?

Since the issue is obviously an extremely complex one, I propose that we break it down into three parts that can be abbreviated as three A’s:

[†] Extract from *The Divided Self: An Existential Study in Sanity and Madness* by R. D. Laing, first published 1959/60; Part 1, Chapter 1, “The Existential-Phenomenological Foundations for A Science of Persons”.

access, accountancy and aetiology. The most simplistic assumption we could make would be that our current crisis is a consequence of just one of these three factors. So, for instance, if the rise in case numbers is a purely matter of easier access to treatment, then it follows from our presumption that there is no underlying increase, but that sufferers of mental health problems are simply more able and willing to seek professional help. If true then ‘the crisis’ has always existed but previously the greatest number simply suffered in silence.

Alternatively, we might presume that the rise is a perceived one and its origin is entirely due to changes in accountancy, in which instance states of mind that in the past were undifferentiated from the norm have gradually been medicalised as I have discussed above. Whereas improved access to care is a laudable good, by contrast, if accountancy is to blame, then society is increasingly in the business of treating the sane as if they were sick. Reclassifying normality as abnormality would mean psychiatry has helped create the illusion of an epidemic, although it is important to understand that it does not follow that the suffering itself is illusory, only that our tendency is to see that suffering as psychiatric in nature.

Alternatively again, we might instead conclude that the rise in cases is real and unrelated to either ease of access or what has been described as “the medicalisation of misery”. In this case, we are necessarily drawn into the matter of aetiology and must extend the investigation to search for underlying external causes – causes that to some degree can be found to account for a genuine rise in mental illness.

Certainly these aren’t mutually exclusive considerations, but are these three A’s exhaustive? Broadly considered yes, however, a breakdown of this kind has indistinct fuzzy edges and all that is certain is a combination, or potentially even a synergy, operates between the three. Indeed, given that mental health is expressly bound up with and unavoidably defined by feelings of wellness, no psychiatric diagnosis can ever be scientifically objective in the strictest sense. Setting aside therefore the matter of access to better healthcare, which all else being equal, is wholly positive, my considerations in the remainder of this chapter are to disentangle the other strands.

In one sense the mental health crisis is undeniably real. More and more people are suffering forms of psychological distress and in no way do I mean to suggest otherwise. There is an urgent need therefore to get to the bottom of what is causing this crisis.

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The evidence of a connection between what happens in childhood and the effects on later behaviour is very strong indeed. This is unsurprising of course. It is perhaps self-evident that mental illness grows out of trauma and hunger, which are the bitter fruits of abuse, neglect and abandonment, both physical and psychological. But to explain the ongoing rise (affecting adults as much as children) we would be hard pressed to attribute much cause to changes in parenting styles given how the rise is so steep with a 20% increase over just two decades – very definitely not if Philip Larkin is to be believed.*

To be frank, parents have always “fucked you up,” as for that matter have our siblings, our peers, and undoubtedly, many of our fucked-up teachers. Of course, one significant change during recent decades is that parents spend more time working, thus leaving children with childminders or, if money is tight, with the keys to an empty house. Studies again unsurprisingly show that latchkey kids are more susceptible to behavioural problems.

A related issue affecting early development is the omnipresence of new technologies. Once the pacifier was television, but this single room distraction has been slowly superseded by the introduction of computer games, *iphones*, etc. There is a widespread dependency on these types of electronic devices, and so without any immediate control group, the psychological damage caused by habitually engaging in such virtual interactions will be extremely difficult to gauge.

Of course, television has been used as an infant pacifier ever since I can remember. No doubt it once pacified me too. But television itself has been radically transformed. It has become louder, brighter, more intense due to faster and slicker editing, and it is surely reasonable to presume, since the sole purpose is to grab attention and transfix its audience, more and more intoxicating. Viewing TV today is a fundamentally altered experience compared to viewing it decades ago. Could any of this be having a knock-on effect with regards to attention span, cognitive skills, or, more importantly, our sense of self? This is a highly complex issue that I shall not delve into here – in the addendum I do however consider the psychological and societal impacts of advertising (I also dedicate a later chapter to the role advertising plays in our society).

What is known for certain is this: that other than in exceptional instances when the origin of severe mental illness can be directly traced to an underlying physical disease (syphilis is perhaps the best known

* Larkin’s celebrated poem *This be the Verse* which begins with the lines “They fuck you up, your Mum and Dad/ They may not mean to, but they do” was written and first published in 1971.

example), the usual trigger for mental health problems is found to be either sudden or prolonged trauma – very often although not exclusively childhood trauma – and the development of the vast majority of mental disorders occurs therefore as a pathological but defensive response to trauma.

*

Following Freud, roots of mental illness came to be thought buried deep within the patient's unconscious. For this reason, Freud and the psychoanalysts pioneered their 'talking cure': conversational techniques that probed deep into the psyche. Various schools arose. They inquired into dreams, biography, sexuality, family relations or even spirituality, feeling down for the lost cause of their patient's distress. With the psychical wound discovered, it might now be cleansed and disinfected by means of further introspection. Healing came about as nature then took its course. Here the patient plays a central role in their own treatment.

R. D. Laing dignified his patients in another way. Refraining from excessive presumptions built on the unsteady and evolving theories of the unconscious – the Oedipal Complex, Penis Envy, and other fabulous chimera detected by Freud and his followers – Laing gave his patients the common respect the rest of us outside the padded walls of the asylum receive from our peers. No matter how superficially crazy, he adjudged every patient's account of his or her lived experience as entirely valid in the existential sense as he would the truthful account of any sane human being, including his own. This exceedingly hazardous (some might say reckless) approach to a patient's illness did, however, produce remarkable outcomes – at least to begin with – as many of those he treated were speedily recovered and declared fit enough to return home.

However, Laing's successes seldom lasted long, and predictably within a just few months, more than half would drift back into his care. Witnessing this cyclical pattern of decline had an interesting effect on Laing, for it caused him to reach a new and shocking conclusion. With no less conviction than before, he let it be known that social relationships, and especially ones within families, were the major triggers of his patients' relapse. This was an audacious diagnosis which, unsurprisingly, met with general hostility, as the accused – not only the families but society as a whole – felt immediately affronted by the charge that they were *fons et origo* of the patient's sickness.

Undaunted, Laing took his ideas to their logical extreme. He allowed his patients to play out their madness to the full, believing that for a

lasting cure the condition must be allowed to run its course – and who can honestly say if and when madness is fully cured? Unconstrained by the boundaries of orthodox medicine, Laing and his fellow therapists would enter perilously into the worlds of their patients. Laing himself, by all accounts, went somewhat bonkers in the process, which is hardly surprising, since whatever madness is, it is most certainly contagious (and after all, this in a nutshell is really Laing’s central point).[†]

As his conduct became morally questionable – sexual affairs with his patients creating troubles within his own family – his professional reputation was understandably tarnished and alongside this reputational decline, his ideas went out of fashion. In spite of this, Laing’s legacy persists in important ways. The more dignified respect for sufferers of mental illness (who even today are sadly denied full human rights equivalence) owes a great deal to Laing’s daring intellectual courage and integrity. On the other hand, the true and lasting value of Laing’s work has been both forgotten and dismissed. For when he tells us that insanity is “a perfectly rational adjustment to an insane world”¹⁰⁶, then given the rise of today’s ‘mental health crisis’, our mental health professionals and society more broadly needs to listen up.

In a world that’s ever slicker, faster, and as human contact becomes more distant and superficial, increasingly artificial indeed, the modern self (perhaps that should read ‘postmodern’) becomes more atomised and systematised than in Laing’s time (Laing died three decades ago). Cajoled to sacrifice ever more individuality for the sake of

[†] One of Laing’s great interests was in the “double bind” situation, which he came to diagnose as the root cause for most of the madness around him. Laing had adopted the idea of the “double bind” from anthropologist Gregory Bateson. Bateson, in turn, had traced the notion back to a semi-autobiographical novel by Victorian Samuel Butler, titled *The Way of All Flesh*. But Butler had only described the condition and not named it, whereas Bateson had rediscovered it and labelled it as an important cause of schizophrenia.

Hearing from a parent, for instance, that “I love you” whilst seeing no expression which supported the evidence of that expressed love, presented the patient with a “double-bind” situation. This is just one example, but Laing had witnessed this and many other kinds of “paradoxical communication” in his patients’ relationships to their nearest and dearest. He eventually came to believe, along with Bateson, that being caught in such a “double-bind” situation was existentially damaging and very commonly, therefore, psychologically crippling.

In recognising this, Laing had undoubtedly discovered a fragment of the truth, and it is a shame that he then over-intellectualises the issue, as intellectuals are wont to do. Replace “double bind” with “mind game” or “gaslighting” and his case becomes much clearer. If people, especially those you are closest to you and those you need to trust, constantly undermine your view of yourself and of your relationship to others, then the seeds of destruction are being sown. But to my mind, such details of Laing’s outlook are nothing like as interesting and illuminating as the general thrust of what he had to say about our society.

conformity, convenience, security and status; our given *raison d'être* is to engorge our material well-being, either for its own pleasure or, more egotistically, with shows of conspicuous consumption. We are, as T.S. Eliot put it so elegantly, “distracted from distraction by distraction/ filled with fancies and empty of meaning”.[†]

*

“The normal process of life contains moments as bad as any of those which insane melancholy is filled with, moments in which radical evil gets its innings and takes its solid turn. The lunatic’s visions of horror are all drawn from the material of daily fact. Our civilization is founded on the shambles, and every individual existence goes out in a lonely spasm of helpless agony.”*¹⁰⁷

These are the grim observations of William James, another pioneer of the field of psychology, who is here trying to get to grips with “the unpleasant task of hearing what the sick souls, as we may call them in contrast to the healthy-minded, have to say of the secrets of their prison-house, their own peculiar form of consciousness”. James’ vocabulary is remarkably direct and unambiguous, so allow me to very briefly skim the thesis of what he saw as the underlying cause of madness, sticking closely to his original terminology wherever possible.

Their “morbid-minded way,” James reluctantly concedes, should not be too readily dismissed. “With their grubbing in rat-holes instead of living in the light; with their manufacture of fears, and preoccupation with every unwholesome kind of misery...” it may appear to the “healthy-minded” as “unmanly and diseased,” but, on the other hand, “living simply in the light of good,” although “splendid as long as it will work,” involves us in a partial denial of reality which “breaks down impotently as soon as melancholy comes”. Furthermore, says James:

[†] From the first of T.S. Eliot’s *Four Quartets* titled *Burnt Norton*.

* This passage continues: “If you protest, my friend, wait till you arrive there yourself! To believe in the carnivorous reptiles of geologic times is hard for our imagination—they seem too much like mere museum specimens. Yet there is no tooth in any one of those museum-skulls that did not daily through long years of the foretime hold fast to the body struggling in despair of some fated living victim. Forms of horror just as dreadful to their victims, if on a smaller spatial scale, fill the world about us to-day. Here on our very hearths and in our gardens the infernal cat plays with the panting mouse, or holds the hot bird fluttering in her jaws. Crocodiles and rattlesnakes and pythons are at this moment vessels of life as real as we are; their loathsome existence fills every minute of every day that drags its length along; and whenever they or other wild beasts clutch their living prey, the deadly horror which an agitated melancholiac feels is the literally right reaction on the situation.”

“... there is no doubt that healthy-mindedness is inadequate as a philosophical doctrine, because the evil facts which it refuses positively to account for are a genuine portion of reality; and they may after all be the best key to life’s significance, and possibly the only openers of our eyes to the deepest levels of truth.”

With the advent of modern comforts and our immersive condition of historically unprecedented safety and security it can appear that those of us born in the wealthiest regions of the world have little reason to grumble, certainly when compared to the conditions of previous generations. Indeed for anyone in Britain born into the working class or above, the famous words of Tory Prime Minister Harold Macmillan that “we’ve never had it so good” do mostly still apply. Studies have shown, of course, that social equality is far more closely correlated to overall levels of happiness than absolute levels of wealth^{‡108}, but no less apparent is the more straightforward fact that having become materially satisfied, what we might call ‘psychological immiseration’ is more widespread than ever.

With material wants met we are left to tread a vertiginous tightrope that has been called ‘happychondria’: that perpetual and single-minded pursuit of happiness *per se* that makes us achingly self-aware of shortcomings in this narrow regard. And feelings of an ‘unbearable

‡ In their 2009 book *The Spirit Level: Why More Equal Societies Almost Always Do Better* authors Richard G. Wilkinson and Kate Pickett examined the major impact that inequality has on eleven different health and social problems: physical health, mental health, drug abuse, education, imprisonment, obesity, social mobility, trust and community life, violence, teenage pregnancies, and child well-being. The related *Equality Trust* website that was co-founded by the authors also includes scatterplots from their book. One of these shows a remarkably close correlation between prevalence of mental illness and income inequality with the following explanatory notes attached:

“Until recently it was hard to compare levels of mental illness between different countries because nobody had collected strictly comparable data, but recently the World Health Organisation has established world mental health surveys that are starting to provide data. They show that different societies have very different levels of mental illness. In some countries only 5 or 10% of the adult population has suffered from any mental illness in the past year, but in the USA more than 25% have.

“We first showed a relationship between mental illness and income inequality in eight developed countries with WHO data – the USA, France, Netherlands, Belgium, Spain, Germany, Italy, and Japan. Since then we’ve been able to add data for New Zealand and for some other countries whose surveys of mental illness, although not strictly comparable, use very similar methods – Australia, the UK and Canada. As the graph [not provided here] shows, mental illness is much more common in more unequal countries. Among these countries, mental illness is also more common in the richer ones.”

Notes and graph are also available by following the link: www.equalitytrust.org.uk/mental-health

lightness of being' become all the lighter once our striving to be happy burgeons into an all-consuming monomaniacal fixation, since happiness is insufficient to ground us and make us feel real. Worse still, as James explains, perpetual happiness is absolutely unattainable due to the inevitable travails of life, and given most people's tangential urge to negotiate life's experiences authentically. Or putting matters the other way around, since most people inevitably fail to attain the levels of happiness socially demanded, such non-stop pursuit of happiness (and by 'pursuit' here I mean 'chasing' rather than 'activity' or 'recreation'*) will inevitably have adverse effects and very likely result in neurosis and feelings of moroseness. The etymological root of our word 'happiness' is revealing in this regard: 'hap' meaning luck or good fortune. Dormant in the language a vestigial memory that happiness is a gift bestowed, rather than a treasure seized.

*

Unable to function for long or to endure everyday states of consciousness, a growing number of people are now turning either to legally prohibited narcotics or proscribed and medically endorsed opiates: drugs that lift the clouds of emptiness, or else, numb the user to the tawdriness of everyday reality. These pills offer a surrogate escape when it can no longer be supplied by the local shopping mall, or, and always more persuasively, by TV and similar distractions online – both places where our big pharmaceutical companies go to enhance their profits by continuously pushing more of their psychoactive wares.

To a great extent, these powerful industries, whether through lobbying or via alternative means of self-promotion, have gradually reshaped psychiatry itself. The patient who was once central to their own treatment has been made peripheral once again, as the psychiatrist gets on with mending their mental apparatus. And by 'mending' it is better to read 'made happier', or else, 'made normal', and thus subjected to a transformation which is centred on societal functioning, but that may or may not be life enhancing in a fuller and more meaningful sense. So does it finally matter if society becomes 'happier' and people are better able to cope due only to a widespread use of pharmaceuticals? And does it matter if

* A distinction I owe to American Archetypal Psychologist and former Director of Studies at the C.G. Jung Institute in Zurich, James Hillman.

children as young as six are proscribed a daily dose of mind-altering drugs just to fit in and get by?[†]

What if anguish and sorrow are vital parts to an authentic experience of life, and, as a good friend and poet once put it: “woe is part of the worship”? As Kierkegaard wrote in his journals:

“Since my earliest childhood a barb of sorrow has lodged in my heart. As long as it stays I am ironic — if it is pulled out I shall die.”¹⁰⁹

To rebut sorrow and utterly disregard the origins of distress seems to me irredeemably Panglossian, which is surely no less life-denying than its counter opposite, a fatalistic surrender to misery. Because to be able truly to affirm in capitals – to say “YES” – is finally predicated on our capability to no less defiantly scream “NO!” In the finish it is zombies alone that are unable ever to scream “NO!” and especially once confronted by the reoccurring cruelties and stupidities of this sometimes monstrous world.

Fritjof Capra says that Laing once told him, “Mystics and schizophrenics find themselves in the same ocean, but the mystics swim whereas the schizophrenics drown.” And latent within even the most zombified of people, there must linger, no matter how faintly, an inextinguishable inner presence akin to spirit, to soul; a living force that cannot be fully disabled without untold consequences. It is this inner life that fights on and kicks against the main object it can kick against: those modes of thinking and behaving that the ‘normal world’ sanctions and calls ‘sane’, but which the organism (sometimes correctly) identifies as aspects

[†] The facts speak for themselves really. For instance, a 2011 report from *Centers for Disease Control and Prevention* (CDC) reveals that in just ten years antidepressant use in the US has increased by a staggering 400%.

Read more here: www.cbsnews.com/8301-504763_162-20123062-10391704.html

The report reveals that more than one in ten of the American population aged 12 or over is taking antidepressants. But that’s okay, according to “the authors of the report” because: “... many people who could benefit from antidepressants aren’t taking them. Only a third of people with symptoms of severe depression take antidepressants.”

The same report also reveals how a further 8% of Americans without depressive symptoms take the drugs for other reasons such as anxiety. So what about the population below 12 years old? Well, the following is taken from a report on what’s happening closer to home published by *the Guardian* in March 2011, which begins:

“Children as young as four are being given Ritalin-style medication for behavioural problems in breach of NHS guidelines.”

Read more here: www.guardian.co.uk/society/2011/mar/18/behaviour-drugs-four-year-olds

According to official UK guidelines, children over the age of six can now be prescribed with mind-altering substances and even when these are to be administered on a daily basis.

of an inexplicable, incomprehensible and literally terrifying existential threat.

This is how Laing understood the nature of madness, and Laing was one of the sanest (both under legal and more popular definitions) ever to have stayed so close to its shadow. He studied the mad without ever flinching away; listening on with patient compassion to their plight. He stayed open and survived. In an important sense, he trusted their testimony. If we wish to understand what is happening to us, I believe we ought to trust just one of his findings too. As Laing concludes in the same preface to his book *The Divided Self*:

“Thus I would wish to emphasize that our ‘normal’ ‘adjusted’ state is too often the abdication of ecstasy, the betrayal of our true potentialities, that many of us are only too successful in acquiring a false self to adapt to false realities”¹⁰

While on another occasion he wrote still more emphatically:

“From the alienated starting point of our pseudo-sanity, everything is equivocal. Our sanity is not ‘true’ sanity. Their madness is not ‘true’ madness. The madness of our patients is an artefact of the destruction wreaked on them by us and by them on themselves. Let no one suppose that we meet ‘true’ madness any more than that we are truly sane. The madness that we encounter in ‘patients’ is a gross travesty, a mockery, a grotesque caricature of what the natural healing of that estranged integration we call sanity might be. True sanity entails in one way or another the dissolution of the normal ego, that false self competently adjusted to our alienated social reality; the emergence of the ‘inner’ archetypal mediators of divine power, and through this death a rebirth, and the eventual reestablishment of a new kind of ego-functioning, the ego now being the servant of the divine, no longer its betrayer.”¹¹

As with death *per se*, we choose on the whole to remain oblivious to our all-embracing deathly materialist existence, excepting a dwindling minority who our secular society marginalise as deluded and misguided at best, and at worst cranks or fanatics – and there are many religious cranks and fanatics, of course, just as there are no less fanatical anti-religious zealots. Perhaps, to paraphrase Philip Larkin, the rest of us really ought to be screaming. Whether stultified or petrified, inwardly, many are, and that’s where the pills come in.

Laing did not mistake madness for normality, but understood perfectly well that normality can often be madness too. And normality, in turn, after being exposed as madness, has deliberately misunderstood Laing ever since.

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Addendum: Advertising vs. sanity

The following brief extract is drawn from an article by satirist Hugh Iglarsh based around an interview with activist and award-winning documentary filmmaker Jean Kilbourne that was published in *Counterpunch* magazine in October 2020[†]:

HI: What kind of personality does advertising cultivate? How would you describe the ideal consumer or recipient of advertising?

JD: The ideal ad watcher or reader is someone who's anxious and feels incomplete. Addicts are great consumers because they feel empty and want to believe that something out there, something for sale, can fill them up. Perhaps the ideal consumer is someone suffering from bulimia, because this person will binge and gorge and then purge, thus needing to start the cycle all over again.

HI: Addiction is one of the major themes of your book. How does advertising help foster addiction?

JD: The selling of addictive products is of course a big part of what advertisers do. They study addiction very closely, and they know how addicts think – they literally know what lights up their brains. Advertisers understand that it is often disconnection in childhood that primes people for addiction. For many traumatized people, the first time they drink or smoke or take drugs may be the very first time they feel okay. Soon they feel they are in a relationship with the alcohol or the cigarette. Addicts aren't stupid – the stuff they're taking really does work, at least at first. It numbs the pain, which makes them feel connected to the substance. Eventually the drug or substance turns on them and makes all the problems they're fleeing from worse.

What struck me about the *genius* of advertisers is how they exploit themes of tremendous importance to addicts, such as their fear of loneliness and desire for freedom. This is precisely what addiction does to you – it seems to offer you what you need, while actually making you more

[†] From an article titled "Advertising vs. Democracy: An Interview with Jean Kilbourne" written by Hugh Iglarsh, published in *Counterpunch* magazine on October 23rd 2020. Read more here: www.counterpunch.org/2020/10/23/advertising-vs-democracy-an-interview-with-jean-kilbourne/

dependent, more alone. The ads promise freedom and connection, in the form of products that entrap users and weaken relationships.

In Chapter Eight, *The Unreal Thing*, I present my own thoughts on the detrimental impact of advertising on modern culture.

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Chapter 5: Roll up the red carpet

All animals are equal but some animals are more equal than others

— George Orwell[†]

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I discovered recently and by happy accident that the author, Michael Young, who invented the term ‘meritocracy’, detested his own creation. Here’s how Young outlined his position in a *Guardian* article “Down with meritocracy,” published in 2001:

“I have been sadly disappointed by my 1958 book, *The Rise of the Meritocracy*. I coined a word which has gone into general circulation, especially in the United States, and most recently found a prominent place in the speeches of Mr Blair.

“The book was a satire meant to be a warning (which needless to say has not been heeded) against what might happen to Britain between 1958 and the imagined final revolt against the meritocracy in 2033.”¹¹²

But I shall save further thoughts of Michael Young until later, and begin here by considering what lies in the shadows of a meritocracy. After all, and at first glance, what on earth can be wrong with the purposeful restructuring of society in ways that prioritise ‘merit’ above all else? Isn’t this the epitome of a fair system?

As with examining most ideas, it is helpful first to step back a little to gain perspective. In this case, it is important to get a fuller grasp of what ‘merit’ means when buried within the heart of ‘meritocracy’. What does ‘merit’, in this narrow political sense, finally equate to?

Throughout the last two hundred and more years, including under progressive administrations such as Clement Attlee’s reforming government

[†] Quote taken from Chapter 10 of George Orwell’s satirical fairytale *Animal Farm* published in 1945. After the animals have seized power at the farm they formulate “a complete system of thought” which is designed to unite the animals as well as preventing them from returning to the evil ways of the humans. The seventh and last of these original commandments of ‘Animalism’ is straightforwardly that “All animals are equal,” however, after the pigs have risen to dominance again, the sign is revised and so this last commandment reads “All animals are equal, but some animals are more equal than others”.

in Britain and FDR's earlier New Deal for America, the political systems in the West have remained very solidly rooted in capitalism, and being so, they have remained inherently utilitarian in design. It follows that 'merit' (in our narrow definitional sense) must be gauged on the scales of those extant utilitarian-capitalist conventions: that 'merit' therefore becomes an adjunct of 'utility' or, in other words, 'usefulness'.

Advocates of capitalism like to evoke the invisible hand of the market, which they say enhances productivity and safeguards against wanton overproduction, thereby ensuring society's needs are met. Thanks to the market that which is wasteful withers and falls away, and, in consequence, profits and earnings will generally flow to the most efficient producers. So it follows that within a meritocracy governed strictly by market forces, with the invisible hand steering our efforts unerringly toward 'usefulness', estimations of 'merit' ought to be more or less directly measureable in terms of salaries and wealth. Maximum profits and earnings tending to go to those who serve the most useful function and are, by dint of this, the most 'merited'. Conversely, the losers are those who merit little since they provide little to nothing of use, whereas the winners contribute most gainfully in every sense...

There is already a suffocating tightness in this loop; a circularity that brings me to consider the first serious objection against meritocracy, if only the most trivial and conspicuous. For judged solely by its own terms just how meritocratic is our celebrated meritocracy? Hmmm – need I go on? Very well then, I shall offer this brisk *reductio ad absurdum*:

Let's start where this debate ordinarily ends, with football – specifically, the stratospheric salaries received by young men who do nothing more than kick a ball around for a living. To most people, the excessive wages paid to footballers stands out as an egregious example of unfairness. I happen to share this opinion, although I wonder why we stop at footballers. They are not alone; not by a long chalk.

Indeed, given that our utilitarian-capitalist meritocracy does in fact function as it is presumed to function, then it follows that most top sportsmen (to a lesser extent, sportswomen too), including footballers, but also tennis players, golfers, F1 drivers, cyclists, athletes, etc – sports of low popularity by comparison – as well as pop idols, TV celebrities and film stars (not forgetting agents and the retinue of hangers-on) are, by virtue of their fabulous incomes, not merely most deserving of such high rewards, but also, by direct extension, some of the most 'productive' amongst us. Would any deign to defend this high visibility flaw in our socio-economic system? And once you have actually joined this privileged and ever-expanding club of the undeserving, you are very likely to be rewarded for

just one thing: fame – thanks to another self-perpetuating cycle in which fame makes you wealthy, and then wealth makes you more famous again.

Nor does such rightful utilitarian calculus reliably account for the gargantuan salaries and bonuses (and who else gets bonuses in excess of their salaries!) of so many bankers, hedge fund managers and other financiers who callously wrecked our western economies. With annual remuneration that outstrips most ordinary worker's *lifetime* earnings, the staggering rewards heaped upon those working in The City and Wall Street have little relationship to the productivity and usefulness, but worse, remuneration is evidently disconnected from basic levels of competence. Instead we find that greedy ineptitude is routinely and richly rewarded, if only for the 'made men' already at the top and lucky enough to be "too big to fail". In light of the crash of 2008, any further talk of "the classless society" ought to have us all running for the exits!

Then we come to the other end of our meritocratic muck-heap. And here amongst the human debris – "the dregs of society" – we find contradictions of an arguably more absurd kind. I am referring to those disgustingly unworthy winners of our many lotteries – you know the types: petty criminals, knuckle-draggers and wastrels (the tone here is strictly in keeping with tabloid outrage on which it is based) who blow all their winnings on a binge of brash consumerism and a garage full of intoxicants. Conspicuous consumption of the most vulgar kinds! How dare they squander such hard, unearned dosh on having fun! But wait a minute... surely the whole point of running a lottery is that *anyone* can win. Have we forgotten the advertisement already? So if we are really serious about our meritocracy then perhaps we should be stricter: no lotteries at all! Total prohibition. Yet a cursory consideration of this point presents us with much bigger hurdles by far. For if we are truly committed to the project of constructing a meritocracy (and we must decide precisely what this means), it is vital to acknowledge the fact that life is inherently beset with lotteries. Indeed when roundly considered, this represents a critical dilemma that potentially undermines the entire project.

For life begins with what might best be described as our lottery of inheritance. Where you are born and to whom, the postal code you reside in, the schools you attended, your religious (or not) upbringing, whether you happen to carry one or two x-chromosomes, and the colour of your skin... the whole nine yards. Your entire existence happened by extraordinary chance and each and every aspect of it owes an unfathomable debt to further blind chance.

Therefore, in our most puritanical understanding of meritocracy, lotteries relating to the guessing of random numbers will be abolished

altogether, in order to set a precedent, although still these other lotteries, life's lotteries, remain inescapable. Which is a devastating blow to the very concept of fully-fledged meritocracy, since whatever meritocracy we might choose to build will always remain a compromise of one kind or another.

In point of fact, however, we have been moving instead in the completely opposite direction. There has been a tremendous and rapid growth in lotteries of all shapes and sizes: from the casino economy working to the advantage of financial speculators at the top; to the rise of online casinos and the latest betting apps, mathematically honed to suck money from the pockets of the desperate and sometimes destitute pipedreamers at the bottom. Further indications of how far our society truly diverges from even the most rudimentary notions of meritocracy.

So there is plenty of scope for devising a better version of meritocracy; one that isn't so riddled with blatant inconsistencies and arbitrary rewards. A more refined meritocracy operating according to common sense fairness and consistency, with built-in checks and balances to ensure the winners are more consistently worthy than the losers. A more level playing field bringing us closer to the ideal – for surely a better devised version of meritocracy is the fairest system we can ever hope to live under. In fact, I beg to differ, but before entering further objections to the sham ideal of meritocracy, I wish first to celebrate the different areas in which greater equality has indeed been achieved and highlight ones where it is still dangerously lacking.

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There is no denying that at the start of the twenty-first century our own society has, and in a number of related ways, been made more equitable than it was just forty years ago when I was a school-leaver. Most apparent is the sweeping change in attitudes towards race and gender. Casual racism wasn't merely permissible in seventies and early eighties Britain, but an everyday part of the mainstream culture. The sporadic black or Asian characters on TV were neatly allotted into their long-established stereotypes, and comedians like bilious standup Bernard Manning had free rein to defile the airwaves with their popular brands of inflammatory bigotry. Huge strides have been taken since then, and social attitudes are unalterably changed for the better. Today the issue of diversity is central to political debate, and social exclusion on the grounds of race and gender is outlawed.

In the prophetic words of abolitionist preacher Theodore Parker, “the arc of the moral universe is long but it bends toward justice”;

famously borrowed by Martin Luther King in a celebrated sermon he delivered in the year of 1965.^{*113} It was a momentous year: one that marked the official end to racial segregation in the Southern United States with the repeal of the horrendous Jim Crow laws, and the same year when Harold Wilson's Labour government passed the Race Relations Act prohibiting discrimination in Britain on "grounds of colour, race, or ethnic and national origins".

As Parker and King understood well, of course, the arc of the moral universe does not bend of its own accord but requires tremendous pressure from below. So it was, again in 1965, after shockwaves sent by Wilson's government through former colony Rhodesia, that in efforts to avoid the overthrow of its apartheid system, the white minority government under then-Prime Minister Ian Smith, declared independence, and an armed struggle for black liberation ensued. It was a bloody struggle that would grind on throughout the 70s, but that ended in triumph. Meanwhile, apartheid in neighbouring South Africa outlasted Rhodesia by a further decade and a half before it was dismantled in 1994 and the 'rainbow nation' flag hoisted.

In solidarity with Nelson Mandela, the armed struggle in South Africa had been led by the sons of émigré Jews. Joe Slovo, a commander of the ANC's military wing *uMkhonto we Sizwe* (meaning "Spear of the Nation"; abbreviated MK) had fought alongside deputy Ronnie Kasrils. Prominent within the anti-apartheid resistance were other Jewish figures including Denis Goldberg, Albie Sachs, and Ruth First – an activist, scholar and wife of Joe Slovo; she was murdered by a parcel bomb sent to her in Mozambique. Ironically, Israel today remains the last state to legally enforce racial segregation, but even the concrete walls and barbed wire dividing the West Bank and Gaza cannot stand forever.

Likewise, homosexuality, which until astonishingly recent times remained a virtually unspoken taboo, was decriminalised as comparatively recently as 1967 – the year of my birth and coincidentally the same year aboriginal Australians received full citizenship and the right to vote.

Before the Sexual Offences Act came into force, gay men faced prosecution and a prison sentence (lesbians slipped through the legal

* In fuller context, he said:

"And I believe it because somehow the arc of the moral universe is long but it bends toward justice. We shall overcome because Carlyle is right: 'No lie can live forever.' We shall overcome because William Cullen Bryant is right: 'Truth crushed to earth will rise again.' We shall overcome because James Russell Lowell is right: 'Truth forever on the scaffold, wrong forever on the throne. Yet, that scaffold sways the future and behind the dim unknown standeth God within the shadow, keeping watch above his own.'"

loophole due to technicalities surrounding the delicate issue of penetration), whereas today they enjoy the equal right to marriage, which cynics will doubtless say entitles them to an alternative form of confinement, but hurrah for that... since irrespective of one's views on the institution of marriage, equality under law is indicative of genuine social progress. The same goes for the transformation of attitudes and legal framework in countering discrimination on grounds of gender, disability and age. Discrimination based on all these prejudices is plain wrong, and liberation on all fronts, an unimpeachable good.

In these ways, our own society – like others across the globe – has become more inclusive, and, if we choose to describe it as such, more meritocratic. Yet many are still left out in the cold. Which people? Sadly, but in truth, all of the old prejudices linger on – maybe they always will – but prime amongst them is the malignant spectre of racism.

For overall, as we have become more conscious and less consenting of racism than in the past, the racists, in consequence, have adapted to fit back in. More furtive than old-style racism, which wore its spiteful intolerance so brashly on its sleeve, many in the fresh crop of bigots have learned to feign better manners. The foaming rhetoric of racial supremacy is greatly moderated, and there is more care taken to legitimise the targeting of the chosen pariahs. Where it used to be said how “the coloureds”, “the darkies” and “the Pakis” (and labels far more obscene again) were innately ‘stupid’, ‘lazy’, ‘doped-up’ and ‘dirty’ (the traditional rationalisations for racial hatred), the stated concern today is of difference *per se*. As former BNP leader Nick Griffin once put it:

“[I]nstead of talking about racial purity, you talk about identity, and about the needs and the rights and the duty to preserve and enhance the identity of our own people.”¹¹⁴

And note how identity politics here plays to the right wing just as it does to the left, better in fact, because it is a form of essentialism. In effect, Griffin is saying ‘white lives matter’, when what he really means is ‘white

* In fuller context Griffin says:

“Perhaps one day, once by being rather more subtle we got ourselves in a position where we control the British Broadcasting media and then we tell ‘em really how serious the immigration problem was, and we tell them the truth about a lot of the crime that’s been going on, if we tell ‘em really what multiracialism has meant and means for the future, then perhaps one day the British people might change their mind and say yes every last one must go. Perhaps they will one day. But if you hold that out as your sole aim to start with, you’re going to get absolutely nowhere. So instead of talking about racial purity, you talk about identity, and about the needs and the rights and the duty to preserve and enhance the identity of our own people. My primary identity quite simply is there (points to veins in wrist). That’s the thing that counts.”

lives are superior'. But talk of race is mostly old hat to the new racists in any case, who prefer to attack 'culture' over 'colour'.

In multicultural Britain, it is the Muslim minority, and especially Muslim women, who receive the brunt of the racial taunts, the physical abuse, and who have become the most preyed upon as victims of hate crimes, while the current hypocrisy lays blame at their door for failing to adopt western values and mix in; a scapegoating that alarmingly recalls the Nazi denigration and demonisation of the Jews. It follows, of course, that it is not the racists who are intolerant but the oppressed minority who are or who look like Muslims. By this sleight of hand, Islamophobia (a very clumsy word for a vile creed) festers as the last manifestation of semi-respectable racism.

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"It is only shallow people who do not judge by appearances," quipped Oscar Wilde.[†] And though the accusation at the heart of his *bon mot* may be contested, that most people certainly do judge by appearances really cannot be. Briefly then, I wish to consider a few of the most overlooked but widespread social prejudices, which though seldom so vicious and of less clear historical significance than other such virulent strains as sexism and racism, are long-standing and ingrained prejudices nonetheless. These tend to be prejudices against certain types of individual, rather than against interconnected "communities". Prejudices so commonplace that some readers will doubtless see my digression as trivial, or even laughable, and yet there is good reason to delve into the matter as it opens up a bigger question, and, once expanded upon, more fundamentally challenges our whole notion of meritocracy. So here goes... (I am braced for the many titters and guffaws and encourage you to laugh along!)

Firstly, there is a permitted prejudice on the one hand against short blokes (trust me, I am one), and on the other against fat ladies. Short men and fat women being considered fair game for ridicule literally on the grounds that we don't shape up. Which would be fine – believe me, I can take a joke – except that in playing down the deep-seated nature of such prejudice, as society generally does, there are all sorts of insidious consequences. For it means, to offer a hopefully persuasive example, that

[†] Although these words are frequently attributed to Wilde himself, they actually belong to one of his characters. To Lord Henry Wotton who says "To me, beauty is the wonder of wonders. It is only shallow people who do not judge by appearances. The true mystery of the world is the visible, not the invisible." Taken from Chapter 2 of Wilde's once scandalous novel *The Picture of Dorian Gray*.

whenever satirists (and I use the term loosely, since genuine satire is rather thin on the ground) lampoon Nicolas Sarkozy, rather than holding him to account for his reactionary politics and unsavoury character, they go for the cheaper shot of quite literally belittling him (and yes, prejudice in favour of tallness saturates our language too). Worse still, Sarkozy had the gall to marry a taller and rather glamorous woman, which apparently makes him a still better target for wisecracks about being a short-arse (it's okay, I'm reclaiming the word). As a result, Sarkozy is most consistently disparaged only for what he couldn't and needn't have altered, instead of what he could and should have. No doubt he takes it all on the chin... presuming anyone can actually reach down that far! Yes, it's perfectly fine to laugh, just so long as we don't all continue pretending that there is no actual prejudice operating.

Moreover, it is healthy for us to at least admit that there is a broader prejudice operating against all people regarded in one way or another as physically less attractive. Being fat, short, bald or just plain ugly are – in the strictest sense – all handicaps, which, and though far from insurmountable, represent a hindrance to achieving success. Even the ginger-haired enjoy a less than even break, as Neil Kinnock (who was unfortunate enough to be a Welshman too) discovered shortly after he was elected leader of the Labour Party.

Indeed, most of us will have been pigeon-holed one way or another, and though we may sincerely believe that we don't qualify to be categorised too negatively, our enemies will assuredly degrade us for reasons beyond our ken. But then, could we ever conceive of, for instance, the rise of something akin to let's say an "ugly pride" movement? Obviously it would be comprised solely of those self-aware and unblinkingly honest enough to see themselves as others actually see them. This envisaged pressure group would comprise an exceptionally brave and uncommon lot.

Then what of the arguably more delicate issues surrounding social class? Indeed, we might reasonably ask ourselves why is there such an animal as social class in the first place? And the quick answer is that people are inherently hierarchical. That "I look up to him because he is upper class, but I look down on him because he is lower class," to quote the famous skit from *The Frost Report*. But now pay proper attention to the vocabulary and its direct correspondence with the physical stature of the three comedians.*

* The "Class Sketch" was first broadcast on April 7, 1966 in an episode of David Frost's satirical BBC show *The Frost Report*. It was written by Marty Feldman and John Law, and performed by John Cleese, Ronnie Barker and Ronnie Corbett in descending order of height!

Class and stature side-by-side, just as they are in the dictionary – and as they have been throughout recent history thanks to dietary deficiencies. Here is a visual gag with etymological parallels: the word ‘stature’ itself a double entendre. But, and unlike physical stature, class is already inextricably tied into levels of wealth and success, and virtually impossible to escape in any society – the Soviet system and Mao’s China were arguably more deeply class-riven than our own purportedly “classless” societies.

Incidentally, I in no way advocate the drafting of future legislation to close the gap on these alternative forms of everyday discrimination: demanding social justice for all those with unpopular body shapes, or who speak with the wrong accent, or stutter, or who have chosen to grow patches of hair in the wrong places, or whatever it is (beards became fashionable after I wrote this!). That would instantly make our lives intolerable in another way: it would be (as the *Daily Mail* loves to point out) “political correctness gone mad!” After all, prejudice and discrimination come in infinite guises, so where could we finally draw the line?

All of which brings me to our last great tolerated prejudice, and one that is seldom if ever acknowledged as a prejudice in the first place. It is our own society’s – and every other society’s for that matter – very freely held discrimination on the grounds of stupidity. And no, this is not meant as a joke. But that it sounds like a joke makes any serious discussion about it inherently tricky.

Because the dim (and I have decided to moderate my language to avoid sounding unduly provocative, which is not easy – I’ll come to other tags I might have chosen in a moment) cannot very easily stand up for themselves, even if they decide to try. Those willing to concede that their lives are held back by a deficit in braininess (sorry, but the lack of more appropriate words is unusually hampering) will very probably fail to grasp much, if anything at all, of the bigger picture, or be able to articulate any of the frustrations they may feel as daily they confront a prejudice so deeply entrenched that it passes mostly unseen. Well, it’s fun to pick on the idiots, blockheads, boneheads, thickos, cretins, dimwits, dunderheads, dunces, knuckleheads, dumbbells, imbeciles, morons, jerks, and simpletons of the world isn’t it? It is the cheaper half of every comedy sketch, and in all likelihood will remain so; with much of the rest that brings us merriment being the *schadenfreude* of witnessing the self-same idiots cocking up over and over again. And finally, is there really a nicer word that usefully replaces all the pejoratives above? Our casual prejudice against the dim has been indelibly written into our dictionaries.

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Now if I'd been writing say a hundred years ago (or even more recently) the available vocabulary would have been a little different. For it was permissible during the first half of the last century to speak and write about the problem of 'feeble-mindedness' – a term that implies an innate (and thus inherited) 'disability'. Moreover, as part of a quasi-scientific conversation, social reformers including intellectuals and political thinkers got into the habit of discussing how this affliction (as it was then regarded) might best be eradicated.

Those on the political left were no less shameful in this regard than those on the right, with radical thinkers like H.G. Wells* and George

* *Anticipations of the Reaction of Mechanical and Scientific Progress upon Human Life and Thought* (1901), is one of H.G. Wells' earliest blueprints for the future. Set in 2000, a youthful Wells (aged 34) suggested an altogether more matter of fact solution to the problem of what he then called "the People of the Abyss" than a promise of education, education, education (the commentary is my own of course):

"It has become apparent that whole masses of human population are, as a whole, inferior in their claim upon the future, to other masses, that they cannot be given opportunities or trusted with power as superior peoples are trusted, that their characteristic weaknesses are contagious and detrimental in the civilizing fabric, and that their range of incapacity tempts and demoralises the strong. To give them equality is to sink to their level, to protect and cherish them is to be swamped in their fecundity..."

Wells was notionally egalitarian, if consistently keener on meritocracy than more radical forms of wealth redistribution. Here the young Mr Wells was showing off his truer colours:

"The new ethics will hold life to be a privilege and a responsibility, not a sort of night refuge for base spirits out of the void; and the alternative in right conduct between living fully, beautifully, and efficiently will be to die."

So who are the hideous hoards who Wells pities and despises (in roughly equal measures)? Read on:

"...the small minority, for example, afflicted with indisputably transmissible diseases, with transmissible mental disorders, with such hideous incurable habits of the mind as the craving for intoxication..."

Oh, but he's jesting... isn't he?

"And I imagine also the plea and proof that a grave criminal is also insane will be regarded by them [the men of the New Republic] not as a reason for mercy, but as an added reason for death..."

Death! Really, is this Wells' serious proposal? Why not prison and rehabilitation...?

Bernard Shaw, chipping in alongside the youthful Winston Churchill[†]; all scratching their high brows to think up ways of preventing the spread of

“The men of the New Republic will not be squeamish either, in facing or inflicting death, because they will have a fuller sense of the possibilities of life than we possess...”

So yes, death and more death then, splendid!

“All such killing will be done with an opiate, for death is too grave a thing to be made painful or dreadful, and used as a deterrent for crime. If deterrent punishments are to be used at all in the code of the future, the deterrent will neither be death, nor mutilation of the body, nor mutilation of the life by imprisonment, nor any horrible things like that, but good scientifically caused pain that will leave nothing but memory...”

Ensuring the avoidance of nasty old pain... that’s good I suppose.

“...The conscious infliction of pain for the sake of pain is against the better nature of man, and it is unsafe and demoralising for anyone to undertake this duty. To kill under the seemly conditions of science will afford is a far less offensive thing.”

Death truly is a final solution, of course, which is horrifying, especially in light of what followed historically.

Deep down Wells was an unabashed snob, though hardly exceptional for his time. Less forgivably, Wells was a foaming misanthropist (especially so when sneering down on the *hoi polloi*). But mostly he longed to perfect the human species, and as a young man had unflinchingly advocated interventions no less surgical than those needed to cure any other cancerous organ. But then, it was once fashionable for intellectual types like Wells to seek scientific answers to social problems: programmes of mass-sterilisation and selective reproduction.

His Fabian rival George Bernard Shaw likewise talked of selective breeding in his own quest to develop a race of supermen, whilst Julian Huxley, Aldous’ big brother, was perhaps the foremost and pioneering advocate of eugenics, later coining the less soiled term ‘transhumanism’ to lessen the post-Nazi stigma. Judged in the broader historical context therefore, Wells was simply another such dreaming ideologue.

That Wells was also one of the first to use the term “new world order” maybe of little lasting significance, however totalitarian his visions for World Socialism, but importantly Wells was never in the position to realise his grander visions, in spite of being sufficiently well-connected to arrange private meetings with President Franklin D. Roosevelt, who entertained him over dinner, and with Joseph Stalin at the Kremlin. Finally, he was unable to inspire enough significant others to engage in his “open conspiracy”.

All extracts above are taken from *Anticipation of the Reaction of Mechanical and Scientific Progress upon Human Life and Thought*, Chapman & Hall, 1901

[†] “Like most of his contemporaries, family and friends, he regarded races as different, racial characteristics as signs of the maturity of a society, and racial purity as endangered not only by other races but by mental weaknesses within a race. As a young politician in Britain entering Parliament in 1901, Churchill saw what were then known as the ‘feeble-minded’ and the ‘insane’ as a threat to the prosperity, vigour and virility of British society.

“The phrase ‘feeble-minded’ was to be defined as part of the Mental Deficiency Act 1913, of which Churchill had been one of the early drafters. The Act defined four grades of

such evidently bad stock from ruining good society – ‘the feeble-minded’, for reasons never dwelt on by the pioneering eugenicists, not the least bit incapable of passing on their enfeebled genes.

Thanks again to genuine social progress it is unacceptable to speak (openly) about the elimination of the underclasses in our societies today, or to openly speculate on means of halting their uncontrolled and unwanted proliferation (though I write very much in terms that Wells, Shaw and Churchill would have understood). But eugenics, we should constantly remind ourselves, was a great deal more fashionable not so very long ago – even after the concentration camps and worryingly under alternative names it finds advocates still today (for instance, the Silicon Valley techies gather nowadays for conferences on transhumanism, the artificial ‘enhancement’ of humanity, which is one way in which eugenics has re-emerged*).

Today’s progressives (and keep in mind that Wells and Shaw both regarded themselves as progressives of their own times) prefer to adopt a more humanitarian position. Rather than eliminating ‘feeble-mindedness’, the concern is to assist ‘the disadvantaged’. A shift in social attitude that is commendable, but it brings new hazards in its stead. For implicit in the new phraseology is the hope that since disparities stem from disadvantage, all differences between healthy individuals might one day be overcome. That aside from those suffering from disability, everyone has an approximately equivalent capacity when it comes to absorbing knowledge and learning skills of one form or another, and that society alone, to the advantage of some and detriment of others, makes us smart or dim. But this is also false, and cruelly so – though not yet barbarously.

For differences in social class, family life, access to education, and so forth (those things we might choose to distinguish as environment or

‘Mental Defective’ who could be confined for life, whose symptoms had to be present ‘from birth or from an early age.’ ‘Idiots’ were defined as people ‘so deeply defective in mind as to be unable to guard against common physical dangers.’ ‘Imbeciles’ were not idiots, but were ‘incapable of managing themselves or their affairs, or, in the case of children, of being taught to do so.’ The ‘feeble-minded’ were neither idiots nor imbeciles, but, if adults, their condition was ‘so pronounced that they require care, supervision, and control for their own protection or the protection of others.’”

Extract taken from a short essay titled “Churchill and Eugenics” written by Sir Martin Gilbert, published on May 31, 2009 on the Churchill Centre website. Read more here: www.winstonchurchill.org/support/the-churchill-centre/publications/finest-hour-online/594-churchill-and-eugenics

* “Population reduction” is another leftover residue of the old eugenics programme but freshly justified on purportedly scientific and seemingly less terrible neo-Malthusian grounds – when previous “population reduction” was unashamedly justified and executed on the basis of the pseudoscience of eugenics, the pruning was always done from the bottom up, naturally.

nurture) are indeed significant indicators of later intellectual prowess (especially when our benchmark is academic performance). So it makes for comfortable presupposition that regarding intelligence (an insanely complex matter to begin with) the inherent difference between individuals is slight, and upbringing is the key determinant, but where's the proof? And if this isn't the whole picture – as it very certainly isn't – then what if, heaven forbid, some people really are (pro)created less cognitively proficient than others? Given that they did indeed receive equivalent support through life, it follows that failure is “their own fault,” is it not?

In any case, intelligence, like attractiveness, must be to some degree a relative trait. During any historical period, particular forms of mental gymnastics are celebrated when others are overlooked, and so instruments to measure intelligence will automatically be culturally biased (there is a norm and there are fashions) to tally with the socially accepted idea of intelligence which varies from place to place and from one era to the next. There can never be an acid test of intelligence in any pure and absolute sense.†

Furthermore, whatever mental abilities happen to confer the mark of intelligence at any given time or place, obviously cannot be equally shared by everyone. As with other human attributes and abilities, there is likely to be a bell curve. It follows, therefore, that whatever braininess is or isn't (and doubtless it takes many forms), during every age and across all nations, some people will be treated as dimmer, or brighter, than their fellows. And notwithstanding that whatever constitutes intelligence is socially determined to some extent, and that estimates of intelligence involve us in a monumentally complex matter, it remains the case that an individual's capacity for acquiring skills and knowledge must be in part innate. This admission is both exceedingly facile and exceedingly important, and it is one that brings us right to the crux of meritocracy's most essential flaw.

† Aside from being the invention of pioneering eugenicist Francis Galton, the IQ test was a pseudo-scientific approach that first appeared to be validated thanks to the research of Cyril Burt who had devised “twin studies” to prove the heritability of IQ. However, those studies turned out to be fraudulent:

“After Burt's death, striking anomalies in some of his test data led some scientists to reexamine his statistical methods. They concluded that Burt manipulated and probably falsified those IQ test results that most convincingly supported his theories on transmitted intelligence and social class. The debate over his conduct continued, but all sides agreed that his later research was at least highly flawed, and many accepted that he fabricated some data.”

From the current entry in *Encyclopaedia Britannica*. Read more here: www.britannica.com/EBchecked/topic/85886/Sir-Cyril-Burt

For how can those who are thought dim be left in charge of important things? They can't. Which means that it would be madness to give the dimmest people anything other than the least intellectually demanding jobs. The meritocratic logic then follows, of course, that being less capable (and thus relegated to performing only the most menial tasks) makes you less worthy of an equal share, and yet this cuts tangentially across the very principle of 'fairness' which meritocracy is supposed to enshrine. For wherein lies the fairness in the economic exclusion of the dim? To reiterate what I wrote above, our prejudice is so deeply ingrained that to many such exclusion will still appear justified. As if being dim is your own lookout.

For whether or not an individual's perceived failure to match up to society's current gauge of intelligence is primarily down to educational 'disadvantage' (in the completest sense) or for reasons of an altogether more congenital kind, we may justifiably pass over the comfortable view that equal opportunity (laudable as this is) can entirely save the day. Degrees of intellectual competence – whether this turns out to be more socially or biologically determined – will always be with us, unless that is, like Wells, Shaw and Churchill (together with a many other twentieth century social reformers including Theodore Roosevelt, Woodrow Wilson, Alexander Graham Bell, and the founder of Planned Parenthood, Margaret Sanger) we opt instead for the eugenic solution – and I trust we do not. But bear in mind that programmes of forced sterilisation kept running in regions of the western world long after WWII right up to the 1970s.^{*115} Earlier calls to weed out the “feeble-minded” that never fully went away, but instead went underground.

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* Eugenics is now rightly abjured, and if only for its abominable record for cruelty. But the cruelty of the many twentieth century programmes of eugenics was hardly incidental. Any attempt to alter human populations to make them fit an imposed social structure by means of the calculated elimination and deliberate manipulation of genetic stock automatically reduces people to the same level as farm animals.

It should be remembered too that what the Nazis had tried to achieve by mass murder across Europe was only novel in terms of its extremely barbarous method. Eugenics programmes to get rid of “inferior” populations by forced sterilisation had been introduced earlier in America and surreptitiously continued into the 1970s. For instance, there was a secret programme for the involuntary sterilisation of Native American women long after the World War II.

Famously, Van Gogh sold just a single painting in his lifetime,[†] but then we all know that millions of terrible painters have also sold one (or less than one!). Not so widely known is that a great deal of Schubert's music was lost when, in the immediate aftermath of his death, it was recycled as waste paper; but then again, thousands of dreadful composers have also had their music posthumously binned. So the odds are that if you can't sell your music or publish your book, then you're just another of the billions, rather than an as yet unappreciated master and another Van Gogh or Schubert. For aside from posterity, and no matter how much we might like to conjure one up, there is no established formula for separating 'merit' from 'success', and no good reason for supposing we will ever discover such a razor.

Inevitably then, 'merit' is equated with, and thus mistaken for, 'success', and this is true not only for our self-declared meritocracy, but universally. Think about it: if millions of people love to read your books, or to listen to your songs, or just to watch your delightful face on their TV screens, then who would not leap to the conclusion that what they do is of the highest 'merit'? How else did they rise to stand above the billions of ordinary anonymous human drones?

The converse is also true. That those who remain anonymous are often in the habit of regarding themselves as less significant – in fact psychologically less real – than others in the limelight they see and admire: the celebrities and the VIPs. Which brings me to a lesson my father taught me; an observation which reveals in aphoristic form the inbuilt fault with all conceptions of meritocracy: VIP being a term that makes him curse. Why? For the clinching fact that every one of us is a "very important person". If this sounds corny or trite then ask yourself sincerely, as my father once asked me: "Are *you* a very important person...?"

In reality therefore, any form of meritocracy will only ever be a form of success-ocracy, and, in our own system, money is the reification of success. A system in which success and thus money invariably breeds more success and more money because unavoidably it contains positive and negative feedback loops. For this reason the well-established ruling oligarchies will never be unseated by means of any notional meritocracy – evidence of their enduring preeminence being, somewhat ironically, more apparent in the American republic, where dynasties, and especially political ones, are less frowned upon, and in consequence have remained more visible than in the class-ridden island kingdom it abandoned and then defeated. But even if our extant aristocracies were one day uprooted

[†] Van Gogh famously sold one painting during his lifetime, *Red Vineyard at Arles*. A painting that now resides at the Pushkin Museum in Moscow. The rest of Van Gogh's more than 900 paintings were not sold nor came to public attention until after his death.

wholesale, then meritocracy simply opens the way for that alternative uber-class founded by the “self-made man”.

*

Now for those further thoughts from the man we might describe as “the father of meritocracy” – even though he would certainly hate it! This is Michael Young speaking out against his accidental bastard child and the decisive role it is has played in reshaping our societies:

“I expected that the poor and the disadvantaged would be done down, and in fact they have been. If branded at school they are more vulnerable for later unemployment.

“They can easily become demoralised by being looked down on so woundingly by people who have done well for themselves.

“It is hard indeed in a society that makes so much of merit to be judged as having none. No underclass has ever been left as morally naked as that.”¹¹⁶

This meritocracy we live in today, as Michael Young points out, is not just a distant remove from the fairest society imaginable, but in other ways – psychological ones especially – arguably crueller than any older, and less enlightened, -ocracies.

Indeed, ‘aristocracy’, deriving from the Greek *ἀριστοκρατία* (aristokratia) and literally meaning “rule of the best,” sounds a lot like ‘meritocracy’ to me. Whereas governance by those selected as most competent (the other way ‘meritocracy’ is sometimes defined) is better known by an alternative name too – ‘technocracy’ in this case – with the select order of technocrats working to whose betterment we might reasonably ask. Meritocracy of both kinds – and every meritocratic system must combine these twin strands – has fascistic overtones.

The promise of meritocracy has been seductive largely because of its close compatibility with neoliberalism, today’s predominant, in fact unrivalled, politico-economic ideology. Predicated on the realism that humans do indeed have an ingrained predisposition to social hierarchy (something that traditional concepts of egalitarianism sought to abolish), it offers a reconfigured market solution to foster a sort of *laissez-faire* egalitarianism: the equalisation of wealth and status along lines that are strictly “as nature intended”. Furthermore, it appeals to some on the left by making a persuasive case for ‘equality of opportunity’, if always to the detriment of the more ambitious goal of ‘equality of outcome’. A sidelining of ‘equality of outcome’ that has led to a dramatic lowering of the bar with regards to what even qualifies as social justice.

Moreover, the rightward drift to meritocracy involves the downplaying of class politics in favour of today's more factional and brittle politics of identity. This follows because under meritocracy the rigid class barriers of yesteryear are ostensibly made permeable and in the long run must slowly crumble away altogether. In reality, of course, social mobility is heavily restricted for reasons already discussed at length. Neither is it the case that all white, male heterosexuals are especially privileged, and here the throwaway tag "white trash" is certainly revealing. In what way is this not a deeply offensive and racist term? But this abandonment of class politics in favour of the divisiveness of identity politics is no doubt greatly to the benefit of the ruling establishment. Divide and conquer has been their oldest maxim.

Interestingly, of the many advocates of meritocracy – from Thatcher to Reagan; Brown to Blair; Cameron to Obama; Merkel to May; Trump to Johnson – none have bothered to very precisely define their terms. What do they mean to imply by 'merit' and its innately slippery counterpart 'fairness'? And whilst they talk of 'fairness' over and over again – 'fairness' purportedly underlying every policy decision they have ever taken – the actual outcomes causing some to wonder whether 'fairness' might be wrong in principle! Like other grossly misappropriated abstract nouns – 'freedom' and 'democracy' spring instantly to mind – the difficulty here is that 'fairness' is a handy fig-leaf.

Instead, and if we genuinely wish to live in a society striving for greater equality, then the political emphasis ought not to be placed too heavily on woolly notions like 'merit' or 'fairness' but upon enabling democracy in the fullest sense. The voice of the people may not be the voice of god, but it is, to paraphrase Churchill (who mostly hated it), 'the least worst system.*' One person, one vote, if not quite the bare essence of egalitarianism, does serve both as a fail-safe and a necessary foundation.

Certainly, we must take steps to guard against the "tyranny of the majority" by means of a constitutional framework underpinning basic rights and freedoms for all. For democracy offers an imperfect solution, but cleverly conceived and justly organised neither is it, as so many libertarians are quick to tell you: "two wolves and a sheep deciding what to have for dinner". This sideswipe is not only glib, but a better description by far of the more extreme market-driven anarchy they advocate. In reality, it is their beloved 'invisible hand' that better ensures rampant inequality and social

* "Many forms of Government have been tried and will be tried in this world of sin and woe. No one pretends that democracy is perfect or all-wise. Indeed, it has been said that democracy is the worst form of government except all those other forms that have been tried from time to time." Winston Churchill from a speech to the House of Commons, November 11, 1947.

division, and for so long as its influence remains unseen and unfettered, will continue to do so, by rigging elections and tipping the scales of justice.

Democracy – from its own etymology: rule by the people – is therefore equality in its most settled form. Yet if such real democracy is ever to arise and flourish we need to cultivate a well-informed and free-thinking society. So the prerequisites for real democracy are individual freedom of speech, with emphasis placed on press freedom (in the broadest sense), and high calibre liberal education for all – sadly we are a long way short of these goals too and once again heading off in the wrong directions. But I shall save further thoughts on these vital matters for later chapters.

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Addendum: The tyranny of choice

Prior to the rise of Jeremy Corbyn and to a lesser extent Bernie Sanders, mainstream politics in Britain and America, as more widely, had narrowed and converged to such a high degree that opposition parties were broadly in conjunction. Left and right had collapsed to form a single “centrist” amalgam in agreement across a wide range of diverse issues spanning race relations, immigration, and foreign policy; bridging to some extent gender equality and environmentalism; and most remarkably, including economics.

In Britain, as in America, the two major parties ceased even to disagree over the one-time defining issue of nationalisation versus privatisation because both sides now approved of the incorporation of private sector involvement into every area of our lives. “Big government,” our politicians echoed in unison, is neither desirable nor any longer possible. Instead, we shall step aside for big business, and limit ourselves to resolving “the real issues”.

The real issues? Why yes, with the business sector running all the fiddly stuff, governments pivoted to address the expansion of individual opportunity and choice. Especially choice. Choice now became the paramount concern.

Even the delivery of essential public services, once the duty of every government (Tory and Labour alike), began to be outsourced. No holy cows. And it became the common doctrine that waste and inefficiency in our public services would be abolished by competition including the introduction of internal markets and public-private partnerships, which aside from helping to foster efficiency, would, importantly, diversify customer choice once again.

Under the new social arrangement, we, the people, became “stakeholders” in an altogether more meritocratic venture. Here is Tony Blair outlining his case for our progressive common cause:

“We need a country in which we acknowledge an obligation collectively to ensure each citizen gets a stake in it. One Nation politics is not some expression of sentiment, or even of justifiable concern for the less well off. It is an active politics, the bringing of a country together, a sharing of the possibility of power, wealth and opportunity.... If people feel they have no stake in society, they feel little responsibility towards it, and little inclination to work for its success.”¹¹⁷

Fine aspirations, you may think. But wait, and let’s remember that Blair was trained as a lawyer, so every word here counts. “Sharing in *the possibility* of power...” Does this actually mean anything at all? Or his first

sentence which ends: “...to ensure each citizen gets a stake in it” – “it” in this context presumably meaning “the country” (his subject at the beginning). But every citizen already has a stake in the country, doesn’t s/he? Isn’t that what being a citizen means: to be a member of a nation state with an interest, or ‘stake’ (if we insist) in what goes on. However, according to Blair’s “One Nation” vision, members of the public (as we were formerly known) are seemingly required to become fully paid-up “stakeholders”. But how...?

Do we have to do something extra, or are our “stakeholder” voices to be heard simply by virtue of the choices we make? Is this the big idea? The hows and wheres of earning a salary, and then of spending or else investing it; is this to be the main measure of our “stakeholder” participation? In fact, is “stakeholder” anything different than “stockholder” in UK plc? Or is it less than this? Is “stakeholder” substantially different from “consumer”? According to the *Financial Times* lexicon’s definition, a stakeholder society is:

“A society in which companies and their employees share economic successes.”¹¹⁸

Certainly, I don’t recall voting for anything as vague as that.

*

We are increasingly boggled by choice. Once there was a single electricity supply and a single gas supply – one price fitting all. Now we have literally dozens of companies offering different deals – yet all these deals deliver an entirely identical supply of electricity and gas (same electrons, same molecules). The single difference is the price, but still you have to choose. So precious moments of our once around the sun existence must be devoted to worrying about which power company is charging you the least amount. Of course, the companies know all this, so they make their deals as complicated as possible. Perhaps you’ll give up and plump for the worst of the available options – for the companies concerned this is clearly a winning strategy – indeed, once you think about it, it’s the *main* winning strategy!

Or, if you are of a mind to waste a few more of your precious never to be returned moments of existence, you may go so far as to check one of the many comparison websites – but again, which one to choose? It’s one frustrating and inane choice after another: more and more tiresome tickboxes that we have to navigate.

But choice is everything. So we’ll need to worry about the latest school and hospital league tables too. In the latter case, it is vital to exercise our right to choose in case an actual ambulance arrives with its siren

blaring. In these circumstances we need to be sure that the ambulance outside is bound for a hospital near to the top of the league, because it is in the nature of leagues that there must be bottom casualty department too – league tables giving a relative assessment, and thus ensuring both winners *and* losers.

But then provided an entirely free choice – and not one based on catchment areas – what parent in their right mind elects to send their offspring to a worse school over a better one? So are we just to hope our nearest school and/or hospital is ranked nearer the top than the bottom? Fortunately, house prices do save a great deal of time and effort when it comes to making all such determinations.

Meantime it is a struggle to understand what our politicians and civil servants actually get up to in Whitehall these days. Precisely what do those who stroll the corridors of power find to do each day? Reduced to the role of managers in an age when what’s left to manage has been greatly diminished as a consequence of prior decisions taken both by themselves and political colleagues, as well as by predecessors who faced them across the chamber from opposite benches.

All of which brings me back to further thoughts about meritocracy. For given this convergence of left and right, and in place of future elections, wouldn’t it be a lot simpler and more efficient to limit our democratic function to binary expressions of approval/dissatisfaction by way of customer surveys instead? Once the fickle, unsophisticated, know-nothing public had been completely sidelined in this way, then the real experts would be able to govern us unimpeded.

Isn’t this where today’s stakeholder choice is leading in any case? With this in mind, please take a moment to select the response that best reflects your own feelings.

Given the choice, would you say you prefer to live in a society that is:

- More fair**
- Less fair**
- Not sure**

*

Chapter 6: All work and no play

BOSWELL, “But, sir, the mind must be employed, and we grow weary when idle.”

JOHNSON, “That is, sir, because others being busy, we want company; but if we were all idle, there would be no growing weary; we should all entertain one another... But no man loves labour for itself.”[†]

*

Leaving aside the various species of bats and whales, very nearly all mammals are land-dwelling creatures. In fact, nearly all animals – meaning quadrupeds – spend their lives earthbound.* For millennia humans too occupied the same earthbound sphere alongside fellow ground-dwelling organisms. Consider then, the following: at this precise moment upwards of six thousand scheduled airliners are aloft in our skies, and at peak times as many as ten thousand are flying high above the clouds. Each of these airborne vessels is packed with many hundred perfectly ordinary human beings sat in rows, hurtling above our heads at altitudes exceeding thirty thousand feet and speeds above 500 miles per hour. This sum equates to literally millions of people airborne at each and every moment of each and every day – a significant proportion of the entire human population!

Now consider this: prior to December 17th 1903, only a handful of our species had ever lifted off the surface of the planet by any means at all

[†] Quotes taken from *The Life of Samuel Johnson, LL.D* by James Boswell (1791). In the original version, the section substituted by ellipsis reads as follows: “There is, indeed, this in trade:– it gives men an opportunity of improving their situation. If there were no trade, many who are poor would always remain poor.”

* Quadrupeds are animals that use four limbs to walk including mammals, reptiles and amphibians. Although derived from the same root ‘four-footed’ this group is not synonymous to the tetrapods. *Tetrapoda* is a superclass made up of *all* four-limbed animals including living and extinct amphibians, reptiles and synapsids (mammals and proto-mammals). Dinosaurs and birds are by definition tetrapods. Of course most birds can fly and some species of dinosaurs also evolved flight. Along with bats, these would be the exceptions to my statement here.

and not a single human being had ever experienced powered flight. But then, on that fateful day, Orville and Wilbur Wright made three successful flights between them. On his first take-off, Orville covered 120 feet, remaining airborne for just 12 seconds. On the final flight, he valiantly managed 200 feet, all at an altitude of only ten feet. A century on, we have *Airbus* – take note the humdrum name of the company! – and the launch of its A380, the world’s largest passenger jet, which accommodates between 525 and 850 individuals, and is capable of flying approximately 10,000 miles nonstop. Thus, thanks to technology we have grown wings and been transformed into a semi-airborne species; entirely forgetting to be astonished by this remarkable fact is perhaps the final measure of our magnificent achievement.

*

“The world is undergoing immense changes. Never before have the conditions of life changed so swiftly and enormously as they have changed for mankind in the last fifty years. We have been carried along – with no means of measuring the increasing swiftness in the succession of events. We are only now beginning to realize the force and strength of the storm of change that has come upon us.

“These changes have not come upon our world from without. No meteorite from outer space has struck our planet; there have been no overwhelming outbreaks of volcanic violence or strange epidemic diseases; the sun has not flared up to excessive heat or suddenly shrunken to plunge us into Arctic winter. The changes have come through men themselves. Quite a small number of people, heedless of the ultimate consequence of what they did, one man here and a group there, have made discoveries and produced and adopted inventions that have changed all the condition, of social life.”

These are the opening paragraphs from a lesser-known work by H.G. Wells. *The Open Conspiracy*, an extended essay written in 1928, was the first of Wells’ most earnest attempts to set the world to rights. Stumbling across it one day, it struck me that this voice from ninety years ago still chimes. I couldn’t help wondering indeed if we aren’t still in the midst of those same “immense changes,” being swept along by an, as yet, undiminished “storm of change”.

Wells, who uses the word ‘change’, in various formulations, no less than seven times (in a mere eight sentences), goes on to compare our modern wonders to the seven wonders of the ancient world, intending to emphasise their novel potency:

“Few realized how much more they were than any ‘Wonders.’ The ‘Seven Wonders of the World’ left men free to go on living, toiling, marrying, and dying as they had been accustomed to for immemorial ages. If the ‘Seven Wonders’ had vanished or been multiplied three score it would not have changed the lives of any large proportion of human beings. But these new powers and substances were modifying and transforming – unobtrusively, surely, and relentlessly – very particular of the normal life of mankind.”

Wells had been trained as a scientist, and more than this, a scientist at a time when science was reaching its apogee. At the Royal College of Science*, he had studied biology under the tutelage of T. H. Huxley, the man who most publicly defended Darwin’s theory. In the debates against the Bishop of Oxford, Samuel Wilberforce, it was Huxley who challenged and defeated the permitted orthodoxy of divine creation by showing how Science makes a better account of our origins than religious authority; so in an important sense, Huxley must be seen as one of the pioneers of this scientific revolution. With religion rather abruptly and rudely dismissed, it was open to the scientists and technologists to lead us all to salvation. And Wells was keen to get involved, if only as one of science and technology’s most passionate and outspoken advocates.

Growing up in late Victorian Britain, he was well acquainted with how systems of mass production had mostly superseded manual methods to become the predominant form of industrial process. Likewise, he had witnessed the spread of agricultural machines for planting seeds and harvesting crops, and of automotive machines transporting loads and providing ever more reliable and comfortable means for human transit. These innovations had led to a dramatic increase both in production and, more importantly, in productivity, and machine processes were set to become ever more versatile and reliable.

Wells was amongst the first to seriously consider how these new modes of manufacture with their greater efficiencies and capacities for heavier constructions, not to mention for longer range transportation and communication, would bring rapid and sweeping changes to ordinary life. Most importantly, he understood that since technology potentially allowed the generation of almost limitless power, its rise would unstoppably alter human affairs forever, and by extension, impact upon the natural world too.

Quite correctly, Wells went on to forecast an age to come (our age), in which ordinary lives are transformed to an extent so far beyond the technological transformations of past ages that life is unutterably and

* Today it is part of Imperial College (my *alma mater*).

irreversibly altered. Yet the widespread access to these “wonders,” as he insistently calls them, causes us to regard them as so ordinary that we seldom, if ever, stop to wonder about them.

For machines are nowadays embedded quite literally everywhere – one is in fact translating the movement of my fingertips into printed words, whilst another happens to be reproducing the soulful precision of Alfred Brendel’s rendition of one of Franz Schubert’s late sonatas on a machine of still older conception (the piano) via yet another machine that preserves sound in the form of electrical impulses. Thanks to machines of these kinds, not only the sheet-music – those handwritten frequency-time graphs so painstakingly drafted, perhaps by candlelight, and very certainly using only a feather quill and inkpot – but thousands upon thousands of musical (and other) performances can be conjured up with literally “a click”. The snapping fingers of an emperor could never have summoned such variety. But then the internet is a wonder exceeding even H.G. Wells’ far-seeing imagination.

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More than a century ago, the poet, satirist and social commentator Oscar Wilde was another who looked forward to a time of such “wonders”. For Wilde, as for Wells, they presented reasons to be cheerful:

“All unintelligent labour, all monotonous, dull labour, all labour that deals in dreadful things, and involves unpleasant conditions, must be done by machinery. Machinery must work for us in coal mines, and do all sanitary services, and be the stoker of steamers, and clean the streets, and run messages on wet days, and do anything that is tedious and distressing... There is no doubt at all that this is the future of machinery; and just as trees grow while the country gentleman is asleep, so while Humanity will be amusing itself, or enjoying cultivated leisure – which, and not labour, is the aim of man – or making beautiful things, or reading beautiful things, or simply contemplating the world with admiration and delight, machinery will be doing all the necessary and unpleasant work. The fact is that civilization needs slaves... [But] Human slavery is wrong, insecure and demoralizing. On mechanical slavery, on the slavery of the machine, the future of the world depends.”¹¹⁹

Wilde and Wells were optimists, but cautious ones, and each foretold new dangers that potentially lay in wait for us. Wells wrote:

“They [the new ‘wonders’] increased the amount of production and the methods of production. They made possible ‘Big-Business’, to drive the small producer and the small distributor out of the market. They swept away

factories and evoked new ones. They changed the face of the fields. They brought into the normal life, thing by thing and day by day, electric light and heating, bright cities at night, better aeration, new types of clothing, a fresh cleanliness. They changed a world where there had never been enough into a world of potential plenty, into a world of excessive plenty.”¹²⁰

Wells believed that the very successes which brought about large-scale manufacturing and distribution, as well as commensurate developments in fields such as agriculture, sanitation and medicine, ones that were already extending the average life-expectancy, might still feasibly bring heavier burdens to bear on the planet. Left unchecked, he argued, our species would finish using up everything, whilst exponentially crowding ourselves out of existence. So these new “wonders” were a double-edged sword. And then what of “excessive plenty” – of too much of a good thing – how do we avoid replacing one set of miseries with another? Such were Wells’ concerns, but then Wells owed a great deal to the eternal pessimist Thomas Malthus.

By contrast, at the dusk of the Victorian era, Wilde is not much bothered as Wells is, by the prospect of society overrun by a burgeoning and profligate mass of humanity, but by how we can ensure the new prosperity, so long awaited and desperately overdue, could be fairly distributed. After all, progress had until then been primarily technological in form and not social, and it appeared to Wilde that the costs of industrialisation were still hugely outweighing its benefits.

The centuries of Industrial Revolution had claimed so many victims. Not only those trapped inside the mills and the mines, the wage-slaves working all hours for subsistence pay, but those more benighted souls incarcerated in the workhouses, alongside their malnourished children, who from ages six upwards would be forced underground to sweat in the mines or else to clamber about in the more choking darkness of chimneystacks.[†] Industrial development had required that for the majority of adults and children (boys *and* girls), life was sunk into a routine of unremitting hardship and ceaseless backbreaking labour, as the poor were ruthlessly sacrificed to profit their masters – one big difference today, of course, is that our own sweatshops are more distant.

* From H G Wells’ *The Open Conspiracy* published in 1928. Interestingly, in a letter to Wells, albeit a begging letter, Bertrand Russell said of the work: “... I do not know of anything with which I agree more entirely”.

† Many boys and girls suffocated and others fell to their deaths. This was not helped by the practice of master sweeps to light a fire beneath them in order to force them to climb faster.

To abolish this class-ridden barbarism, Wilde therefore proposed an unapologetically radical solution:

“Up to the present, man has been, to a certain extent, the slave of machinery, and there is something tragic in the fact that as soon as man had invented a machine to do his work he began to starve. This, however, is, of course, the result of our property system and our system of competition. One man owns a machine which does the work of five hundred men. Five hundred men are, in consequence, thrown out of employment, and having no work to do, become hungry and take to thieving. The one man secures the produce of the machine and keeps it, and has five hundred times as much as he should have, and probably, which is of more importance, a great deal more than he really wants. Were that machine the property of all, everyone would benefit by it.”¹²¹

*

In case Wilde’s enthusiasm for collective ownership encourages you to think it, then please be assured that he was not exactly a Leninist (as you will see), nor, in any traditional sense, was he a fully-fledged Marxist. In fact, if anything Wilde was an anarchist, heaping special praise on Peter Kropotkin, whom he once described as: “a man with a soul of that beautiful white Christ which seems coming out of Russia.”*

Now it is interesting and worthwhile, I think, to compare Wilde’s views, writing just a few decades earlier, with those of H.G. Wells, for both held notionally left-leaning sympathies and both were broadly hopeful; each underscoring the special importance of science and technology when it came to achieving such desirable goals as ending poverty and rebuilding a fairer society. For in some regards, Wilde’s perspective is orthogonally different to Wells – and it is Wells who made the better communist (though he remained deeply antagonistic towards Marx for other reasons[†]).

* “Two of the most perfect lives I have come across in my own experience are the lives of [the French Symbolist poet, Paul] Verlaine and of Prince Kropotkin: both of them men who have passed years in prison: the first, the one Christian poet since Dante; the other, a man with a soul of that beautiful white Christ which seems coming out of Russia.” Taken from *De Profundis*, literally “from the depths”; Wilde’s celebrated *cri de coeur* was intended, in part at least, as an extended letter and impassioned rebuke to his lover Lord Alfred Douglas. It was written during his imprisonment in Reading Gaol between January and March 1897, and has since been publicly released in various expurgated versions, the first of which was published in 1905. A complete version was finally released in 1962.

[†] Although Wells often talked in terms of “class-war,” he is very keen to take issue with Marx, dismissive of the Marxian predilection for proletarian revolution which he regarded as a sentimental fantasy: as unlikely to succeed as it would be unfavourable to the construction of a

For Wells was an unflinching collectivist, and thus forever seeking solutions in terms of strict autocratic control. For instance, in one of the concluding chapters of *The Open Conspiracy*, Wells outlines “seven broad principles” that will ensure human progress of which the sixth reads as follows:

“The supreme duty of subordinating the personal career to the creation of a world directorate capable of these tasks [ones that will ensure the betterment of mankind] and to the general advancement of human knowledge, capacity, and power”^{*122}

fairer and more humane society. According to Wells, the whole edifice of Marxism is in fact built upon entirely rotten foundations of “the idea of a right-minded Proletariat ready to take things over [which] is a dream.” So, what exactly does Wells intend by his own use of the term “class-war”?

Like Marx, Wells recognises a world of want and inequality. He recognises that the Haves care not one jot for social justice, but argues that, more importantly, the Have-nots have neither the will nor the wit to do anything much about it (except throw the occasional tantrum as he puts it). He blames their shortcomings on innate inferiority compounded by poor standards of education. To escape our world of endless waste and stupidity, Wells concludes, not unreasonably, the direct intervention of more powerful and intelligent agencies must be involved – this direct intervention from above which he also refers to as an “open conspiracy”.

It is only by these means that Wells believes the world can be transformed for the better. The alternative, of waiting on in hope of an enlightened revolt by the oppressed, and yet thoroughly wretched and wholly disorganised masses, represented nothing but a wishful Marxist dream. Wells says, can’t you see that there are growing bands of angry young men with time on their hands. If you leave these men to their own devices then expect them to seek the overthrow of the current elect and in doing so, very probably, everything good besides. Such desperate hoards will look for guidance from some inspired champion of their cause: “It scarcely matters which. They [will] become Communists or they become Fascists, Nazis, the Irish Republican Army, Ku Klux Klansmen and so forth and so on.”

Extract from *The New World Order* written by H. G. Wells, originally published in January 1940.

* The full set of seven “broad principles” reads as follows:

- (1) The complete assertion, practical as well as theoretical, of the provisional nature of existing governments and of our acquiescence in them;
- (2) The resolve to minimize by all available means the conflicts of these governments, their militant use of individuals and property, and their interferences with the establishment of a world economic system;
- (3) The determination to replace private, local or national ownership of at least credit, transport, and staple production by a responsible world directorate serving the common ends of the race;
- (4) The practical recognition of the necessity for world biological controls, for example, of population and disease;
- (5) The support of a minimum standard of individual freedom and welfare in the world; and

Wilde, on the contrary, unswervingly insisted that above all else the sovereign rights of the individual must be protected. That personal freedom must never be horse-traded, since “the true personality of man,” as he puts it, is infinitely more precious than any amount of prospective gains in comfort and security. This is precisely where Wilde is at his most prescient, foreseeing the dangers of socialist authoritarianism a full two decades before the Russian revolution, and instinctively advising a simple cure:

“What is needed is Individualism. If the Socialism is Authoritarian; if there are governments armed with economic power as they are now with political power; if, in a word, we are to have Industrial Tyrannies, then the last state of man will be worse than the first.”¹²³

So compare Wilde’s earlier views to those of Wells fifty years on, by which time the Soviet model was up and running, and yet he is still advocating the need for a more widespread and overarching central authority: ultimately, a world government to coerce and co-ordinate the masses into the new age of socialism; even to the point of eradicating misfits for the sake of the greater good.

For Wells, every answer for resolving humanity’s problems involved the implementation of top-down governance, with the patterns of individual behaviour controlled by means of an applied political force-field, whereas Wilde was equally insistent that individuals are not uniformly alike like atoms, and must be permitted, so far as is humanly possible, to organise ourselves. It is a fundamental difference in outlook that is reflected in their attitudes towards work.

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(6) The supreme duty of subordinating the personal career to the creation of a world directorate capable of these tasks and to the general advancement of human knowledge, capacity, and power;

(7) The admission therewith that our immortality is conditional and lies in the race and not in our individual selves.

In light of what was about to come, this last item of the seven is perhaps the most perturbing. Wells introduces it as follows:

“And it is possible even of these, one, the seventh, may be, if not too restrictive, at least unnecessary. To the writer it seems unavoidable because it is so intimately associated with that continual dying out of tradition upon which our hopes for an unencumbered and expanding human future rest.”

The inherent value of work is rarely questioned by Wells. In his earlier fictional work *A Utopian World* he answers his own inquiry “will a Utopian be free to be idle?” as follows:

“Work has to be done, every day humanity is sustained by its collective effort, and without a constant recurrence of effort in the single man as in the race as a whole, there is neither health nor happiness. The permanent idleness of a human being is not only burthensome to the world, but his own secure misery.”^{*124}

Wells is expressing a concern that once the labouring masses are relieved of their back-breaking obligation to work, they may “develop a recalcitrance where once there was little but fatalistic acquiescence”:

“It is just because labour is becoming more intelligent, responsible, and individually efficient that it is becoming more audible and impatient in social affairs. It is just because it is no longer mere gang labour, and is becoming more and more intelligent co-operation in detail, that it now resents being treated as a serf, housed like a serf, fed like a serf, and herded like a serf, and its pride and thoughts and feelings disregarded. Labour is in revolt because as a matter of fact it is, in the ancient and exact sense of the word, ceasing to be labour at all.”¹²⁵

For these reasons, Wells senses trouble ahead, whereas for Wilde, these same changes in modes of employment serve as further reasons to be cheerful:

“[And] as I have mentioned the word labour, I cannot help saying that a great deal of nonsense is being written and talked nowadays about the dignity of labour. There is nothing necessarily dignified about manual labour at all, and most of it is absolutely degrading. It is mentally and morally injurious to man to do anything in which he does not find pleasure, and many forms of labour are quite pleasureless activities, and should be regarded as such. To sweep a slushy crossing for eight hours on a day when the east wind is blowing is a disgusting occupation. To sweep it with joy would be appalling. Man is made for something better than disturbing dirt. All work of that kind should be done by machine.”¹²⁶

In his own essay *The Soul of Man under Socialism*, Wilde, unlike Wells, is unabashed in confessing to his own utopianism, writing:

“Is this Utopian? A map of the world that does not include Utopia is not worth even glancing at, for it leaves out one country at which Humanity is always landing. And when humanity lands there, it looks out,

* The same passage continues: “But unprofitable occupation is also intended by idleness, and it may be considered whether that freedom also will be open to the Utopian. Conceivably it will, like privacy, locomotion, and almost all the freedoms of life, and on the same terms – if he possess the money to pay for it.”

and, seeing a better country, sets sail. Progress is the realization of Utopias.”¹²⁷

But then, both Wilde and Wells were dreaming up Utopias during an age when dreaming about Utopia remained a permissible intellectual pursuit. So it is just that Wilde’s dream is so much grander than any visions of Wells. Wells was certainly an astute forecaster and could see with exceptional acuity what immediately awaited humanity around the next few corners, but Wilde, on the other hand, sought to navigate across a wider ocean. He did not wish to be constrained by the tedious encumbrances of his own time, and regarded the complete abolition of hard labour as an absolutely essential component of a better future. Even then, he was far from alone.

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Writing in the thirties, Bertrand Russell was another outspoken advocate of cultured laziness. Russell, who is now venerated by some almost as a secular saint was nothing of the sort. Many of his views on politics and society were highly disagreeable and he was arguably one of the dreariest philosophers ever published, but this aside he was a supreme mathematician. It is noteworthy therefore that in order to support his own expressed desire for reducing the average workload, he did a few very simple sums. These led him to what he regarded as the most important, yet completely overlooked, lesson to be learned from the Great War.

At a time when the majority of the able-bodied population were busily fighting or else engaged in other means of facilitating the destructive apparatus of war, new modes of production had maintained sufficiency, and yet, as Russell pointed out, the true significance of this outstanding triumph of the new technologies was altogether masked by the vagaries of economics. He writes:

“Modern technique has made it possible to diminish enormously the amount of labour required to secure the necessaries of life for everyone. This was made obvious during the war. At that time all the men in the armed forces, and all the men and women engaged in the production of munitions, all the men and women engaged in spying, war propaganda, or Government offices connected with the war, were withdrawn from productive occupations. In spite of this, the general level of well-being among unskilled wage-earners on the side of the Allies was higher than before or since. The significance of this fact was concealed by finance: borrowing made it appear as if the future was nourishing the present. But that, of course, would have been impossible; a man cannot eat a loaf of

bread that does not yet exist. The war showed conclusively that, by the scientific organization of production, it is possible to keep modern populations in fair comfort on a small part of the working capacity of the modern world. If, at the end of the war, the scientific organization, which had been created in order to liberate men for fighting and munition work, had been preserved, and the hours of the week had been cut down to four, all would have been well. Instead of that the old chaos was restored, those whose work was demanded were made to work long hours, and the rest were left to starve as unemployed.”

And so to the sums – easy stuff for a man who had previously tried to fathom a complete axiomatic system for all mathematics:

“This is the morality of the Slave State, applied in circumstances totally unlike those in which it arose. No wonder the result has been disastrous. Let us take an illustration. Suppose that, at a given moment, a certain number of people are engaged in the manufacture of pins. They make as many pins as the world needs, working (say) eight hours a day. Someone makes an invention by which the same number of men can make twice as many pins: pins are already so cheap that hardly any more will be bought at a lower price. In a sensible world, everybody concerned in the manufacturing of pins would take to working four hours instead of eight, and everything else would go on as before. But in the actual world this would be thought demoralizing. The men still work eight hours, there are too many pins, some employers go bankrupt, and half the men previously concerned in making pins are thrown out of work. There is, in the end, just as much leisure as on the other plan, but half the men are totally idle while half are still overworked. In this way, it is insured that the unavoidable leisure shall cause misery all round instead of being a universal source of happiness. Can anything more insane be imagined?”

His conclusion is that everyone could and would work a lot less hours, if only the system permitted us to:

“If the ordinary wage-earner worked four hours a day, there would be enough for everybody and no unemployment – assuming a certain very moderate amount of sensible organization. This idea shocks the well-to-do, because they are convinced that the poor would not know how to use so much leisure.”^{*128} It was still only 1932 remember – technology’s “wonders” have moved on a lot since Russell’s day...

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* Note that Russell’s reference to pin manufacture is a deliberate allusion to Adam Smith’s famous hypothetical pin factory in which he illustrated the benefits of ‘division of labour’ in *The Wealth of Nations*.

Apis mellifera, the honey-bearing bee, is the paragon of industriousness. It's a pleasure just to watch them humming their way from flower to flower. Working all the hours the apian god sends, without a care in the world. We ascribe tremendous social virtue to our arthropodous familiars, the busy, busy bees. However, if we are to judge bees fairly then we ought properly to consider more critically what it is that our conscientious little friends actually get up to day in, day out...

For though we say that the bees are "at work" – the infertile females who carry out the majority of tasks technically denominated as "workers" – their most celebrated activity, the foraging for nectar from flowers, can hardly be considered a "real job" at all. Unless by "real job" we allow that gorging oneself on the sweetest food available automatically qualifies as work. For, after supping up an abdomenful of nectar (I exaggerate a little for effect), these "workers" then return home to empty the contents of their bellies, as any professional drinker might. Back at the hive, their sister bees also collaborate in the transformation of the incoming nectar, collectively "manufacturing" honey by means of repeated consumption, partial digestion and regurgitation – and apologies to anyone who has suddenly lost their appetite for honey, but bear in mind that milk and eggs are no less strange when you stop to think about them.

By chance, it happens that humans (and other creatures) are partial to the sticky end product of a bee's binge drinking session. I personally love it. And so we steal away their almost intoxicating amber syrup and attach an attractive price tag to it. The bees receive compensation in the form of sugar, and being apparently unaware of our cheap deception, are extolled as paragons of virtue!

In fact, whenever we take to judging or appraising human conduct of any kind, there is a stubborn tendency to take direction either from religion, or, if religion is dismissed, to look for comparisons from Nature. If doing something "isn't natural," a lazy kind of reasoning goes, evidently then – evidentially, in fact – there must be something wrong with it. For it cannot be right and proper to sin against religion or to transgress against Nature. Thus, behaviour that is unorthodox and deviant in relationship to a received normal is denounced, in accordance with strict definition indeed, as perversion.

This fallacious "appeal to nature" argument also operates in reverse: that whenever a particular behaviour is thought virtuous or worthwhile, then – and generally without the slightest recourse to further identifiable evidence – *ipso facto*, it becomes "natural". Although of the tremendous variety of human activities, work seems outstanding in this regard. For throughout historic times, societies have consistently upheld that

work is self-evidently “natural”; the Protestant “work ethic” is perhaps the most familiar and unmistakably religious variant of a broader sanctification of labour. Although it is surely worth noting that God’s punishment for Adam’s original sin was that he should be expelled from Paradise “to till the ground from whence he was taken.”[†] (Most probably booming “the world doesn’t owe you a living, my son!” before slamming the gates to paradise shut.) Protestant mill-owners, of course, found it convenient to overlook how hard labour was God’s original punishment.

But then, atheistic societies have been inclined to extol work more highly still, and not simply because it is “natural” (the commonest surrogate for religion), but because atheism is inherently materialist, and since materials depend upon production, productivity is likewise deemed more virtuous and worthwhile. Thus, under systems both capitalist and communist, work reigns supreme.

Stalin awarded medals to his miners and his manufacturers – and why not? Medals for production make more sense than medals for destruction. Yet this adoration of work involves a doublethink, with Stalin, for example, on the one hand glorifying the hard labour of labour heroes like, most famously, Alexey Stakhanov, and meanwhile dispatching his worst enemies to the punishment of hard labour in distant work camps, as did Mao and as did Hitler. “*Arbeit macht frei*” is an horrific deception, yet in an important sense the Nazi leaders evidently believed in the essence of this lie, for aside from war and genocide, the Nazi ideology once again extolled work above all else. In the case of communism, the exaltation of the means of production was to serve the collective ends; in fascism, itself the twisted apotheosis of Nature, work being inherently natural ensures it is inherently a still greater good.

Yet oddly, whenever you stop to think about it, very little modern humans do is remotely natural, whether or not it is decent, proper and righteous. Cooking food isn’t natural. Eating our meals out of crockery by means of metal cutlery isn’t remotely natural either. Sleeping in a bed isn’t natural. Wearing socks, or hats, or anything else for that matter, isn’t natural... just ask the naturists! And structuring our lives so that our activities coincide with a predetermined time schedule isn’t the least bit natural. Alarm clocks aren’t natural folks! Wake up!

But work is indeed widely regarded as an especially (one might say uniquely) exemplary activity, as well as a wholesomely natural one. Consider the bees, the ants, or whatever other creature fits the bill, and see how tremendously and ungrudgingly productive they all are. See how marvellously proactive and business-like – such enviable efficiency and

[†] From Genesis 3:23 (KJV)

purpose! In reality, however, the bees, ants and all the other creatures are never working at all – not even “the workers”. Not in any meaningful sense that corresponds to our narrow concept of “working”. The bees, the ants and the rest of the critters are all simply being... being bees, being ants. Being and “playing,” if you prefer: “playing” certainly no less valid as a description than “working,” and arguably closer to reality once understood from any bee or ant’s perspective (presuming they have one).

No species besides our own (an especially odd species) willingly engages in drudgery and toil; the rest of the critters live altogether more straightforwardly. They simply eat, sleep, hunt, drink, breathe, run, swim and fly. The birds don’t do it! The bees don’t do it either! (Let’s leave the educated fleas!)

Nature natures and this is all. It is we who anthropomorphise such natural activities and by attaching inappropriate labels transform ordinary pleasures into such burdensome pursuits that they sap nature of vitality. So when Samuel Johnson says, “No man loves labour for itself!” he is actually reminding us all of our true nature.

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Whether or not we welcome it, “manpower” (humanpower that is), like horsepower before, is soon to be superseded by machine-power. Indeed, a big reason this profound change hasn’t made a greater impact already is that manpower (thanks to contemporary forms of wage slavery and the more distant indentured servitude of sweatshop labour) has remained comparatively cheap. For now the human worker is also more subtle and adaptable than any automated alternative. All of this, however, is about to be challenged, and the changeover will come with unfaltering haste.

To a considerable extent our switch to automation has already happened. On the domestic front, the transfer of labour is rather obvious, with the steady introduction and accumulation of so many labour-saving devices. For instance, the introduction of electric washing machines, which eliminate the need to use a washboard, to hand rinse or squeeze clothes through a mangle, spares us a full day of labour per week. When these became automatic washer-dryers, the only required task was to load and unload the machine. In my own lifetime the rapid spread of these, at first, luxury appliances, has made them commonplace throughout the western world. Meantime, the rise and rise of factory food and clothing production means ready meals and socks are so inexpensive that fewer of us actually bother to cook and scarcely anyone younger than me even remembers what darning is. The bored housewife was very much a late twentieth century

affliction – freed from cooking and cleaning there was suddenly ample time for stuffing mushrooms.

Outside our homes, however, the rise of the machine has had a more equivocal impact. Indeed, it has been counterproductive in many ways, with new technologies sometimes adding to the workload instead of subtracting from it. The rise of information technologies is an illustrative example: the fax machine, emails, the internet and even mobile phones have enabled businesses to extend working hours beyond our traditional and regular shifts, and in other ways, work has been multiplied as the same technologies unnecessarily interfere to the detriment of real productive capacity.

Today's worker is faced with more assessments to complete, more paperwork (albeit usually of a digital form), more evaluation, and an ever-expanding stack of office emails to handle – enough demands for swift replies to circulars and a multitude of other paper-chasing obligations that we spend half our days stuck in front of a monitor or bent over the office photocopier. Every member of “the team” now recruited to this singular task of administrative procedures.

But these mountains of paper (and/or terabytes of zeroes and ones) needing to be reprocessed into different forms of paper and/or digital records are only rising in response to the rise of the office. In fact, it is this increase in bureaucracy which provides the significant make-weight to mask the more general underlying decline in gainful (meaning productive) employment. Yet still, this growth in administration is a growth that only carries us so far, and a growth that can and ultimately will be eliminated, if not for perfectly sound reasons of practicability, then by automation. Ultimately, office workers are no more immune to this process of technological redundancy than the rest of us.

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That the robots are coming is no longer science fiction, any more than the killer robots circling high over Pakistan and Yemen armed with their terrifyingly accurate automated AGM-114 Hellfire missiles, are science fiction. In fact, all our future wars will be fought by means of killer robots, and, unless such super-weapons are banned outright or, at the very least, controlled by international treaties, subsequent generations of these ‘drones’ will become increasingly autonomous – the already stated objective is to produce fully autonomous drones; an horrific prospect. It is also a prospect that perhaps most graphically illustrates how sophisticated today's robotic systems have become, even if, as with all cutting-edge technology, the

military enjoys the most advanced systems. In short, the grim robots fleets are with us, and set to become swarms unless nations act to outlaw their deployment, whereas more beneficial robotic descendants still wait more placidly in the wings. The arrival of both fleets heralds a new age – one for the better and one decidedly for the worse.

Of course, the forthcoming workforce of robots might also be for the worse. Yet the choice is ultimately ours, even if we cannot hold off that choice indefinitely, or even for very much longer. For all our robotic rivals (once perfected) hold so many advantages over a human workforce. Never grumbling or complaining, never demanding a pay rise or a holiday, and, in contrast to human drones, never needing any sleep at all, let alone scheming against their bosses or dreaming up ways to escape.

And the new robots will not stick to manufacturing, or cleaning, or farming the land, or moving goods around in auto-piloted trucks (just as they already fly planes), but soon, by means of the internet, they will be supplying a host of entirely door-to-door services – indeed, a shift in modes of distribution is already beginning to happen. In the slightly longer term, robots will be able to provide all life's rudimentary essentials – the bare necessities, as the song goes. Quietly, efficiently and ungrudgingly constructing and servicing the essential infrastructure of a fully functioning civilisation. Then, in the slightly longer term, robots will be able to take care of the design, installation and upgrading of everything, including their own replacement robots. In no time, our drudgery (as well as the mundane jobs performed by those trapped inside those Third World sweatshops) will have been completely superseded.

This however leads us to a serious snag and a grave danger. For under present conditions, widespread automation ensures mass redundancy and long-term ruin for nearly everyone. And though there are few historical precedents, surely we can read between the lines to see how societies, yielding to the dictates of ruling elites (in our times, the bureaucrats and technocrats working at the behest of unseen plutocrats), will likely deal with superfluous numbers. It is unwise to expect much leniency, especially in view of the current dismantlement of existing social safety nets and welfare systems. The real clampdown on the “useless eaters” is only just beginning.

It is advisable, therefore, to approach this arising situation with eyes wide open, recognising such inexorable labour-saving developments for what they are: not merely a looming threat but potentially, at least, an extraordinary and unprecedented opportunity. However, this demands a fresh ethos: one that truly values all human life for its own sake and not merely for its productive capacity. More specifically, it requires a steady shift towards reduced working hours and greatly extended holidays: a

sharing out of the ever-diminishing workload and a redistribution of resources (our true wealth), which will of course remain ample in any case (the robots will make sure of that).

This introduction of a new social paradigm is now of paramount concern, because if we hesitate too long in making our transition to a low work economy, then hard-line social and political changes will instead be imposed from above. Moves to counter what will be perceived as a crisis of under-employment will mean the implementation of social change but only to benefit the ruling establishment, who for reasons that are abundantly clear will welcome the rise in wealth and income disparity along with the further subjugation of the lower classes – the middle class very much included.

When physicist Stephen Hawking was asked the question “Do you foresee a world where people work less because so much work is automated?” and the follow up “Do you think people will always either find work or manufacture more work to be done?” He replied:

“If machines produce everything we need, the outcome will depend on how things are distributed. Everyone can enjoy a life of luxurious leisure if the machine-produced wealth is shared, or most people can end up miserably poor if the machine-owners successfully lobby against wealth redistribution. So far, the trend seems to be toward the second option, with technology driving ever-increasing inequality.”¹²⁹

It is an answer that broadly echoes Wilde’s foresight of more than a century ago; the main difference being the placement of stress. Hawking emphasises the threat of what he calls the “second option,” whereas Wilde encourages us to press ahead in order to realise Hawking’s “a life of luxurious leisure” for everyone.

Doubtless, there will always be a little useful work that needs doing. Though ultimately robots will be able perform all menial, most manual and the vast majority of mental tasks with greater precision and efficiency than any human brain and hand no matter how expert, there will remain the preference and the place for the human touch. In education, in medicine and nursing, care for the elderly and sick, and a host of other, sometimes mundane tasks and chores: emotionally intricate, kindly and compassionate roles that are indispensable to keeping all our lives ticking pleasantly along. But the big question today is actually this: given the cheapness and abundance of modern labour-saving equipment, how is it that, even in the western world, instead of contracting, working hours are continuing to rise? And the question for tomorrow – one that the first question contains and partially obscures – is this: given complete freedom

and unrestricted choice, what would we actually prefer to be doing in our daily lives? As Bertrand Russell wrote:

“The wise use of leisure, it must be conceded, is a product of civilization and education. A man who has worked long hours all his life will become bored if he becomes suddenly idle. But without a considerable amount of leisure a man is cut off from many of the best things. There is no longer any reason why the bulk of the population should suffer this deprivation; only a foolish asceticism, usually vicarious, makes us continue to insist on work in excessive quantities now that the need no longer exists...”

“Modern methods of production have given us the possibility of ease and security for all; we have chosen, instead, to have overwork for some and starvation for others. Hitherto we have continued to be as energetic as we were before there were machines; in this we have been foolish, but there is no reason to go on being foolish forever.”¹³⁰

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I was about twelve when I took my first flight. It was onboard a Douglas DC9 and I was travelling to Vienna on an exchange trip. I was so excited and not afraid at all – or at least not afraid of the flight. Indeed, I recall how this was the main question older relatives kept asking and I found their obsession puzzling more than anything. But as I have grown older I have sadly developed a fear of flying. This is annoying in the extreme. Why now... when I'm middle-aged and have so much less to lose? But fear is only seldom a purely rational impulse.

Not that it is half so irrational as we are told to have a severe anxiety about being catapulted inside a thin metal capsule six miles up and at close to the speed of sound. Statistics are one thing but being in the presence of sheer physical danger is another. That said, fear of flying is surely as much about loss of control as anything. For why else did my own fear of flying worsen as I got older? Children are more accustomed than adults to feeling powerless, and so better able to relish the excitement of situations totally outside of their control.

Whole societies – or at least majority sections of societies – also suffer with phobias. Like our private fears, these collective fears held by social groups are frequently rooted in some sense of an impending loss of control. Fear of foreigners, fear of financial collapse, and fear of “terror”. But seldom considered is another societal phobia: our collective ‘fear of flying’. Flying in the poetic sense, that is: of fully letting go of the

mundane. Instead, it seems our common longing is to be grounded: an understandable desire.

Why else, scarcely a century since the Wright Brothers' miraculous first flights, do today's air passengers find flying (that ancient dream) so tiresome that our commercial airlines serve up non-stop distractions to divert attention away from the direct experience? Indeed, listening to those familiar onboard announcements bidding us a pleasant flight, we are inclined (and very likely reclined) to hear the incidental underlying message: "we are sorry to put you through the dreary inconvenience of this journey".

We fly and yet we don't fly – or not as those who first dreamt of flight imagined. Flight has instead been transformed from visionary accomplishment into a nuisance and taken entirely for granted by the clock watchers impatiently kicking our heels beneath the slow-turning departure boards.

And just why are today's airports such sterile and soul-destroying anti-human spaces? Presumably because this is again what modern humans have come to expect! The same can be said for so many facets of modern life. If we can transform the miracle of flight into a chore, then it follows that we can turn just about any activity into one.

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Addendum: The future of work or not?

Due to its historical roots in workers' movements,* the political left has tended to hold a somewhat inimical position when it comes to appraising the value of work. The understandable and perfectly legitimate elevation of the worker has had a countervailing effect in terms of accentuating the virtuousness of work *per se*, thereby adding to the weight of received wisdom that to endure toil and hardship is somehow intrinsically valuable. This is why the left has fallen into the habit of making a virtue out of the central object of the oppression it faces.

So what is the goal of the political left (of socialism, if you prefer)? What is its aim, if not, so far as it is possible, to fully emancipate the individual? For whatever dignifies and ennobles labour, and however understandable it may be as a strategy, to celebrate work for its own sake, disguises the base truth that only seldom is it edifying, and more often just a millstone, frequently a terrible one, which, if we are ever to become truly "free at last," ought to be joyfully laid aside.

Since writing most of the above chapter the *Zeitgeist* has shifted remarkably. Suddenly technological unemployment is treated as a serious prospect and debated as a part of a wider political discourse on future trends. Introduced into this new debate, especially on the left, is the proposal for a 'Universal Basic Income' *i.e.*, money provided to everyone by the state to cover basic living expenses. Importantly this payment would

* Without an upwelling of righteous indignation amongst the oppressed rank and file of working people, no leftist movement would ever have arisen and gained traction. Yet, the political left also owes its origins to the early cooperative movements, a spontaneous awakening of enlightenment humanists, to the Romantics, and most importantly, to fringe religious groups. Tony Benn famously said that the formation of the Labour Party in Britain owed "more to Methodism than Marx".

In 1832 six agricultural labourers formed a friendly society to protest against their meagre wages. George Loveless, a Methodist local preacher, was the leader of this small union – the other members included his brother James (also a Methodist preacher), James Hammett, James Brine, Thomas Standfield (Methodist and co-founder of the union) and Thomas's son John. These men were subsequently arrested, convicted and sentenced to transportation. Three years later, and following a huge public outcry which involved a march on London and petitions to parliament, they were issued pardons and allowed to return to England as heroes. This small band of men is now collectively remembered as the Tolpuddle Martyrs.

But the origins of socialism in Britain can be really traced as far back as the English Civil War and indeed earlier again to Wat Tyler's Peasants' Revolt of 1381, when the workers of the Middle Ages, inspired by the teachings of the radical priest John Ball, took their demands directly to the King Richard II who reneged on his concessions and had them hunted down.

be provided irrespective of how many hours a person works and has no other (discernable) strings attached.

UBI is certainly a very bold initiative as well as a plausible solution to the diminishing need for human workers in the coming hi-tech era. Unsurprisingly, I very much welcome it, at least in principle, but wish also to offer a small note of caution. Before large numbers of us are to able to live solely by means of a state provided UBI it will be essential to adjust societal norms relating to work. There can be no stigma in idleness. For if UBI is seen as merely a state handout and its recipients as welfare dependents, then we put them all into severe danger.

After all, work historically equates to status and money and until this ingrained relationship is eroded away, anyone subsisting on UBI alone would rather quickly sink to the level of a second-class citizen. Which is why I propose the better approach to UBI must aim to advance by taking baby steps: reducing days and hours, increasing holidays, lowering pensionable age, as well as expanding education – we must in fact think of eventually offering the luxury of lifelong education for all. Given where we start from today, to attempt to leap to it with one giant stride is surely too much of a risk. If UBI is truly our goal then we might reach it best by trimming work back until it barely exists at all.

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Chapter 7: Lessons in nonsense

*'Tis strange how like a very dunce,
Man, with his bumps upon his sconce,
Has lived so long, and yet no knowledge he
Has had, till lately, of Phrenology—
A science that by simple dint of
Head-combing he should find a hint of,
When scratching o'er those little pole-hills
The faculties throw up like mole hills.*

—Thomas Hood[†]

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I am a teacher and so people often ask if like teaching, and sometimes I say I do, but then at other times I tell them I don't. That's work basically, except for an exceptional few who truly love, as opposed to merely tolerate, all aspects of the work they have to do. Having said that, teaching is a suitable occupation for me. It keeps me thinking about a favourite subject, and introduces me to some new and interesting people, albeit in rather formal circumstances.

Naturally enough I told myself that I'd never become a teacher – many teachers will say the same, at least when they're being honest. But that's work again, unless you're one of the fortunate few. So what's my beef? Well, just that really. Here I am being honest with you and yet I know that what I'm saying isn't enough. Okay, let me expound more fully.

A few years ago I was offered redundancy and accepted. So I was back on the shelf. Needing another job and to give myself any realistic chance of success, I'd have to recast myself somewhat. Imagine if I turned up at the interview and I said more or less what I've just told you.

“Tell us why you want the job,” they'd ask, and my honest answer: “I need some money. I'm a decent teacher and I have a firm grasp of my

[†] Thomas Hood, *Craniology*, reported in *Hoyt's New Cyclopaedia Of Practical Quotations* (1922), p. 597.

subject. This could be one of the best offers I'll get..." Well it just won't do. No, as I say, I'd need to recast myself. Something more like this:

"I'm a highly experienced professional, looking for an exciting new challenge. I enjoy working as part of a team. I have excellent communication skills. I have excellent organisational skills. I have excellent people skills. I have excellent skills in personally organising communications. I have excellent skills in communicating to organised persons. I have excellent skills in organising communications personnel. Because of the outcomes-based nature of my teacher-training programme, I have developed a thorough understanding of the collection of evidence and portfolio-based approach to assessment. I'm very good at filing. I welcome the opportunity to work with students of different ages, cultures, ethnicities, genders and sexual orientations. I believe that I am ideally suited to the post of part-time classroom assistant and I want to have your babies..."

Well okay then, just try getting a job if you say otherwise.

*

I used to work in the public education sector. I ought perhaps to protect the name of the establishment itself, so let's just say that for almost a decade I lectured A-level physics to a mix of students, with a range of abilities and nationalities, in a typical northern town... which covers the CV more or less.

As with every other college and university today, we were quite literally in the business of education; further education colleges having been "incorporated" by John Major's government under the Further and Higher Education Act (FHEA) of 1992. Once at a meeting I was informed of my monetary value to the institution (which wasn't much). Because the most important thing was that the college had to break even, although, as time went on, it rarely did.

Being in business also meant dealing with competition – primarily from other local schools and colleges. "Promotion," then, which happens to be one of "the four Ps of marketing,"* involved pitching our unique selling points – in this case, a national BTEC diploma in forensic science which

* The 4 Ps of marketing were Product, Price, Promotion and Place. This is the so-called "producer orientated model" but after decades of research, it was revised to become the 4 Cs of the "consumer-orientated model," with the original Ps replaced respectively by Consumer, Cost, Communication, Convenience. Of course, in reality 'Promotion' has very little to do with actual 'Communication' and much more to do with Edward Bernays' long-since abandoned P: 'Propaganda'.

was ideal for attracting budding students away from the latest series of *CSI: Crime Scene Investigation* and daytime re-runs of *Quincy*.

Meanwhile, an impressive new body of staff dedicated to marketing and publicity had to be gradually assembled, and then another sizeable team assigned to deal with “student services”. It was the marketing department who coined our corporate mission statement: “Meeting learner needs and aspiring to excellence,” which as a dedicated workforce we committed to memory to draw upon for inspiration during dreary afternoon classes in Key Skills Information Technology.

But no college is just a business, and in spite of appealing to a foreign market (a small number of students having been attracted from as far afield as China and Hong Kong), by far the biggest part of each year’s fresh cohort were home students, with funding provided out of the public purse. So the regulatory agency *Ofsted* with its own teams of inspectors would come now and then to tick their own assessment boxes. The “quality of learning provision” was not apparently guaranteed by market forces alone, because our adopted business model only went so far – markets are generally supposed to ensure quality too, but not in education.

So to ensure that our annual government targets were being reached, new management roles in “quality assurance” also opened up. The further paperwork, combined with already tight budgets made tighter by administrative growth, meant it was harder again to actually balance the books, or at least to reduce the losses. Eventually, a firm of management consultants were hired, and then another firm, putting together reports that were either promptly forgotten or used to justify the multiplication of methods for cutting costs: these included laying off teaching staff and generating yet more paperwork. A vicious circle justified on the basis of ‘quality’ and ‘efficiency’ had resulted in conditions for both staff and students that simply got worse and worse.

So it’s funny remembering a time, not very long ago, when colleges had operated with hardly any management or administrative staff at all. The odd secretary, a few heads of section, and a principal were quite sufficient to keep the wheels turning in most educational establishments. Whereas, as the very model of modern FE college, plagued by bureaucratic waste and inefficiency, hampered at every turn by tiers of micro-management, there was insufficient funding for the real business of education. John Major’s incorporation of the FE sector had also led to year-on-year declines in real-terms wages for the teaching staff, who were increasingly made to feel like an unwanted overhead. “Struggling to survive and steadily achieving less” is not a mission statement, but it would at least

have been more honest and to the point. Or, alternatively, I suppose we could have gone with the altogether lackadaisical: “do we look bothered?”

*

In one way, the problem here goes back all the way to Isaac Newton, and then to just a little before him. It was Newton, after all, who had decisively proved a truth that, whenever I pause to reflect on it, I still find rather startling: that the universe behaves according to elegant mathematical laws. Little surprise then, that following the unprecedented success of Newton’s approach to establishing universal laws that had so elegantly replaced the everyday disorder of earlier natural philosophies, those working in other fields, would also try out the Newtonian approach of quantifying, theorising and testing: intent upon finding equivalent fundamental laws that operate within their own specialisms. Once scientists had assumed the role of the new high-priests and priestesses of our post-Newtonian age, what better model to follow?

But why does science work at all? Is it simply that by applying careful measurement and numerical analysis, we might make smarter decisions than by using common sense alone, or that the universe really is in some sense mathematically accountable? That it works because God is inexplicably into algebra and geometry. The truth is that no-one knows.

But if the universe was not conducive to such logical and numerical analysis, then natural phenomena could be measured, data collected and collated, and yet all of this cataloguing would be to no avail. For outcomes can be forecast, within limits that can be precisely determined too, only because maths accurately accounts for the behaviours of atoms, of forces and energy, and so forth. God may or may not play dice (and the jury is still out when it comes to the deeper philosophic truth of quantum mechanics) but when you stop and think about it, it’s strange enough that the universe plays any game consistently enough for us to discover any rules to it at all.

So what of the experts in the other widely varied disciplines? Disciplines rather more susceptible to the capriciousness of our human follies and foibles. Ones that are now called the ‘social sciences’, and following these to still lower rungs, the so-called theories of management and business. Taking their lead from Newton, experts in all these fields have turned to quantification, to the collection and collation of data, setting off with these data to formulate theories which are in some sense assumed universal – ‘theory’, in any case, being a word that takes a terrible bashing these days.

In Science, the measure of a theory is found in two things: predictability and repeatability, since the theory must inherently allow ways to be tested – and here I mean tested to destruction. If rocks didn't fall to Earth with constant acceleration then Newton would be rejected. If the Earth didn't bulge at the equator, if the tides didn't rise and fall as they do, and if for other reasons Newton couldn't account for the extraordinary multiplicity of natural phenomenon, then Newton must step aside – as Newton finally has done (to an extent). But where is the predictability and repeatability in the theories of the social sciences or taught in the business and management schools?

About two centuries ago in the early eighteenth century, a German physician named Franz Joseph Gall noticed that the cerebral cortex (the so-called 'grey matter') of humans was significantly larger than in other animals. Naturally enough, he drew the conclusion that it must be this exceptional anatomical feature that made humans intellectually, and thus morally, superior.

Gall also became convinced that the physical features of the cortex were directly reflected in the shape and size of the skull. Having observed how the shape of the outside of the cranium is related to the shape of the inside, he thus concluded that the general structure of the cerebral cortex, since it correlates with the bumps on someone's head, ought to be a potentially decipherable indicator of the way that person thinks, and therefore a sign of their innate character.

Gall's ideas led to the discipline known as phrenology – the reading of the bumps on your bonce – which became a popular and rather serious area for study. Throughout the Victorian era, but especially during the first half century of the nineteenth century, there were phrenological experts aplenty, and after more careful researchers had proved Gall's basic premise wrong, by showing that the external contours of the skull did not in fact closely match the shape of the brain, phrenology did not immediately lose all of its appeal; a few diehards continuing to study phrenology into the early years of the twentieth century.

In an important sense, we might be well advised to recognise that such people really were 'experts', just as informed about the detailed ins and outs of their subject as any expert must be, and, perhaps more importantly, able to speak its language. That phrenology is actually bunkum, and that its language is therefore pure and unadulterated gobbledegook doesn't in fact make them any lesser experts in their field. Indeed, it's all-too easy to forget that considerable training and painstaking effort is almost always necessary if one is to become a competent specialist in the fashionable nonsense of the day.

*

Richard Feynman, who was undoubtedly one of the greatest of modern physicists, got especially upset by what he saw as the increasing misappropriation of supposed scientific method in areas outside of scientific scope. He coined the useful term “cargo cult science,” drawing a parallel with the stories of Pacific Islanders who, after the Allies departed at the end of the war, had mocked up the old airstrips and acted out the same rituals they had witnessed, with headphones and airdrops made of bamboo or whatever, desperate in the hope that they would bring the cargo planes back. Obviously, it didn’t work; any more than flapping your arms is enough to make you fly.

Feynman’s point was that the same goes for science and scientific method. That merely doing and re-doing the things that the scientists also do is not enough to make you a real scientist. Testing something you’ve called ‘a hypothesis’ doesn’t automatically ensure that your results will be any more valid. Whilst correlation is never a sufficient proof of causation. But Feynman also makes a more important point. That as a scientist, you must always have in the back of your mind, thoughts about the billion and one ways you might be wrong: science being founded upon uncertainty and rigorous empirical testing. Indeed, Feynman goes on to say that science requires a special kind of integrity, an honesty that is far beyond the honesty expected in everyday relationships, even when dealing with the most saintly of people. Scientific integrity not simply requiring that one sticks to the truth as found, but, that in addition, one must acknowledge every reasonable doubt against your own beliefs or theories in whatever ways they fail to account fully for that discovered truth. Nothing less than this will do:

“It’s a kind of scientific integrity, a principle of scientific thought that corresponds to a kind of utter honesty – a kind of leaning over backwards. For example, if you’re doing an experiment, you should report everything that you think might make it invalid – not only what you think is right about it: other causes that could possibly explain your results; and things you thought of that you’ve eliminated by some other experiment, and how they worked – to make sure the other fellow can tell they have been eliminated.

“Details that could throw doubt on your interpretation must be given, if you know them. You must do the best you can – if you know anything at all wrong, or possibly wrong – to explain it. If you make a theory, for example, and advertise it, or put it out, then you must also put down all the facts that disagree with it, as well as those that agree with it. There is also a more subtle problem. When you have put a lot of ideas

together to make an elaborate theory, you want to make sure, when explaining what it fits, that those things it fits are not just the things that gave you the idea for the theory; but that the finished theory makes something else come out right, in addition.”¹³¹

Feynman properly gets to the heart of what it means to commit oneself to the call of science. For most professions may indeed be “conspiracies against the laity,” as George Bernard Shaw once famously wrote – most pointedly with regards to the profession of medical doctors – but a committed scientist (and Feynman is a wonderful example) has no interest in deception. Deception, and its partner in crime, delusion, being precisely what science attempts objectively to eliminate:

“I would like to add something that’s not essential to the science, but something I kind of believe, which is that you should not fool the layman when you’re talking as a scientist. I am not trying to tell you what to do about cheating on your wife, or fooling your girlfriend, or something like that, when you’re not trying to be a scientist, but just trying to be an ordinary human being. We’ll leave those problems up to you and your rabbi. I’m talking about a specific, extra type of integrity that is not lying, but bending over backwards to show how you are maybe wrong, that you ought to have when acting as a scientist. And this is our responsibility as scientists, certainly to other scientists, and I think to laymen.

“For example, I was a little surprised when I was talking to a friend who was going to go on the radio. He does work on cosmology and astronomy, and he wondered how he would explain what the applications of this work were. ‘Well,’ I said, ‘there aren’t any.’ He said, ‘Yes, but then we won’t get support for more research of this kind.’ I think that’s kind of dishonest. If you’re representing yourself as a scientist, then you should explain to the layman what you’re doing – and if they don’t want to support you under those circumstances, then that’s their decision.”¹³²

Feynman then goes on to make comparison between the modern purveyors of the various kinds of pseudoscience with earlier witch doctors, although he might instead have said ‘high priests’. And it is important to understand that he is not necessarily saying that the witch doctor or the high priest is a deliberate charlatan, for it may well be that such exponents, the Victorian phrenologists providing again a helpful illustration, vehemently believe in their own quackery. The bigger point he makes is that many systems, or ‘theories’, lack the essential ingredient to make them authentically scientific.

Here, then, is Feynman making a personal assessment of how cargo cult science was already being used to mould society and to shape our lives as long ago as 1974:

“But then I began to think, what else is there that we believe? (And I thought then about the witch doctors, and how easy it would have been to cheek on them by noticing that nothing really worked.) So I found things that even more people believe, such as that we have some knowledge of how to educate. There are big schools of reading methods and mathematics methods, and so forth, but if you notice, you’ll see the reading scores keep going down – or hardly going up in spite of the fact that we continually use these same people to improve the methods. There’s a witch doctor remedy that doesn’t work. It ought to be looked into; how do they know that their method should work? Another example is how to treat criminals. We obviously have made no progress – lots of theory, but no progress – in decreasing the amount of crime by the method that we use to handle criminals.

“Yet these things are said to be scientific. We study them. And I think ordinary people with commonsense ideas are intimidated by this pseudoscience. A teacher who has some good idea of how to teach her children to read is forced by the school system to do it some other way – or is even fooled by the school system into thinking that her method is not necessarily a good one. Or a parent of bad boys, after disciplining them in one way or another, feels guilty for the rest of her life because she didn’t do ‘the right thing,’ according to the experts. So we really ought to look into theories that don’t work, and science that isn’t science.”¹³³

*

Before we start applying theories to education then, or offering up diagnoses in other social spheres, we might reasonably ask what does it *actually* mean to make measureable improvements – is this something that can be so very precisely determined?

In education the argument is made that we can judge from ‘success rates’, but then every measure of success is automatically predefined within an established paradigm: an orthodoxy that then is left unchallenged. Of course, science has the remarkable property of re-setting its own paradigms, as its own extraordinary history amply demonstrates, but do the models used in sociology, pedagogy, management practice and business also have this property?

More generally, when the experts in business and management theory have established the rules, what proof do they have that these are not merely rules to games of their own making? For how can we be certain that, as Feynman puts it, “those things it fits are not just the things that gave you the idea for the theory”? And how shall we know that it actually makes

“something else come out right, in addition”? Indeed, how is it possible to demonstrate that any preferred management system is better or optimal?

More often than not, evidence is sought by considerations of ‘deliverables’ and beyond this of profits. The bottom-line becomes our guarantee because money appears to be the safest and surest instrument when we demand purely numerical answers. And in making evaluations at the societal level, it’s always the economy, stupid! But if money is the ‘hardest’ measure, then the question becomes (or ought to): what does it finally measure? I will save my thoughts on that for a later chapter.

*

What is education? Here’s my first stab: education is a method of communicating skills or ideas to another person. Or here’s a dictionary definition: “systematic instruction”; “development of character or mental powers”. Yes, a system for helping minds to develop – that sounds about right. So what’s required then to successfully educate our population? Well, I’d suggest that it boils down to more or less two preferred ingredients: i) interested students and ii) teachers who are both able and willing to teach. To help this process to work a little better we ought obviously to try to increase the likelihood of successful transmission of key information and skills, so it will certainly be helpful if the ratio of interested students to dedicated teachers is kept on the low side (I’d say from experience around 10:1 is a good number). Do we need to constantly assess the quality of this learning provision? Well isn’t that the purpose of final exams, which seem to be an unfortunate but necessary evil in any formal system of education.

But now I would like to go further again. For any approach to education that puts so much emphasis on ensuring ‘quality’ misses the point. Learning is a very different process to the manufacturing of parts on a production line. So if we apply the assembly line model (and to a great extent we do precisely this), at best our students will be turned out like precisely engineered cogs and, at worst, they may be turned into spanners! There just has to be a better approach – a frankly more *laissez-aller* approach.

Let’s go back to our own beginnings, and try to remember how wonderful it was when we felt the awakening of such fabulous new powers as walking and talking. Everything in our lives follows from those original awakenings, of finding first our feet and then our voices, and all the most valuable lessons in our lives have in some way or another continued that process of awakenings. Yet these two universal feats – achieved by literally everyone on earth who isn’t suffering from a serious physical or mental

disability – are almost impossibly complex and subtle achievements. Just think how difficult it is to learn a second language, and yet, you learned the basics of your native tongue with almost no direct training. So we are all born with the greatest capacity for learning; and we might better think of children as little learning machines (except not machines, of course, that's the point). Rather, children learn in much the same way that caterpillars chew leaves: they just can't help nourishing themselves with juicy knowledge.

Not that I'm claiming education is necessarily easy. It isn't. There are usually growing pains too. It is unpleasant to discover that your ideas are incorrect, and yet correcting established prejudices and erroneous presumptions is at the heart of all true learning. Indeed, learning is probably a difficult and tedious thing more often than it's a pleasure – and especially so as we get older and the things we first need to unlearn have become so deeply engrained that it feels like a trauma to erase them. But learning, like most activities, should be enjoyable wherever and whenever this is possible. Why would anyone wish to make it otherwise?

In my own experience as a teacher, what matters most, assuming that the student is keen and relatively able, is persistence and encouragement – and certainly not tests and assessment. And whilst obviously people need to be able to read and write and add up and do all the other basic stuff necessary to function in society, just as we all need air and water for our bodies, education, if it is to be most nutritional, must also develop our higher faculties. It should expand a student's scope not merely for interpreting the world about them and developing abilities to express whatever thoughts they have about it, but of heightening responsiveness. Because, and increasingly this is forgotten, education is so much more than training, as important as training can be – society needs its plumbers, but it needs its poets too.

That education is the cornerstone to a functioning democracy is a commonplace, yet just behind the platitude lies a richer vision of what we might mean by education. For democracy in the truest sense depends upon an enlightened version of education, which provides not only a safeguard against the social curses of ignorance, but that promotes knowledge and understanding because these are prerequisites for individual freedom, and by extension, for ensuring political freedom more generally. Happily, a more enlightened education of this kind is also a lifelong blessing for all who receive it. Better still, if real education makes the world more interesting and enjoyable, as it should, then this in turn makes for a more interesting and enjoyable world. Let's take things from there.

I nearly forgot to mention what happened a few years ago. We had a change of principal at the college. The old guy who was loathed and feared suddenly retired and was replaced by a bright Young Turk. One day, our new principal arranged a meeting and told us all about the exciting future that lay ahead. Gone were the days of tedious education as soon we would welcome in the brave new world of ‘edutainment’ and ‘leisurecation’:

“I once saw a guy teaching physics by lying on a bed of nails,” he told us enthusiastically, and by way of an example... hand on heart, I’m not making any of this up!

Thankfully we never introduced either ‘edutainment’ or ‘leisurecation’, for if indeed these terms can be translated into anything at all meaningful, then it is simply this: use any tricks at all to distract the students from the necessary exertions of learning. Even if that means bringing a bed of nails into the classroom. After all, they’re the customers.

Well, our new principal had the ear of the then-Secretary of State for Education, or so he informed us, and she was sold on his grand designs. The old buildings, he said, were riddled with concrete cancer and asbestos, but in a couple of years we’d be relocated to a brown field site on the other side of town becoming “the world’s first multiversity” – £100 million rings a vague bell. And yes, he said that too, “multiversity”. He was never short on portmanteau neologisms.

We did relocate and it did cost a small fortune, more than enough to break the bank. Soon after, our bright young principal relocated himself, jumping ship in the nick of time, having been handsomely rewarded (in spite of his failures) with promotion to the post of vice-chancellor at one of the new universities. Meantime, others who had attended his meeting were left to foot the bill, accepting another pay-freeze, and then cajoled into teaching longer hours to larger classes for improved “efficiency,” which meant, as a direct consequence, struggling with more paperwork than ever. All this was again to the detriment of both staff and students.

But soon there came a more certain nail to our coffin, after one of the mandatory *Ofsted* inspections reached the conclusion that the college was failing. Their reason? Although teaching and learning had been passed as satisfactory (and please note that this was before *Ofsted* downgraded their ‘satisfactory’ grade to mean unsatisfactory!*) *Ofsted* nevertheless failed our college on grounds of poor leadership and management.

* “Education watchdog *Ofsted* wants to toughen the language of inspections in England – changing the ‘satisfactory’ rating to ‘requires improvement’. “*Ofsted*’s chief inspector, Sir Michael Wilshaw, wants to send a message that ‘satisfactory’ is now unsatisfactory and that

So the management took the hit, right? Well, not exactly. The disappointing *Ofsted* results now allowed an already bloated and overbearing system to be expanded. As new tiers of management were hastily installed, those teaching were soon faced with extra hoops and hurdles. More management, not less, was the only way to redress the failures of leadership – turkeys being disinclined to vote for Christmas – and inevitably this meant a commensurate growth in paper-chasing checks on quality assurance and target attainment. For an already overstressed and deeply demoralised teaching staff it was more than too much, and that’s why so many of us grabbed the offer of redundancy cheques and headed for the exits (staff redundancies being another part of this new drive for ‘increased efficiency’). If I have any personal regret, it is only that I couldn’t have escaped sooner.

*

more schools should be pushing for the higher rating of ‘good’.”

From a *BBC news* article titled “Ofsted plans to scrap ‘satisfactory’ label for schools,” written by Sean Coughlan, published January 17, 2012. Read more here: www.bbc.co.uk/news/education-16579644

Addendum: Could do better...

Earlier I posed the rhetorical question: “what does it *actually* mean to improve education?” Because when considered in general terms here is a question that is next to impossible to answer. However, anyone teaching a specialist subject will have a good idea of whether standards in schools and colleges have been rising or falling in their own discipline.

Over the period of more than two decades, I can personally testify to a steady decline in standards in my own subjects (physics and maths). In parallel with reductions in technical difficulty, there has been a commensurate lowering in the level of grades. Changes that were well underway long before I first called a register.

Indeed, our long leap backwards undoubtedly began when O-levels were replaced by GCSEs. A more steady atrophy has continued ever since, the impetus for this decline given an occasional helping hand as with, for instance, the introduction of AS-grades. In physics, the current AS is now around O-level standard (in fact probably lower than that), which means that, unless we now teach A-level twice as effectively (and we don't) the standard of the full A-level has drastically fallen.

If you think I'm being unfair and nostalgic, then I recommend that you do a little research of your own. Pick up any GCSE textbook and compare it to a textbook from thirty-odd years ago. The differences are immediately obvious – again, in my own subjects – and these aren't merely differences in style (something that is likely to shift over time) but in content too – both in breadth and in depth. If you still remain unconvinced after perusing a textbook or two, then I'd further advise that you take a look at an old-style exam paper. Is the difficulty of an exam paper today really equivalent to a paper from thirty or forty years ago? The quick answer is no.

And it is not simply that the level is lower but that later papers are much more structured than older ones. Questions that once existed as whole puzzles waiting to be unravelled, are today parcelled neatly into bite-sized pieces, and always with each of the parts correctly sequenced:

“GCSEs and A-levels in science and geography are easier than they were 10 years ago, the exams regulator has said. Standards have slipped, with teenagers often facing more multiple choice and short structured questions and papers with less scientific content, according to reports published by *Ofqual*. The watchdog conducted reviews of GCSEs and A-levels in biology and chemistry between 2003 and 2008 as well as A-level geography between 2001 and 2010 and A-level critical thinking in 2010. The findings show that among the GCSEs, changes to the way the

exams were structured had ‘reduced the demand’ of the qualifications, while the A-level reviews found that changes to the way papers were assessed had in many cases made them easier.^{9,134}

This was the verdict of the government’s own watchdog *Ofqual* making an assessment in 2012 of the relative standard of GCSE’s and A-levels compared to those taken just one decade before. In short, there is little point in denying that standards have fallen. As for the biggest official giveaway - well, that was surely the introduction of the GCSE A* grade. Likewise, the lead guitarist in spoof rock band Spinal Tap had the knob on his amplifier recalibrated to go up to level eleven![†]

*

A few years ago (you’ll see more precisely when as you read on) I happened to be working at a university laboratory, when I came across the following joke. It’s a good one:

Teaching Maths In 1970

A logger sells a lorry load of timber for £1000.
His cost of production is $\frac{4}{5}$ of the selling price.
What is his profit?

Teaching Maths In 1980

A logger sells a lorry load of timber for £1000.
His cost of production is $\frac{4}{5}$ of the selling price, or £800.
What is his profit?

[†] For those unfamiliar with the mockumentary *This is Spinal Tap* in which the eponymous British rock group are on tour in America to promote their latest album. At one point the band’s lead guitarist Nigel Tufnel (played by Christopher Guest) is showing the fictional maker of the documentary Marty Di Bergi (played by Rob Reiner) his collection of instruments. When Tufnel shows Di Bergi one of his amplifiers that has a knob which goes up to eleven, Di Bergi asks him, “Why don’t you just make ten louder and make ten be the top number and make that a little louder?” Tufnel’s baffled reply is: “*These go to eleven.*”

Incidentally, anyone who has ever used *BBC iplayer* will be familiar with a digital homage to Tufnel’s celebrated amp. In truth, it’s one of those jokes that wears thin so quickly, you almost immediately forget it was ever a joke to begin with.

Teaching Maths In 1990

A logger sells a lorry load of timber for £1000.

His cost of production is £800.

Did he make a profit?

Teaching Maths in 2000

A logger sells a lorry load of timber for £1000.

His cost of production is £800 and his profit is £200.

Your assignment: Underline the number 200.

Teaching Maths in 2009

A logger cuts down a beautiful forest because he is totally selfish and inconsiderate and cares nothing for the habitat of animals or the preservation of our woodlands.

He does this so that he can make a profit of £200. What do you think of this way of making a living?

Topic for class participation after answering the question: How did the birds and squirrels feel as the logger cut down their homes? (There are no wrong answers. If you are upset about the plight of the animals in question counselling will be available).

Multiple copies had been printed out on A4 and left on one of the lab benches (perhaps accidentally on purpose – who knows?). But evidently someone at the university was having a good old laugh at the state of the nation's education system.

*

Chapter 8: The unreal thing

“Advertising is the rattling stick inside a swill bucket”

— George Orwell

*

“Take a card, any card, it’s your choice... but don’t let me see what it is.” The magician fans the cards flamboyantly. We know it’s a trick of course. “Three of Clubs,” he tells us. We shake our heads dismissively – after all, we’re part of the act. The magician seems momentarily perplexed. “Do you have anything in your jacket pocket?” he asks as if desperately trying to turn our attention away from his apparent failure. We feel inside and find a sealed envelope. It’s the one we’d signed earlier in the performance. “Is the seal broken?” he asks, knowingly. “Open it – what’s inside?” We scratch our heads and quietly applaud. Somehow the magician has diverted our attention just long enough to construct the illusion of an altered reality. In truth his method was to “force” the card, and so his illusion relied on the simple fact that we really hadn’t a free choice at any stage. But we applaud because we admire his harmless deception. It amuses us to be deceived once in a while.

*

I saw an advert the other day. It read “Say No to No” which is the kind of quasi-Zen mumbo-jumbo that advertising executives get paid a small fortune to write. What was the effect of that advertisement? Well, it had suddenly interrupted my original train of thought. I’d probably been looking for the cigarette lighter or wondering how the living room table was so heaped up in junk again, but now I was reading on about how negativity gets in the way of progress. And which company, I kept wondering as I’d read down, would attach themselves to such a manifestly new age positive-thinking banner? I read on and came to examples of human achievements that left to the nay-sayers could never have happened:

“Yes, continents have been found...,” it read.

Found? By Columbus in 1492, presumably, and then Australia by James Cook. And no human had set eyes on them before? Obviously this is a rhetorical question. I read on...

“Yes, men have played golf on the moon...”

American men to be more precise. And it was indeed an incredible and truly awesome achievement – not the golf, but the travelling to the moon. When it comes to golf, there are obviously far superior facilities a lot closer to home. I read on...

“Yes, straw is being turned into biofuel to power cars...”

Well, hardly in the same league as exploration to such distant lands, but finally some inkling to where they were leading me...

I studied the picture more carefully. The words “Say no to no” are in thick capitals near the top of a blackboard already filled with images of progress and science – molecular structures, conical sections, a diagram showing a spherical co-ordinate system, graphs, line drawings of electron orbits and DNA, of animals and a ship and of course the ubiquitous pie-chart. A girl, her long straw-blond hair tied back into a pony-tail, and wearing a bright red tank top, has her back turned toward to us. She is reaching high, almost on tip-toe, into the black and white and adding the upward flourish of a spiral. Perhaps I was looking at one of those recruitment adverts for teaching, yet something told me otherwise...

And there it was – I’d found it at last – deliberately placed outside the main frame of the picture; a small, emblematic containment for all that progress: a remote, red and yellow scallop shell. The message was far from loud, but that was the point. And once spotted it was very clear, yet it had been intentionally delivered at a subliminal level – out of picture, unobtrusive, easily missed. Its instruction surreptitious and beyond the margins. Why? Because they wanted me to attach the ideas of positivity and progress to the symbol of a multinational oil corporation just as surely as Pavlov’s dogs associated lunch with the ringing of their owner’s bell. They wanted me to feel good things the next time I saw the scallop and to never even think about why.*

* Incidentally, my young nephew had added a few scribbles of his own to this advertisement and it is interesting to note where he directed his pen marks, five places in all: one over each of the girl’s hands, one on the back of her head and another on her ponytail. And his only scribble that was not on the girl was on top of the scallop. Bullseye!

*

Advertising is simply another act of illusion and as with the performing stage magician, the audience is well aware that they are being tricked. But in advertising the illusion runs deeper, so that aside from the obvious aim of persuading us to buy *Coke* instead of *Pepsi* or whatever, it very often constructs a host of other frauds. Take again the advert mentioned above as an example, with the girl reaching up on tip-toe.

Here nothing is accidental, with all parts and relationships operating together to reinforce our idea of progress as a constant striving toward a better world, whilst in the background, it only quietly dismisses any “nay-sayers” who disagree. Like many predators, advertisers work by stealth, often, as here, offering glimpses of Utopia, or of wonderful and perpetual advancement, to draw us on and in. The carrot on a stick swinging endlessly before the eyes of the befuddled donkey.

But then, on other occasions, they will take a different tack, and get out a proper stick. They’ll make us uneasy about our looks, or our lack of social status, before offering a quick fix for these problems so frequently of their own devising. There are many ways to ring our bells: both carrots and sticks are equally effective.

But then everyone says this: “Adverts don’t work on me.” So these companies spend literally billions of pounds and dollars on refining their illusions, posting them up all across our cities and towns, filling our airwaves with their jingles and sound-bites, not to mention the ever-widening device of corporate sponsorship, and yet still this remains as our self-deluding armour against such unending and ever more sophisticated assaults. I’ll bet you could find more people who’d say David Copperfield can really fly than would actually admit to being significantly influenced by advertising.

*

There probably never was a time when advertising was just that: a way to make products and services more widely or publicly known about. In such a time, adverts would have just showed pictures of the product and a simple description of its uses and/or advantages. “This is the night mail crossing the border...” – that sort of thing.

Though, of course, here immediately is a bad example, because the famous post office film is not only reminding us of what a jolly useful and efficient service our mail delivery is, but how wonderfully hard the GPO work whilst the rest of us are asleep. So on this different level Auden’s

famous homage is a feel good thing, encouraging us to connect our good feelings to the postal service; it is an early example of public relations although still harmless enough in its quiet way.

But audiences get wise, or so we like to imagine, and so today's advertisers have had to up the ante too. Gone are the days of telling you how to have "whiter whites" or advising everyone (with only a hint of surrealism) to "go to work on an egg". Nowadays you're far more likely to choose to eat a certain chewy stick because "it's a bit of an animal" (without even noticing the entirely subliminal reference to your feelings about being carnivorous) or drink a can of soft drink because "image is nothing" (which presumes a ridiculous double-think on the part of the targeted purchaser). And where once a famous Irish beverage was just "good for you," now it's better because it comes "to those who wait". Here you're asked to make an investment in the form of time; an investment that is intended to add personal value to the brand.

Adverts are loaded with these and other sorts of psychological devices – cunningly latent messages or else entertaining ways of forging brand loyalty. They prey on the fact that we are emotional beings. They use tricks to bypass our rational centres, intending to hard-wire the image of their products to our feelings of well-being, happiness, contentment, success, or more simply, the image we have of ourselves. They use special words. LOVE for instance. Just see how many adverts say "you'll love it," "kids love it," "dogs love it," "we love it," and so on and so on.... one I saw recently for condoms said simply "love sex" – talk about a double whammy!

Advertisers also like to scare us. When they are not showing us washing lines drying over the Fields of Elysium, or happy pals sharing time with packets of corn snacks, or elegant cars effortlessly gliding down open highways; they are constructing worlds of sinister dangers. Germs on every surface, and even in "those hard to reach places". Threats from every direction, from falling trees to falling interest rates. I once saw a TV advert that showed a man desperately running from a massive and menacing fracture. It was a crack that seemed to be ripping through the very fabric of space and time, an existential terror relentlessly chasing after him through some post-apocalyptic nightmare. After a minute or so the threat abated and a solution was offered. Get your windscreen checked, it calmly advised.

And the government get in on this too. *Watch out, watch out, there's a thief about! Just say no to drugs!* Sex is fun, but take precautions and *don't die of ignorance!* In these ways, they ramp up fears of the real dangers we face, whilst also inculcating a sense of trust in the powers that be. The world is a perilous and unjust place, they say (which is true);

fortunately, we are here to help you. Trust us to guide you. Obey our instructions. To protect you and your loved ones. To help you to realise your dreams. Together, we will make the world a fairer place. The constant PR refrains: “Believe,” “Belong,” “Trust,” and more recently, “Hope and Change”. O, ring out those bells!

*

Right now, there’s something refreshingly honest about smoking. Those of us who refuse or are unable to quit are left under absolutely no illusions about our little cancer sticks. We know perfectly well that each drag is bringing the grave that little bit closer. And it’s certainly not cool to smoke. Our clothes stink, our breath stinks, and stinking, we huddle outdoors, rain or shine, clattering up the office doorways with our toxic fumes and heaps of fag-ends. But it wasn’t always so. Smoking had its golden age. A time when cigarettes were an accoutrement to style and when sharing a fag with a dame was nearly as great as sex.* During this period, the tobacco industry invested a small fortune in maintaining their myth. They paid to lobby politicians, they made funds available for favourable medical research, and perhaps most significantly of all, they hired the best PR man in the business.

It can be fun to speculate on who were the most influential figures in history. Who would we wish to include? Great statesmen, formidable warriors, innovators, engineers, scientists and artists, when lists are polled for, the public generally take their pick from these, chucking in the odd saint or celebrity just for good measure. They choose between Churchill, Washington, Alexander the Great, Thomas Edison, and Albert Einstein, and if the criteria are widened to include villains as well as heroes, plump for Adolf Hitler, Mao Tse-tung, and Joseph Stalin. A selection, if you like, of the stars of the show. But what about people whose work involves them behind the scenes? What of those whose greater skill was to remain invisible or simply unnoticed? Edward Bernays was just such a man.

*

To say that Bernays was a great PR man is to do him a considerable disservice, for Bernays, who happened to also be a nephew of no lesser light than Sigmund Freud, is nowadays regarded as the father of modern PR. He wrote the book. Rather candidly he titled it simply *Propaganda* – the word

* In Hollywood films of a bygone age when censorship was very strict, sharing a fag was actually used as a metaphor for sex itself.

deriving from the Latin for “propagation” was less sullied back in 1928. In the opening chapter Bernays lays out the situation as he sees it:

“The conscious and intelligent manipulation of the organized habits and opinions of the masses is an important element in democratic society. Those who manipulate this unseen mechanism of society constitute an invisible government which is the true ruling power of our country.”

But Bernays is not warning us here, far from it. This is merely the way the world works, spinning along in a fashion that Bernays regards both as inevitable and to a great extent desirable. Better an orderly world of unseen manipulation than a world of ungovernable chaos. And it’s this point which he makes perfectly explicit in the very next paragraph:

“We are governed, our minds are molded, our tastes formed, our ideas suggested, largely by men we have never heard of. This is a logical result of the way in which our democratic society is organized. Vast numbers of human beings must cooperate in this manner if they are to live together as a smoothly functioning society.”¹³⁵

We should perhaps not be surprised to learn then that Bernays’ book was one that didn’t make it onto the bonfires of the Third Reich. Instead, Joseph Goebbels publicly praised Bernays’ work as especially influential, saying that it had formed the blueprint for his own Nazi propaganda machine. Certainly, it is a very practical guide. It delves into a great many areas and asks important questions. One of the most significant questions it asks goes as follows:

“If we understand the mechanism and motives of the group mind, is it not possible to control and regiment the masses according to our will without their knowing it?”¹³⁶

And the answer, as Bernays went on to prove with his amazing success in promoting everything from bacon and eggs to soap powder and political candidates, was HELL YES!

Working for the *American Tobacco Company*, Bernays had even piggy-backed a ride on the women’s rights movement. Offering encouragement to the fairer sex, for whom smoking in public was still very much a taboo, to keep on lighting their “Torches of Freedom.” Not that any similar strategy could work today obviously... well, not unless those torches were organically-grown by fair-trade tobacco farmers and rolled in chlorine-free paper supplied by sustainable forests, or whatever.

Bernays was the great promoter, perhaps the greatest, and he was keen to promote his own product, modern advertising, or as he called it propaganda, above all else. For Bernays, just as for his acolyte Joseph Goebbels, the future was propaganda:

“Propaganda will never die out. Intelligent men must realize that propaganda is the modern instrument by which they can fight for productive ends and help to bring order out of chaos.”¹³⁷

*

Following Bernays, advertising no longer stops at breakfast cereals, toothpaste and petrochemical companies, having extended its parasitic tendrils throughout all areas of life, so that image becomes everything. Newspapers and magazines are glossier than ever. They radiate forth into the empty void of secular consumerist existence, visions of earthly fulfilment that can be bought (at preferential interest rates) – holidays, home improvements, house moves (especially abroad), fast cars, and millionaire lifestyles.

They tell us what is right to think about: beauty, health, fashion and that oh-so elusive of attributes, style. They tell us “how to get on”. They tell us what’s worth worrying about. DO worry about your wrinkles. DO worry about your waistline. DO worry about your split-ends. DO WORRY – because you’re worth it! Just as importantly we get to learn what is worth thinking about: success, fame and glamour, which when multiplied together make celebrity. Celebrity: from the Latin *celebrare* meaning to celebrate, or to honour. So whereas the ancients believed that the fixed and eternal heavenly stars were gods, we instead are sold a parallel myth revolving around “the stars of today”.

But newspapers and magazines are nothing, for their influence pales into insignificance when set in comparison to that flickering blue screen in the corner of the living room. It is our gateway to another world, a parallel dimension, where we are welcomed back each day by our virtual friends. It is a fire to warm us. A shadowplay of mesmerising potency. And here, the ever-tantalising jam of tomorrow has finally slopped over from its earlier containment within commercial breaks, to become what is now a mainstay for entire broadcasting schedules. Carrots and sticks for us to nod along to 24/7, and three hundred and sixty-five days of the year.

It’s not even that all television is bad. Some is excellent. I would cite as an exemplar the consistently superior content of BBC wildlife documentaries, which far exceed any comparable alternative whether offered by books, radio, or at the cinema. Here is television at the very pinnacle of its achievement. Obviously a great deal on television is produced just to amuse, or amaze, and occasionally actually to inform us, and much of this merits credit too, but I do not feel it necessary to waste time pushing an open door. We all know that television can sometimes be

marvellous. But we also know that most of it is junk. Junk that, with the influx of multiple digital channels, is spread ever more thinly and widely. In a modern world television certainly has its place, but we will do well never to forget its unprecedented powers:

“Right now there is an entire generation that never knew anything that didn’t come out of this tube. This tube is the gospel, the ultimate revelation. This tube can make or break presidents’ hopes... This tube is the most awesome God-damn force in the whole godless world, and woe is us if ever it falls in the hands of the wrong people... And when the twelfth largest company in the world controls the most awesome God-damned propaganda force in the whole godless world, who knows what shit will be peddled for truth on this network. So you listen to me – Listen to me – Television is *not* the truth. Television’s a god-damned amusement park...

“We’re in the boredom killing business... But you people sit there day after day, night after night, all ages, colours, creeds – We’re all you know – You’re beginning to believe the illusions we’re spinning here. You’re beginning to think that the tube is reality and that your own lives are unreal. You’ll do whatever the tube tells you. You’ll dress like the tube, you’ll eat like the tube, you’ll raise your children like the tube. You even think like the tube. This is mass madness. You maniacs! In God’s name, you people are the real thing – we are the illusion.”

Of course, if you’ve seen the film *Network*, from which this extraordinary rant is taken, then you’ll also be aware that these are the words of a madman!*

At the top of the chapter I quoted Orwell’s no-nonsense assessment of advertising, and advertising is indeed as he describes it: the rattling stick eliciting the same Pavlovian response in the pigs as advertising executives wish to implant in our human minds. Their main intent is to push their client’s products by making us salivate with desire. This was no different in Orwell’s time. Whilst advertising’s still uglier parent, propaganda, has always aimed to change minds more fundamentally. It treats ideas as

* “I’m as mad as hell, and I’m not going to take this anymore!” These are the words of anti-corporate evangelist Howard Beale, taken from the film *Network* (1976). A satire about a fictional television network called *Union Broadcasting System* (UBS) with its unscrupulous approach to raising audience ratings, *Network* was written by Paddy Chayefsky and directed by Sidney Lumet. Most memorably, it features an Oscar-winning performance by the actor Peter Finch, who plays the part of disaffected news anchor Howard Beale. Beale, having threatened to commit suicide live on air, is subsequently given his own show. Billed as “the mad prophet,” he steals the opportunity to angrily preach against what he sees as the corporate takeover of the world, and steadily his show gathers the largest audience on television. The consequences are, of course, inevitable.

products and sells them to us. But the techniques in both advertising and propaganda have come a long way since Orwell's time.

This power to propagandise has grown in large part because of television. The blue screen softly flickering away in the corner of every living room having opened up a possibility for thousands of 'messages' each day to be implanted and reinforced over and over. Unconsciously absorbed instructions to think in preformed patterns being precisely what Aldous Huxley thought would be needed if ever the seething and disorderly masses of any ordinary human population might be replaced by the zombie castes of his futuristic vision *Brave New World*.

"Sixty-two thousand four hundred repetitions make one truth," he wrote.[†] This is a joke, but like so much in Huxley's work, a joke with very serious intent. Huxley's vision of a future dystopia being subtler in ways to Orwell's own masterpiece *Nineteen Eighty-Four*, not least because the mechanisms of mind control are wholly insidious. Huxley showing how you don't have to beat people into submission in order to make them submit. Yet even Huxley never envisaged a propaganda system as pervasive and powerful as television has eventually turned out to be.

*

Advertising involves "the art of deception" and it has never been more artful than it is today... sly, crafty, cunning, scheming, devious, sneaky, and totally calculating. However, it is increasingly artful in that other sense too: being achieved with ever greater creative skill. Indeed, the top commercials now cost more than many feature films, and, aside from paying small fortunes for celebrity endorsement, the makers of our grandest and most epic commercials take extraordinary pains to get the details right.

Engineered to push the buttons of a meticulously studied segment of the population, niche marketing techniques ensure precise targeting with optimum impact. Every image, sound and edit honed, because time is money when you're condensing your 'message' into thirty seconds. It is perhaps not surprising therefore that these commercial 'haikus' are regarded by some as the works of art of our own times. A view Andy Warhol (himself a former 'commercial artist') espoused and helped promote – though mostly he made his fortune espousing and promoting his own brand: a brand called Andy Warhol.

[†] "One hundred repetitions three nights a week for four years, thought Bernard Marx, who was a specialist on hypnopedia. Sixty-two thousand four hundred repetitions make one truth. Idiots!" From Chapter 3 of *Brave New World* by Aldous Huxley, published in 1932.

Warhol wrote that: “The most beautiful thing in Tokyo is McDonald’s. The most beautiful thing in Stockholm is McDonald’s. The most beautiful thing in Florence is McDonald’s. Peking and Moscow don’t have anything beautiful yet.”¹³⁸

Russian composer Igor Stravinsky is credited with a far better joke, having once remarked that “lesser artists borrow, but great artists steal”. As with Warhol’s quip, it fits its author well. Stravinsky here downplaying his unrivalled talent for pastiche, whereas Warhol could never resist hiding his gift for nihilism in plain sight.

But actually, advertising isn’t art at all, of course. Do I need to continue? It is a bloodless imitation that neither borrows nor steals, to go back to Stravinsky’s aphorism, but directly counterfeits. Feigning beauty and faking truth is all it knows, with a passing interest in the first in so far as it is saleable, and a pathological aversion to the second, since truth is its mortal enemy.

For if selling us what we least require and never thought we desired is advertising’s everyday achievement (and it is), then pushing products and ideas that will in reality make our lives more miserable or do us harm is its finest accomplishment. And the real thing? Like the stage magician, this is what the admen assiduously divert your attention away from. Which brings me a story. A real story. Something that happened as I was driving to work one dark, dank February morning. A small thing but one that briefly thrilled and delighted me. It was at the end of Corporation Street, fittingly enough I thought, where someone had summoned the courage to take direct action. Across the glowing portrait of a diligently air-brushed model were the words: “She’s not real. You are beautiful.”

That some anonymous stranger had dared to write such a defiant and generous disclaimer touched me. But it didn’t end there. This person, or persons unknown, had systematically defaced all three of the facing billboards, saving the best for last. It was for one of those ‘messages’ that is determined to scare some back into line, whilst making others feel smug with a glow of compliant superiority. It read: “14 households on Primrose Street do not have a TV licence” (or words to that effect).

The threat, though implicit, was hardly veiled. In Britain, more than a hundred thousand people every year were being tried and convicted for not having a TV licence. Some are eventually jailed after repeated refusal to pay.¹³⁹ But now this message had a graffiti-ed punchline which again brought home the hidden ‘message’ perpetuated by all of advertising. The spray-canned response read simply: “perhaps they’ve got a life instead.” A genuine choice the admen wouldn’t want you to consider. Not buying into things isn’t an option they can ever promote.

To add my own disclaimer: I in no way wish to encourage and nor do I endorse further acts of criminal damage – that said, photographed below is a different piece of graffiti (or street art – you decide) that I happen to walk past on my way into work. In a less confrontational way, it too has taken advantage of an old billboard space.



Addendum: A modest proposal

We are all living under a persistent and dense smog of propaganda (to give advertising and PR its unadorned and original name). Not only our product preferences and brand loyalties, but our entire *Weltanschauung* fashioned and refashioned thanks to a perpetual barrage of lies. Fun-sized lies. Lies that amuse and entertain. Lies that ingratiate themselves with fake smiles and seductive whispers. And lies that hector and pester us, re-enforcing our old neuroses and generating brand new ones. These lies play over and over *ad nauseam*.

Ad nauseam, the sickness of advertising is a man-made pandemic, with modern commercials selling not simply products *per se*, but “lifestyles”. And think about that for a moment. Off-the-shelf ideals and coffee table opinions that are likewise custom-made. Beliefs to complement your colour-coordinated upholstery, your sensible life insurance policy, your zesty soap and fresh-tasting, stripy toothpaste.

Thanks to television, we inhale this new opium of the people all day long and few (if any) are immune to its intoxication, but then advertising operates at a societal level too – since by disorientating individuals, society as a whole becomes more vulnerable to the predatory needs of corporations. So cuddling up to the box and laughing along to the latest blockbuster commercial on the grounds that “advertises don’t affect me” just makes our own delusion complete.

I might have ended on a lighter note, but instead I’ll hand over to the late Bill Hicks at his acrimonious best (and apologises for his foul and abusive language, but unfortunately here it is fully warranted):

“By the way, if anyone here is in marketing or advertising kill yourselves...”

Bill pauses to absorb any cautious laughter, then quietly continues: “Just a thought... I’m just trying to plant some seeds. Maybe, maybe one day they’ll take root... I don’t know, you try, you do what you can...”

Still scattering handfuls of imaginary seeds, but now *sotto voce* for suggestive effect: “Kill yourselves...”

Another pause and then completely matter of fact. “Seriously though – if you are – do!”

And now Bill gets properly down to business: “Ahhh – No really – There’s no rationalisation for what you do and you are Satan’s little helpers okay... Kill yourselves. Seriously. You are the ruiners of all things good. Seriously. No, No, this is not a joke... Ha, ha, there’s going to be a joke coming... There’s no fucking joke coming! You are Satan’s spawn filling

the world with bile and garbage. You are fucked and you are fucking us – Kill yourselves – It’s the only way to save your fucking soul – kill yourself...”

Then he comes to the crux of the matter: “I know what all you marketing people are thinking right now too: *‘Oh, you know what Bill’s doing. He’s going for that anti-marketing dollar. That’s a good market. He’s smart...’* – Oh Man! I’m not doing that! You fucking evil scumbags! – *‘You know what Bill’s doing now. He’s going for the righteous indignation dollar. That’s a big dollar. Lots of people are feeling that indignation. We’ve done research – huge market! He’s doing a good thing.’* – God damn it! I’m not doing that you scumbags...! Quit putting the dollar sign on every fucking thing on this planet!”

If we are ever to break free from the mind-forged manacles of the advertising industry then we might consider the option of broadcasting Bill Hicks’ rant unabridged during every commercial break on every TV channel on earth for at least a year – the obscenities bleeped out in broadcasts before the watershed!

While we’re about it, we will need a screening prior to every movie (during the commercial slots obviously) as well as key phrases rehashed into jingles and those same sound bites written up in boldface and plastered across every available billboard. Now, if you think this would be altogether too much of an assault on our delicate senses then please remember that is precisely what the dear old advertising industry does day-in and day-out. So wouldn’t it be fun to turn the tables on those in the business of deceit? And not simply to give them all a dose of their own snake oil, but to shock them with repeated jolts of truth instead.

*

Chapter 9: The price of everything

“When the accumulation of wealth is no longer of high social importance, there will be great changes in the code of morals. We shall be able to rid ourselves of many of the pseudo-moral principles which have haggardened us for two hundred years, by which we have exalted some of the most distasteful of human qualities into the position of the highest virtues. We shall be able to afford to dare to assess the money-motive at its true value. The love of money as a possession — as distinguished from the love of money as a means to the enjoyments and realities of life — will be recognised for what it is, a somewhat disgusting morbidity, one of those semi-criminal, semi-pathological propensities which one hands over with a shudder to the specialists in mental disease...”

— John Maynard Keynes[†]

*

Have you ever wondered what it’s like to be rich? Here I don’t just mean well-off, with a paltry few tens of millions in the bank, I mean proper rich – megabucks! So much money that, as I heard one comedian put it (aiming his joke squarely at the world’s richest entrepreneur), if Bill Gates were to stuff all his cash under the mattress, then due to interest alone, if he fell out of bed he’d never hit the ground!

I suppose what I’m wondering is this – and perhaps you’ve found yourself thinking along similar lines – why are these super-rich guys always so intent on accruing ever greater wealth when they already possess more than enough funds to guarantee the needs of a small country. Think about it this way: Gates and the others are, barring a few very necessary legal

[†] From “The Future,” *Essays in Persuasion* (1931) Ch. 5, John Maynard Keynes, CW, IX, pp.329–331, *Economic Possibilities for our Grandchildren* (1930).

constraints, completely at liberty to do whatever they choose at every moment of every day. They can eat the best food, drink the most delicious vintage wines, smoke the finest cigars, play golf morning, noon, and evening, and then after the sun goes down, and if it is their wont, have liaison with the most voluptuous women (or men) available. Quite literally, they have means to go anywhere and do everything to their heart's content and all at a moment's notice. Just imagine that. So why be bothering about sales at all? I mean wouldn't you eventually get bored of simply accumulating more and more money when you've already got so much – and let's face it, money itself is pretty boring stuff. So just what is it that keeps them all going after it? After all, there are only so many swimming pools, grand pianos, swimming pools in the shape of grand pianos, Aston Martins, Lear Jets, and acreages of real estate that one man (or woman) can profitably use (in the non-profit-making sense obviously). Economists would call this the law of diminishing marginal utility, although in this instance it is basic common-sense.*

Presented with evidence of this kind, some may say that here is further proof of the essential greediness of human beings. That, as a species, we are never satisfied until we have got the lot. Fine then, let us take on this modern variant of original sin, since it undoubtedly holds more than a grain of truth. For the sake of argument, we might presume that all men and women are greedy to an almost limitless extent. That from conception we are genetically programmed to grab as much as we can – the most primeval human reflex being to snatch.

But I shall not waste too much time here. My thoughts on human nature are more fully addressed in earlier chapters. Only to add that I do not find such unrestrained cupidity within the circles of people with whom I have chosen to associate, most being happy enough to share out the peanuts and fork out for the next round of beers, quite oblivious to outcomes in terms of commensurate returns. What comes around goes around... There is, of course, no doubting that most folks will, very naturally, if an opportunity arises, take advantage to feather their own nests. Making life a little more comfortable for themselves, and reserving the ample share of any fortune for their immediate family and closest friends. But then, why not...? Charity begins at home, right?

* Adam Smith applied “the law of diminishing utility” to solve “the paradox of water and diamonds”. Water is a vital resource and most precious to life and yet it is far less expensive to purchase than diamonds, comparatively useless shiny crystals, which in his own times would have been used solely for ornamentation or engraving. The reason, Smith decides, is that water is readily abundant, such that any loss or gain is of little concern to most people in most places. By contrast, the rarity of diamonds means that, although less useful overall, any loss or gain of use is more significant, or to put it more formally the “marginal utility” is greater.

What most don't do (at least in the circles I know best) is devote their whole lives to the narrow utilitarian project outlined above. And why? Because, though quite understandably, money and property are greatly prized assets, they offer lesser rewards than companionship and love. And, in any case, pure generosity is its own reward – and I do mean 'is', and not 'has' or 'brings' – the reward being an inseparable part of the act itself: a something received as it was given, like a hug, like a kiss. That said, if you still prefer to believe that we are all to a man, woman and child, innately and incurably selfish and greedy, then next time you take a look into the mirror, do consider those all-too beady eyes staring back. It's very easy to generalise about mankind when you forget to count yourself in.

But if not intractably a part of human nature, then we must find other reasons to account for how our world is nevertheless so horribly disfigured by rampant and greedy exploitation. For if greed is not an inherently human trait, and here I mean greed with a capital Grrr, then this monomaniacal obsession is all too frequently acquired, especially in those who approach the top of the greasy pole. There is an obvious circularity in this, of course. That those whose progress has depended upon making a buck very often become addicted. As money-junkies, they, like other addicts, then prioritise their own fix above all else. Whether or not these types are congenitally predisposed to becoming excessively greedy, we have no way of knowing. What we can be certain of is this: that by virtue of having acquired such great wealth, they disproportionately shape the environment they and we live in. So they are not merely money-junkies, but also money-pushers. If you're not a money-junkie then you don't know what you're missing. There's nothing new in this. This is the way the world has been for many centuries, and perhaps ever since money was first invented.

So here's Oscar Wilde again, addressing the same questions about money and our unhealthy relationship to it; his thoughts leaping more than a century, during which time very little has apparently changed:

“In a community like ours, where property confers immense distinction, social position, honour, respect, titles, and other pleasant things of this kind, man, being naturally ambitious, makes it his aim to accumulate this property, and goes on wearily and tediously accumulating it long after he has got far more than he wants, or can use, or enjoy, or perhaps even know of. Man will kill himself by overwork in order to secure property, and really, considering the enormous advantages that property brings, one is hardly surprised. One's regret is that society should be constructed on such a basis that man has been forced into a groove in which he cannot freely

develop what is wonderful, and fascinating, and delightful in him – in which, in fact, he misses the true pleasure of joy and living.”¹⁴⁰

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Isn't money funny stuff! Funny peculiar, I mean. We just take it so much for granted, almost as though it were a natural substance (disappointingly, of course, it doesn't actually grow on trees). But when we do think about it, money has far stranger properties than anything in the natural world. And our relationship to it is more peculiar than our relationship to almost anything else.

Money, that's what I want... sang the Beatles on one of their less celebrated tracks. But the truth will out. So just why did the Beatles want money, and, for that matter, why do I, and why do you? It doesn't work, you can't eat it, and it's not, of a rule, a thing of special beauty. Money is absolutely useless in fact, right until you decide to swap it for what you actually want.

Money can't buy me love, true again, but it might buy me a chocolate bar. Because money is really just a tool, a technology: a highly specialised kind of lubricant that enables people to exchange their goods and services with greater ease and flexibility. The adoption of a money system enabling levels of parity for otherwise complex exchanges to be quickly agreed and settled. The great thing about money being, to provide a concrete illustration, that although £1 of tinned herring is probably equivalent to about thirty seconds of emergency plumbing (if you're lucky), you won't require crates of herring to pay for the call-out. So far so simple.

Except wait. We all know how the price of herring can go up as well as down, and likewise for the price of emergency plumbers. So why such a dynamic relationship? Well, there's "the market," a price-fixing system that arises spontaneously, regulating the rates of exchange between goods and services on the basis of supply adjusting to match demand. Thus by a stroke of good fortune, we find that money is not merely a lubricant for exchange, but also regulatory of useful production and services. This, at least, is the (widely accepted) theory.

Prices rise and fall in accordance with demand. Things that are in short supply become expensive; things that are abundant are cheaper. This is basic economic theory and it means, amongst other things, that in every transaction the "real value" of your money is actually relative, for the simple reason that the amount required depends not only on what you're after, but also upon whether or not other people are after the same kind of thing. Money then, in terms of its "real value" to any individual or group, is

something that is constantly varying. We might call this “the relativity of money”.

One consequence of the relative nature of money is that the useful value of money overall can also rise and fall. It is possible that wholesale, retail and labour costs can all more or less rise or fall together, although the general tendency, as we all know from experience, is for overall rising costs. Indeed such “inflation” is regarded as normal and expected, and, as a consequence, it comes to seem just as natural as money itself. Yet since you always need more and more money to buy the same things then the value of your money must, in some important way, be constantly falling. But just why does money as a whole lose its value in this way? What makes yesterday’s money worth less than today’s? Well it turns out that this is a huge question and one that economists have argued long and hard about.

One partial account of inflation goes as follows: businesses and people in business are constantly looking for a little bit more. For how else can they maximise profits? In direct consequence, we, as customers, necessarily require more dosh to pay for the same goods or services. But to enlarge our budget, this automatically requires a commensurate increase in income, which means successfully negotiating for a larger salary. In the bigger picture then, the businesses supplying our wants and needs will need to cover larger wage-bills, which mean higher prices to compensate. So prices and incomes rise together, with money becoming worth less and less precisely because everyone is trying to accumulate more and more of it. This endless tail-chasing escalation, which is given the fancy title of “the price/wage spiral,” serves as an excellent example of why money is really very odd stuff indeed.

And what is money in any case? The first traders most likely exchanged shells, precious stones, or other baubles to aid in bartering, but then naturally enough, over time these exchanges would have been formalised, agreements arising with regards to which objects and materials were most acceptable as currency. The material that became most widely accepted was eventually, of course, gold. But why gold? Well, no-one actually knows but we can make some educated guesses.

Firstly, gold is scarce, and it is also rare in other ways – for instance, having a unique and unusual colour, which just happens to correspond to the colour of the Sun. The fact that it is almost chemically inert and so doesn’t tarnish means that it also shines eternally, and so again, is like the Sun. Indeed, Aldous Huxley, in *Heaven and Hell* (his sequel to *The Doors of Perception*) points out that almost every substance that humans have ever regarded as valuable shares this property of shininess. To

Huxley this is evidence that even money owes its origins, in part at least, to a common spiritual longing. Our wish to own a precious piece of paradise.

But back to more mundane matters, if gold (or any other substance) is chosen as your currency, then there arises another problem. How to guarantee the quantity and quality of the gold in circulation? For if gold is worth faking or adulterating then it's certain that somebody will try cheating.

Well, one answer could be the adoption of some kind of official seal, a hallmark, and this solution leads, naturally enough, to the earliest forms of coinage. But then, if the coins are difficult to counterfeit, why bother to make them out of gold in the first place? Just the official seal would be enough to ensure authenticity. And why bother with metal, which is bulky and heavy. So again it's an obvious and logical leap to begin producing paper banknotes. The value of these coins and banknotes, although far less intrinsically valuable in material terms than the gold they represent, is still backed by the promise that they are redeemable into gold. But hang on, what's so special about the gold anyway (aside from its shininess). And doesn't the gold, which is now locked up in bullion reserves, in fact have real uses of its own? And doesn't this mean that the gold also has a monetary value? So why not cut loose from the circularity and admit that the value of money can exist entirely independent from the gold or from any other common standard. Indeed, why couldn't the issuing authority, which might be a government but is more often a central bank, simply make up a "legal tender"* with no intrinsic or directly correlated value whatsoever and issue that? Not that the money issued need even correspond to the amount of real coins or paper banknotes in circulation – most of the world's money being bits and bytes, ones and zeroes, orbiting out in cyber-space. Which brings us to just how funny money has now become.

The pound sterling, the various dollars, the euro and every major currency on Earth are, to apply the correct terminology, "fiat currencies"† With fiat currencies there is no parity to the value of any other commodities and so they are, if you like, new forms of gold. As such, and given their shifting relative values, these new fiat currencies can also be traded as another kind of commodity. Money, in the form of currency, becoming an investment in itself. Money is strange stuff indeed.

* Legal tender is a technical legal term that basically means an offer of payment that cannot be refused in settlement of a debt.

† *Fiat* (Latin), "let it be done" meaning that these currencies are guaranteed by government decree only.

Yet money also remains as an instrument. And we use this instrument to measure just about everything. To establish the value of raw materials and manufactured items. The value of land and, by extension, the value of the space it occupies. The value of labour, and thus a value on the time used. And, since works of art are also bought and sold, money is even applied as a measure of such absolutely intangible qualities as beauty.

So money is basically a universally adaptable gauge, and this is its great strength. It is perhaps the big reason why its invention gradually caught on in such a fundamental way. From humble trading token, money has risen to become a primary measure of all things. But remember, remember... Money, whether fiat currency or gold standard, can never be real in the same way as tins of herring and plumbers are real, and neither is “monetary value” an absolute and intrinsic property, but only ever relative and acquired. Money, we ought to constantly remind ourselves (since we clearly need reminding) is nothing without us or without our highly structured civilisation – intrinsically, it is worthless. It is very strange stuff.

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Little more than a century ago and even in the richest corners of the world, there were no dependable mechanisms to safeguard against the vicissitudes of fortune. If you weren't already poor and hungry (as most were), then you could rest assured that potential poverty and hunger were waiting just around the corner. Anyone with aspirations to scale the ladder to secure prosperity faced the almost insurmountable barriers of class and (a generally corresponding) lack of education. A lower class person of such ambitions would be very well aware that if they could step onto the ladder at all, there was very little in the way of protection to save them in the event of falling; errors of judgement or sheer misfortune resulting in almost certain and unmitigated personal disaster. This was the sorry situation for people at all levels of society aside from the highest echelons.

One tremendous advantage then, of living in a modern society, is that, aside from having slightly less restricted social mobility (not that we now live in the classless society we are told to believe in), there are basic safety nets in place, with additional protection that is optionally available. For those languishing at the bottom of the heap, there are the reliable though meagre alms provided through a welfare system, whilst for the ever-expanding middle classes there is plenty of extra cover in the form of saving schemes, pension schemes, and, in the event of the most capricious and/or calamitous of misfortunes, the ever-expanding option of insurance policies. If the Merchant of Venice had been set in today's world then the audience

would feel little sympathy for his predicament. Why had he ventured on such a risk in the first place, casting his fortune adrift on dangerous waters? Why hadn't he protected his assets by seeking independent financial advice and taking out some preferential cover? It's a duller story altogether.

Systems for insurance are essential in any progressive civilisation. Protection against theft, against damage caused by floods, fires and other agents of destruction, and against loss of life and earnings. Having insurance means that we can all relax a bit, quite a lot, in fact. But it also means that, alongside the usual commodities, there's another less tangible factor to be costed and valued. That risk itself needs to be given a price, and that necessarily means speculating about the future.

Indeed, speculations about the future have become very much to the forefront of financial trading. As a consequence of this, at least in part, today's financial traders have become accustomed to dealing in "commodities" that have no intrinsic use or value whatsoever. They might, for example, exchange government bonds for promises of private debt repayment. Or, feeling a little more adventurous, they might speculate on the basis of future rates of foreign exchange, or share prices, or rates of interest and inflation, or in a multitude of other kinds of "underlying assets" (including that most changeable of underlying variables: the weather) by exchange of promissory notes known most commonly as "derivatives," since they derive their value entirely on the basis of the future value of something else. And derivatives can be "structured" in any myriad of ways. Here are a just few you may have heard of:–

- i) **futures** (or **forwards**) are contracts to buy or sell the "underlying asset" up until a future date on the basis of today's price.
- ii) **options** allow the holder the right, without obligation (hence "option"), to buy (a "call option") or to sell (a "put option") the "underlying asset."
- iii) **swaps** are contracts agreeing to exchange money up until a specified future date, based on the underlying value of exchange rates, interest rates, commodity prices, stocks, bonds, etc.

You name it: there are now paper promises for paper promises of every conceivable kind. Now the thing is that because you don't need to own the "underlying asset" itself, there is no limit to the amounts of these paper promises that can be traded. Not that this is as novel as it may first appear.

Anyone who's ever bought a lottery ticket has in effect speculated on a derivative, its value in this case being entirely dependent upon the random motion of coloured balls in a large transparent tumbler at an

allocated future time. All betting works this way, and so all bets are familiar forms of derivatives. And then there are, if you like, negative bets. Bets you'd rather lose. For instance, £200 says my house will burn down this year, is presumably a bet you'd rather lose, but it is still a bet that many of us annually make with an insurance company. And general insurance policies are indeed another form of familiar derivative – they are in effect “put options”.

However there is one extremely important difference here between an ordinary insurance policy and a “put option” – in the case of the “put option,” you don't actually need to own the “underlying asset,” which means, to draw an obvious comparison, you might take out house insurance on your neighbour's property rather than your own. And if their house burns down, ah hum accidentally, of course, then good for you. Cash in your paper promise and buy a few more – who knows, perhaps your neighbour is also a terrible driver. There are almost numberless opportunities for insuring other people's assets and with only the law preventing you, then why not change the law? Which is exactly what has happened: with some kinds of derivatives circumventing the law in precisely this way, and thereby permitting profitable speculation on the basis of third party failures. When it comes to derivatives then, someone can always be making a profit come rain or shine, come boom or total financial meltdown.

But, why stop there? Especially when the next step is so obvious that it almost seems inevitable. Yes, why not trade in speculations on the future value of the derivatives themselves? After all, treating the derivative itself as an “underlying asset” opens the way for multiple higher order derivatives, creating with it the opportunity for still more financial “products” to be traded. Sure, these “exotic financial instruments” quickly become so complex and convoluted that you literally need a degree in mathematics in order to begin to decipher them. Indeed those on the inside make use of what are called “the Greeks,” and “the Higher Order Greeks,” since valuation requires the application of complex mathematical formulas comprised of strings of Greek letters, the traders here fully aware that it's all Greek to the rest of us. Never mind – ever more financial “products” means ever more trade, and that's to the benefit of all, right...?

Deregulation of the markets – kicked off in Britain by the Thatcher government's so-called “Big Bang” and simultaneously across the Atlantic through the *laissez-faire* of “Reagonomics”* – both enabled and encouraged

* Milton Friedman pays homage to Ronald Reagan's record on deregulation in an essay titled “Freedom's friend” published in the *Wall Street Journal* on June 11, 2004. Drawing evidence from The Federal Register, Friedman “records the thousands of detailed rules and regulations that federal agencies churn out in the course of a year,” and contrasts Reagan's record with that

this giddy maelstrom, allowing in the process the banking and insurance firms, the stockbrokerage and hedge funds that make up today's "finance industry" to become the single most important "wealth creator" in the Anglo-American world. Meanwhile, declines in manufacturing output in Britain and America meant both nations were becoming increasingly dependent on a sustained growth in the financial sector – with "derivatives" satisfying that requirement for growth by virtue of their seemingly unbound potential. Indeed, having risen to become by far the largest business sector simply in terms of profit-making, many of the largest banks and insurance groups had become "too big to fail".[†] Failure leading potentially to national, if not international, economic ruin. Which is how the very systems that were supposedly designed to protect us, systems of insurance, have, whether by accident or design, left us more vulnerable than ever.

Then the bombshell, as we learnt that the banks themselves were becoming bankrupt, having gambled their investments in the frenzy of deregulated speculation. Turns out that some of the money-men didn't fully understand the complexity of their own systems; a few admitting with hindsight that they'd little more knowledge of what they were buying into than the rest of us. They'd "invested" because their competitors "invested," and, given the ever-growing buoyancy of the markets at the time, not following suit would have left them at a competitive disadvantage. A desperate but strangely appropriate response to the demands of free market capitalism gone wild.

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of Presidential incumbents before and since: "They [the rules and regulations] are not laws and yet they have the effect of laws and like laws impose costs and restrain activities. Here too, the period before President Reagan was one of galloping socialism. The Reagan years were ones of retreating socialism, and the post-Reagan years, of creeping socialism." For socialism read regulation.

Read more here: online.wsj.com/news/articles/SB108691016978034663

[†] Definition of "too big to fail" taken from *Businessdictionary.com*: "Idea that certain businesses are so important to the nation, that it would be disastrous if they were allowed to fail. This term is often applied to some of the nation's largest banks, because if these banks were to fail, it could cause serious problems for the economy. By declaring a company too big to fail, however, it means that the government might be tempted to step in if this company gets into a bad situation, either due to problems within the company or problems from outside the company. While government bailouts or intervention might help the company survive, some opponents think that this is counterproductive, and simply helping a company that maybe should be allowed to fail. This concept was integral to the financial crisis of the late 2000s."

It is currently estimated that somewhere in the order of a quadrillion US dollars (yes, that's with a qu-) has been staked on derivations of various kinds. Believe it or not, the precise figure is actually uncertain because many deals are brokered in private. In the jargon of the trade these are called "over the counter" derivatives, which is an odd choice of jargon when the only thing the average customer buys over the counter are drugs. Could it be that they're unconsciously trying to tell us something again?

So just how big is one quadrillion dollars? Well, let's begin with quadrillion. Quadrillion means a thousand trillion. Written at length it is one with a string of fifteen zeros. A number so humungous that it's humanly impossible to properly comprehend: all comparisons fail. I read somewhere that if you took a quadrillion pound coins and put them side by side then they would stretch further than the edge of the solar system. The Voyager space programme was, of course, a much cheaper alternative. Or how about this: counting a number every second, it would take 32 million years to count up to a quadrillion... Now obviously that's simply impossible – I mean just try saying "nine hundred and ninety-nine trillion, nine hundred and ninety-nine billion, nine hundred and ninety-nine million, nine hundred and ninety-nine thousand, nine hundred and ninety-nine" in the space of one second! You see it really doesn't help to try to imagine any number as big as a quadrillion.

However, there are still useful ways to compare a quadrillion dollars. For instance, we can compare it against the entire world GDP which turns out to be a mere 85 trillion US dollars. One quadrillion being nearly twelve times larger. Or we might compare it against the estimated monetary wealth of the whole world: about \$325 trillion in real estate, and a further \$220 trillion in world stock and bonds. So one quadrillion is a number far exceeding even the total monetary value of the entire world – material and immaterial!* A little freaky to say the least! Especially when we discover that many of these derivatives are now considered to be "toxic assets," which is a characteristically misleading way of saying they are worthless – yes, worthless assets! – whatever the hell that means!

So just like the Sorcerer's Apprentice, it seems that the spell has gone out of control, and instead of these mysterious engines making new money out of old money, the system has created instead an enormous black hole of debt. A debt that we, the people, are now in the process of bailing out, with extremely painful consequences. Efforts to save us from a greater

* According to the World Bank, in 2020 global GDP had risen to 84.8 trillion US dollars. As of 2020, the total value of real estate across the whole globe reached a record high of US\$ 326.5 trillion, a 5% increase on 2019 levels. Also in 2020, the total market value of all stocks and bonds was estimated to be US\$93 trillion and \$128.3 trillion respectively.

catastrophe having already forced the British and US governments to pump multiple hundreds of billions of public money into the coffers of the private banks. Yet the banks and the economy remain broken, because how is any debt that approximates to the monetary value of the entire world ever to be repaid?

Another tactic to halt descent into a full-blown economic meltdown has involved the issuance of additional fiat currency in both Britain and America; a “quantitative easing” designed to increase the supply of money by simply conjuring it up (a trick that fiat currency happily permits). Money may not grow on trees but it can most certainly be produced out of thin air. But here’s the rub. For in accordance with the most basic tenets of economic theory, whenever extra banknotes are introduced into circulation, the currency is correspondingly devalued. So you may be able to conjure money from thin air, but all economists will readily agree that you cannot conjure “real value,” meaning real purchasing power. Indeed this common mistake of confusing “nominal value” (*i.e.*, the number of pounds written on the banknote) with “real value” is actually given a name by economists. They call it: “the money illusion”. And it’s useful to remind ourselves again that money has only relative value.

To understand this, we might again consider money to be a commodity (which in part it is, traded on the currency markets). As such, and as with all other commodities, relative scarcity or abundance will alter its market value, and, in obedience to the law of supply and demand, more will automatically mean less. This is just as true for the value of money as it is for tins of herring, plumbers, scotch eggs and diamonds. So it seems that if too much of our quantitative is eased, then we’d better be prepared for a drastic rise in inflation, or much worse again, for hyperinflation. Printing too much money is how hyperinflation has always been caused.*

Our future is bleak, they tell us. *Our* future is in the red. So much for security, so much for insurance. We’d apparently forgotten to beware of “the Greeks” and of the “higher order Greeks” when they’d first proffered gifts.

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I said earlier, just in passing, that money is actually pretty boring stuff and it is... Truly, madly and deeply boring! So when I hear on the news how “the markets” are hoping that the latest round of “quantitative easing” will

* It should be noted that the huge injections of money required to bailout western economies during and in the aftermath of the more recent covid crisis have substantially dwarfed the earlier bailouts and thus exacerbated this ongoing crisis.

enable governments to provide the necessary “fiscal stimulus,” I am barely even titillated. Whilst explanations, both in the popular press and supposedly more serious media, that like to describe such injections of new money as in some way analogous to filling up my car with imaginary petrol provide me only with a far, far more entertaining distraction: to wit, a magical car that runs on air.

But then, of course, money isn’t really stuff at all! More properly considered money is perhaps a sort of proto-derivative, since its worth is evidently dependent upon something other than the paper it’s (increasingly not) written on. So what is it that money’s worth depends upon? What underlies money? The answer to this question is apparently that money is a “store of value”. Although this leads immediately to the obvious follow-up question: in this context, what *precisely* is the meaning of “value”? But, here again there is a problem, since “value,” although a keystone to economic thinking, has remained something of an enigma. Economists unable to agree upon any single definitive meaning.

Is “value” a determinant of usefulness? Or is it generated by the amount of effort required in the production of things? Or perhaps there is some other kind of innate economic worth? For instance in a thing’s scarcity. And can this worth be attributed at the individual level or only socially imputed?

There are a wide variety of definitions and explanations of “value” that, being so foundational, have then encouraged the various branches of economic theory to diverge. And here is another important reason why economics is in no way equivalent to the physical sciences. Ask any physicist what energy is, and they will provide both an unambiguous definition and, no less importantly, offer established methods for measurement. Because of this, if ever one physicist talks to another physicist about energy (or any other physical quantity) they can be absolutely certain that they are talking about the same thing. This is very certainly not the case when economists talk about “value”.

“A cynic is a man who knows the price of everything and the value of nothing,” said Oscar Wilde, distinguishing with playful wisdom the difference in human terms between “price” and “value”. The great pity is that the overwhelming majority of today’s economists have become so cynical – but then perhaps they always were.

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As part of his on-going assault against religion, Richard Dawkins recently published a book called *The God Delusion*. It’s the old hobby-horse again;

one that he shares with a great many millions of other broadly liberal, literate and intelligent people. That religion is an evil of which humanity must rid itself totally. And yes, much of religion has been dumb and dangerous, this I will very readily concede (and already have conceded in earlier chapters). But really and truly, is it “the God delusion” that we should be most concerned about in these torrid times? For regardless of Dawkins claims, it is quite evident that religion is a wounded animal, and for good or ill, the secular world is most certainly in the ascendant. Right throughout the world, aside from a few retreating pockets of resistance, faith in the old gods has been gravely shaken. It is not that human faith, by which I mean merely a belief and/or worship of something greater, is extinguished, for it never can be, but that it has been reattached to new idol-ologies. And in those parts of the world where the old religions have been most effectively disarmed or expelled, namely the West, one idol-ology above all others has gathered strength from religion’s demise.

Richard Dawkins has said many times that instructing young children in religious obedience is a form of psychological child-abuse and on this point I wholeheartedly support him. Children’s minds are naturally pliable for very sound developmental reasons. But is it less pernicious to fill their precious minds with boundless affection for let’s say Ronald McDonald? For this is merely one stark but obvious illustration of how a new fundamentalism has been inculcated in the young. Devotion to the brand. Love of corporations. Worship of the dollar and the pound.

This new kind of fundamentalism has long since swept across the world, but it is unusual, although not unique, in that it denies its own inherent religiosity whilst claiming to have no idols. This is the fundamentalism of free market neoliberal economics. The Father, Son and Holy Ghost having been forsaken, only to have been usurped by the IMF, the World Bank and the WTO. If you suppose I’m joking, or that this is mere hyperbole, think again. When things are tough we no longer turn to the heavens, but instead ask what sacrifices can be made to “reassure the markets”. Sacrifices to make it rain money again.

By far and above, here is the most pernicious delusion of our age. And it has next to nothing to do with God, or Yahweh, or Allah, or even the Buddha. The prophets of our times talk of nothing besides profits or losses. They turn their eyes to the Dow Jones Index, trusting not in God, but only in money. So I call for Dawkins to leave aside his God delusion, for a moment, and pay a little attention to the rise and rise of “the money delusion”. If future historians reflect on our times, this is what they will see, and given the mess this “money delusion” is creating they will scratch their heads in disbelief and disgust.

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I have already discussed the so-called “money illusion” – of mistaking nominal banknote value for real purchasing value – but this is merely one of many nested and interrelated illusions that make up “the money delusion”. Illusions that have become so ingrained within our permitted economic thinking that they are completely taken for granted.

Foundational is the belief that individuals always make rational choices. According to the definition of making rational choices, this requires that we all choose with consistency and always with the aim of choosing more over less. That a huge advertising industry now exists to tempt us into irrationality is never factored in. Nor are the other corrosive influences that so obviously deflect our rational intentions: the coercion of peer-pressure, our widespread obsession with celebrities and celebrity endorsement, and that never-ending pseudo-scientific babble that fills up many of the remaining column inches and broadcast hours of our commercial media. We are always eager for the latest fashions and fads, and perhaps we always were. Yet this glaring fact, that people make wholly irrational choices time and again, whether due to innate human irrationality or by deliberate design, is of little concern to most economists. It is overlooked and omitted.

Likewise, a shared opinion has arisen under the name of neoliberalism that economics can itself be neutral, usefully shaping the world without the nuisance of having to rely on value-judgements or needing any broader social agenda. If only individuals were left to make rational choices, as of course they do by definition, or so the idea goes, and the market could also be unshackled, then at last the people will be free to choose. Thus, goes the claim, individual freedom can only be guaranteed by having freedom within the marketplace. Freedom trickling down with the money it brings. “Wealth creation” alone must solve our problems by virtue of it being an unmitigated good.

Back in the real world, however, one man’s timber very often involves the destruction of another man’s forest. Making profits from the sale of drugs, tobacco and alcohol has social consequences. Factories pollute. Wealth creation has its costs, which are very often hidden. There is, in other words, and more often than not, some direct negative impact on a third party, known to economists as “spillover” or “externalities,” that is difficult to quantify. Or we might say that “wealth creation” for some is rather likely therefore to lead to “illth creation” for others.

Illth creation? This was the term coined by romantic artist, critic and social reformer, John Ruskin, and first used in his influential critique of

nineteenth century capitalism titled *Unto This Last*. Ruskin had presumably never heard of “the trickle-down effect”:

“The whole question, therefore, respecting not only the advantage, but even the quantity, of national wealth, resolves itself finally into one of abstract justice. It is impossible to conclude, of any given mass of acquired wealth, merely by the fact of its existence, whether it signifies good or evil to the nation in the midst of which it exists. Its real value depends on the moral sign attached to it, just as sternly as that of a mathematical quantity depends on the algebraical sign attached to it. Any given accumulation of commercial wealth may be indicative, on the one hand, of faithful industries, progressive energies, and productive ingenuities: or, on the other, it may be indicative of mortal luxury, merciless tyranny, ruinous chicane.”¹⁴¹

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We are in the habit of regarding all money as equal. Presuming that the pounds and pence which make up my own meagre savings are equivalent in some directly proportional manner to the billions owned by let’s say George Soros. A cursory consideration shows how this is laughable.

For instance, we might recall that on “Black Wednesday” in 1992, Soros single-handedly shook the British economy (although, the then-Chancellor of the Exchequer Norman Lamont was left to shoulder the blame).^{*} But to illustrate this point a little further, let me tell you about my own small venture into the property market.

Lucky enough to have been bequeathed a tidy though not considerable fortune, I recently decided to purchase a house to live in. The amount, although not inconsiderable by everyday standards (if compared say with the income and savings of Mr and Mrs Average), and very gratefully received, was barely sufficient to cover local house prices, except that I had one enormous advantage: I had cash, and cash is king.

^{*} George Soros proudly explains the events of “Black Wednesday” on his official website: “In 1992, with the economy of the United Kingdom in recession, Quantum Fund’s managers anticipated that British authorities would be forced to break from the European Exchange Rate Mechanism (ERM) then in force and allow the British pound to devalue in relation to other currencies, in particular the German mark. *Quantum Fund* sold short (betting on a decline in value) more than \$10 billion worth of pounds sterling. On September 16, 1992—later dubbed “Black Wednesday”—the British government abandoned the ERM and the pound was devalued by twenty percent.”

For reasons of convenience, cash is worth significantly more than nominally equivalent amounts of borrowed money. In this instance I can estimate that it was probably worth a further 20–30%. Enough to buy a bit nicer house than if I'd needed to see my bank-manager. A bird in the hand.

Having more money also has other advantages. One very obvious example is that it enables bulk purchases, which being cheaper, again inflates its relative value. The rule in fact is perfectly straightforward: when it comes to money, more is always more, and in sufficient quantities, it is much, much more than that.

And then, we must consider the market itself. The market that is supposedly free and thus equal. In the reality, of course, we all see how money accumulates by virtue of attracting its own likeness, and so the leading players in the market, whether wealthy individuals or giant corporations, by wielding far larger capital resources, are able to operate with an unassailable competitive advantage. Moreover, these financial giants can and do stack the odds still higher in their own favour by more direct means, such as buying political influence with donations to campaign funds or by other insidious means such as lobbying – which is just legally permitted bribery. The flaunted notion of a 'free market' is therefore the biggest nonsense of all. There is no such thing as a 'free market': never has been and never will be.

The most ardent supporters of free market neoliberalism say that it is a non-normative system, which permits us finally to rid ourselves of disagreements over pesky value-judgements. The truth, however, is very much simpler. By ignoring values, it becomes a system devoid of any moral underpinning. Being morally bankrupt, it is unscrupulous in the truest sense of the word.

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If I had enough money and a whim, I might choose to buy all the plumbers and tins of herrings in Britain. Then, since money is (in part) a measure of scarcity, I could sell them back later with a sizeable mark-up. Too far-fetched? Well, perhaps, but only in my choice of commodity. The market in other commodities has without question been cornered many times in the past. For instance, by the end of the 1970s, two brothers, Nelson Bunker Hunt and William Herbert Hunt, had accumulated and held what was then estimated to be one third of the entire world's silver. This led to serious problems both for high-street jewellers[†] and for the economy more

[†] "Last year [1979] Bunker and his syndicate began buying silver again, this time on a truly gargantuan scale. They were soon imitated by other speculators shaken by international crises

generally,* and as it happened, when the bubble burst on what became known as “Silver Thursday,” it also spelt trouble for the brothers’ own fortune. Fortunately for them, however, the situation was considered so serious that a consortium of banks came forward to help to bail them out.† They had lost, their fortune diminished, although by no means wiped out. As relatively small players they’d played too rough; meanwhile much larger players ensure that the markets are routinely rigged through such manufacture of scarcity. Going back as early as 1860, John Ruskin had already pointed out a different but closely-related deficiency in any market-driven capitalist system of trade:

“Take another example, more consistent with the ordinary course of affairs of trade. Suppose that three men, instead of two, formed the little isolated republic, and found themselves obliged to separate, in order to farm different pieces of land at some distance from each other along the coast: each estate furnishing a distinct kind of produce, and each more or less in

and distrustful of paper money. It was this that sent the price of silver from \$6 per oz. in early 1979 to \$50 per oz. in January of this year. Chairman Walter Hoving of Tiffany & Co., the famous jewelry store, was incensed. Tiffany ran an ad in the New York Times last week asserting: ‘We think it is unconscionable for anyone to hoard several billion, yes billion, dollars worth of silver and thus drive the price up so high that others must pay artificially high prices for articles made of silver from baby spoons to tea sets, as well as photographic film and other products.’”

Extract taken from “He Has a Passion for Silver,” article published in *Time Magazine*, Monday 7 April, 1980. Read more here: content.time.com/time/magazine/article/0,9171,921964-2,00.html

* “Many Government officials feared that if the Hunts were unable to meet all their debts, some Wall Street brokerage firms and some large banks might collapse.”

Extract taken from “Bunker’s busted silver bubble,” article published in *Time Magazine*, Monday 12 May, 1980. Read more here: content.time.com/time/magazine/article/0,9171,920875,00.html

† “What may deal the Hunt fortune a fatal blow is the fallout from the brothers’ role in the great silver-price boom and bust of 1980. Thousands of investors who lost money in the debacle are suing the Hunts. On Saturday the brothers lost a civil case that could set an ominous precedent. A six-member federal jury in New York City found that the Hunts conspired to corner the silver market, and held them liable to pay \$63 million in damages to Minpeco, a Peruvian mineral-marketing company that suffered heavy losses in the silver crash. Under federal antitrust law, the penalty is automatically tripled to \$189 million, but after subtractions for previous settlements with Minpeco, the total value of the judgment against the Hunts is \$134 million.”

Extract taken from “Big bill for a bullion binge,” article published in *Time Magazine*, Monday 29 August, 1988. Read more here: content.time.com/time/magazine/article/0,9171,968272-1,00.html

need of the material raised on the other. Suppose that the third man, in order to save the time of all three, undertakes simply to superintend the transference of commodities from one farm to the other; on condition of receiving some sufficiently remunerative share of every parcel of goods conveyed, or of some other parcel received in exchange for it.

“If this carrier or messenger always brings to each estate, from the other, what is chiefly wanted, at the right time, the operations of the two farmers will go on prosperously, and the largest possible result in produce, or wealth, will be attained by the little community. But suppose no intercourse between the landowners is possible, except through the travelling agent; and that, after a time, this agent, watching the course of each man’s agriculture, keeps back the articles with which he has been entrusted until there comes a period of extreme necessity for them, on one side or other, and then exacts in exchange for them all that the distressed farmer can spare of other kinds of produce: it is easy to see that by ingeniously watching his opportunities, he might possess himself regularly of the greater part of the superfluous produce of the two estates, and at last, in some year of severest trial or scarcity, purchase both for himself and maintain the former proprietors thenceforward as his labourers or servants.”¹⁴²

By restricting the choices of others, one’s power over them is increased, and it is this that brings us to the real reason why money becomes such addiction, especially for those who already have more than they know what to do with. For truly the absolute bottom-line is this: that money and power become almost inseparable unless somehow a separation can be enforced. And whilst wealth, especially when excessive, accumulates, as it almost invariably does, then along with it goes the accumulation of power. This underlying and centralising mechanism has perhaps always operated at the heart of all civilisations. But even the power of money has its limits, as Ruskin points out:

“It has been shown that the chief value and virtue of money consists in its having power over human beings; that, without this power, large material possessions are useless, and to any person possessing such power, comparatively unnecessary. But power over human beings is attainable by other means than by money. As I said a few pages back, the money power is always imperfect and doubtful; there are many things which cannot be reached with it, others which cannot be retained by it. Many joys may be given to men which cannot be bought for gold, and many fidelities found in them which cannot be rewarded with it.

“Trite enough, – the reader thinks. Yes: but it is not so trite, – I wish it were, – that in this moral power, quite inscrutable and immeasurable

though it be, there is a monetary value just as real as that represented by more ponderous currencies. A man's hand may be full of invisible gold, and the wave of it, or the grasp, shall do more than another's with a shower of bullion. This invisible gold, also, does not necessarily diminish in spending. Political economists will do well some day to take heed of it, though they cannot take measure."¹⁴³

Until such a time, every action and probable outcome continues to be evaluated on the basis of strict cost and benefit estimates. Our "ponderous currencies" enabling a monetary figure to be set against each human life – an application fraught with the most serious moral dilemmas and objections – and beyond even this, we have price tags for protecting (or else ruining) the natural environment that all life depends upon. For today it is granted that the market alone must secure our future prosperity, optimally delivering us from evil, if unavoidably it moves in capricious and mysterious ways! Which is how our whole world – all of its land, water, air and every living organism – is about to be priced and costed. Everything set against a notional scale that judges exclusively in terms of usefulness and availability, such is the madness of our money delusion.

We are reaching a crisis point. A thoroughgoing reappraisal of our financial systems, our economic orthodoxies, and our attitudes to money *per se* is desperately required. Our survival as a species may depend on it. Money ought to be our useful servant, but instead remains, at least for the vast majority, a fickle and oft-times terrible master. As a consequence, our real wealth has been too long overlooked. Time then for this genie called money to be forced back tight inside its bottle. Ceaselessly chasing its golden behind, while mistaking its tight-fist for the judicious hand of God, is leading us down the garden path. Further and further away from the land it promises.

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Addendum: Banking on it

One important topic I briefly touched upon in the chapter above is the matter of inflation. What is it and what causes it? My answers were sketchy, in part, because I wished to avoid getting too bogged down in technicalities beyond my training. But this question about the causes of inflation is, in any case, an extremely thorny one. Different schools of economists provide different explanations.

One less orthodox account that I have frequently come across is that our fractional reserve banking system when combined with a central bank's issuance of a fiat currency is inherently inflationary. That in the long term, and solely because of these extant monetary mechanisms, inflation is baked into the cake. So I wrote to a friend who holds with the above opinion and asked if he would explain "in the briefest terms that are sufficient" why he and others believe that central bank issuance of currency and fractional reserve banking are the primary underlying cause of inflation. Here was his succinct but detailed reply:

In a central bank system, money is created in the first instance by governments issuing bonds to banks and banks "printing" money and handing it over to the government in return. The government then owe the banks the money plus interest. If they ever pay back any of the principal, then a corresponding amount of bonds are handed back, *i.e.* cancelled. In that case, the money repaid goes out of existence!

Before elaborating any further, let's take a step back. Fractional reserve lending doesn't require central banks, nor does it require governments to create money by issuing bonds in exchange for it. Fractional reserve lending is simply the act of taking someone's money to "look after it," then turning around and lending a fraction of it to someone else. If the lender has enough depositors, then sum of all the unlent fractions of each deposit should cover him if one of them suddenly comes through the door asking for all their money back in one go. As I'm sure you know, if too many turn up at once looking for their money, a run ensues. Fractional reserve banking doesn't even require a government sanctioned paper currency to exist. Depositors can simply deposit something like gold and the lenders can issue receipts which become the paper currency.

In olden times, when depositors of gold first found out that the goldsmiths they were paying to store their gold safely were lending it out for a percentage fee, they were outraged. The goldsmiths appeased them by

offering them a cut of the fee for their interest in the scam. Accordingly, this money became known as ‘interest’.

So where do central banks fit in? Countries like the United States prior to 1913 have operated without central banks. There were thousands of banks of all sizes. To compete with one another, they had to endeavour to offer higher interest to depositors, lower interest rates to borrowers *or to cut the fraction of deposits that they kept in reserve*. This latter aspect was what caused banks occasionally to go to the wall, to the detriment of their depositors.

Central banking avoids this risk because the same fractional reserve ratio applies to all the banks under a central bank’s jurisdiction. However, it is really a way to avoid competition and if the system ever does get into trouble, the government feel obliged to bail it out or risk collapse of the whole system.

Now to answer your question about inflation.

In a fractional reserve central bank system, money is created as I’ve described by the government issuing bonds to the bank, receiving money created out of thin air and having to pay interest on it. When they spend it by paying salaries of government employees, contractors, arms manufacturers and so on, that money goes straight into bank accounts and the bankers can’t wait to lend out as much of it as possible, up to the limit of whatever fractional reserve ratio applies. So now there is a double claim on the money. The government employee thinks their salary is sitting in the bank but 90 percent of it is in the pocket of a borrower who thinks it’s theirs as long as they keep up with interest. That borrower will inevitably either put the borrowed sum in their own bank account or spend it. Either way it will end up in another bank account somewhere. Then the same thing happens again; up to 90 percent of it gets lent out (81 percent of the original government-created money) and so on...

We end up in a situation where all of the money in circulation has arisen from someone somewhere, signing the dotted line to put themselves in debt. The money isn’t backed by a commodity such as gold. Instead it is backed by the ability of the borrower to repay. All these borrowers, including the government are paying interest. If interest is to be paid on every penny in circulation, then it doesn’t take a genius to figure out that new money must be continuously ‘created’ to keep paying this. That occurs by governments constantly borrowing so that their debts keep on increasing and borrowers constantly borrowing more and more. This seems to work as long as prices, wages and asset values keep increasing. Generation after generation, workers can afford to pay more and more for the houses that they live in because the price of the house keeps going up so it looks like

good collateral to the lender and also their wages keep going up, so the borrower can meet payments in the eyes of the lender.

Working out what the rate of inflation is at any given time is practically impossible. Government figures such as RPI and CPI are just another tool for the propagandists to use as they see fit at any given time. However for the banks to gain anything from the game, the rate of inflation must be:

- i) less than the rate of interest paid by borrowers and;
- ii) greater than the rate of interest paid to savers.

This is why savers money is 'eroded' if they just leave it sitting in a bank account.

Now imagine a different system where:

- governments issue paper money by printing it themselves;
- the amount in circulation is absolutely fixed;
- there is no central bank but there are plenty of independent banks.

In such a country, there is no need for the government to have any debt and there is ample historical evidence of nations that have existed without government debt for very long stretches of time. What borrowers there are have to find the interest by earning it from the fixed pool of currency that is in circulation. There is little need for anyone to borrow but that's something that most people you speak to have difficulty accepting. That's because they've only ever lived in a system where they spend their lives in the service of debt and cannot conceive of it being any different.

The bankers right at the top of the system aren't out to grab hold of all the money in the world. They're not after all the tangible in the world either. Their only goal is to ensure that as much human labour as possible is in the service of debt.

Now for something different. How can this whole thing go horribly wrong for the bankers? I don't just mean a run on banks or a recession. That happens periodically and is known as the business cycle. People lose confidence and are reluctant to borrow for a number of years, then they regain confidence and start to borrow again and the whole thing picks up and the cycle repeats.

What can go horribly wrong is if, after generations and generations and generations of increasing prices and debts, everyone gets more spooked by debt than ever before and totally fixated on repaying it. They sell assets

but there are so many folk doing that that asset prices start to decline. That spooks people further. A spiral is under way. Banks try to ‘stimulate’ the economy by lowering interest rates but there is very little confidence around, especially if asset prices are declining compared with debts and wages aren’t rising either (or may be in decline), so that the ability to repay debt is impaired. This decline can be long and protracted. Also there can be many ups and downs along the way, although the long term trend is down.

Ups can be deceptive as they are perceived as “coming out of the recession” by those used to the normal business cycles we’ve experienced throughout the whole of the twentieth century. In this way, asset prices can bleed away until eventually they reach something like a tenth of their peak value. This process can reach a very late stage before a lot of people recognise what’s really going on. This is just a scenario but one worth considering seriously.

We could be in for long term deflation but it will be well under way and too late for many people in debt by the time it gets mainstream acknowledgement.

*

A closely-related question and one that automatically follows is why do countries bother having central banks at all? Instead of a government issuing bonds, why not directly issue the currency instead, thereby cutting out the middle men? It is an approach that actually has a number of historical precedents as financial reformer Ellen Brown had pointed out in her open letter to President Obama in 2009 urging him to reissue ‘greenbacks’:

“The bankers had Lincoln’s government over a barrel, just as Wall Street has Congress in its vice-like grip today. The North needed money to fund a war, and the bankers were willing to lend it only under circumstances that amounted to extortion, involving staggering interest rates of 24 to 36 percent. Lincoln saw that this would bankrupt the North and asked a trusted colleague to research the matter and find a solution. In what may be the best piece of advice ever given to a sitting President, Colonel Dick Taylor of Illinois reported back that the Union had the power under the Constitution to solve its financing problem by printing its money as a sovereign government. Taylor said:

“*Just get Congress to pass a bill authorizing the printing of full legal tender treasury notes... and pay your soldiers with them and go ahead and win your war with them also. If you make them full legal tender... they*

will have the full sanction of the government and be just as good as any money; as Congress is given that express right by the Constitution.'

"The Greenbacks actually were just as good as the bankers' banknotes. Both were created on a printing press, but the banknotes had the veneer of legitimacy because they were 'backed' by gold. The catch was that this backing was based on 'fractional reserves,' meaning the bankers held only a small fraction of the gold necessary to support all the loans represented by their banknotes. The 'fractional reserve' ruse is still used today to create the impression that bankers are lending something other than mere debt created with accounting entries on their books.

"Lincoln took Col. Taylor's advice and funded the war by printing paper notes backed by the credit of the government. These legal-tender U.S. Notes or 'Greenbacks' represented receipts for labor and goods delivered to the United States. They were paid to soldiers and suppliers and were tradeable for goods and services of a value equivalent to their service to the community. The Greenbacks aided the Union not only in winning the war but in funding a period of unprecedented economic expansion."*

*

During this same period, a parallel campaign had been organised that called on the British government to reprint 'treasury notes' like the Bradbury Pound. So in a further reply to my friend I asked him, "do you think that the re-issuance of 'greenbacks' in America or the Bradbury Pound in the UK might offer a realistic solution to the current crisis?" This was his response:

* Ellen Brown is an American attorney, advocate of financial reform, and the founder of the *Public Banking Institute*, a nonpartisan think tank set up to promote research and advocacy of public banks. Brown had run for office as California State Treasurer on the Green Party ticket in 2014 but was unsuccessful. Brown also wrote an op-ed for *The New York Times* published on October 2, 2013, titled "Public Banks Are Essential to Capitalism" which concludes:

"We actually need publicly owned banks for a capitalist market economy to run properly. Banking, money and credit are not market goods but are economic infrastructure, just as roads and bridges are physical infrastructure. By providing inexpensive, accessible financing to the free enterprise sector of the economy, public banks make commerce more vital and stable. Public banking is not a radical idea but has been practiced in the U.S. with excellent results for decades, and around the world for centuries."

Read more here: www.nytimes.com/roomfordebate/2013/10/01/should-states-operate-public-banks/public-banks-are-essential-to-capitalism

Her open letter headed "Revive Lincoln's Monetary Policy" can be read in full on Ellen Brown's *Web of Debt* website: www.webofdebt.com/articles/lincoln_obama.php

The issue of greenbacks or whatever you call them (essentially government-issued money) would probably make no immediate difference. Already, the money created by quantitative easing is not working its way into the system, so why would money issued by any other means?

In the longer term, such a fundamental upheaval would make a huge difference as the government wouldn't need to be in debt the whole time and people wouldn't have to keep paying increasing prices for houses and cars on top of interest. Pensioners wouldn't be on a treadmill, having to 'invest' their savings just in a vain effort to keep up with inflation.

There's a risk that the government might be tempted to print more and more money, which is often cited as a point in favour of the present system. It is claimed that having to pay interest and ultimately repay the whole principal is a disincentive in this respect. However, the current system ensures constant "printing" all the time as there's no way that everyone involved can pay interest otherwise.

There's talk at the moment about banks charging people a few percent for holding their money on deposit, *i.e.* "negative interest". People think they'll lose money as their account balances will go down over time. However, it's no different to being paid say six percent interest at a time when inflation is at 9 percent and the cheapest loan you can get is 12 percent.

I'm amazed at how people in the alternative media can inform us that banks are going to charge us 'negative interest' for our deposits, express outrage and then in the next breath claim that we're in a hyperinflationary environment. Low/negative interest is a sure sign of massive deflationary pressure. I don't know what's going to happen but I'm convinced that deflation's the one to watch. It has the potential to catch people out.

Getting back to your original question, the direct issuing of money by the government would represent a seismic shift of power from bankers to governments; a shift in the right direction, no doubt. It's only possible if everyone knows what's exactly going on. We're a very long way off yet. Peoples' understanding of the banking scam is very, very poor.

I would add that very much front and centre in that scam is the role of the central banks. These extraordinarily powerful commercial bodies that adopt the outward appearance of public institutions when in fact they work for commercial interests. The US Federal Reserve, for instance, is a *de facto* private corporation and all of its shareholders are private banks. The status of the Bank of England is more complicated. This is what the main *Wikipedia* entry intriguingly has to tell us:

“Established in 1694, it is the second oldest central bank in the world, after the *Sveriges Riksbank*, and the world’s 8th oldest bank. It was established to act as the English Government’s banker, and is still the banker for HM Government. The Bank was privately owned [clarification needed (Privately owned by whom? See talk page.)] from its foundation in 1694 until nationalised in 1946.”

Clarification needed indeed!

Anyway, nowadays it is officially (since 1998) an ‘independent public organisation’. However, the BoE is not really as independent as it might first appear, since along with eighteen other central banks from around the world (including the US Federal Reserve) it is a member of the executive of “the central bank for central banks” – the little known Bank for International Settlements (BIS) based in Basel, Switzerland. To learn more about the history, ownership and function of this highly profitable (tax free and extraterritorial) organisation, I recommend the book *The Tower of Basel* by Adam LeBor.

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Chapter 10: The clouds of not knowing

“According to the postmodernists there is no such thing as absolute truth, so why should we believe them?”

— Submitted to *Notes & Queries* column in *The Guardian*.

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Postmodernism is a slippery subject and one I've long endeavoured to get to grips with. For a while I just tried asking dumb questions (applying a method of inquiry recommended by physicist Richard Feynman). “What exactly is postmodernism?” seemed like a good starter, although as I soon realised such a front-on assault wouldn't get me very far. Quasi-mathematical answers floated back about ‘signs’ and ‘signifiers’ from the arcane sub-discipline of ‘semiotics’, or else esoteric reference to the foreign fields of ‘post-structuralism’ and ‘deconstructionism’. I also had to understand such important issues as ‘false consciousness’, ‘the death of the author’ and ‘the end of the grand narrative’. Slowly then, I learnt about this complex spaghetti of postmodernist theory, a theory more beloved by English Literature professors than readers of philosophy, yet a theory pushed by its outspoken advocates who regard it as the only rightful context for *all* other intellectual inquiry.

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After years of discussion with defenders and proponents of postmodernist theory I have come to an understanding that there are basically two main strands often twisted into one. Here, however, I must confess that I find the majority of writings on postmodernist thinking to be dense, jargonistic and for the most part unintelligible, so I do not claim to be an expert by any means. But, in this regard I was very happy to discover that I was sat in the dunce's corner with, amongst other dullards, that otherwise academically esteemed professor of linguistics, Noam Chomsky. Here's what Chomsky has to say:

“Since no one has succeeded in showing me what I’m missing, we’re left with the second option: I’m just incapable of understanding. I’m certainly willing to grant that it may be true, though I’m afraid I’ll have to remain suspicious, for what seem good reasons. There are lots of things I don’t understand – say, the latest debates over whether neutrinos have mass or the way that Fermat’s last theorem was (apparently) proven recently. But from 50 years in this game, I have learned two things: (1) I can ask friends who work in these areas to explain it to me at a level that I can understand, and they can do so, without particular difficulty; (2) if I’m interested, I can proceed to learn more so that I will come to understand it. Now Derrida, Lacan, Lyotard, Kristeva, etc. – even Foucault, whom I knew and liked, and who was somewhat different from the rest – write things that I also don’t understand, but (1) and (2) don’t hold: no one who says they do understand can explain it to me and I haven’t a clue as to how to proceed to overcome my failures.

“I would simply suggest that you ask those who tell you about the wonders of ‘theory’ and ‘philosophy’ to justify their claims – to do what people in physics, math, biology, linguistics, and other fields are happy to do when someone asks them, seriously, what are the principles of their theories, on what evidence are they based, what do they explain that wasn’t already obvious, etc. These are fair requests for anyone to make. If they can’t be met, then I’d suggest recourse to Hume’s advice in similar circumstances: to the flames.”¹⁴⁴

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With this in mind, please allow me to unravel the two strands of postmodernism (as I find them).

i) postmodernism as a contemporary aesthetic.

On the one hand postmodernism promotes the idea of a new aesthetic. An aesthetic born from the ashes of modernism that it usurped. The fall of religion, of classical physics, as well as of other established and seemingly apodictic systems, had sparked a *fin de siècle* revolution around the turn of the twentieth century, and in consequence, artists looked for new modes of expression. The aftermath of two world wars heightened this need for a new awakening. One artistic response has been to recognise that the loss of a grounding on the basis of some kind of universal referent is intractable, and thus to turn inwards. To search for inspiration in the exploration of relationships between the artist and the subjective unreliability of their own

account. To elevate context above meaning, subtext above text, and to make style and form in themselves, the primary subjects of the artist.

Now I think that this is a perfectly reasonable place for artists to go. Artists after all are free to go as and where they choose (as are all citizens in any healthy political climate). Within the bounds of legality and, aside from the important issue of earning a living wage, artists are bounded only by the development of their creative and imaginative faculties. Choosing to explore the world as they find it (in realism), or of their own emotions (Romanticism), or what is discovered in the unconscious (surrealism), or even ideas in and of themselves (conceptualism) is therefore a matter wholly at the discretion of the artist. Whether they take on board styles from the past or other cultures, manipulate and meld them into a new eclecticism, or else, like Duchamps, point with irony at the question of what is art itself, then good for them. And if this is the current fashion, then so be it. Whether or not these pursuits are deemed in any way successful will be judged both here and in the future, as always. Fashions in every field coming and going as they do. All of this I accept.

Now if this is all postmodernism ever had to say, then let it be said, but let it also be said that there is nothing particularly ‘modern’ about it, let alone ‘post’...

Shakespeare made many allusions to the theatre itself, and liked to include plays within his plays. Shifting the audience’s perspective with reminders that we are another part of a performance and long before Berthold Brecht had snapped his fingers to wake us to our own participation. Lawrence Stern’s *Tristram Shandy*, one of the earliest novels in the English language, is a work more famous and celebrated for being so self-referential. More recently, Rene Magritte’s paintings challenge relationships between images, words and the world; whilst in early cartoons we can also find such ‘postmodern’ devices, as, for example, when Bugs Bunny becomes Daffy’s animator in the splendid *Duck Amuck*. Such is the success of these games of form and reference within purely comedic settings that even that most hackneyed of old jokes “why did the chicken cross the road?” relies on an audience who understands its cultural reference to jokes more generally – that jokes have a punchline, and so the joke here is that there isn’t one. Context has become everything, and what could be more ‘postmodern’ than that?

ii) postmodernism as a theory against absolutes

My first brush with postmodernism happened almost three decades ago when, as a postgraduate student, I’d suddenly begun to mix within

altogether more literary circles. During my three years of studying physics in London I'd never once encountered any reference to the ideas of Saussure, Derrida, Lacan, Foucault or Baudrillard, but suddenly I had a few English post-grads telling me that physics, and indeed science in general, was just another theory, and one holding no special claims to finding an understanding of nature than any other. At first this seemed hilarious. How, I wondered, could those who knew next to nothing with regards to, say, Newton's laws of motion, be so smug in their opinions about the truth or otherwise of quantum mechanics and relativity. Studying science had at least taught me not to be so presumptuous. So just what had gotten into them?

Jacques Derrida^{*145} famously wrote that "there is nothing outside the text," which is an extraordinary thing to write when you think about it. I mean is Derrida quite literally saying that nothing exists beyond the text? Why of course not, you dingo! For if nothing existed beyond the text, then there couldn't be any text, since there'd be no one to write it in the first instance. Surely that's obvious enough! So what does he mean?

In my handy guide *Postmodernism for Beginners*,¹⁴⁶ which at least has the good grace to include plenty of nice pictures, there is a section titled 'Deconstruction', which was (according to the book) Derrida's method for waging "a one-man 'deconstructionist' war against the entire western tradition of rationalist thought." His new approach of deconstruction, the book goes on to say, being an attempt "to peel away like an onion the layers of constructed meaning." But of course if you peel away the layers of a real onion you're eventually left with nothing... which is something the book's metaphor fails to address.

And just what is Derrida's method of deconstruction? An attempt to look for meanings in the text that were "suppressed or assumed in order for it to take its actual form". I'm quoting from my book again. But then how is anyone supposed to do this? Well, here again I confess that I really don't know – and the book is only a beginners' guide so unfortunately it doesn't say. I can however recall the story told by a friend who was studying for a degree in English Literature. He told me that his tutor had

* "So take Derrida, one of the grand old men. I thought I ought to at least be able to understand his Grammatology, so tried to read it. I could make out some of it, for example, the critical analysis of classical texts that I knew very well and had written about years before. I found the scholarship appalling, based on pathetic misreading; and the argument, such as it was, failed to come close to the kinds of standards I've been familiar with since virtually childhood." — Noam Chomsky

once asked a seminar group to read a selected text with the express intention of misunderstanding the author. So I guess that's one approach.[†]

Now I concede that all critical readers must have due entitlement to read between the author's lines. Anyone with a modicum of sense must recognise that an artist will at times disguise their true intentions (especially if they involve dangerous political or religious dissent); dressing their concealed truths in fitting uniforms. Of course the author may also wish to veil themselves for altogether more personal or private reasons. But then why precedent the latent above the blatant anyway? As if what an author tries to hide is more important than what they, more directly, seem to say. To address this question, postmodernists broaden their case, saying that 'meaning' itself is wholly dependent upon 'authority' or 'power'. This is to say that the artist is nothing more than a product of the cultural context of his or her time. According to such reasoning, whatever it was they'd meant to say becomes irrelevant. A depressing claim and one that lacks any obvious foundation. And where is the broader point to all of this? What does it have to do with science for instance?

Well, Derrida contends that the word 'text' must be understood in "the semiological sense of extended discourses." Any clearer? No – try this: "all practices of interpretation which include, but are not limited to, language." Got it yet? I'll put it more picturequely. Away from the leafy seclusion of literature departments, Derrida is declaring that this same approach (his approach) must be applied to all avenues of thinking. Any special privilege for methods of reason and objectivity is to be absolutely refused on grounds that once we are agreed that all discourse (in the semiological sense) is necessarily a cultural, historical or linguistic construct, then all ideas must be seen to hold the same indeterminate value. Therefore, to raise science above other disciplines of enquiry is merely "a value judgement" borne of European prejudice and vanity.

So what finally does this all amount to? Does Derrida really claim that astronomy can be judged to be no better measure of our universe than astrology? Or that when Galileo proposed the idea that the earth moved around the Sun, the pope was no less right for saying that it did not? Or if we proclaim that the world is round, are we no closer to any kind of truth

[†] "As for the 'deconstruction' that is carried out... I can't comment, because most of it seems to me gibberish. But if this is just another sign of my incapacity to recognize profundities, the course to follow is clear: just restate the results to me in plain words that I can understand, and show why they are different from, or better than, what others had been doing long before and have continued to do since without three-syllable words, incoherent sentences, inflated rhetoric that (to me, at least) is largely meaningless, etc. That will cure my deficiencies - of course, if they are curable; maybe they aren't, a possibility to which I'll return." — Noam Chomsky, source as above [see endnotes].

than the legendary flat-earthers? And when we build rockets that fly to the moon and beyond, that this does not prove Newton's ideas over those of Aristotle? The same Aristotle who thought that the moon was made not of rock, since rock would inevitably crash to earth, but from a fabulous unearthly material called quintessence! And what if Jacques Derrida were to have taken some leap of faith from his window, might he have hovered in the air like the Roadrunner, or would he more surely have accelerated toward the ground at 9.81 metres per second per second? I certainly know where my money's riding.

*

Now in case you think my objections are unfounded, and based on either my lack of knowledge of the subject or else a deliberate and calculated misinterpretation of postmodernist thinking (whatever that means given the postmodernists' own refusal to privilege an author's intentions on the grounds that these are unrecoverable and irrelevant), I feel that I must draw attention to an incident now referred to as The Sokal Affair.

In 1996, Alan Sokal, a professor of physics at New York University, feeling frustrated by the nihilistic claims being made by the postmodernists, decided (as any good scientist would) to perform an experiment. His hypothesis (if you like) was that he could convince a reputable journal in the field to: "publish an article liberally salted with nonsense if (a) it sounded good and (b) it flattered the editors' ideological preconceptions." On this basis he submitted a paper titled "Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity" to the journal *Social Text*. To give you a flavour of Sokal's admirable hoax, here is an extract from that paper:

"Derrida's perceptive reply went to the heart of classical general relativity: The Einsteinian constant is not a constant, is not a center. It is the very concept of variability – it is, finally, the concept of the game. In other words, it is not the concept of something – of a center starting from which an observer could master the field – but the very concept of the game... "

Outlandish nonsense, of course, but (and no doubt to Sokal's great delight) the journal mistook his fun for a work worthy of publication.¹⁴⁷ Then, on the same day of its publication, Sokal announced his hoax in a different journal, *Lingua Franca*, calling his published paper "a pastiche of left-wing cant, fawning references, grandiose quotations, and outright nonsense," which was "structured around the silliest quotations I could find about mathematics and physics."¹⁴⁸ Here is what Sokal himself had to say about his reasons for perpetrating the hoax and his underlying concerns

regarding the influence of the *Social Text* editors. He has a great deal to say and so I feel it is fitting to give over the remainder of this section to Sokal's own justification and conclusions (after all, why have a dog and bark yourself):

"Of course, I'm not oblivious to the ethical issues involved in my rather unorthodox experiment. Professional communities operate largely on trust; deception undercuts that trust. But it is important to understand exactly what I did. My article is a theoretical essay based entirely on publicly available sources, all of which I have meticulously footnoted. All works cited are real, and all quotations are rigorously accurate; none are invented. Now, it's true that the author doesn't believe his own argument. But why should that matter? ... If the *Social Text* editors find my arguments convincing, then why should they be disconcerted simply because I don't? Or are they more deferent to the so-called 'cultural authority of technoscience' than they would care to admit? ...

"The fundamental silliness of my article lies, however, not in its numerous solecisms but in the dubiousness of its central thesis and of the 'reasoning' adduced to support it. Basically, I claim that quantum gravity – the still-speculative theory of space and time on scales of a millionth of a billionth of a billionth of a billionth of a centimeter – has profound political implications (which, of course, are 'progressive'). In support of this improbable proposition, I proceed as follows: First, I quote some controversial philosophical pronouncements of Heisenberg and Bohr, and assert (without argument) that quantum physics is profoundly consonant with 'postmodernist epistemology.' Next, I assemble a pastiche – Derrida and general relativity, Lacan and topology, Irigaray and quantum gravity – held together by vague rhetoric about 'nonlinearity,' 'flux' and 'interconnectedness.' Finally, I jump (again without argument) to the assertion that 'postmodern science' has abolished the concept of objective reality. Nowhere in all of this is there anything resembling a logical sequence of thought; one finds only citations of authority, plays on words, strained analogies, and bald assertions. ...^{*149}

Sokal continues:

"Why did I do it? While my method was satirical, my motivation is utterly serious. What concerns me is the proliferation, not just of nonsense and sloppy thinking per se, but of a particular kind of nonsense and sloppy

* Alan Sokal adds here that: "It's understandable that the editors of *Social Text* were unable to evaluate critically the technical aspects of my article (which is exactly why they should have consulted a scientist). What's more surprising is how readily they accepted my implication that the search for truth in science must be subordinated to a political agenda, and how oblivious they were to the article's overall illogic."

thinking: one that denies the existence of objective realities, or (when challenged) admits their existence but downplays their practical relevance. [...]

“In short, my concern over the spread of subjectivist thinking is both intellectual and political. Intellectually, the problem with such doctrines is that they are false (when not simply meaningless). There is a real world; its properties are not merely social constructions; facts and evidence do matter. What sane person would contend otherwise? ...

“Social Text’s acceptance of my article exemplifies the intellectual arrogance of Theory – meaning postmodernist literary theory – carried to its logical extreme. No wonder they didn’t bother to consult a physicist. If all is discourse and ‘text,’ then knowledge of the real world is superfluous; even physics becomes just another branch of Cultural Studies. If, moreover, all is rhetoric and ‘language games,’ then internal logical consistency is superfluous too: a patina of theoretical sophistication serves equally well. Incomprehensibility becomes a virtue; allusions, metaphors and puns substitute for evidence and logic. My own article is, if anything, an extremely modest example of this well-established genre. ...

“Politically, I’m angered because most (though not all) of this silliness is emanating from the self-proclaimed Left. We’re witnessing here a profound historical volte-face. For most of the past two centuries, the Left has been identified with science and against obscurantism; we have believed that rational thought and the fearless analysis of objective reality (both natural and social) are incisive tools for combating the mystifications promoted by the powerful – not to mention being desirable human ends in their own right. The recent turn of many ‘progressive’ or ‘leftist’ academic humanists and social scientists toward one or another form of epistemic relativism betrays this worthy heritage...

“I say this not in glee but in sadness. After all, I’m a leftist too (under the Sandinista government I taught mathematics at the National University of Nicaragua)... But I’m a leftist (and feminist) because of evidence and logic, not in spite of it.”^{†150}

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It has long puzzled me too, why many once dyed-in-the-wool Marxists have increasingly drifted over to Derrida. I mean these two systems are supposedly in direct contradiction. Marxism is a ‘grand metanarrative’ par excellence, and postmodernism is presumably its willing nemesis. So why

[†] For publishing Sokal’s original paper, the journal *Social Text* received Ig Nobel prize for literature (1996).

would those who had invested so heavily in Marx suddenly jump into bed with Derrida *et al*? Well, it might be supposed that the fall of the Berlin Wall was of key importance here.

With the end of the Soviet experiment, it wasn't simply a political regime that had given way. In its wake the whole Marxist ideology was rocked, since, and whatever its adherents may have then believed, this rapid and extraordinary sequence of events signified the catastrophic end to that particular alternative world vision.*

It's not even that Marxists were still looking longingly toward Russia for their answers – most had already long accepted that the Soviet dream died with Stalin if not before – but just as with the death of a friend, it's not until the funeral that we can finally say farewell. For those who'd searched for answers under the lens of Marxism, a time was rapidly approaching when most would be forced to admit defeat. That finally there was nothing left to halt the rising tide of global capitalism. Unless...

But lo! Could some new theory, of revolutionary hue, if significantly altered, replace the discarded doctrines of Marxism? Perhaps there was still something yet that might save the world from the savagery of unchallenged global capitalism. Soon these were the hard questions facing not only the Marxists but all those with socialist leanings. As a Leftist too, I share in the same concerns.

Not that Marxism is dead. Not quite. Though Marxism appears to be a spent political force, its spell, albeit diminished, remains potent especially inside the faculties of academia, living on in the alcoves of English departments for instance (and often side by side with Derrida and the others). But my question is how did Derrida step into Marx's boots so easily? Is there any deeper reason why Marx and Derrida have made such comfortable bedfellows? What is there, if anything, that these seeming adversaries actually share?

*

I recently came across a review of philosopher Daniel Dennett's book *Breaking the Spell* – his inquiry into the origins of religion (a popular subject these days) – and have since been considering whether or not to include any mention of it (perhaps with reference to my thoughts in Chapter One). Well, as you will know already, presuming you've read everything thus far, I have so far avoided making any direct reference to Dennett's

* “The fall of the Berlin Wall did more than any of the books that I, or anybody else, has written, to persuade people that that was not the way to run an economy.” Quote from free market economist, Milton Friedman.

book as such. Instead, and by way of a brief and hopefully interesting digression, I have decided to present a review of the review itself. Quite aside from being in-keeping to offer such a meta-narrative, the review itself, which happened to feature on a website otherwise dedicated to “world socialism,” helped to shed light on the current theme of the odd convergence between postmodernist theory and Marxism. But before I can progress, I first need to briefly outline the main thrust in Dennett’s book itself, which, when stated most succinctly, is that religion is a natural phenomenon.

There is an evolutionary advantage, Dennett says in *Breaking the Spell*, conferred to those who adopt “the intentional stance”: our very reasonable presumption that the other creatures one encounters are also “agents”. It is easy to understand then, by extension, Dennett continues, why natural forces in general might also be presumed to act rationally and with specific desires in mind.

Combined with this, as Dennett also points out, the offspring of many species, including humans, are innately trusting toward their parents, because, happily, this also confers a survival advantage. These factors taken together then, it is easy to understand how a worship of ancestors might have arisen as a useful by-product of human evolution. Whilst, on the cultural level, as the earlier hunter and gatherer communities gave way to agricultural settlement, this opened the way to more formalised and stratified forms of religion that must have slowly arisen – religion then, according to Dennett, is a piece, if you like, of mankind’s extended phenotype (yet another natural/cultural artefact, and, as such, somewhat akin to the motor car or Aswan Dam, none of which are any less “natural” than say a bird’s nest or a beaver’s lodge). And thus, being natural in origin, religion itself becomes a proper subject for scientific investigation, just as all other natural phenomena lie the within the province of scientific analysis.

The spell that Dennett finally wishes us to break from is that religion is fundamentally no different from any other kind of human behaviour or enterprise. That much is all Dennett – at least according to our reviewer.

Dennett’s approach is not really to my taste. It leans too heavily on the speculative theories of evolutionary psychology, whilst in doing so, stretches the concept of “natural” to such a degree as to render the word close to meaningless. But worse than that, he leaves little or no room for the insoluble cosmic riddle itself, when this is surely a vital component in any proper understanding of what drives the religious impulse. So this is my

review, second hand of course (since I am not intrigued enough to read Dennett's original words).

Firstly, our reviewer acknowledges that much of the book is admirable, in so far as it goes, but then he insists that Dennett misses the main point. And the main point? Well, from the reviewer's perspective Dennett simply isn't being Marxist enough. Remember, this is a Marxist review!

In order to grasp the infernal bull of religion properly by the horns you need to understand Marx, the reviewer goes on. Why? Because Marx recognised how religion retards "class consciousness" amongst the proletariat, famously calling it "the opium of the masses" and "the sigh of the oppressed". Religion then, according to Marx, is a comforting but ultimately false light: its promises of heavenly paradise, a necessary distraction from the injustices of the real world. At root, it is a necessary means of mollifying the proletariat masses. And who can doubt how often religion has and does serve precisely such ends – although we didn't we need Marx to tell us so. Thinkers back to Voltaire (and long before him) have repeatedly proffered that same opinion.[†] Which is where I'll finally come back to postmodernism, deconstruction and Derrida.

Here's the actual sentence in the review that snagged my attention, causing me to make a connection that had perhaps been obvious all along: "[But] Marxism does recognize that material factors are ultimately to be found at the root of *all ideology*, of which religion is a part."¹⁵¹ (Emphasis added.)

Soon afterwards the reviewer backs this same assertion with a quote taken directly from Engels: "Still higher ideologies, that is, such as are still further removed from the material, economic basis, take the form of philosophy and religion. Here the interconnection between conceptions and their material conditions of existence becomes more and more complicated, more and more obscured by intermediate links. But the interconnection exists."¹⁵²

Suddenly, it can all be fitted together. Since for the Marxists too, not just religion, but all "higher ideologies," might be whittled back to their cultural and historical constructs. A deconstruction almost worthy of Derrida, with the difference being in the placement of emphasis: for Engels

[†] Voltaire, who was an outspoken critic of religious and, in particular, Catholic fanaticism, clearly understood and bravely acknowledged the relationship between church authority and political power more generally. In his *Dictionnaire philosophique* (1764), the main target of which is the Christian church, and its doctrinal belief in the supernatural, he wrote dryly: "As you know, the Inquisition is an admirable and wholly Christian invention to make the pope and the monks more powerful and turn a whole kingdom into hypocrites."

the cultural and historic conditions are fundamentally “material,” whereas for Derrida they are “semiotic” – whatever that exactly means.

Marxism is an entirely capitalist heresy, said the late political satirist Gore Vidal, adding, just as capitalism was itself a Christian heresy. Not that these ideologies are by essence one and the same, no more than it automatically follows that since a frog develops from a tadpole, both creatures are inherently identical and indistinguishable. Vidal’s point is simply that these three mutually antagonistic doctrines, Christianity, capitalism and Marxism, are closely related by origins.

Following on then, postmodernism ought to be understood as a Marxist heresy, and thus, by extension, just another in a line of Christian heresies. It is, to extend Gore Vidal’s insightful analysis, a cousin of Christianity twice-removed. Or look at it this way: when Derrida says, “there is nothing outside the text,” is he saying anything so radically different from “The Word is God”? The circle, it seems, is complete.

*

But I cannot finish the chapter here. For though it is certainly fair to draw comparisons between the “social constructs” of postmodernism and the “false consciousness” of Marx, it is unfair to judge them as equals. Marx never denied the possibility of “true consciousness,” since this is, broadly speaking, his goal. Derrida’s approach is altogether foggier, whilst rejoicing in the rejection of all “logocentric” reason. So determined to escape from every possible kind of absolutism, the dangers of which are evident enough, he finally leads himself and his followers into the shifting sands of relativism. Once there, and afraid to face up to truth in any shape, this nihilism is thinly veiled by obscurantism and sophistry.

In 1966, when Jacques Derrida met Paul de Man they quickly became friends and colleagues. Independently and together, they continued to develop their theories of deconstruction. However, you won’t find any reference to Paul de Man in my *Postmodernism for Beginners* guide, because in recent years de Man has slipped a little off the pages. Why is this? Perhaps because after his death, evidence came to light that during the war he had been an active promoter of Nazism.

Some articles penned for the Belgian collaborationist newspaper, *Le Soir*, during the first years of the war, had indeed been explicitly antisemitic, referring to the “Jewish problem” and how it was “polluting” the contemporary culture. More shockingly, de Man had continued producing his albeit modest contribution to the Nazi propaganda machine, when he must surely have known that genocide was taking place on his

doorstep. In the wake of the first expulsion of Belgian Jews, as thousands were crushed into the cattle wagons, and driven from homes in Brussels to the horrors of Auschwitz, de Man had continued to peddle such poisonous nonsense. When news of de Man's Nazi sympathies first came out, this story actually made the front page of the *New York Times*, generating a furore that seems a little surprising today. It provides a measure of how much de Man's star has faded.

But then, in the aftermath of such shocking revelations, Derrida defended his old friend – as well as the reputation of their shared child: deconstruction. Aside from the appeals to justice and fairness, Derrida made use of his own deconstructive methods in articles such as the poetically titled “Like the sound of the sea deep within a shell: Paul de Man's war” and then (in response to further criticism) “Biodegradables: Six Literary Fragments”. Paul de Man must be understood within his cultural context, Derrida insisted throughout.*

In later years, Derrida quietly admitted that some texts (and ideologies) were more equal than others, even attesting to a Marxist element within his own branch of deconstruction (at least if *Postmodernism for Beginners* is to be believed). Whatever the case, in his defence of de Man, Derrida clearly understood how his slippery theory might profitably be used to paint black as grey and grey as white.†

* “First, Derrida argues, de Man is not responsible for all of the many evils of Nazism or for the Holocaust. To compare him to Mengele, as one writer did, is unjust. Second, it is unjust to read de Man's later writings as an admission of guilt or responsibility – or as an attempt to deny responsibility – for what he did during World War II. Third, although de Man wrote a series of articles expressing the ideology of the occupation forces and one article which is blatantly antisemitic, it is unjust to judge his whole life based on that one episode in his youth. Fourth – and this is the most controversial point in his argument – Derrida suggests that de Man's articles are not as damning as one might be led to expect when they are read in the appropriate context. According to Derrida, the explicit antisemitism of the worst article is equivocal, and it is hardly as bad as many other articles in *Le Soir*. ...

“Nor can one object that these two articles do not discuss deconstruction or employ deconstructive techniques. In fact, both possess interesting and sustained discussions of deconstruction and its place in the academy, as well as many passages explicitly offering and rejecting possible connections between deconstruction and justice, or between deconstruction on the one hand and fascism or totalitarianism on the other..”

Passages taken from *Transcendental Deconstruction, Transcendent Justice*, originally Published in Mich. L. Rev. 1131 (1994) by Jack M. Balkin.

† Jack Balkin, respected academic and defender of deconstructionism, acknowledges the dangers of following its relativistic course when it leads toward nihilism. He explains how Derrida betrays his own theory to avoid this error:

It was precisely this same lurking danger that George Orwell had understood so well, and which he laid out so clearly within the covers of *Nineteen Eighty-Four*:

“The Party told you to reject the evidence of your eyes and ears. It was their final, most essential command. His [Winston Smith’s] heart sank as he thought of the enormous power arrayed against him, the ease with which any Party intellectual would overthrow him in debate, the subtle arguments which he would not be able to understand, much less answer. And yes he was in the right! They were wrong and he was right. The obvious, the silly, and the true had got to be defended. Truisms are true, hold on to that! The solid world exists, its laws do not change. Stones are hard, water is wet, objects unsupported fall towards the earth’s centre. With the feeling that he was speaking to O’Brien [an Inner Party official], and also that he was setting forth an important axiom, he wrote [in his secret diary]:

‘Freedom is the freedom to say that two plus two make four. If that is granted, all else follows.’”¹⁵³

*

So much for the murk of postmodern unknowing. There are other ways to challenge logocentrism – that pursuit of certainty through reason that Derrida so detested. So I’d like to finish this chapter by dispelling the Occidental mists a little with thoughts from abroad.

The teachers of Ch’an or Zen Buddhism from centuries past also impressed upon their students that proper understanding cannot be grasped

“[First] Derrida offers deconstructive arguments that cut both ways: Although one can use deconstructive arguments to further what Derrida believes is just, one can also deconstruct in a different way to reach conclusions he would probably find very unjust. One can also question his careful choice of targets of deconstruction: One could just as easily have chosen different targets and, by deconstructing them, reach conclusions that he would find abhorrent. Thus, in each case, what makes Derrida’s deconstructive argument an argument for justice is not its use of deconstruction, but the selection of the particular text or concept to deconstruct and the way in which the particular deconstructive argument is wielded. I shall argue that Derrida’s encounter with justice really shows that deconstructive argument is a species of rhetoric, which can be used for different purposes depending upon the moral and political commitments of the deconstructor.”

This ‘perfidy’, Balkin celebrates, suggesting that Derrida’s new form of “transcendental deconstruction” be universally adopted: “Yet, in rising to respond to these critics, just as he had previously responded to the critics of de Man, Derrida offered examples of deconstructive argument that were not wholly consistent with all of his previous deconstructive writings. They are, however, consistent with the practice of deconstruction that I have advocated. This is Derrida’s perfidy, his betrayal of deconstruction. Yet it is a betrayal that I heartily endorse. ...”

by the indelicate gloves of verbal or logical reasoning. However, in contrast to Derrida and the others, they did not confuse reason with objectivity.

One such teacher, Dofuku said: "In my opinion, truth is beyond affirmation or negation, for this is the way it moves." Here then, to finish, a few alternative words on the complex relationship between language and the world. The first of these are lines taken from the Chinese tradition of Ch'an, from a collection written down in the thirteenth century:

*Words cannot describe everything.
The heart's message cannot be delivered in words.
If one receives words literally, he will be lost.
If he tries to explain with words, he will not awaken to
the world.*¹⁵⁴*

And here, a later Japanese Zen story called "Nothing exists"¹⁵⁵ that cautions the student against the ever-fatal error of "mistaking the pointing finger for the Moon" by confusing any description of reality with reality itself:

Yamaoka Tesshu, as a young student of Zen, visited one master after another. He called upon Dokuon of Shokoku.

Desiring to show his attainment, he said: "The mind, Buddha, and sentient beings, after all, do not exist. The true nature of phenomena is emptiness. There is no realisation, no delusion, no sage, no mediocrity. There is no giving and nothing to be received."

Dokuon, who had been smoking quietly, said nothing. Suddenly he whacked Yamaoka with his bamboo pipe. This made the youth quite angry.

"If nothing exists," inquired Dokuon, "where did this anger come from?"

*

* I have modified the final line to render a more poetic effect. The original reads: "If he tries to explain with words, he will not attain enlightenment in this life." In making this small alteration I have tried to maintain the spirit of the original.

Addendum: The ‘post-truth’ world

Today’s world is awash with screens. The cinema screen, television screens, screens on *ipads*, *ibooks* and smart phones, not forgetting the screen directly in front of me. My life, very probably like yours, involves endless interaction with a huge array of audiovisual devices large and small.

The media amplifies our growing dependency with its constant reference to screens within its own reconstructions of modernity. In dramas the characters are forever checking their phones and computers. Likewise, most interviewees on our news programmes are interrogated via separate screens. On sports programmes this divorce from reality is starker with analysis carried out by means of interactive screens – the pundits propping themselves awkwardly next to an adjacent monitor, or, and more comically, walking across the studio to find one. On today’s telly, the screens within screens are absolutely everywhere.

And all of these screens carry an unspoken message. A subliminal message that screens are our must-have portals to the information age, while implicit within this same message is the impression that information provided on our screens can be solidly relied upon. Not that all information on screens is equally reliable, of course, but assuredly when sanctioned by trustworthy purveyors of truth it is increasingly the go-to source.

Moreover, the screen is presented to us as a larger window on reality. A view in some respects akin to the windows in your house and car, albeit highly manoeuvrable, and also cleverly enhanced by means of composition, editing and overlaid content; qualities that render the vision of reality ever more enticing than the unadorned reality beyond it. At the same time, however, all of these screens are, quite literally, screening the naked truth from us. Constantly intervening and redirecting our attention. Continually nudging us; encouraging us to see the view their way.

Not that this situation is as novel as it may seem. Before the screen we had wireless, before the wireless, the printed word, and even before print, there was oratory. Modes of communication all capable of coercing us and manipulating reality. Propaganda takes many forms, and the propagandist is a profession nearly as ancient as less respectable forms of prostitution. In short, fake news is old news.

*

In January 1991, as coalition forces gathered in preparation at the beginning of the Gulf War (or First Iraq War), French postmodernist Jean Baudrillard penned an essay in which he boldly predicted that war would not take place. Within weeks, as air strikes already heralded the onset of *Operation Desert Storm*, undeterred, Baudrillard published a follow-up essay in which he no less flamboyantly declared that the war on our TV screens was not in reality taking place. Doubling down again immediately after the conflict ended in late February, Baudrillard then constructed a third essay in which he proclaimed no less assertively that “the Gulf War did not take place.”

Given this sequence of publications, Baudrillard’s final and rather infamous declaration might appear at first sight just to be an intellectual face-saving exercise, since the beauty of assuming the role of a celebrated postmodernist is never having to say anything half as straightforward as sorry.

Au contraire! Baudrillard was not letting up as easily as that; instead, he was actually doubling down! Admittedly through gritted teeth, I shall now attempt to present his exegesis as clearly and concisely as I can:

The modern world is inherently a media construction. Given that its construction is a false one (as it plainly is), who is in any position to say what literally exists beyond ‘the simulacrum’? Indeed, the real and the fictional have been inseparably blended together to form ‘a hyperreality.’ This representation may or may not bear relationship to reality since the reality represented is entirely void of this distinction, and thus it seamlessly becomes its own truth in its own right.

Okay, do you see what he did there...? Baudrillard urges us to make a gargantuan leap of faith from ‘since we cannot discern a difference between fiction and reality’ directly to ‘there is none.’ Postmodernists move in these mysterious ways, and yet reliably they move us in one direction. For contrary to prior philosophies, their inducement is to consciously judge every book purely by its cover! Limited to making a choice between competing and inherently consumerist ideologies, Baudrillard at least leaves us the choice of whether or not “to buy into his”. I do not.

I do agree of course that today’s propaganda is rife and more sophisticated than ever, although all that has significantly altered is its ubiquity and blinding intensity. Moreover, in the twenty-first century we have been immersed in propaganda by virtue of having screens all around and at all times. If this is Baudrillard’s ‘hyperreality’, then I concur that it is a dangerous and dismal state of affairs.

I also acknowledge that Baudrillard is addressing a problem of the utmost seriousness. Unhappily, however, his obscurantism is no less plain than it was usefully provocative (certainly in terms of self-promotion). A method that involves the inexhaustibly tiresome postmodernist ploy of wanting your cake and eating it: in this instance making the perverse case that the “Gulf war did not take place” while at the same moment proclaiming ‘the hyperreality’ in which this supposed non-war was witnessed, an ersatz reality. Contradictory points which leave the solid and vital question of ‘what is reality’ deliberately and permanently suspended.

Undeniably, the Gulf War happened whether or not news of it was composed of little more than recurring images of ‘surgical bombing’ and related lies that helped western powers to prolong the carnage and perpetuate the wartime profiteering. Quite evidently, we do need to be mindful of mass media deceptions especially whenever the news on our screens conceals and distorts history, for in that concealment all semblances to truth is soon buried. But firm recognition of this puts a lie to Baudrillard’s postmodern conundrum that ‘hyperreality’ amounts to a truth in its own right. His central conceit is completely absurd!

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Chapter 11: I wouldn't start from here

“The first truth is that the liberty of a democracy is not safe if the people tolerate the growth of private power to a point where it becomes stronger than their democratic state itself. That, in its essence, is fascism – ownership of government by an individual, by a group, or by any other controlling private power.... Among us today a concentration of private power without equal in history is growing.”

— Franklin D. Roosevelt[†]

*

Talk of revolution is very much out of vogue. Instead, we look back on the late sixties, when its prospect was perhaps the brightest in living memory, with nostalgia and wistful detachment. Certainly it is true that we pay homage to the civil rights movement and tribute to its lasting achievements, but little else remains – that sexual liberation happened to coincide with the invention of the pill was surely no coincidence.

Tragically, what started up as glorious peaceful sedition: an anti-war, anti-establishment, anti-capitalist upwelling that had perhaps genuinely threatened the existing order; ended up as a carnival – ultimately the dark carnival of Altamont and the depravity of the Manson Family murders* –

[†] A warning to Congress that the growth of private power could lead to fascism, delivered by Franklin D. Roosevelt on April 29, 1938.

* The Altamont Free Concert was held in northern California in December 1969. The security had been given over to a chapter of Hells Angels. It is mostly remembered for violence and a number of deaths, including the murder of Meredith Curly Hunter, Jr.

The Tate–LaBianca murders were a series of murders perpetrated by members of the Manson

with this, the path to social justice was then promptly cordoned off. The revellers went home, cut their hair, removed the flowers and beads to keep as mementos, and doubtless looked ahead to the next fad. All of which is unsurprising. After all, why jeopardise the comforts and security won during the heated post-war struggles in the slim hope of a resounding and radical victory?

If history teaches anything – other than its central thread that empires rise and fall – is it not that the toppling of entrenched political regimes or even of diabolical tyrannies, whether by violent means or more peaceable ones, ends too often with the emergence of new regimes as tyrannical and entrenched as the ones they replaced? True or false (and how to decide anyway?) what matters is the modern tendency to believe this is the case: thus contrary to Marx’s bold forecast, the age of revolutionary upheaval appears over, or – in the West at least – perpetually forestalled with political quietism established as the norm – don’t worry, I shall go on shortly to contradict myself!

Indeed, our acquired taste for conservatism has usefully served the interests of the ruling establishment throughout my adult life, a period lasting four decades in which time its creed became ever more rapacious. ‘Conservatism’ has in fact been transformed well beyond any easy recognition. Adapted in the eighties, it came to serve the demands of a rising corporatist class which, like various species of shark, is itself compelled to move restlessly forward or perish. As the Red Queen tells Alice in *Through the Looking-Glass*, “it takes all the running you can do, to keep in the same place.”

To these ends traditional conservatism, which tries to engender forms of social stagnation, has been entirely superseded by neoliberalism; today’s predominant, in fact unrivalled, politico-economic ideology with its overarching quasi-conservative doctrine of minimal ‘state interference’. In practice this involves a combination of wholesale privatisation with swingeing cuts to public services and welfare. Inculcated by economics departments throughout the land, it has been implanted as a monoculture within our institutions of government, as within the plethora of foundation-funded think tanks and policy forums from whence it originally sprang (most notably *The Adam Smith Institute* and the *Aspen Institute*).

All distinguished economists, senior politicians, civil servants and mainstream journalists (the latter three more than likely indoctrinated through courses on Philosophy, Politics & Economics (PPE) at Oxford –

Family during August 8–10, 1969, in Los Angeles, California, under the direction of Tex Watson and Charles Manson.

with stress here very much placed on the ‘E’ of neoliberal economics[†]) are attuned to the belief that, in the words of its great trailblazer, Margaret Thatcher, “there is no alternative”. And luminaries of the new economics turn to historical precedents to buttress their pervasive doctrine; every kind of planned redistribution of wealth and resources (*i.e.*, any conceivable alternative to their own ‘free market’ absolutism), irrespective of competency or goodwill, they say, has been doomed to failure.

The communist experiments of the Soviet Union and Mao’s China – examples they like to single out (continuing to do so long after the fall of both regimes) – did indeed result in catastrophes both at the level of production and due to supply failure. And if, indeed, the only foreseeable alternatives to neoliberalism were thoughtless reruns of a Soviet model or Maoism, this line of criticism could hardly be gainsaid; in reality, however, the vast majority of the world already subsists, living in dire poverty and likewise deprived of basic resources, although not under socialism, but in strict adherence to ‘free market’ directives extolled by the self-same experts. China, on the other hand, which remains autocratic and to a great extent a centrally planned economy, is evidently booming – but that’s for a different debate (suffice to say here, I certainly do not propose we follow their example).

In reality, neoliberalism is an exceedingly cruel doctrine, and its staunchest proponents have often been candid about administering what they have openly described as their economic ‘shock therapy’ – although this label is generally attached when the treatment is meted out to the poorest nations. To soften its blow in other instances, a parallel ideology has arisen. The principle of so-called meritocracy provides the velvet glove when this same iron fist of *laissez-faire* fundamentalism is applied throughout western democracies. You get just as much as you deserve and this is best ensured by market mechanisms.

But finally, as the socio-economic pendulum moves *in extremis*, even in the comfortable West, income and wealth inequality have today grown to unprecedented levels. Our societies are suddenly in the process of rupturing just as they did less than a century ago on the eve of the most destructive war in history. Meanwhile, the ‘progressives’, who long ago ditched the dog-eared pamphlets of revolutionaries, remain captivated by the spell of the more glossy portfolios of the meritocracists.

[†] *Wikipedia* devotes an entire entry to “List of University of Oxford people with PPE degrees which begins: “Philosophy, Politics and Economics (PPE) at Oxford University has traditionally been a degree read by those seeking a career in politics, public life (including senior positions in Her Majesty’s Civil Service) and journalism.”

Having inveigled both political wings – becoming the new left and new right – they now hope to persuade us that ‘centrism’, founded on strict meritocratic principles, remains the single viable – since least ‘extreme’ – vision for democracy. Mostly stuck on the lower social rungs, however, we, the people, are clearly restless. For the moment we moan and groan impatiently, but that moment is set to pass. Calls for fundamental social change are gaining strength and I dare to predict that we are on the brink – for better or for worse – of an altogether seismic shift.

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So how do we break free of the spells that bind us – the increasingly entangled entrapments of the new technologies, debt and overwork? There are really only two approaches we can take. Either we turn inwards, as a growing number are doing, to try to rediscover who we are through methods of deep introspection. Or, confronting external reality head-on, we engage in collective acts of defiance, since our true strength lies in numbers.

There are good arguments for both approaches. The boundary between the subjective and objective is infinitesimally thin. To repeat an old rallying slogan: the personal is the political! This cannot be said often enough.

My greatest concern is that we should not remain passive. Clear and unshakeable demands are urgent, since power concedes nothing without. But again, introspection is invaluable in this regard – for how can we better understand what we truly want without solidly comprehending who we really are? All hope of shaping our better future lies nonetheless in collective hands and depends upon acts of solidarity.

The alternative is grim. Besides the prospect of new kinds of techno-tyranny, failure or refusal to react decisively will exacerbate the troubles that already plague us; ones forecast by Erich Fromm in the conclusion to his book *The Sane Society*:

“In the 19th century inhumanity meant cruelty; in the 20th century it means schizoid self-alienation. The danger of the past was that men became slaves. The danger of the future is that men may become robots. True enough, robots do not rebel. But given man’s nature, robots cannot live and remain sane, they become ‘Golems’; they will destroy their world and themselves because they cannot stand any longer the boredom of a meaningless life.”¹⁵⁶

Fromm’s vision is the best outcome, not the worst. For it wrongly presumes, as many still do, that the ruling class has no agenda of its own. In fairness, he lived in a different age: a time before the significant rise of

today's postmodern, globalist (supranationalist as opposed to internationalist), corporatocratic, neo-feudal, technetronic, technocratic age – I have chosen each of these words with care, since each reveals a different facet of the grand design. Hold the thought, because I'll come back to it.[†]

*

Some years ago I had been thinking up names for an envisaged progressive political movement, when, after realising that all of the traditional labels 'people's', 'popular', 'democratic', 'freedom', 'revolutionary', etc had been irreparably sullied, it occurred to me that in our mimetic age something snappier might be suitable. Something along the lines of 'system reset', although without the Maoist overtones! Briefly this led me to consider the familiar 3-fingered salute on every computer keyboard, Ctrl-Alt-Del: a consideration that altogether stopped me in my tracks.

For latent within Ctrl-Alt-Del is strange representation of a three-pronged assault that we are slowly being subjected to: three strategies to dominate and oppress. First through Ctrl (*i.e.*, control) by means of propaganda and censorship, by steady encroachment of mass surveillance into all areas of our lives, and, more contentiously, due to the growing mental health crisis and widespread prescription of 'chemical cosh' opiates and more Soma-like SSRI antidepressants.

[†] It was President Jimmy Carter's national security adviser, the late Zbigniew Brzezinski who coined the word 'technetronic', a portmanteau of 'technology' and 'electronics' that envisions a hi-tech future constructed around advanced communications. In his remarkably prescient book, *Between Two Ages: America's Role in the Technetronic Era* (1970), Brzezinski describes a system "that is shaped culturally, psychologically, socially and economically by the impact of technology and electronics – particularly in the arena of computers and electronics"; a vision that foreshadows what today is called the 'Fourth Industrial Revolution' (4IR) constructed around an 'Internet of Things' (IoT) and Smart Cities. Brzezinski's own position is ambiguous which leaves the reader unclear about whether he is issuing a warning or offering a blueprint. He writes that:

"In the Technetronic society the trend seems to be toward aggregating the individual support of millions of unorganized citizens, who are easily within the reach of magnetic and attractive personalities, and effectively exploiting the latest communication techniques to manipulate emotion and control reason." [...]

"Another threat, less overt but no less basic, 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 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."

Next comes Alt (*i.e.*, alteration) and the rollout of GMO in food and agriculture; biotechnologies that may soon open the door to other developments including the advent of ‘designer babies’ through gene editing along with wilder dreams of rewiring of human consciousness – perhaps literally.

Lastly Del (*i.e.*, deletion) which brings considerations of ‘population control’: today’s shorthand euphemism for a softly spoken neo-Malthusian desire to drastically reduce human population numbers.

Nick Bostrom is a philosopher with a scientific and technical background. He sits as director of the Future of Humanity Institute at Oxford University and is co-founder of the World Transhumanist Association (renamed *Humanity+*, *Inc.*). Indeed, Bostrom stands at the forefront of instituting methods for Ctrl and Alt being an outspoken proponent both of total surveillance and transhumanism.* Importantly, his work is acknowledged as an inspiration for Elon Musk and Bill Gates.¹⁵⁷

This is how Bostrom’s *Humanity+* announces its own intentions:

“What does it mean to be human in a technologically enhanced world? *Humanity+* is a 501(c)3 international nonprofit membership organization that advocates the ethical use of technology, such as artificial

* Nick Bostrom is one of a handful of academics who made the guest list when the secretive Bilderberg group gathered in Montreux Switzerland in June 2019. A few months prior to his attendance (in January) he had also been invited to the TED 2019 conference to chat with head of TED and business entrepreneur, Chris Anderson, about his “Vulnerable World Hypothesis”.

As *Business Insider* reported:

“Bostrom isn't done outlining frightening scenarios. On Wednesday {April 17, 2019}, he took the stage at the TED 2019 conference in Vancouver, Canada, to discuss another radical theory. While speaking to head of the conference, Chris Anderson, Bostrom argued that mass surveillance could be one of the only ways to save humanity from ultimate doom. [...]

“Under Bostrom's vision of mass surveillance, humans would be monitored at all times via artificial intelligence, which would send information to ‘freedom centers’ that work to save us from doom. To make this possible, he said, all humans would have to wear necklaces, or ‘freedom tags,’ with multi-directional cameras.

“The idea is controversial under any circumstance, but especially at TED, which has focused this year on strategies to ensure privacy in the digital era. Even Bostrom recognizes that the scenario could go horribly wrong.

“‘Obviously there are huge downsides and indeed massive risks to mass surveillance and global governance,’ he told the crowd. But he still thinks the ends might justify the means. ‘On an individual level, we seem to be kind of doomed anyway,’ he said.”

From an article published by *Business Insider* entitled “An Oxford philosopher who’s inspired Elon Musk thinks mass surveillance might be the only way to save humanity from doom”. Read more here: <https://www.businessinsider.com/nick-bostrom-mass-surveillance-could-save-humanity-2019-4?r=US&IR=T>

intelligence, to expand human capacities. In other words, we want people to be better than well. This is the goal of transhumanism.”

‘Better than well’ is putting it extremely mildly. By means of the full mastery of bio-engineering, Bostrom’s true goal is to wield control over every organism in the biosphere, humans included. In fact, the ultimate aim of transhumanism – old eugenics rebooted and enhanced by refined genetic manipulation – is to seamlessly meld human consciousness to AI and machines. Bizarre, certainly, like the worst science fiction dystopia, yet this is what the billionaires are seriously into, and what they are beginning to discuss more publicly at gatherings like the World Economic Forum.

Furthermore, the infrastructure for a coming era of tyranny has gradually been installed, or else is close to completion: a mass surveillance panopticon[†]; the arming and privatisation of the police (in America this militarisation is now more starkly evident); the emergence of secret courts and draconian legislation (America’s NDAA 2012 arguably the most egregious example so far*). In short, we see the emergence of a revised judicial framework that prosecutes whistleblowers for treason and charges dissenters as terrorists.

It is a shift that unhappily coincides with our “age of austerity” that once again is gamed to ruin the already destitute, while simultaneously but more incrementally, it undermines the middle class. The banking crisis of 2008 initiated a steep economic collapse following four decades of more gradual decline; incomes slashed in real terms thanks to stagnant wages and zero interest rates on savings. The emergency response to the covid pandemic then enabled corporate bailouts that dwarfed even those of 2008.¹⁵⁸ Indeed, the global covid response represents an economic *coup de*

[†] In 1791, the Father of Utilitarianism and ardent social reformer Jeremy Bentham published blueprints for a wholly new design of prisons. Called the panopticon, from observe (*-opticon*) all (*pan-*), the design, which involved a circular annulus of cells surrounding a central lodge, allowed the guards to keep an eye on all of the inmates without them being able to know whether or not, at any given moment, they were actually being watched. Bentham had big plans for this design, and suggested that the same concept might be usefully to be applied to the construction of hospitals, schools and workhouses.

* “On December 31, 2011, President Obama signed the National Defense Authorization Act (NDAA), codifying indefinite military detention without charge or trial into law for the first time in American history. The NDAA’s dangerous detention provisions would authorize the president — and all future presidents — to order the military to pick up and indefinitely imprison people captured anywhere in the world, far from any battlefield.”

Taken from the *American Civil Liberties Union* (ACLU) website. Read the full statement here: www.aclu.org/issues/national-security/detention/indefinite-detention-endless-worldwide-war-and-2012-national

grâce, and today’s ensuing “cost of living crisis” is actually an inflationary crisis, although governments prefer to avoid the I-word.

All stages of this ongoing decline – a more or less controlled collapse – are facilitated by the most sophisticated systems of mass propaganda ever devised. The internet is owned outright by the same ruling class that has captured our governments, as is the bulk of the corporate media. Free speech was effectively snuffed out years ago.

So it is almost tempting to think that the choice of Ctrl-Alt-Del was meant to be a piece of subliminal predictive programming, except that the man credited with its origins is an IBM engineer called David Bradley, who says it was not intended for use by ordinary end users but helpful for software designers. Curiously, however, as Bradley also says: “I may have invented control-alt-delete, but Bill Gates made it really famous.”¹⁵⁹

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Civilisation stands on the brink. A radical transformation is coming; that is inescapable. The old patterns can no longer sustain us either materially or spiritually, and this seldom confessed truth is perfectly well understood by the ruling class who have already constructed the route ahead to an envisioned future and presented us with roadmaps.[†] As we enter the most important period of world history since the Second World War, the immediate fight is political, and involves the perennial Marxist dispute over control and allocation of material resources. By contrast, the longer-term battle assaults our humanity at the deepest and most fundamental levels

[†] Speaking to a virtual audience at the 2021 Munich Security Conference, US President Joe Biden read the following statement:

“We’re at an inflection point between those who argue that, given all the challenges we face — from the fourth industrial revolution to a global pandemic — that autocracy is the best way forward, they argue, and those who understand that democracy is essential — essential to meeting those challenges.”

Months later, in September 2021, at his first address before the UN General Assembly, President Biden declared once again that the world stands at an “inflection point in history” because of Covid-19, climate change and human rights abuse. More recently at the United Nations Climate Change Conference (better known as the COP26) which took place in Glasgow in November 2021, President Biden again told delegates “We’re standing at an inflection point in world history.”

The full transcript of President Biden’s speech to the 2021 virtual Munich Security Conference is available on the official White House website: <https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/02/19/remarks-by-president-biden-at-the-2021-virtual-munich-security-conference/>

since it threatens to hold autonomy over our minds and bodies; policing our thoughts and finally altering our biology down to the molecular level.

Eager to keep as much control over everything as possible – call it ‘full spectrum dominance’ as the military arm of their military-industrial-financial complex does – the billionaire class has extended its tentacles into all areas of politics and civil society. This stealth takeover was accomplished during the last half century via the agency of huge foundations which indirectly support a network of think tanks, policy forums, NGOs and so forth, nowadays operating throughout all spheres of public life, most often under the guise of internationalism (or “globalisation,” or “global governance”) as well as environmentalism (or “sustainability”). The mainstream left is today as sold out to this oligarchy and, in consequence, has become as unimaginative and non-progressive as the right.

Thus the onslaught facing those of us in the West seems to be a relentless one, even as the system is now crumbling apart altogether. One way or another, and very soon, it will have to be replaced. The billionaires, interested first and foremost in maintaining and increasing their power and privilege, actually understand and quietly acknowledge all of this.

Were the ruling class more candid about their truer intent (and this broader agenda is beginning to emerge as an open secret) then we would have been hearing plenty about the dawn of what more straightforwardly is called ‘creeping fascism’ (Trump was not an aberration, but a symptom), except that aspiring tyrants, for self-evident reasons, cannot be expected to speak too loudly about their grandest ambitions – and the fourth estate which once held power to account was, as I intimated above, bought off decades ago. Nonetheless, the quickening steps on our road to serfdom are becoming harder and harder to deny.*

Incidentally, for those who feel that ‘fascism’ is too alarmist, or too vague, and too freely bandied around by the doom-mongers who proffer nothing but a counsel of despair, there is extra chapter (the Postscript)

* Irish psychologist and author Seán ÓLaoire has an interesting vision of the future and a unique taxonomy. He says our species has reached a trifurcation point as *Homo sapiens* begins to separate into three new kinds of human being. First there is *Homo sociopathicus*; the people wholly obsessed with power and control and engaged in constructing a second group he calls *Homo artificialis*. The first group are endeavouring to create a slave race of hackable and programmable automatons with no control over their own future or destiny and who will literally just be robots in their service. However, there is also a third group which he calls *Homo spiritualis*. A branch of the human race that is simultaneously recognising its own divinity and the inner divinity of everything with which we share on the planet including other human beings. People who come to realise that they're “god beings” and are then prepared to confront *Homo sociopathicus*.

where I try to explain at greater length why we need to keep using the word, no matter how badly misappropriated and damaged it has become over time.

A brief aside: the vitally important lesson to be learned from the rise of the Nazis (as well as the other fascist governments of the twentieth century) is not that monsters are sometimes capable of holding an otherwise educated if unwitting public in their thrall, but that fascism is most vigorous when it feeds on the pain and fear of a desperately struggling populace. It is when economies are ruined that fascism almost spontaneously arises, just as flies rush to a rotting corpse. As for the monsters, it may be that many of them do not appear much like monsters at all. As Hannah Arendt, who is best known for coining the phrase “the banality of evil,” wrote after she saw Adolf Eichmann testify at his trial in 1961:

“The trouble with Eichmann was precisely that so many were like him, and that the many were neither perverted nor sadistic, that they were, and still are, terribly and terrifyingly normal. From the viewpoint of our legal institutions and of our moral standards of judgment, this normality was much more terrifying than all the atrocities put together, for it implied — as had been said at Nuremberg over and over again by the defendants and their counsels — that this new type of criminal, who is in actual fact *hostis generis humani* [“enemy of mankind”], commits his crimes under circumstances that make it well-nigh impossible for him to know or to feel that he is doing wrong.”¹⁶⁰

Today, Hitler strikes us as a ridiculous and grotesque figure. He is the epitome of evil; the devil incarnate. His chubby pal Mussolini appears no less ranting and raving mad. The very fact I have included any reference to them in my argument already weakens it: the first person to mention Hitler being the loser in all our debates today – that’s Godwin’s Law![†]

Indeed, when it comes to any appraisal of Hitler and Mussolini, an extraordinarily difficult task presents itself in merely disentangling the caricatures from the men themselves. So unfortunately, we are unable to see these demagogues through the eyes of their contemporaries. We ought to be periodically reminded therefore – pinching ourselves if necessary – how throughout Europe and America both men were not just presented as respectable, but feted as great statesmen. Hitler was lauded by *Time* magazine and the *Daily Mail*; he was good friends with Henry Ford and King Edward VIII; financially supported by Prescott Bush, father of George H. W., and by the then-Governor of the Bank of England, Montagu

[†] Interestingly, Godwin’s Law fails to apply in either polite conversation or more serious discussions when it comes to the designated villains of the day. Milošević, Saddam, Gaddafi, Assad, Putin and Xi, are amongst a long list of world leaders who are or have been routinely compared to Hitler.

Norman. Prior to – and also during the war – fascism met with great favour amongst the highest echelons of the ruling class: aristocrats and plutocrats falling in love with fascism, because fascism is inherently plutocratic and aristocratic.*

So while any mention of fascism as a major political force seems anachronistic, and no-one outside the thuggish gangs of neo-Nazis and white supremacists openly calls themselves fascist today, it remains the dirty mainstream secret of an astonishingly recent past. Tragically, its political force was not vanquished following the deaths of Hitler and Mussolini; instead it sidelined its name, hid its symbols and generally toned down its *modus operandi*.

In Europe, America and much of the rest of the western world, the entire political system is captured instead by variants of what would traditionally be labelled ‘right-wing’ or even ‘extreme right’. However, this is not the old-style extremism of Hitler or Mussolini, which was built upon the foundations of bombastic nationalism, but a new brand that cleverly

* The word ‘fascism’ is beginning to be usefully reclaimed. Reattached with careful deliberation and appropriateness to the situation we find unfolding today. For instance, veteran journalist and political analyst John Pilger writes:

“Under the ‘weak’ Obama, militarism has risen perhaps as never before. With not a single tank on the White House lawn, a military coup has taken place in Washington. In 2008, while his liberal devotees dried their eyes, Obama accepted the entire Pentagon of his predecessor, George Bush: its wars and war crimes. As the constitution is replaced by an emerging police state, those who destroyed Iraq with shock and awe, piled up the rubble in Afghanistan and reduced Libya to a Hobbesian nightmare, are ascendant across the US administration. Behind their beribboned facade, more former US soldiers are killing themselves than are dying on battlefields. Last year 6,500 veterans took their own lives. Put out more flags.

“The historian Norman Pollack calls this ‘liberal fascism’: ‘For goose-steppers substitute the seemingly more innocuous militarisation of the total culture. And for the bombastic leader, we have the reformer manqué, blithely at work, planning and executing assassination, smiling all the while.’ Every Tuesday the ‘humanitarian’ Obama personally oversees a worldwide terror network of drones that ‘bugspat’ people, their rescuers and mourners. In the west’s comfort zones, the first black leader of the land of slavery still feels good, as if his very existence represents a social advance, regardless of his trail of blood. This obeisance to a symbol has all but destroyed the US anti-war movement – Obama’s singular achievement.

“In Britain, the distractions of the fakery of image and identity politics have not quite succeeded. A stirring has begun, though people of conscience should hurry. The judges at Nuremberg were succinct: ‘Individual citizens have the duty to violate domestic laws to prevent crimes against peace and humanity.’ The ordinary people of Syria, and countless others, and our own self-respect, deserve nothing less now.”

From “The silent military coup that took over Washington” written by John Pilger, published in *The Guardian* on September 10, 2013. Read more here: www.theguardian.com/commentisfree/2013/sep/10/silent-military-coup-took-over-washington

disguises itself as non-ideological, tolerant or even moderate – I heard political commentator Tariq Ali once refer to it as the ‘extreme centre’. This is actually the best description we have.

This new extremism has novel approaches to serving and protecting its special interests and crony insiders. It simpers and asks for apologies when providing no alternatives – the other chaps are far more valuable and just “too big to fail,” it reminds us when the occasion demands, before confirming, more or less as an aside, that democracy only extends so far.

Meanwhile, novel ways are found to manufacture public consent for aggressive foreign wars that bear no relation (we are told) to last century’s wars of conquest and exploitation. War today is a matter of pre-emption, or if that fails to impress a grumbling populace, then an ugly but vital form of humanitarianism. However, the new extremism draws on older and very well-tested formulas for clamping down on freedoms at home. Instilling fear of ‘the other’ helps to forge a collective mindset, after which, ironically enough, liberties can be restricted to protect us from ‘extremists’.

The steady rise of this postmodern, globalist, corporatocratic, neo-feudal, technetronic, technocracy is, as I say, an open secret. Saying you don’t like my characterisation is a bit like saying you don’t like the colour of the sky! Indeed, half of these identifiers above are ones coined, or at least preferred, by the world shapers themselves – the globalist plutocrats who so love technocracy.

You may contend that we have moved past postmodernism, even as it raises a wry smile if not a full-blown chuckle, whilst admittedly ‘corporatocracy’ and ‘neo-feudal’ are pejorative terms. What is harder to ignore is the choking stench of decay, if respectfully the pliant masses do still hold their noses and very often with deference and gratitude. The majority has always behaved this way, although history was reshaped in spite of a widespread propensity to Stockholm syndrome.

As Goethe wrote: “None are more hopelessly enslaved than those who falsely believe they are free.”†

*

† In the original German: “*Niemand ist mehr Sklave, als der sich für frei hält, ohne es zu sein.*”

From Book II, Ch. 5 of *Die Wahlverwandtschaften* (‘Elective Affinities’ or ‘Kindred by Choice’) by Johann Wolfgang von Goethe, published in 1809.

Addendum: Effing utilitarianism

Should we require a more ideologically-framed foundation for our envisioned future society – this republic of the new malarkey! – then half-jokingly I propose that the new approach might be called ‘futilitarianism’: our mission, to dispense with all that is wasteful, tedious, onerous and in a word ‘futile’.* In other words, to make a full one-eighty degree U-turn against utilitarianism and its consequentialist basis in which ends alone purportedly justify means. Let’s turn this inculcated foolishness on its head entirely, and aside from properly disconnecting moral value from mere usefulness, remind ourselves too, as Gandhi correctly asserted, that ‘means’ are ‘ends in the making’.

Thus we grant, conversely, that ‘means’ absolutely can and do justify themselves intrinsically, without regard to whatever the ‘ends’ may turn out to be.† In all ethical matters, reciprocity then becomes our touchstone again: a return to the generous maxim of the Golden Rule. For this most ancient of all ethical rules remains the wisest and most parsimonious; and it is always better not to fix things that were never broken.‡

Futilitarianism also involves an item-by-item elimination of each of our extant but inessential socio-political complications: an unravelling of

* I recently discovered that there is already a name for the kind of social philosophy I have tried to outline here. Apparently it’s called “metanoia” and that’s fine with me... a rose by any other name. In any case, the term futilitarianism was originally coined as a joke by a friend. It was a great joke – one of those jokes that causes you to laugh first and then to think more deeply afterwards. So I have kept the word in mind ever since because it fit quite comfortably with my own developing thoughts about life, the universe and everything – thoughts fleshed out and committed to the pages of this book. Of course, neologisms are useful only when they happen to plug a gap, and futilitarianism serves that function. Once I had the word I wanted to know what it might mean. The joke became a matter for playful contemplation, and that contemplation became what I hope is a playful book – playful but serious – as the best jokes always are.

† After writing this I came across a quote attributed to Aldous Huxley (from source unknown) as follows: “But the nature of the universe is such that the ends never justify the means. On the contrary, the means always determine the end.”

‡ There are many formulations of the Golden Rule. A multitude of philosophical attempts to refine and more strictly formalise the basic tenet to the point of logical perfection. Kant’s concept of the “categorical imperative” is one such reformulation. But these reformulations create more confusion than they solve. There simply is no absolutely perfect way to state the Golden Rule and recast it into a solid law. The Golden Rule better understood and applied as a universal guideline. Acting in accordance with the spirit of the rule is what matters.

the knots that hogtie us little by little. Beginning from the top, to first free up *our* financial systems, although not by so-called ‘deregulation’, since deregulation is precisely how those systems became so corrupted; but by dispelling all that is so toxic, craftily convoluted, nonsensical and plain criminal. (The last ought to go without saying but evidently doesn’t!) Whilst from the bottom, the goal is to bring an end to the commercialisation of our lives on which our debt-riven (because debt-driven) economies nowadays depend: to unwind the ever-more rampant and empty consumerist culture.

In the futilitarian future, security – that most misappropriated of words – would ensure that everyone (not just the super rich) is fully protected against all conceivable forms of harm that feasibly can be eradicated, or – if eradication is not realisable – then greatly diminished and/or ameliorated. The individual must be protected from persecution by all agents including the state itself; both liberty and privacy fully enshrined in laws permitting us to think and act as autonomous individuals.

From the outset, therefore, a social framework must ensure basic rights by acknowledging and guaranteeing not only civil liberties, but economic rights too. A living income for all, and one that is eventually independent of earned salary. Such unconditional basic incomes are now under consideration, but I advocate a steady move in this direction through instituting a range of measures including extended holidays, reductions in working hours, and the lowering of the pension age. All of this must be achieved on a voluntary basis, since nobody ought to be compelled to remain idle any more than anyone should be compelled to overwork. Crucially, in pursuing this objective, equivalent (and preferably increased) levels of income must be consistently maintained.

Ensuring basic economic rights requires universal provision of the highest quality healthcare and ensuring optimum social entitlement. Homes and food for all. Clothing and warmth for all. Unpolluted air and clean water for all. In fact, such universal access to every necessity and much else besides is already enshrined in the United Nations’ Universal Declaration of Human Rights (UDHR), which reads:

“Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.”¹⁶¹

The overarching aim is to reconstruct society (beginning with our own) by means of wealth redistribution to achieve a complete and final elimination of all the ills of poverty because there is ample energy, food,

and other material goods, including what is non-essential but desirable, for everyone alive in the world today and much more besides.

Emphatically, this does NOT require *any* form of imposed population controls, since prosperity automatically correlates with population stability (as proved by the steadily declining populations in the western world), and so resolutely we reject the scaremongering about impending global scarcity of food and other vital resources. In fact contrary to some neo-Malthusian prophesies of doom, just as the population of the world is peaking[†] we still have plentiful supplies of food to go around (lacking only the political will to distribute it fairly),¹⁶² with official UN estimates indicating that we shall continue to have such abundance both for the immediate future and far beyond.¹⁶³

Likewise, problems associated with energy production and hazards such as pollution must be tackled as an urgent priority. To such ends, the brightest minds need to be organised to find daring solutions to our energy needs – a new Manhattan Project, but this time to save lives. For technology justly configured is the essential key to humanity’s continuing betterment.

Futilitarianism also marks a sharp retreat from today’s red in tooth and claw ‘meritocracies’. Genuine hope (that most shamelessly abused of all words!) must instead be offered to the millions in our own societies, who deprived a liveable income and the comfort, security and status it confers, are today stripped of all dignity and as third-class citizens left to rot. Neglected, shunned and struggling to survive, understandably they often turn their backs to society, resorting often to alcohol and illegal narcotics (criminalised by virtue of that other constant war against the dispossessed) or, more permissibly, since corporately profitable, fill the emptiness with a dependence on doses of legally sanctioned opiates.

It is self-evident of course that so many have become hooked on painkillers because they are so deeply racked with pain. And in the West, the ranks of the destitute are swelling with the cardboard cities of the homeless strewn across our urban centres, but so too are the ranks of the disaffected well-to-do. Life’s never a zero-sum game, nor any kind of a spectator sport, and so having to step around such everyday misery actually makes the majority of us more miserable in turn.

Finally, the long-term vision sees an international community no longer perpetually at war, nor a people hypnotised and zombified by the

[†] We have already reached what is called “peak child,” which means that although the overall population of the world will continue to grow for a few more decades, the number of children in the world has already stopped rising. The global population is set to reach around 10 billion people, due to what the World-famous statistician Professor Hans Rosling calls the “Great Fill-Up”.

infinitely-receding baubles of our faux-free markets, nor by the limiting and phoney promise of “freedom of choice”. Besides the regular bread and circuses of TV, Hollywood and wall-to-wall professional sport; the onrush of high-speed editing and ceaseless agitation offered through CGI; today we have nonstop access to more and more digital pacifiers thanks to *iphones*, *Candy Crush*, and *TikTok*. Driven to worship the tawdry, there was never a more distracted and narcissistic age than ours. Yet no amount of distractions can ever satisfy us: however much we numb ourselves, the emptiness persists.

In short, the futilitarian cry is *Basta!* Enough is enough! Enough of poverty and of curable sickness. Enough of excessive hard labour. An end to all the madness! An end to the rat race altogether!

If we want a pithy and memorable slogan, then we might try recycling this one: “People before profits”. Generously acted upon, the rest automatically follows. Or, if that smacks too much of special pleading, let’s be bolder and rather more emphatic, saying: “Power to the people!” Hackneyed, yes, but risible – why risible? “Power to the people” speaks to the heart and soul of what it should literally mean to live in any real democracy. Our greatest tragedy is that the people have long since forgotten their birthright.

As playwright Harold Pinter said in the final words of his magnificent Nobel Lecture speech delivered in late 2005 when he was already dying from cancer:

“I believe that despite the enormous odds which exist, unflinching, unswerving, fierce intellectual determination, as citizens, to define the *real* truth of our lives and our societies is a crucial obligation which devolves upon us all. It is in fact mandatory.

“If such a determination is not embodied in our political vision we have no hope of restoring what is so nearly lost to us – the dignity of man.”

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Epilogue: The end of Fukuyama

“What we may be witnessing is not just the end of the Cold War, or the passing of a particular period of post-war history, but the end of history as such ... That is, the end point of mankind’s ideological evolution and the universalization of Western liberal democracy as the final form of human government.”

— Francis Fukuyama[†]

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After Joe Biden took the recent decision to bring the troops home from Afghanistan, there was an abundance of hand-wringing concern for the plight of ordinary Afghans. This was all in stark contrast to the prior two decades when we heard next to no news from this war-torn and beleaguered country. The officially recorded quarter of a million lives lost during those twenty years of US-led invasion and occupation had mostly happened unseen; the millions more Afghan soldiers and civilians who lost their limbs, eyes, genitals or were otherwise mutilated by shrapnel and high explosives and the countless others who fell victim to shadowy CIA-backed death squads have likewise received scarcely a mention. But then during America’s shambolic and humiliating exit and in its immediate aftermath, there was an outpouring of concern for the plight of women and children (in particular), as if all the drones and the air strikes and the CIA black sites and Trump’s “mother of all bombs” had been their last and only salvation from the admittedly monstrous Taliban.

I say admittedly monstrous, but again, strictly speaking these are our monsters; ones America originally trained and funded under *Operation Cyclone* to be the cat’s paw that could help to defeat the Soviet Union. More recently the western powers have trained, funded and also provided air support for comparable and arguably worse Islamist factions in order to

[†] From *The end of History and the Last Man* (1992) by Francis Fukuyama.

bring about regime change in Libya and to attempt another overthrow in Syria – if you’ve never heard of it, look up Timber Sycamore.¹⁶⁴ This is how western foreign policy operates covertly today – as it did yesterday.

The extreme levels of hypocrisy and ahistorical revisionism surrounding the Afghan War (very often downplayed as an ‘intervention’) make the task of unravelling the facts a difficult one. But here my main purpose is to scrutinise the latent ideology that drove America and its western allies into prolonged conflict over this so-called ‘graveyard of empires’ and that inflamed the entire ‘war on terror’.

When George W Bush had told the world two decades earlier that America was hunting down Osama Bin Laden “wanted: dead or alive,” he was playing to an audience both traumatised after the attacks of 9/11 and one that had been brought up on Hollywood stories where the guys with the white hats are unimpeachably good and always win. Behind the scenes, however, a neocon faction had seized power and was now eager to launch a US-led global military offensive on the pretext of this “new Pearl Harbor”: a scenario that matched one conveniently prepared in their notorious document *Rebuilding America’s Defenses*, published almost precisely one year prior to the September 11th atrocities.

Furthermore, although Afghanistan was the designated target to get the ball rolling on the neocon’s envisioned “New American Century,” it was clear from the outset that Iraq would be next in line. In fact, in a letter sent to President Bush dated September 20th 2001 (scarcely a week after 9/11), the neocon think tank Project for the New American Century (PNAC) led by William Kristol and Robert Kagan began imploring Bush to ramp up the “war on terrorism,” specifying:

“We agree that a key goal, but by no means the only goal, of the current war on terrorism should be to capture or kill Osama bin Laden, and to destroy his network of associates. To this end, we support the necessary military action in Afghanistan and the provision of substantial financial and military assistance to the anti-Taliban forces in that country.”

Continuing in the very next paragraph under the straightforward heading ‘Iraq’:

“We agree with Secretary of State [Colin] Powell’s recent statement that Saddam Hussein ‘is one of the leading terrorists on the face of the Earth....’ It may be that the Iraqi government provided assistance in some form to the recent attack on the United States. But even if evidence does not link Iraq directly to the attack, any strategy aiming at the eradication of terrorism and its sponsors must include a determined effort to remove Saddam Hussein from power in Iraq.”¹⁶⁵

More recently, Joe Biden confessed in a White House speech in August 2021:

“Our mission in Afghanistan was never supposed to have been nation building. It was never supposed to be creating a unified, centralized democracy.”¹⁶⁶

On the back of these candid admissions, Biden received furious bipartisan opprobrium from the usual hypocrites: politicians and media alike; since although this statement is nothing more than the ungarnished truth, you are not supposed to say the quiet part out loud.

But then, the neocons who continue to wield power and steer American foreign policy, have never been interested in pursuing ‘justice’ (the official spin) nor are they captive to realpolitik. Their original goal was simply to embark on a vast neoimperialist project which in their own terms would bring about a *Pax Americana*. Yet this too is a lie, of course – as they know it is – since peace has never been a real concern or serious objective. Unflinchingly, the neocons justify all deceptions in terms their intellectual progenitor Leo Strauss encouraged and endorsed (see the addendum below): according to their own ideology, these were all “noble lies.”[†]

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Francis Fukuyama had been another prominent member of the PNAC neocon faction and a big part of the reason I began this book. Not so much because of the man himself, even if his highly suspicious employment record gives cause for closer scrutiny,^{*} but for his famous heralding of “the end of history”. The end of history...! Just how could anyone seriously venture such an outrageous claim? Well, Fukuyama holds a postmodern stance that rejects the so-called “grand metanarrative” visions, arguing on this basis that once the fierce struggle between competing ideologies was over, history *per se* had hit the buffers and ceased to be. Accordingly, our societies thereafter reached a crisis point since we are left only with what Fukuyama claims to be a fragmented plurality of relative viewpoints.

[†] By 2006, the reputation of the notorious neocon think tank, the *Project for the New American Century* (or PNAC) was so tarnished that it was ostensibly closed down. In an exercise of rebranding, PNAC co-founders Robert Kagan and William Kristol, reopened a ‘new’ think tank called the *Foreign Policy Initiative* in 2009.

^{*} Francis Fukuyama has in fact actively promoted the rise of not only of our contemporary brand of neoliberalism, but of its more evil twin neoconservatism working as a PNAC contributor and one of the signatories to PNAC’s Statement of Principles. He was also deputy director of the State Department’s policy planning staff, and a former analyst at the RAND Corporation.

The main casualties in this preceding war had been first fascism and then communism, so that the last man standing is our globalised system of ‘liberal democracy’ (although we might read: neoliberal technocracy), and thus all societies are steadfastly moving toward this single endpoint. In fittingly postmodern terms, this has become the only game left in town.

This final state of neoliberal democracy ends with everything kowtowing to ‘the market’, which is where Fukuyama is unusual, since the majority of today’s cultural critics – the illustrious ranks of the postmodernati who came to prominence throughout academia and within the intellectual sphere more broadly – tend to be thinkers ostensibly of the left. Fukuyama, on the other hand, holds a notionally oppositional stance, whilst aligning shamelessly with the neocon right. Although Fukuyama, ever slippery, claims to be a Marxist of sorts – his argument, following from Marx, and thus structured around historical materialism and predicated on the Hegelian dialectic, diverges from Marx in that it culminates in the rise of a capitalist ‘utopia’. Consumerism, Fukuyama regards, if not literally the wellspring of freedom, then indubitably its hallmark. This, at least, is one way to understand Fukuyama’s conclusion.

This endpoint was inevitable, Fukushima says, echoing Marx again, and happily – according to Fukuyama, at least – represents the most effective means for securing economic prosperity through satisfying our near insatiable material wants, whilst concomitantly securing liberty for all. Thus, in his essay *The End of History?* he writes:

“We might summarize the content of the universal homogeneous state as liberal democracy in the political sphere combined with easy access to VCRs and stereos in the economic.”^{†167}

Very droll! And indicative of a philosophy superficially drenched in utilitarianism. Fukuyama may claim to be a Marxist, but in fact his own thinking owes very little to the grand Germanic tradition of Leibniz, Kant and Hegel. Marx, although a staunch materialist, was never so profane or banalistic. However, it is easy to get the wrong end of the stick when it comes to presuming these are Fukuyama’s personal preferences. Shadia Drury is Professor of Political Theory who has become a specialist on the neocon faction and their ideological godfather Leo Strauss. This is her

† “I want to avoid the materialist determinism that says that liberal economics inevitably produces liberal politics, because I believe that both economics and politics presuppose an autonomous prior state of consciousness that makes them possible. But that state of consciousness that permits the growth of liberalism seems to stabilize in the way one would expect at the end of history if it is underwritten by the abundance of a modern free market economy. We might summarize the content of the universal homogenous state as liberal democracy in the political sphere combined with easy access to VCRs and stereos in the economic.”

considered and somewhat different opinion of Fukuyama's thesis and its place within the canon of neocon thinking:

"Like Heidegger, [Carl] Schmitt, and [Alexandre] Kojève, Strauss would be more concerned that America would succeed in this enterprise [of spreading 'liberal democracy'] than that it would fail. In that case, the last man would extinguish all hope for humanity (Nietzsche); the night of the world would be at hand (Heidegger); the animalisation of man would be complete (Kojève); and the trivialisation of life would be accomplished (Schmitt). That is what the success of America's global aspirations meant to them.

"Francis Fukuyama's *The End of History and the Last Man* is a popularisation of this viewpoint. It sees the coming catastrophe of American global power as inevitable, and seeks to make the best of a bad situation. It is far from a celebration of American dominance.

"On this perverse view of the world, if America fails to achieve her national destiny, and is mired in perpetual war, then all is well. Man's humanity, defined in terms of struggle to the death, is rescued from extinction. But men like Heidegger, Schmitt, Kojève, and Strauss expect the worst. They expect that the universal spread of the spirit of commerce would soften manners and emasculate man. To my mind, this fascistic glorification of death and violence springs from a profound inability to celebrate life, joy, and the sheer thrill of existence."

"To be clear, Strauss was not as hostile to democracy as he was to liberalism. This is because he recognises that the vulgar masses have numbers on their side, and the sheer power of numbers cannot be completely ignored. Whatever can be done to bring the masses along is legitimate. If you can use democracy to turn the masses against their own liberty, this is a great triumph. It is the sort of tactic that neo-conservatives use consistently, and in some cases very successfully."¹⁶⁸

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My own disagreements with Fukuyama's exoteric vision are broadly threefold.* Firstly, I refute his bizarre claim that liberal economics is a final triumph in any way whatsoever. It is precisely the free market policies that Fukuyama endorses, instituted and overseen by the WTO, the World Bank and the IMF, that have widened the wealth gap; and far from securing universal welfare and tolerable freedom for all, swept ever greater numbers

* It should be noted here that Leo Strauss's political theory depends upon a distinction he draws between exoteric and esoteric philosophy: what philosophers said outwardly as opposed to the true but concealed meaning of their teaching – which is meant only to be understood by adepts.

into unsafe, unhealthy and unhappy conditions, with the consequence that already impoverished lands are further exploited for both their natural and “human resources.” The majority forced into the servitude of the few.

For these reasons (as any *true* keeper of Marxist faith will likewise contend) the ideological battlegrounds between left and right (labour and capital) remain fiercely contested. Put differently: try explaining to people on the margins – the child workers in the sweatshops of Asia, those denied access to clean water and medical treatment in Africa, others struggling for survival in the vast shanty towns of Latin America, and those still at the bottom of the heap in our fewer lands of plenty – how their fight has been won. Who seriously dares to declare that history has ended?

My next disagreement is a purely aesthetic one: that Fukuyama’s gospel is plain ugly – although this, in truth, he knows and acknowledges. In the near future, he says, after philosophy and art have found refuge in museums, people will choose more disposable amusements for diversion and recreation. Welcome, in other words, to a brave new world of bread and circuses. For this is the way the world has already ended (at least according to Fukuyama): not with a bang but with a *Wimpy* burger! Although, he afterwards concedes:

“Perhaps this very prospect of centuries of boredom at the end of history will serve to get history started once again.”*¹⁶⁹

He really is a joker sometimes!

But there’s actually a more fundamental reason to reject Fukuyama’s notion of an end to history. For central to his thesis is a complete and irreversible abandonment of ideology *per se*. A claim that in some time beyond history – purportedly these times! – *all* ideology sinks behind us. Yet how could any truly post-ideological world operate at all, devoid of systems that provide some primary basis for economic and political thinking? This is utopianism of the very strangest sort.

In truth, our current politico-economic orthodoxy is as awash with hand-me-down ideology as every politico-economic system of the past.

* “The end of history will be a very sad time. The struggle for recognition, the willingness to risk one’s life for a purely abstract goal, the worldwide ideological struggle that called forth daring, courage, imagination, and idealism, will be replaced by economic calculation, the endless solving of technical problems, environmental concerns, and the satisfaction of sophisticated consumer demands. In the post-historical period there will be neither art nor philosophy, just the perpetual caretaking of the museum of human history. I can feel in myself, and see in others around me, a powerful nostalgia for the time when history existed. Such nostalgia, in fact, will continue to fuel competition and conflict even in the post-historical world for some time to come. Even though I recognize its inevitability, I have the most ambivalent feelings for the civilization that has been created in Europe since 1945, with its north Atlantic and Asian offshoots. Perhaps this very prospect of centuries of boredom at the end of history will serve to get history started once again.”

Laissez-faire capitalism didn't form out of a vacuum. Its roots trail down to the radical philosophies of René Descartes and Thomas Hobbes, with qualities then incorporated from the Enlightenment humanism of John Locke, Voltaire, and David Hume, accompanying the economics of early liberals such as Adam Smith – who regarded himself as first and foremost a moral philosopher. This same empiricism helping to water, and in turn being watered by, the utilitarianism of Jeremy Bentham and John Stuart Mill, for whom all human relations would be reduced to a sort of cost-benefit analysis (arguably more subtly and humanely in the case of Mill).

Later again, during the turn of the Twentieth Century, the Progressive Era industrialists, foremost of whom was Henry Ford, adapted and transformed modern scientific methods to hone production-line manufacture; refining systems that could optimise worker productivity with, for instance, the development of “time and motion studies”. Repetitious tasks becoming still more repetitious again, as humanity began to merge inseparably with the machinery it was gradually becoming enslaved to. When, in his biting satire *Modern Times*, Charlie Chaplin gets dragged half-asleep between the cogs, his warning could hardly have been more graphic. Wake up or be consumed within the machine; swept around unconsciously like every other part of its mechanism.

Of course, much of this ideological inheritance was materially useful and has been beneficial in other ways too. Importantly, the Enlightenment inspired our modern concept of the free individual which in turn underpins national and international commitments to universal human rights and civil liberties. But this same road to emancipation happens to lead into alienation; precisely what Marx was kicking against: insisting that man must regain his vanquished soul (if not in the traditional religious sense, then certainly in a reframed ‘spiritual’ one).

Meanwhile, beyond the neon signs and the barcodes, art and philosophy will be eternally with us, whatever Fukuyama's preference (which remains far from clear), because as a species we are unable to get by without systems of ideas or beyond ideas, just as we cannot thrive without ideals. Finally, there will always be artists, scientists and other thinkers striving to recreate the world anew with fresh realisations, compelled by curiosity and irresistibly drawn to unexplored horizons; pushing forward whether or not our progress brings mayhem along the way. History only ends if the human spirit is ever fully and finally extinguished.

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Addendum: Leo Strauss & the neocons

In 2003, Shadia Drury, Professor of Political Theory at the University of Regina in Saskatchewan, a leading scholarly critic of the philosopher Leo Strauss – the godfather to neoconservatism – was interviewed by Danny Postel*. The related article titled *Noble lies and perpetual war: Leo Strauss, the neo-cons, and Iraq* is extremely insightful and its significance is resonant today – why? Because although their main discussion surrounds the illegal invasion of Iraq and features a cast of war criminals who having orchestrated the “war on terror” to deliver specific geopolitical ends are no longer holding high office, their neoconservative legacy remains intact. The wars are ongoing and the same central strategy continues to direct US foreign policy.

Importantly, and key to understanding how they operate, and indeed how their approach has succeeded in inculcating a pro-war reaction amongst the liberal classes, we must first recognise the Straussian stratification of society into three layers: the wise few (who are the rightful rulers), the vulgar many (*i.e.*, the majority of us), and the gentlemen.

Crucially, it is role of the gentlemen to be unwitting enablers, who, according to this scheme, are well-intended but useful idiots. As Shadia Drury explains:

“There are indeed three types of men: the wise, the gentlemen, and the vulgar. The wise are the lovers of the harsh, unadulterated truth. They are capable of looking into the abyss without fear and trembling. They recognise neither God nor moral imperatives. They are devoted above all else to their own pursuit of the higher pleasures, which amount to consorting with their puppies or young initiates.

“The second type, the gentlemen, are lovers of honour and glory. They are the most ingratiating towards the conventions of their society that is, the illusions of the cave [*Plato’s cave*]. They are true believers in God, honour, and moral imperatives. They are ready and willing to embark on acts of great courage and self-sacrifice at a moment’s notice.

“The third type, the vulgar many, are lovers of wealth and pleasure. They are selfish, slothful, and indolent. They can be inspired to rise above their brutish existence only by fear of impending death or catastrophe.”

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Drury continues:

“For Strauss, the rule of the wise is not about classic conservative values like order, stability, justice, or respect for authority. The rule of the wise is intended as an antidote to modernity. Modernity is the age in which the vulgar many have triumphed. It is the age in which they have come closest to having exactly what their hearts desire: wealth, pleasure, and endless entertainment. But in getting just what they desire, they have unwittingly been reduced to beasts.”¹⁷⁰

Drury then considers Strauss’s immediate philosophical influences, before summarising his broad political outlook as follows:

“Only perpetual war can overturn the modern project, with its emphasis on self-preservation and creature comforts. Life can be politicised once more, and man’s humanity can be restored.

“This terrifying vision fits perfectly well with the desire for honour and glory that the neoconservative gentlemen covet. It also fits very well with the religious sensibilities of gentlemen. The combination of religion and nationalism is the elixir that Strauss advocates as the way to turn natural, relaxed, hedonistic men into devout nationalists willing to fight and die for their God and country.

Drury adds:

“I never imagined when I wrote my first book on Strauss that the unscrupulous elite that he elevates would ever come so close to political power, nor that the ominous tyranny of the wise would ever come so close to being realised in the political life of a great nation like the United States. But fear is the greatest ally of tyranny.”¹⁷¹

Understood in this context, it is perfectly easy to see why the neocons are keen to initiate conflicts that might then go on indefinitely. Although Drury herself offers a caveat saying that factions within the neocons may also have somewhat different aspirations; ones that more closely align with those ‘the gentlemen’ are indeed encouraged to believe:

“I think that the neo-conservatives are for the most part genuine in wanting to spread the American commercial model of liberal democracy around the globe. They are convinced that it is the best thing, not just for America, but for the world. Naturally, there is a tension between these idealists and the more hard-headed realists within the administration.

“I contend that the tensions and conflicts within the current administration reflect the differences between the surface teaching, which is appropriate for gentlemen, and the nocturnal or covert teaching, which the philosophers alone are privy to. It is very unlikely for an ideology inspired by a secret teaching to be entirely coherent.”¹⁷²

Afterword: Beware the naysayers!

“The saving of our world from pending doom will come, not through the complacent adjustment of the conforming majority, but through the creative maladjustment of a nonconforming minority... Human salvation lies in the hands of the creatively maladjusted.”

— Martin Luther King, Jr.[†]

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Two decades ago, relaxing in a local pub at the end of an anti-Iraq War march, I chanced upon a discarded copy of the magazine *Red Pepper*. Flicking through the pages, I came to a short article written by a person I will refer to only as R. A brave soul who had gone to Baghdad as the war drums beat loudly to hunker down as a human shield in the hope that her sacrifice would deter an attack on its civilian population. Impressed by her self-sacrifice but concerned that such goodwill might be hijacked and manipulated to serve the ends of Saddam’s regime, I decided to write a letter – helpfully, there was an email address appended to the article.

To my surprise, I received a very prompt and full reply, and more surprisingly, discovered that R was a Canadian grandmother. Here is part of the reply I received:

Thank you for writing. Your letter gives me courage that there is still time to stop the awful situation. I wish I knew how. But all I can think is that with the majority of the people in the world believing this war is wrong there has to be a way to stop the terrible madness. I am now in Albania. I left Iraq and drove back to France, then flew to Albania as I have a commitment here to build a garden in the centre of this terribly damaged country. I am very torn to have left Baghdad. Some of the friends I travelled with are still there. I am not able to contact them easily except by

[†] Martin Luther King, jr, *Strength to Love*. Philadelphia: Fortress Press, 1963/1981: 27–28

transmitting messages through the staff at the hotel where we were living. I am very touched by the hotel team when I call because they seem so glad to hear from me and I feel I have done so little.

The following day, March 11th, I wrote back as follows:

Dear R,

How kind of you to return my letter so swiftly. You can hardly imagine how surprised I was to discover not one but two replies to my short note. In some respects I am glad to hear that you have left Baghdad and certainly you have every reason to hold your head high and to tell your grandchildren about the courageous stand you and your friends have taken. Perhaps if you were naïve then that was only in your belief that thousands would follow you into danger, since it is hard to follow your grand commitment (and more importantly, most, like myself, quite frankly lack the courage, if not also the conviction, to do so). The fact that the media were more interested in Gustavo than the human volunteers says much, I feel, for our difficulty in seeing the innocence of others (it is easy to sympathise with a dog who “has no axe to grind” but what motivates the rest of you it is easy to wonder?) And many will be cynical, since it’s hard to comprehend acts of selflessness when you inhabit a world fashioned by the heartless demands of global capitalism.

It is worrying to hear that the other human shields have been moved to “strategic sites”. This was reported on the news and given as the reason why many had already left Iraq, and we have also heard that Saddam used human shields in the last conflict to protect his armaments. I hope that your friends will not allow themselves to be sacrificed to protect Saddam – that would be an appalling tragedy.

Your analysis of the crisis is spot on: “it is unforgivable that men of violence keep each other in power by persuading frightened people that violence is the only path”. We all should act against this barbarism. You have played a big part whereas a million in London have made our voices heard in a smaller way. You ask if I have any ideas. Then may I quote you again: “protest against this war loudly and strongly in whatever way you can”! And here I believe that in Britain more than anywhere we hold the real key. The population is split and it is reckoned that without a second resolution (which in any case will undoubtedly be vetoed by the French) only something like 30% is in favour of war, which means a very sizeable majority remain frustrated. Tony Blair is a frightened man and I don’t know if you saw how badly Jack Straw (our foreign secretary) lost his composure

at the UN recently. So the ruling Labour Party is deeply divided (yesterday Clare Short, a cabinet member, described Blair as “reckless”). On top of this there is a groundswell.

Last week hundreds of schoolchildren in Britain abandoned their lessons and took to the streets. In Sheffield they marched into the university and drummed up support from the much older students and then collectively they marched into the city centre. This is unprecedented. And these disaffected groups have such a diverse make-up, crossing the usual boundaries of age, class, or nationality.

These are a few very good reasons for optimism though at heart I confess that I am pessimistic for the simple reason that Blair takes no notice. ONE MILLION march into London and all he does is to acknowledge our right to free speech! That is simply not enough! What kind of democracy is run on the whim of one man? What is needed then is some way of demanding Blair’s attention.

There is a plan that when war begins (as it surely will) people should drop whatever it is they are doing and congregate outside the town hall wherever they happen to be and protest. That we should block the streets, cause peaceful civil unrest, and demand our right to be heard. If this happens then it represents the beginnings of a sea-change in what might loosely be called politics. But will it happen? Will I join the protests? Certainly I support the idea. But success depends on solidarity and a movement of colossal size when probably most (myself included) will stay at our desks (either too disinterested or too cowed to take such daring unilateral action). In any case, when war has begun it will be hard not to think that we have already failed.

Perhaps the best hope then is that we can forestall the war indefinitely – though the date indelibly in the Bush diary is March 17 – but the fact that France, Russia and Germany are refusing to co-operate and that Hans Blix has remained so unflinching throughout keeps the pressure on. We too must try to keep the pressure up, though this is difficult with time running short. One beautiful thing that happened yesterday was that at the end of a TV debate Tony Blair was actually slow hand clapped by the audience – he must be getting the message by now!

Before I finish, may I just ask about Albania? Albania is one of those places that get forgotten. I have no idea what Albania is like these days (not that I have much idea what Albania was like during the Cold War). Then today I read an article in *The Guardian* newspaper saying that Britain is intending to send its asylum seekers to camps in Albania. For a government that claims to want “to liberate the people of Iraq” it takes a rather dim view of “illegal immigrants” who are we’re told “an increasing

problem". So we will send them away to camps in Albania, where *The Guardian* claims, they will be faced with rabies and encephalitis-carrying ticks amongst the other hazards. My government makes me sick. To judge from the tail of your email you have a much better chap in charge of Canada.

I hope that this letter finds you happy and well. I will send it to your old email address since there is nothing urgent contained within its rambling bulk. I hope I haven't disillusioned you by taking a more pessimistic tone. And thank you for the quote from Lao Tzu (may we all be as wise) and let me finish with another, and one that is perhaps better known: "heaven and earth are ruthless, and treat the myriad creatures as straw dogs"

In the words of Philip Larkin, we should be kind to one another, while there is still time.

Warmest regards, James.

Little more than a week later, on March 20th (and so a mere three days after the date anticipated) war on Iraq began in earnest. Shock and awe missile strikes punishing those down on the streets of Baghdad who had no quarrel with us at all.

As the months passed, increasingly disillusioned with the state of world affairs and depressed by problems at work which were affecting me more personally, I had continued writing to R who was keen that we should keep in contact. She was still helping out on the garden project in Albania. Eventually, however, the correspondence between us dried up, perhaps, the ties were frayed as (when I look back honestly) I increasingly presented her with issues and problems, seeking her counsel as a sort of surrogate therapist, instead of maintaining proper relations as a distant friend. In any case, the last reply I received from R began as follows:

You sound like you are in a real muddle. Suddenly finding you are about to lose your work, part-time or otherwise is disconcerting at the best of times. Indeed, we have never met in person but nonetheless, from your writing and description of yourself you sound like someone deep in thought and short on action. I hope it is not too presumptuous of me to say so. I am a bit of an introvert myself so I can recognize the symptoms. At least I think I can.

So....my best advice of the day is to get out and get in touch with the world. Stay connected. The world is full of good and decent people but you have to seek them out. I get terribly depressed when I listen to the American media talk about Iraq and suggest that an Iraqi life is not worth

that of an Americans'. It makes me sick. But as Henry Miller said to Erica Jong.... "don't let the naysayers get you down". Life is long and all you can really do about it is get up each day and put one foot in front of the other.

Am I that transparent? I wondered. A few informal letters and I'm an open book! No doubt this is a reason her advice stuck with me ever since.* But the part of her letter that most caught my attention was the quote... "don't let the naysayers get you down". I have frequently pondered it ever since, before gradually forming an opinion that leads to a contrary but complementary conclusion. Not that we should let the naysayers get us down, obviously, but that aside from carrying a psychological shield to guard against their highly infectious gloom and doom, we might also take great care to guard against the eternal hope of the yea-sayers.

For though, in the West at least, we are lucky to be alive during times of incomparable plenty and considerable social freedom, not to mention relative peace and political stability, there is a great deal we are justified in feeling miserable and resentful about. Firstly, that this 'best of all times' is already under a sustained attack, and unless we organise our fight back then this decline is likely to accelerate, both our freedom and relative prosperity withering away altogether. But secondly, that we, the human race, have long since held far greater potential, and might easily surpass this false summit offered by our impressive western civilisations. For it is really not that our ease and pleasure still relies for its purchase on the burdened backs of those who distantly suffer; if indeed it ever truly did. There is no zero-sum game at work in this regard. Moving our slavery abroad has instead created a new and different kind of underclass at home, bringing unprecedented miseries since ones never before juxtaposed by such comparative wealth.

Not long ago, the vast majority of resources were remote and insecure. Mere survival forced almost everyone into hours of labour that were excessively long and hard. Today with abundant resources, human labour is being made redundant thanks to new technologies. It is self-evident that we need to find fairer methods for distributing our resources as well as a sensible approach to maximising the new freedom arising from our gradual replacement by automated systems. Certainly we should not let the

* In the same letter, R also suggested "putting one foot in front of the other" more literally, recommending, to help clear away the cobwebs, that I might like to walk the Camino de Santiago, or the 'Way of St. James', a major route of Christian pilgrimage which starts from many locations in France, Belgium, German or inside Spain itself extending for over a thousand miles and finishing at Santiago de Compostela, the capital of the Spanish province of Galicia. I have yet to pick up her prescription (though perhaps one day in the future I shall).

Malthusian naysayers get us down, although we must of course guard against Pollyanna optimism too, and especially of those who tell us to enjoy the good times and stop moaning. For so long as the good times can and should be far better again, then surely moaning is the least we can do. We stop moaning at our peril!

*

Postscript: Nothing new under a black sun

“*Are we the baddies?*”

— One SS officer asking another in a skit by British comedy duo, Mitchell and Webb[†]

*

1. Fascism is more than just a swearword

By the early decades of the twentieth century, the fascists had spread their obscene ideology across much of the industrialised world. But what precisely is fascism? Is it even a useful term? It may come as a surprise to discover that Orwell, who was of course staunchly anti-fascist, considered the term itself to be unhelpful, writing in 1944 (so just a few years after fighting against Franco) that:

“The word ‘Fascism’ is almost entirely meaningless. In conversation, of course, it is used even more wildly than in print. I have heard it applied to farmers, shopkeepers, Social Credit, corporal punishment, fox-hunting, bull-fighting, the 1922 Committee, the 1941 Committee, Kipling, Gandhi, Chiang Kai-Shek, homosexuality, Priestley’s broadcasts, Youth Hostels, astrology, women, dogs and I do not know what else... almost any English person would accept ‘bully’ as a synonym for ‘Fascist’.”¹⁷³

This is widely quoted – and as a matter of fact I’ve lifted the above quotation deliberately unaltered from the pages of *Wikipedia* in order to illustrate how Orwell’s intended meaning is often significantly altered by abridgement.* The complete passage reveals that Orwell is not in actual fact saying the word ‘fascism’ has no meaning whatsoever, but only that

[†] The sketch was first seen in the first episode of *The Mitchell and Webb Look*, which aired on television on September 14, 2006. The skit was later adapted into a popular internet meme.

* I can no longer find any entry on *wikipedia* that precisely matches the quote with ellipsis as stated although I can find other truncated versions in a number of *wikipedia* articles in which Orwell’s full statement has been abridged to produce the same effect.

different opponents of fascism confuse the same term in different ways. Allow me then to reveal what was left clipped out by way of the ellipsis:

“...Yet underneath all this mess there does lie a kind of buried meaning. To begin with, it is clear that there are very great differences, some of them easy to point out and not easy to explain away, between the regimes called Fascist and those called democratic. Secondly, if ‘Fascist’ means ‘in sympathy with Hitler’, some of the accusations I have listed above are obviously very much more justified than others. Thirdly, even the people who recklessly fling the word ‘Fascist’ in every direction attach at any rate an emotional significance to it. By ‘Fascism’ they mean, roughly speaking, something cruel, unscrupulous, arrogant, obscurantist, anti-liberal and anti-working-class. Except for the relatively small number of Fascist sympathizers, almost any English person would accept ‘bully’ as a synonym for ‘Fascist’. That is about as near to a definition as this much-abused word has come.”

Just as importantly, Orwell’s remarks are taken entirely out of context. For he is not advocating that we abandon the label of ‘fascism’, but merely offering his account of why its nail is so hard to hit. Though it is only in his conclusions, laid out in the subsequent paragraph, where this finally becomes apparent:

“[But] Fascism is also a political and economic system. Why, then, cannot we have a clear and generally accepted definition of it? Alas! we shall not get one — not yet, anyway. To say why would take too long, but basically it is because it is impossible to define Fascism satisfactorily without making admissions which neither the Fascists themselves, nor the Conservatives, nor Socialists of any colour, are willing to make. All one can do for the moment is to use the word with a certain amount of circumspection and not, as is usually done, degrade it to the level of a swearword.”

2. Not all fascists look alike

Nazism, some claim (and I have encountered this claim on a number of different occasions), should not to be properly regarded as fascism at all, but was precisely what it claimed to be, National Socialism. A casual inspection indeed gives credence to this contention.

Aside from the superficial facts that the Nazi flag was of a vibrant red, a colour it evidently shares with the flags of both communism and socialism; and that the Nazi Party (known in German as NSDAP) was, albeit prior to Hitler’s takeover, the German Workers Party (DAP); there is

also, and more surprisingly perhaps, support for the argument on the basis of Hitler's original manifesto, which is well-peppered with traditional leftist rhetoric.*

Actions, however, speak much louder than words, and Hitler and the Nazi Party did not wait around too long before revealing their true intent. The Strasserist 'red-brown' alliance was always a marriage of convenience and a clear case of political opportunism. So having formally seized power with the passage of the Reichstag Fire Decree and the Enabling Act in March 1933, Nazi top brass wasted little opportunity in cracking down on political dissenters. The communists and labour leaders were first to be rounded up and interned inside a newly built concentration camp at Dachau. Any passing resemblance to socialism was then entirely eradicated during the violent purge known ever since as the Night of the Long Knives when left-leaning faction leader Gregor Strasser was murdered alongside the thuggish working class muscle provided by the SA Brownshirts.† Following the eradication of their political opponents and against the interests of the workers and the trade union movement, the Nazis then set to work protecting a select group of private corporate interests.

Aside from the flags and banners of fake solidarity, Nazism paid absolutely no heed whatsoever to the ideologies of socialism, but was fixated instead with a much more ancient system of politics – a fixation that it shares with all fascist ideologies – the belief that aristocracy in the literal sense of “rule by the best” is the only legitimate form of government. The trick with the Nazis was one of camouflage; of using what might nowadays

* The party program of the NSDAP as proclaimed on February 24, 1920 by Adolf Hitler at the first significant party gathering was subsequently summarised as 25 points.

Point 13 states that: “We demand the nationalization of all associated industries (trusts). Point 14 states that: “We demand profit-sharing in all large industries. Point 15 states that “We demand an improvement in old age welfare. Point 20 states that: “We demand the education at the expense of the State of outstanding gifted children of poor parents without consideration of station or occupation.” Point 21 states that: “The State is to care for the elevating of national health by protecting the mother and child, by prohibiting child-labour...”

† The Nazi seizure of power began in January 1933 in the aftermath of a close election which indicated an upwelling in public support for the party. Hitler then convinced President Paul von Hindenburg to appoint him as German chancellor. Within four weeks on February 27th 1933, the German parliament (Reichstag) had caught fire and was burnt down; an event most historians believe was a false flag attack. Attributing blame to the communists, the following day Hitler persuaded Hindenburg to enact the Reichstag Fire Decree which abolished many established civil rights including rights to assembly, protest, free speech and due process. The Nazis then took absolute power with the passage of the Enabling Act a month later on March 23rd 1933 that granted the Chancellor the absolute right to enact laws without parliamentary oversight or consent.

be described as 'left cover'. A strategy that is necessary whenever any self-select elitist clique wishes to ingratiate itself with the plebs it secretly wishes to oppress.

It comes as little surprise then, that openly neo-fascist groups of today are also employing the same old ploy by over-stressing their tremendous concern for the plight of the common man. I have even heard reliable accounts of how our own fascists, the British National Party (BNP), have sometimes tried to drum up electoral support in key constituencies by lending a hand, mowing the lawn or fetching the shopping. Apparently, Al Capone made comparable efforts to forge popularity amongst the Italian community with Christmas meals and so forth. The parallel is hardly accidental.

Orwell, who wrote *Nineteen Eighty-Four* in the immediate aftermath of the Second World War, was also quite aware of how the fascism of Germany had ridden piggy-back on the youthful socialist movement. He had named the central party in his book Ingsoc and this gesture was obviously intended to provoke a reaction from both left and right alike. To clarify his own position, however, he later sent two press releases to counter claims from American reviewers (especially those working for *Time-Life Corporation* journals) – as well as objections from certain communists – that *Nineteen Eighty-Four* had been intended as an explicit attack on socialism per se. This was not case, and the warning he delivers in the second of these statements (quoted below without abridgement) is clear enough (especially so in the second paragraph):

“George Orwell assumes that if such societies as he describes in *Nineteen Eighty-Four* come into being there will be several super-states. This is fully dealt with in the relevant chapters of *Nineteen Eighty-Four*. It is also discussed from a different angle by James Burnham in *The Management Revolution*. These super states will naturally be in opposition to each other or (a novel point) will pretend to be much more in opposition than in fact they are. Two of the principal super states will obviously be the Anglo-American world and Eurasia. If these two great blocs line up as mortal enemies it is obvious that the Anglo-Americans will not take the name of their opponents and will not dramatise themselves on the scene of history as Communists. Thus they will have to find a new name for themselves. The name suggested in *Nineteen Eighty-Four* is of course Ingsoc, but in practice a wide range of choices is open. In the USA the phrase ‘Americanism’ or ‘hundred percent Americanism’ is suitable and the qualifying adjective is as totalitarian as anyone could wish.

“If there is a failure of nerve and the Labour Party breaks down in its attempt to deal with the hard problems with which it will be faced,

tougher types than the present Labour leaders will inevitably take over, drawn probably from the ranks of the Left, but not sharing the liberal aspirations of those now in power. Members of the present British government, from Mr Attlee and Sir Stafford Cripps down to Aneurin Bevin, will *never* willingly sell the pass to the enemy, and in general the older men, nurtured in a liberal education, are safe, but the younger generation is suspect and the seeds of totalitarian thought are probably widespread among them.”*

3. You don't have to be mad to be a Nazi but it helps

The Nazis promoted all the usual extreme right-wing dogma about nationalist supremacy, militarism, and the Triumph of the Will (‘will’ in this context deliberately evoking the Nietzschean ‘Will to Power’), with these core ideals then baked (or perhaps that should be ‘half-baked’) together with much odder and more exotic ingredients, including much pseudo-scientific claptrap about a pure Germanic ancestry descended from the Aryan “master race”; archaeological evidence supposedly washing up from the entirely mythological land of Thule. Thule being a sort of chilly Atlantis of the Arctic.

Justifications for the Nazis obsession with racial purity were also greatly assisted by dedicated (although now very obviously) quack scientists who went around measuring and cataloguing human skulls amongst other things; going to enormous efforts in order to sort out the “great races” from the “*untermensch*”. With hindsight, it’s all-too easy to see how the red of Nazism never symbolised the life-blood of the ordinary

* The first press release read as follows: “It has been suggested by some of the reviewers of NINETEEN EIGHTY-FOUR that it is the author’s view that this, or something like this, is what will happen inside the next forty years in the Western World. This is not correct. I think that, allowing for the book being after all a parody, something like Nineteen Eighty-Four *could* happen. This is the direction in which the world is going at the present time, and the trend lies deep in the political, social and economic foundations of the contemporary world situation.

“Specifically the danger lies in the structure imposed on Socialism and on Liberal capitalist communities by the necessity to prepare for total war with the USSR and the new weapons, of which of course the atomic bomb is the most powerful and most publicised. But danger lies also in the acceptance of a totalitarian outlook by individuals of all colours.

“The moral to be drawn from this dangerous nightmare situation is a simple one: *Don’t let it happen. It depends on you.*”

Both press releases are recorded in Bernard Crick’s essay “Nineteen Eighty-Four: Context and Controversy” published in *The Cambridge Companion to George Orwell*, edited by John Rodden, p.154.

people, but had actually always represented *blut* of altogether more Aryan hue.

At this point it is important to realise how Nazism, like all other forms of fascism, owes a very great legacy to the wrong-headed but persistent pseudo-Darwinian belief which chews up “survival of the fittest” and spews it back as “the fittest ought to survive”. Might becomes right, more or less by fascist definition. Advocates of this view had found convenient support in the works of ‘Social Darwinists’ like Herbert Spencer, who viewed society as a larger kind of organism with its own parallel course of evolution. Society, the Social Darwinists argued, must be run on the basis of the natural order of the world itself: thus encouraging and not ameliorating the constant battle for survival, the Hobbesian “war of all against all,” because it is this perpetual striving that ensures strength both within species and, purportedly by extension, within races and societies.

With this in mind we can see that all of the preposterous racist pseudo-science was an attempt to prove solidly what was already so abundantly apparent (at least to the Nazis): that the master race was destined to rule the world. But did the Nazi elite actually believe any of this self-glorifying codswallop? Well, it seems very certain that many did, along with other beliefs that are far stranger again.

For instance, there was a secret order known as the Thule Society (an organisation that had adopted the swastika as its own signifier long before Hitler rose to power), and which had loose ties to Madam Blavatsky’s Theosophists. The *Thule Society* included some of the highest ranking Nazis, Rudolf Hess being one such, and behind the scenes many from the Nazi in-crowd were likewise drawn to the mysterious black light of the esoteric. Nor is it a mere Hollywood fantasy that the Nazis were on a quest to secure the Holy Grail, since, and as bizarre as it may sound, there is no question that one member of Heinrich Himmler’s elite SS, a man called Otto Wilhelm Rahn, was recruited with precisely that objective in mind.[†]

Inside Himmler’s SS headquarters Castle Wewelsburg, Hitler’s second-in-command and the other SS commanders, also played out their other fantasies, very earnestly believing they were the new Knights of the Round Table. It remains unclear as to whether or not the Fuhrer himself regarded such arcane escapades with any degree of seriousness, but that

[†] Otto Rahn wrote two books: *Kreuzzug gegen den Gral* (Crusade Against the Grail) in 1933 and *Luzifers Hofgesind* (Lucifer’s Court) in 1937. Following publication of the first of these, Rahn’s work came to the attention of Hitler’s second-in-command and Head of the SS, Heinrich Himmler. Rahn was invited to join up as a junior non-commissioned officer and then became a full member of the SS in 1936.

arcane and ritualistic Nazi goings-on took place is beyond all reasonable doubt. It has even been reported that Churchill, learning of this Nazi foible for dabbling in the occult, planned to send false astrological reports in one of the more surreal attempts to trap his enemy. One report allegedly translated as follows:

“Mars is in the ascendant, so now is an auspicious time for megalomaniacal Taurians to press full-steam ahead with their schemes for absolute dominion. The world will soon be your oyster, and there could hardly be a better time to mount an invasion of Russia...”

4. Not all fascists goose step

Needless to say I learnt very little of this in school. Perhaps none of it was considered relevant for some reason. What they taught me instead was that the rise of Nazism was due in a great respect to the severe reparations inflicted on the German people after their defeat in the First World War: a form of extortion that had left the hungry and huddled masses desperate for a quick fix to make their country strong again. This popular version of history evidently holds more than a grain of truth.

Times were unimaginably tough during the depression years of the 1920s and 1930s, and especially so for a German people, held to ransom by the victors of the Great War and suffering from economic meltdown caused by unprecedented hyperinflation. At the height of this crisis, prices were literally doubling every two days, and so, in less than two years, the Mark became devalued by a staggering trillion to one. More than enough to bring any people to their knees.*

Yet the question hangs: why the special appeal of Nazism? Why too, the steady growth of other fascist movements all across the western world? The simultaneous rise of Benito Mussolini in Italy, of General Franco in Spain, of the unremembered dictator António de Oliveira Salazar in Portugal, and also, we should never forget, of Oswald Moseley back home in Blighty, and the simultaneous reawakening of white-supremacist Ku Klux Klan in America. The German depression evidently opened up the wound upon which Nazism could gorge itself, although there were alternatives available; its fiercest rival was communism alongside arguably

* Hyperinflation in the Weimar Republic occurred between 1921 and 1923, peaking in 1923. Although it certainly had a devastating effect on the German economy, it is now accepted by many historians that the deflationary crash that followed was still more catastrophic since it brought about conditions of mass unemployment and extreme hardship which finally enabled the Nazis to come to power.

more benign forms of socialism, similar in kind to Roosevelt's New Deal in America. So why the appeal of fascism? The history I was taught in school failed even to speculate on this central question.

No less importantly, my high-school history lessons failed to inform us about how Nazism had appealed to so many from the ranks of the British ruling classes. We learnt about appeasement, which was an altogether more cross-party affair, but no special emphasis was ever given to the Cliveden Set, led by Lord and Lady Astor, with Lord Brand and Lord Halifax amongst the disreputable others, guiding the hand of Neville Chamberlain as he signed that infamous piece of paper in Munich.[†] Nor was there mention of the more secret and scandalous affection of Edward and Mrs Simpson, and their romancing of the Third Reich.

Moreover, the history lessons had failed even to distinguish the ill-advised pacifistic motives of many who wished only to avoid more war (which is naïve but understandable given such recent shadows cast by "the war to end all wars"), from the active support of Hitler by the so-called British Fascists and the British Union of Fascists. There was no mention of either of these organisations or of their close ties to the British Conservative Party, which was, and of course remains, very much the political arm of the ruling classes. We also learned nothing of the *Anglo-German Fellowship* founded in 1935 by English merchant banker Ernest Tennant, with a membership that included the Governor of the Bank of England, Norman Montague alongside Hitler's finance minister, Hjalmar Schacht.

Indeed, lessons in history stopped well short of pointing accusing fingers anywhere toward the leading industrialists and businessmen in Britain and America. Failing to record mention that companies like *Standard Oil*, *DuPont*, and *IBM* all made enormous profits from collaborating with the Nazi regime, whilst perhaps the greatest American industrialist of all, Henry Ford, had even been awarded the Grand Cross of the German Eagle, a medal given to foreigners sympathetic to Nazism.

Nor was any part of our syllabus devoted to Prescott Bush and the helpful part he played in Hitler's rise to power. Prescott was the father to George Bush snr, who during the time I was learning the history of WWII had himself risen to become Ronald Reagan's Vice President. However, and almost exactly a half-century earlier, his dad, then a managing partner of 'the world's largest investment bank' *Brown Brothers Harriman*, was

[†] Upon his return to London on September 30th 1938, Neville Chamberlain uttered the famous words: "This morning I had another talk with the German Chancellor, Herr Hitler, and here is the paper which bears his name upon it as well as mine. Some of you, perhaps, have already heard what it contains but I would just like to read it to you: 'We regard the agreement signed last night and the Anglo-German Naval Agreement as symbolic of the desire of our two peoples never to go to war with one another again.'"

providing the American financial base that supported German industrialist, Fritz Thyssen. For his part, Thyssen was one of Hitler's main financial backers, very probably his most important.¹⁷⁴

Back in school we were not even taught about how the British and American news media (with a special mention here to the *Daily Mail*) had consistently praised Hitler in glowing terms throughout the pre-war period. The clamour for fascism being apparently just something like a noxious gas that had bubbled up unexpectedly from the depths – this was at least the impression I'd been given. But then perhaps the bigger truth is always a little too complicated for the classroom. After all, we were also taught that the First World War was the result of the assassination of Archduke Franz Ferdinand in Sarajevo. Comedian Rob Newman dismissed that particular theory with his own blunt and wholly rhetorical question: "I mean, just how popular can a guy be?"[†]

5. Being fascist means never having to think for yourself again

Whereas there are still a few corners of academic debate over whether or not Hitler and the Nazis were fascist in any strict sense, there can be no argument at all when it comes to Mussolini. The blackness of Mussolini's shirt is never seriously questioned. It was Mussolini, after all, with help from his propagandist Giovanni Gentile, who had together outlined the first formulation of the political doctrine of fascism. It was Mussolini indeed, who coined the term 'fascism', drawing it from the Latin word *fascēs*, a symbol taken from the Roman Empire which employed a bundle of sticks

[†] "The Austrian royal house has had enough tragedies in its history, and facts might well have spared it another. It was not to be. The Archduke Franz Ferdinand, nephew of Emperor Francis Joseph and heir to the throne, has been most cruelly murdered at Sarajevo, and his wife, Duchess Hohenberg, has shared his fate. Two attempts were made on their lives in the course of the day, a fact that would seem to point to conspiracy. What its motives may have been we do not know, nor do they greatly matter. Had the archduke been a cruel tyrant, and had the records of Austrian rule in Bosnia been as bad as they have in fact been good, the murder would still have been an abominable crime. It is a difficult and at present an ungracious task to speculate on what influence the crime may have on Austrian politics."

A report from *the Guardian* newspaper (29th June 1914): this is the original version as republished a few years ago. For some reason it has since been slightly altered but a version can still be found here: www.guardian.co.uk/theguardian/1914/jun/29/fromthearchive

I find the report interesting for two main reasons. Firstly, it highlights the likelihood of some kind of conspiracy – and clearly journalists of the day were unafraid of using the c-word. Secondly, and perhaps more interestingly, there seems to have been little concern about the wider repercussions outside of Austria.

tied around an axe to signify “strength in unity”. So what then, did Il Duce have to say for his bastard child?

To begin with, in his “Doctrine of Fascism,” Mussolini states that fascism is fundamentally anti-individualistic, going on to explain that:

“The Fascist conception of life stresses the importance of the State and accepts the individual only in so far as his interests coincide with those of the State, which stands for the conscience and the universal will of man as a historic entity.”¹⁷⁵

In other words the fascism he describes directly contends with, and flatly contradicts the Enlightenment vision of man, to the fundamental extent that it denies the individual even the basic right to be the self-possessing justification of their own existence. The state is everything, Mussolini is saying, and you are nothing unless it decrees otherwise, and he backs all this up saying later:

“The Fascist conception of the State is all embracing; outside of it no human or spiritual values can exist, much less have value.”

Adding a little later again that:

“Fascism, in short, is not only a law-giver and a founder of institutions, but an educator and a promoter of spiritual life. It aims at refashioning not only the forms of life but their content – man, his character, and his faith. To achieve this purpose it enforces discipline and uses authority, entering into the soul and ruling with undisputed sway. Therefore it has chosen as its emblem the Lictor’s rods, the symbol of unity, strength, and justice.”

In other words then, fascism, at least according to Mussolini’s formula, is totalitarian to the extent that it imposes a collective *weltanschauung* – one all-embracing philosophy for all – a worldview that claims to guarantee absolute escape from the burden of individual freedom, with all the worry and responsibility that being free entails. But the price is high, of course, at least for those of us in the common herd, for what fascism ultimately demands is nothing less than our souls:

“The Fascist conception of life is a religious one, in which man is viewed in his immanent relation to a higher law, endowed with an objective will transcending the individual and raising him to conscious membership of a spiritual society. Those who perceive nothing beyond opportunistic considerations in the religious policy of the Fascist regime fail to realize that Fascism is not only a system of government but also and above all a system of thought.”

Above all a system of thought... Yeah, yeah!

6. Fascists hate liberals, lefties, do-gooders, peacemakers and women (obviously)

“State ownership! It leads only to absurd and monstrous conclusions; state ownership means state monopoly, concentrated in the hands of one party and its adherents, and that state brings only ruin and bankruptcy to all.”

These are the words of Mussolini too. Old Mussolini, the bringer of fascism, and not of course, Mussolini the young communist. By this point Mussolini despised all things socialistic. He despised leftist ideologies just as whole-hearted as he despised liberalism and democracy, and he was unabashed in saying so:

“After socialism, Fascism trains its guns on the whole block of democratic ideologies, and rejects both their premises and their practical applications and implements. Fascism denies that numbers, as such, can be the determining factor in human society; it denies the right of numbers to govern by means of periodical consultations; it asserts the irremediable and fertile and beneficent inequality of men who cannot be levelled by any such mechanical and extrinsic device as universal suffrage.”¹⁷⁶

And yet for many trapped within the lower social echelons, fascism promises glory in the grandest terms. Why? Because firstly it says you can forget about your own sad and pathetic lives, which will in any case amount to nothing. For so long as you remain as individuals, acting in desperate isolation, you are nothing, and just as helpless as children. Not that you are about to be given any choice in any case, because the other promise of fascism is that any who imagine otherwise and attempt to stand in the way of progress, will, of necessity and for the greater cause, be crushed like insects. There is no choice and yet fascism demands that you choose: to sacrifice your nothingness to the greater triumph of the nation – although, I say ‘nation’ simply because historically fascism has always wrapped itself in national colours, but actually flags of any kind might equally serve the same ends.

The impulse here, as Mussolini rightly claims, is a religious one. Religious because it offers meaning in exchange for sacrifice. A twisted religious meaning, certainly, in which the teachings of Jesus are totally up-ended, so that the weak are condemned and Caesar anointed. And whilst Mussolini wishes merely to eradicate the meek and the feeble, he prefers to cast all the peacemakers straight to hell:

“Fascism does not, generally speaking, believe in the possibility or utility of perpetual peace. It therefore discards pacifism as a cloak for cowardly supine renunciation in contradistinction to self-sacrifice. War alone keys up all human energies to their maximum tension and sets the seal

of nobility on those peoples who have the courage to face it. All other tests are substitutes which never place a man face to face with himself before the alternative of life or death. Therefore all doctrines which postulate peace at all costs are incompatible with Fascism.”¹⁷⁷

Mussolini said that he owed much to William James, and in particular James’s famous essay “The Moral Equivalent to War”. Yet he must have read it badly. Perhaps the title of his own copy had been mistranslated to read: “morality is equivalent to war”. But then war is always a splendid diversion for tyrants, whilst also a clearing of the way for the proper redistribution of wealth in the fascist sense: from the poor to the rich obviously.

7. Fascists see fascism as natural

“The maxim that society exists only for the well-being and freedom of the individuals composing it does not seem to be in conformity with nature’s plans, which care only for the species and seem ready to sacrifice the individual. It is much to be feared that the last word of democracy thus understood (and let me hasten to add that it is susceptible of a different interpretation) would be a form of society in which a degenerate mass would have no thought beyond that of enjoying the ignoble pleasures of the vulgar.”¹⁷⁸

You have no doubt already guessed that these are also the charmless words of Benito Mussolini. Laying down a challenge to what he regards as the innate decadence of liberal democracy, leading to “a degenerate mass [that] would have no thought beyond that of enjoying the ignoble pleasures of the vulgar”. Had Mussolini only had the opportunity to watch *American Idol* or *I’m a Celebrity*, he would no doubt have cited both as exemplary footnotes.

In the same paragraph, Mussolini is also claiming support for his ideology on the basis of Science, or more specifically what was then the comparatively new theory of Darwinian evolution. What he says is nonetheless scientific gobbledegook, although sadly it is gobbledegook that a great many will still inevitably mistake for truth. So to redress the matter succinctly, nature does not have *any* plans: that’s what Darwin actually said, and what modern biologists still believe. Whether the scientists are right or wrong is beside the point, the point being only that Mussolini and the other fascists can derive no validation or justification from Science whatsoever.

I have also selected this passage because it shows Mussolini as ‘the improver’, and it is very likely the case that Mussolini, and Hitler, and

Franco, and the rest of the wrecking crews regarded themselves as true social improvers.* This should probably be our gravest concern about fascism: that its main advocates are also ardent believers. They have come to love the smell of their own farts so much that they genuinely mistake them for perfume.

8. Fascism is a diseased form of escapism

“If we want to fight Fascism we must understand it. Wishful thinking will not help. And reciting optimistic formulae will prove to be as inadequate and useless as the ritual of an Indian rain dance. In addition to the problem of the social and economic conditions which have given rise to Fascism, there is a human problem which needs to be understood.”¹⁷⁹

These are the words of the great social psychologist and humanist, Erich Fromm, writing in 1941. The problem, Fromm argues, has to do with our need for belonging. A basic human need, that if unsatisfied, bursts out as an unassailable urge to sacrifice all else in order to secure it:

“The kind of relatedness to the world may be noble or trivial, but even being related to the basest kind of pattern is immensely preferable to being alone. Religion and nationalism, as well as any custom or belief however absurd or degrading, if it only connects the individual with others, are refuges from what man most dreads: isolation.”¹⁸⁰

Fascism actually has two-faces, which is one of the reasons Orwell and others have found it such a brute to nail down. On the one hand, it is simply a highly effective way for the ruling class to maximise their control over the lower orders – fascism being an extreme form of oligarchy, and one in which the oligarchs frequently prance around truly believing they are the new gods. Meanwhile, the ordinary Joe Fascist is given to understand that their own subservience makes them greater in a different way. In this it taps deep into unconscious desires, offering a quick fix to plug up a sometimes festering ‘God-shaped hole’:

“Brotherhood implies a common father. Therefore it is often argued that men can never develop the sense of a community unless they believe in God. The answer is that in a half-conscious way most of them

* “The Fascist negation of socialism, democracy, liberalism, should not, however, be interpreted as implying a desire to drive the world backwards to positions occupied prior to 1789, a year commonly referred to as that which opened the demo-liberal century. History does not travel backwards. The Fascist doctrine has not taken De Maistre as its prophet.” Also taken from Benito Mussolini “Doctrines” section of the “Fascism” entry in the 1932 edition of the *Enciclopedia Italiana*.

have developed it already. Man is not an individual, he is only a cell in an everlasting body, and he is dimly aware of it. There is no other way of explaining why it is that men will die in battle. It is nonsense to say that they do it only because they are driven. If whole armies had to be coerced, no war could ever be fought. Men die in battle — not gladly, of course, but at any rate voluntarily — because of abstractions called ‘honour’, ‘duty’, ‘patriotism’ and so forth.

“All that this really means is that they are aware of some organism greater than themselves, stretching into the future and the past, within which they feel themselves to be immortal. ‘Who dies if England live?’ sounds like a piece of bombast, but if you alter ‘England’ to whatever you prefer, you can see that it expresses one of the main motives of human conduct. People sacrifice themselves for the sake of fragmentary communities — nation, race, creed, class — and only become aware that they are not individuals in the very moment when they are facing bullets. A very slight increase of consciousness and their sense of loyalty could be transferred to humanity itself, which is not an abstraction.”¹⁸¹

These again are the words of Orwell, a man who knew perfectly well what it feels like to be facing bullets. He also understood more clearly than most political thinkers, how virtues such as loyalty and courage can be coerced and corrupted to the detriment of all. So he writes in a review of Hitler’s *Mein Kampf*:

“[Hitler] has grasped the falsity of the hedonistic attitude to life. Nearly all western thought since the last war, certainly all ‘progressive’ thought, has assumed tacitly that human beings desire nothing beyond ease, security, and avoidance of pain. In such a view of life there is no room, for instance, for patriotism and the military virtues. The Socialist who finds his children playing with soldiers is usually upset, but he is never able to think of a substitute for the tin soldiers; tin pacifists somehow won’t do. Hitler, because in his own joyless mind he feels it with exceptional strength, knows that human beings don’t only want comfort, safety, short working-hours, hygiene, birth-control and, in general, common sense; they also, at least intermittently, want struggle and self-sacrifice, not to mention drums, flag and loyalty-parades.... Whereas Socialism, and even capitalism in a grudging way, have said to people ‘I offer you a good time’, Hitler has said to them ‘I offer you struggle, danger and death’, and as a result a whole nation flings itself at his feet.”¹⁸²

9. Fascism never went away

All of which finally brings me to an article I found on the *Channel 4* website titled “What is fuelling the rise of the far right?”¹⁸³ Here is a pertinent extract:

“While the far right movement means different things in [different] countries, these groups share a nationalistic cultural identity. However, perhaps surprisingly, it is also characterised by traditionally left-leaning economic policy.

“The Demos study found that respondents were anti-establishment, anti-capitalism and supportive of the welfare state – but only for the country’s citizens.

“Dr Erik Jones, Director of the Bologna Institute for Policy Research and Professor of European Studies at the Johns Hopkins University SAIS Bologna Centre agreed.

“All of these groups have another thing in common – they are anti-traditional elites’, he told *Channel 4 News*.”

But the main point being missed here as in most if not all of the mainstream analysis, is that in Europe, America and much of the rest of the western world, the political system has already been captured by a version of the extreme right. Not the old-style right of Hitler or Mussolini, which was built upon the foundations of bombastic nationalism, but newer brands of increasingly far-right extremism that cleverly disguise themselves as non-ideological, tolerant and even moderate – political commentator Tariq Ali coined the apt term, “extreme centre”.

Bush and the rest of the neocons appeared to many people (myself included) as a gang of fascists, whereas Obama was supposed to bring ‘hope and change’. The sad truth is, however, that under Obama there was an almost uninterrupted continuity of agenda. When the baton was then handed to Trump, many progressives were deeply shocked, although if you actually compare records the differences are more by degree than in terms of major policy differences. Obama started more wars but dropped fewer bombs. Trump hated China more than Russia just as Obama’s ‘pivot’ was also to Asia.

Moreover, it was Obama, not Bush or Trump, who had passed into law the right to indefinitely detain without charge, and who granted tacit but executive permission for security agencies or the military to torture and assassinate American citizens. It was Obama too who expanded the wars into Pakistan, Yemen and Africa by increasing the use of mercenaries and drone strikes. Meanwhile, and as the US policy of ‘extraordinary rendition’

continues unabated if undercover (the CIA dark sites were never closed), Guantanamo not only remains open, but has actually been upgraded.

Across the Atlantic, the British government, which once flooded the streets of the capital with military personnel in the name of security during the Olympics to acclimate the public a decade ago, steadily introduces new laws that punish dissenters and give creeping permission for ubiquitous and warrantless surveillance and political trials. Its most recent legislation bans unauthorised protests and expands the limits to freedom of speech.* As this clampdown accelerates, western governments far and wide are simultaneously selling off national assets and much else besides: the prisons, police forces and the military too. All these are being corporatised. They are being made ready for a fuller merger of corporation and State, almost exactly as Mussolini had conceived in his own fascist system.

Wretched as they are, our western governments still offer an insulating democratic buffer from pure totalitarian rule, even while they are deliberately surrendering their independence, and with it, the last vestiges of any national sovereignty. A clique of unelected, and thus untouchable, 'technocrats' is now incrementally taking over the reins to better serve the special interests of a small, offshore globalist elite to whom they are enlisted represent. So we are in the midst of creeping fascism (this is the proper description – totalitarian is too vague) which does not arise from the kinds of fringe movements identified and surveyed by the trendy lefties at *Demos*, but is being rammed down our throats by the powers above.

Back down at street level, the new attraction of the far-right should come as no surprise either. When times get tough, fascism of all shapes and sizes has an unerring habit of rearing its filthy head and trying to look respectable. And it will automatically seem like an appealing final solution for many of those desperately stuck at the bottom of the current social scrapheap, while appealing strongly to growing numbers within the so-called 'squeezed middle' who are suddenly left to feel as abandoned as those they previously despised for being beneath them. Free to throw-off any last pretences of liberalism, they can relish the licence granted to unleash fully their otherwise latent bigotry.

To those who sympathise, the allure of fascism generally takes the initial guise of a new type of freedom, although it ought to go without

* The Johnson government in the UK recently passed its draconian *Police, Crime, Sentencing and Courts Act 2022*, which expands police powers to search, permits 'stop and search' without suspicion, criminalises trespass, and strengthens the existing Public Order bill to clampdown aggressively on public protest. Hot on its heels is a proposed *National Security Bill* that is broader and wider in reach than the much criticised section 1 of the *Official Secrets Act 1911* it seeks to replace, applying a maximum sentence of life imprisonment for disclosure of leaked information and the removal of the defence that publication is in the public interest.

saying that the low-ranking fascist cheerleaders are greatly deceived. Any appearance of new freedom is a complete illusion of course, and if licence is fully granted ever to release the full furies of outright fascism, those who are first duped are no less likely to become victims than the staunchest of anti-fascists.

Fascism only actually serves the special interests of the dominant and already established minority. It elevates the rule of the old aristocracies, the mega-wealthy and the super-connected, alongside the most powerful financial and business leaders of the major corporations. Such an absolute consolidation of political power in the hands of the few depends upon the thorough trampling down of the overwhelming majority, and this is really the essence of fascism. Traditionally, as well as economically, fascism also relies on the maintaining of a ceaseless and expansionist war.

Obviously fascism tries to look radical and new, and in this reincarnation the more sophisticated front has audaciously stolen the gown of multiculturalism. Nowadays a few elements of street-level fascism actually pretend to be all-inclusive; the outstanding example being the English Defence League, which has stepped forward to replace worn-out whites-only clubs of the old National Front and the BNP. Fascism has gone postmodern, so beware... beneath the thinnest of disguises nothing has really altered. Fascism, whether at street level or within the highest echelons of our societies, is always the oldest and most reactionary game in town.

¹ “China is thought to have the highest number of political prisoners of any country in the world. Human rights activists counted 742 arrests in 2007 alone. More recent estimates have put the number between 2,000 and 3,000. There is no way of knowing the total behind bars for ‘endangering state security’ – the charge which in 1997 replaced ‘counter-revolution’ in the Communist criminal code.”

From an article titled “A welcome move, but thousands remain political prisoners” written by Paul Vallely, published by *The Independent* on June 23, 2011.

² I make these statements on the basis of what I witnessed first-hand. There is however a purely quantitative method for comparing relative economic inequality that is known as the GINI index and based upon a remarkably simple and elegant formula generating a single number index ranging between 0 (for perfect equality) to 100 (for perfect inequality i.e., all the income going to a single individual). What is not so straightforward however is precisely how the statistics are determined for each of the different countries. So instead of one GINI index you will find (if you decide to look) that there are a number of alternative ones: the two main ones

being produced by the World Bank and the CIA. But is either of these a truly reliable indicators using figures independently arrived at irrespective of any political motivations? Given the organisations involved we surely have to good reasons to be doubtful. And so what does it really tell us then when we learn that according to the CIA, at least, India is one place ahead of Tanzania and two places ahead of Japan?

You can find the full CIA rankings at this link: <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2172rank.html>. Note that the date of the information varies considerably from country to country.

Likewise, what are we to judge when the World Bank indicator provides figures for India (33.9) and China (42.1) but offers no figures for Tanzania or Japan (to continue the comparisons from above)?

You can find the full UN World Bank ratings at this link:
<http://data.worldbank.org/indicator/SI.POV.GINI>

³ “Britain has one and a half times as many surveillance cameras as communist China, despite having a fraction of its population, shocking figures revealed yesterday.

There are 4.2million closed circuit TV cameras here, one per every 14 people.

But in police state China, which has a population of 1.3billion, there are just 2.75million cameras, the equivalent of one for every 472,000 of its citizens.”

From an article titled “Revealed: Big Brother Britain has more CCTV cameras than China” written by Tom Kelly, published in *The Daily Mail* on August 11, 2009.

⁴ From *Tenure of Kings and Magistrates* written by John Milton, published in 1649.

⁵ Extract taken from *The Road to Wigan Pier* by George Orwell, Part 2, Chapter 11 (first published 1937).

⁶ The concluding stanza to Philip Larkin’s short poem *The Mower*.

⁷ My reply to Jerry Alatalo’s question “How would you describe yourself with regard to spirituality?” that was published as part of an interview for his *The Oneness of Humanity* website on January 16, 2018. The full interview is available here:
<https://onenessofhumanity.wordpress.com/2018/01/16/an-interview-of-james-boswell/>

⁸ *The Varieties of Religious Experience: a Study in Human Nature* by William James, Longmans, Green & co, 1902; from a lecture series.

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ *Ibid.* Italics maintained from the original source.

¹² *Ibid.* James earlier says, “It is absurd for science to say that the egotistic elements of experience should be suppressed. The axis of reality runs solely through the egotistic places, - they are strung upon it like so many beads.”

¹³ Extracts from Freeman Dyson’s acceptance speech for the award of the Templeton Prize, delivered on May 16, 2000 at the Washington National Cathedral.

¹⁴ From an interview conducted in 1987 by American journalist Bill Moyers as six-part series of conversations with Joseph Campbell titled *Joseph Campbell and the Power of Myth*. The quote is taken from Episode 2, ‘The Message of the Myth’ broadcast on June 26, 1988. The full transcript is available here: billmoyers.com/content/ep-2-joseph-campbell-and-the-power-of-myth-the-message-of-the-myth/

¹⁵ Extract taken from *Notes on the Way* by George Orwell, first published in Time and Tide. London, 1940.

¹⁶ Quote taken from Freeman Dyson’s autobiography, *Disturbing the Universe* (1979).

¹⁷ Quoted in an article titled: “Confessions of a Lonely Atheist: At a time when religion pervades every aspect of public life, there’s something to be said for a revival of pagan peevishness,” written by Natalie Angier for *The New York Times Magazine*, from January 14, 2001.

¹⁸ Extract taken from Chapter 2, “Thinking Machines” of Steven Pinker’s *How the Mind Works*, published by Penguin Science, 1997, p 148. Italics in the original.

¹⁹ Extract taken from *Notes on the Way* by George Orwell, first published in Time and Tide, London, 1940.

²⁰ Extract taken from “Why My Dog Is Not a Humanist” by Kurt Vonnegut, published in *Humanist*, Nov 92, Vol. 52:6.5-6.

²¹ Further extracts from Freeman Dyson’s acceptance speech for the award of the Templeton Prize, delivered on May 16, 2000 at the Washington National Cathedral.

²² *Ibid.*

²³ From an article titled “Virgin births discovered in wild snakes” written by Jeremy Coles, published by *BBC nature* on September 12, 2012. Read more here: <http://www.bbc.co.uk/nature/19555550>

²⁴ Also from Freeman Dyson’s acceptance speech for the award of the Templeton Prize.

²⁵ www.greenpeace.org/seasia/ph/press/releases/GMOs-declared-unsafe-in-India-Greenpeace-calls-on-PH-to-follow-suit/

This original link has since been removed but the same article can be read here:

web.archive.org/web/20130607155209/http://www.greenpeace.org/seasia/ph/press/releases/GMOs-declared-unsafe-in-India-Greenpeace-calls-on-PH-to-follow-suit/

²⁶ Stanley Kubrick speaking in an interview with Eric Norden for *Playboy* magazine (September 1968) Read more here: dpk.io/kubrick

²⁷ *Ibid.*

²⁸ From the chapter on “Generation” from *Zoonomia; or the Laws of Organic Life* (1994) written by Erasmus Darwin. Read more here: www.gutenberg.org/files/15707/15707-h/15707-h.htm#sect_XXXIX

²⁹ *Bellum omnium contra omnes*, a Latin phrase meaning “the war of all against all,” is the

description that Thomas Hobbes gives to human existence existing in “the state of nature” that he describes in first in *De Cive* (1642) and later in *Leviathan* (1651). The Latin phrase occurs in *De Cive*:

“... ostendo primo conditionem hominum extra societatem civilem, quam conditionem appellare liceat statum naturæ, aliam non esse quam bellum omnium contra omnes; atque in eo bello jus esse omnibus in omnia.”

“I demonstrate, in the first place, that the state of men without civil society (which state we may properly call the state of nature) is nothing else but a mere war of all against all; and in that war all men have equal right unto all things.”

In chapter XIII of *Leviathan*, Hobbes more famously expressly the same concept with these words:

“Hereby it is manifest that during the time men live without a common Power to keep them all in awe, they are in that condition which is called War; and such a war as is of every man against every man.[...] In such condition there is no place for Industry, because the fruit thereof is uncertain: and consequently no Culture of the Earth; no Navigation, nor use of the commodities that may be imported by Sea; no commodious Building; no Instruments of moving and removing such things as require much force; no Knowledge of the face of the Earth; no account of Time; no Arts; no Letters; no Society; and which is worst of all, continual Fear, and danger of violent death; And the life of man solitary, poor, nasty, brutish, and short.”

³⁰ Alexander Pope (1688–1744): ‘Epitaph: Intended for Sir Isaac Newton’ (1730)

³¹ From *Il Saggiatore* (1623) by Galileo Galilei. In the original Italian the same passage reads:

La filosofia è scritta in questo grandissimo libro, che continuamente ci sta aperto innanzi agli occhi (io dico l’Universo), ma non si può intendere, se prima non il sapere a intender la lingua, e conoscer i caratteri ne quali è scritto. Egli è scritto in lingua matematica, e i caratteri son triangoli, cerchi ed altre figure geometriche, senza i quali mezzi è impossibile intenderne umanamente parola; senza questi è un aggirarsi vanamente per un oscuro labirinto

³² Hobbes and the earl of Devonshire journeyed to Italy late in 1635, remaining in Italy until the spring of 1636 when they made their way back to Paris. During this tour of Italy Hobbes met Galileo, although the dates and details of the meeting are not altogether clear.

In a letter to Fulgenzio Micanzio from 1 December, 1635, Galileo reports that “I have had many visits by persons from beyond the alps in the last few days, among them an English Lord who tells me that my unfortunate Dialogue is to be translated into that language, something that can only be considered to my advantage.”

The “English Lord” is almost certainly Devonshire, and the projected English translation of the Dialogue is presumably the work of Dr. Joseph Webb mentioned in Hobbes’s February, 1634 letter to Newcastle. It is therefore likely that Hobbes met Galileo in December of 1635, although Hobbes was not otherwise known to be in Florence until April of 1636.

[Antiquarian and biographer John] Aubrey [in *Brief Lives*] reports that while in Florence Hobbes “contracted a friendship with the famous Galileo Galileo, whom he extremely venerated and magnified; and not only as he was a prodigious witt, but for his sweetness of nature and manners”. Legend even has it that a conversation with Galileo in 1635 or 36

inspired Hobbes to pursue the goal of presenting moral and political philosophy in a rigorously geometrical method, although the evidence here is hardly compelling.

From a paper titled *Galileo, Hobbes, and the Book of Nature* by Douglas M. Jesseph, published in *Perspectives on Science* (2004), vol. 12, no. 2 by The Massachusetts Institute of Technology. It is footnoted with the following disqualifier:

The evidence, such as it is, comes from the eighteenth century historian of mathematics Abraham Kästner, who reported “John Albert de Soria, former teacher at the university in Pisa, assures us it is known through oral tradition that when they walked together at the grand-ducal summer palace Poggio Imperiale,

Galileo gave Hobbes the first idea of bringing moral philosophy to mathematical certainty by treating it according to the geometrical method” (Kästner 1796–1800, 4:195). Schumann (1998, p. 47) dismisses the tale as “certainly false,” basing this judgment on a variety of evidence, including the fact that Soria himself expressed skepticism about the story.

³³ “There be in Animals, two sorts of Motions peculiar to them: One called Vital; begun in generation, and continued without interruption through their whole life; such as are the Course of the Blood, the Pulse, the Breathing, the Concoctions, Nutrition, Excretion, &c; to which Motions there needs no help of Imagination: The other in Animal Motion, otherwise called Voluntary Motion; as to Go, to Speak, to Move any of our limbs, in such manner as is first fancied in our minds. That Sense is Motion in the organs and interior parts of man’s body, caused by the action of the things we See, Hear, &c.”

Quote from, *Leviathan* (1651), The First Part, Chapter 6, by Thomas Hobbes (with italics and punctuation as in the original but modern spelling).

³⁴ “[A]lthough unstudied men, do not conceive any motion at all to be there, where the thing moved is invisible; or the space it is moved in, is (for the shortness of it) insensible; yet that doth not hinder, but that such Motions are. For let a space be never so little, that which is moved over a greater space, whereof that little one is part, must first be moved over that. These small beginnings of Motion, within the body of Man, before they appear in walking, speaking, striking, and other visible actions, are commonly called ENDEAVOUR.”
Ibid.

³⁵ “This Endeavour, when it is toward something which causes it, is called APPETITE, or DESIRE; the later, being the general name; and the other, oftentimes restrained to signify the Desire of Food, namely Hunger and Thirst. And when the Endeavour is fromward [*i.e.*, *distant from*] something, it is generally called AVERSION. These words Appetite, and Aversion we have from the Latin; and they both of them signify the motions, one of approaching, the other of retiring. [...]

“Of Appetites, and Aversions, some are born with men; as Appetite of food, Appetite of excretion, and exoneration, (which may also and more properly be called Aversions, from somewhat they feel in their Bodies;) and some other Appetites, not many. The rest, which are Appetites of particular things, proceed from Experience, and trial of their effects upon themselves, or other men. For of things we know not at all, or believe not to be, we can have no further Desire, than to taste and try. But Aversion we have for things, not only which we know have hurt us; but also that we do not know whether they will hurt us, or not.”
Ibid.

³⁶ Quote from, *Leviathan* (1651), The First Part, Chapter 8, by Thomas Hobbes (with italics and punctuation as in the original but modern spelling).

Read more here: www.gutenberg.org/files/3207/3207-h/3207-h.htm#link2H_PART1

³⁷ *Ibid.*

³⁸ *Ibid.*

³⁹ S. L. A. Marshall findings were compiled in a seminal work titled *Men Against Fire* (1947).

⁴⁰ Quote from, *Leviathan* (1651), The Second Part, Chapter 29, by Thomas Hobbes (with italics and punctuation as in the original but modern spelling).

⁴¹ Quote from, *Leviathan* (1651), The First Part, Chapter 5, by Thomas Hobbes (with italics and punctuation as in the original but modern spelling).

⁴² From *The Perils of Obedience* (1974) by Stanley Milgram, published in *Harper's Magazine*. Archived from the original on December 16, 2010. Abridged and adapted from *Obedience to Authority*.

⁴³ *Ibid.*

⁴⁴ From *The Life of the Robin*, Fourth Edition (1965), Chapter 15 “A Digression on Instinct” written by David Lack.

⁴⁵ From *Historia Vitae et Mortis* by Sir Francis Bacon (‘History of Life and Death’, 1623).

⁴⁶ From a Tanner Lecture on Human Values titled *Morality and the Social Instincts: Continuity with the Other Primates* delivered by Frans B. M. Waal at Princeton University on November 19–20, 2003. Read more here: tannerlectures.utah.edu/_documents/a-to-z/d/deWaal_2005.pdf

⁴⁷ Quote from a NOVA interview, “The Bonobo in All of Us” *PBS* from January 1, 2007.

⁴⁸ *Ibid.*

⁴⁹ As he explained in an interview published in the Royal Society of Biology journal *The Biologist* Vol 60(1) p16-20. Read more here: www.rsb.org.uk/biologist-interviews/richard-dawkins

⁵⁰ Extracts taken from *Seeing Voices*, Chapter 2, pp 45-48, by Oliver Sacks, first published 1989, Picador.

⁵¹ Aldous Huxley in the Foreword of *The First and Last Freedom* by Jiddu Krishnamurti.

⁵² From the first chapter titled “The Education of an Amphibian” of Aldous Huxley’s collection of essays *Adonis and the Alphabet* (1956).

⁵³ Quote taken from “Rixty Minutes,” Episode 8, Season 1, of adult cartoon *Rick and Morty* first broadcast by the *Cartoon Network* on March 17, 2014.

⁵⁴ Quote taken from Episode 3 of *Romer’s Egypt* first broadcast on BBC TV in 1982. “History is a sketchbook” is taken from *The World’s End* (2013), a science fiction comedy directed by Edgar Wright and written by Simon Pegg and Edgar Wright

⁵⁵ From Christopher Columbus's log for Friday, Saturday and Sunday October 12 –14, 1492. Read more here: www.americanjourneys.org/pdf/AJ-062.pdf

⁵⁶ From the *History of the Indies* (1561) by Bartolome de las Casas.

⁵⁷ All excerpts taken from *Candide and Other Tales* written by Voltaire, translated by T. Smollett, revised by James Thornton, published by *J. M. Dent & Sons Ltd*, London , first published 1937.

Incidentally, my own personal copy of this book was saved from the flames of my parent's wood-burning stove after I discovered it hidden amongst hundreds of old textbooks and destined to become fuel for their central heating system.

⁵⁸ All excerpts taken from *How Much do You Know?* (p. 215) Published by *Odhams Press Limited*, Long Acre, London. WC2 Date of publication unknown but definitely pre-WWII on basis of, for example, the question "what territory did Germany lose after the World War?" (on p. 164).

⁵⁹ Translated by Samuel Moore in cooperation with Frederick Engels (1888): "The proletarians have nothing to lose but their chains. They have a world to win. Working Men of All Countries, Unite!"

From Section 4, paragraph 11 of *Das Manifest der Kommunistischen Partei* [trans: The Communist Manifesto] (1848) by Karl Marx and Friedrich Engels.

⁶⁰ From "Bible Studies" published in Thomas Lynch's collection of essays titled *Bodies in Motion and At Rest* (2011).

⁶¹ From an article titled "shame v. guilt" by Brené Brown, published on her website on January 14, 2013. Read more here: brenebrown.com/blog/2013/01/14/shame-v-guilt/

⁶² Quote from the Aldous Huxley's collection of essays *Adonis and the Alphabet* (1956), Chapter 2 titled "Knowledge and Understanding".

⁶³ Aristotle, *Politics*, Book 1, section 1253a

⁶⁴ From "An Essay on the Principle of Population: as it affects the future improvement of society with remarks on the speculations of Mr. Godwin, M. Condorcet, and other writers" by Thomas Robert Malthus (1798), chapter 1.

⁶⁵ *Ibid.*

⁶⁶ All subsequent passages and quotations in this chapter are also taken from An Essay on the Principle of Population: as it affects the future improvement of society with remarks on the speculations of Mr. Godwin, M. Condorcet, and other writers by Thomas Robert Malthus (1798), chapters 18 and 19.

⁶⁷ *Essais de Théodicée sur la bonté de Dieu, la liberté de l'homme et l'origine du mal* (more simply known as **Théodicée**) which translates from French as "Essays of theodicy on the goodness of God, the freedom of man and the origin of evil".

⁶⁸ From *Anthropology from a Pragmatic Point of View* by Immanuel Kant, first published in 1798.

⁶⁹ From *The Principles of Psychology* by William James, first published in 1892.

⁷⁰ Extract taken from *The Varieties of Religious Experience*, Chapter 5 on “The Sick Soul” (Lectures VI and VII) by William James, first published in 1902.

⁷¹ Freud, *The Interpretation of Dreams*, chapter V, “The Material and Sources of Dreams”

⁷² From an essay by C.G. Jung published in CW XI, Para 520.

⁷³ From Jung’s *Collected Works*, 9, part 2, paragraph 422–3.

⁷⁴ From *Mother Night* (1962) by Kurt Vonnegut.

⁷⁵ From the *The Human Situation*, a collection of lectures first delivered by Aldous Huxley at the University of California in 1959. These were edited by Piero Ferrucci and first published in 1978 by Chatto & Windus, London. Both extracts here were taken from his lecture on “Language,” p 172.

[†] Reproduced from an article titled “Advertising vs. Democracy: An Interview with Jean Kilbourne” written by Hugh Iglarsh, published in *Counterpunch* magazine on October 23rd 2020. Read more here: www.counterpunch.org/2020/10/23/advertising-vs-democracy-an-interview-with-jean-kilbourne/

⁷⁶ From an article titled “Incarceration Rates By Country in 2021” published by *World Population Review*. Read more here: worldpopulationreview.com/en/country-rankings/incarceration-rates-by-country

⁷⁷ Quote from *The Expression of the Emotions in Man and Animals* (1872), Chapter VIII “Joy, High Spirits, Love, Tender Feelings, Devotion” by Charles Darwin. The full text is available here: www.gutenberg.org/files/1227/1227-h/1227-h.htm#link2HCH0006

⁷⁸ Quote from, *Leviathan* (1651), The First Part, Chapter 6, by Thomas Hobbes (with italics and spelling as original). Read more here: www.gutenberg.org/files/3207/3207-h/3207-h.htm#link2H_PART1

⁷⁹ Quote taken from *The Myth of Sisyphus* (1942) by Camus, Albert. Translated by Justin O’Brien. Read more here: dbanach.com/sisyphus.htm

⁸⁰ From *The Politics of Experience* by R. D. Laing, (Ballantine Books, N.Y., 1967).

⁸¹ Quoted from the poet known as Zhuangzi (also transliterated as Chuang Tzu or Chuang Chou). Translation by Lin Yutang

⁸² Read more in an article titled “Asylum tourism” by Jennifer L. Bazar and Jeremy T. Burman, published in *Monitor on Psychology*, February 2014, Vol 45, No. 2. Text is available here: www.academia.edu/11707191/Asylum_tourism_In_the_19th_century_travelers_visited_asylums_to_admire_the_institutions_architecture_and_grounds

⁸³ Extract taken from Rosenhan DL (January 1973) titled “On being sane in insane places” published in *Science* **179** (4070): 250–8. Read more here: web.archive.org/web/20041117175255/http://web.cocc.edu/lminorevans/on_being_sane_in_insane_places.htm

⁸⁴ *Ibid.*

⁸⁵ *Ibid.*

⁸⁶ *Ibid.*

⁸⁷ From the essay *Night Walks* written by Charles Dickens, originally published in the weekly journal *All Year Round* in 1859, and appearing as Chapter 13 of *The Uncommercial Traveller* (1861).

⁸⁸ From Oliver Sack’s *A Leg to Stand On* (1984), chapter VII “Understanding”

⁸⁹ From an interview in *The Observer* published January 25, 1931.

⁹⁰ This is sometimes called ‘Planck’s Principle’ and it is taken from the following passages drawn from *Wissenschaftliche Selbstbiographie. Mit einem Bildnis und der von Max von Laue gehaltenen Traueransprache*. [trans: *Scientific Autobiography. With preface and obituary by Max von Laue*] Johann Ambrosius Barth Verlag (Leipzig 1948), p. 22, in *Scientific Autobiography and Other Papers*, (1949), as translated by F. Gaynor, pp. 33–34, 97.

⁹¹ From *Principles of Psychology* by William James, Volume I. Chapter vii. p. 196, 1890.

⁹² From *Transforming Diagnosis*, a post by former National Institute of Mental Health (NIMH) Director Thomas Insel, published by NIMH on April 29, 2013. Read more here: www.nimh.nih.gov/about/directors/thomas-insel/blog/2013/transforming-diagnosis.shtml

⁹³ Quote taken from *Cracked: Why Psychiatry is Doing More Harm Than Good* (2012) by James Davies, Chapter 2, “The DSM – a great work of fiction?”

⁹⁴ *Ibid.*

⁹⁵ *Ibid.*

⁹⁶ *Ibid.*

⁹⁷ *Ibid.*

⁹⁸ *Ibid.*

⁹⁹ *Ibid.*

¹⁰⁰ From an article titled “Diagnosing the D.S.M.” written by Allen Francis, published in *The New York Times* on May 11, 2012. Read more here: www.nytimes.com/2012/05/12/opinion/break-up-the-psychiatric-monopoly.html?_r=1

¹⁰¹ From an article titled “Inside The Battle To Define Mental Illness” written by Gary Greenberg, published in *Wired* magazine on December 27, 2010. Read more here: www.wired.com/2010/12/ff_dsmv/

¹⁰² An article titled “Rorschach and Awe” written by Katherine Eban, published in *Vanity Fair* in July 2007 reported that:

“A psychologist named Jean Maria Arrigo came to see me with a disturbing claim about the American Psychological Association, her profession’s 148,000-member trade group. Arrigo had sat on a specially convened A.P.A. task force that, in July 2005, had ruled that

psychologists could assist in military interrogations, despite angry objections from many in the profession. [...]

“Two psychologists in particular played a central role: James Elmer Mitchell, who was attached to the C.I.A. team that eventually arrived in Thailand, and his colleague Bruce Jessen. Neither served on the task force or are A.P.A. members. Both worked in a classified military training program known as SERE—for Survival, Evasion, Resistance, Escape—which trains soldiers to endure captivity in enemy hands. Mitchell and Jessen reverse-engineered the tactics inflicted on SERE trainees for use on detainees in the global war on terror, according to psychologists and others with direct knowledge of their activities. The C.I.A. put them in charge of training interrogators in the brutal techniques, including ‘waterboarding’, at its network of ‘black sites.’ In a statement, Mitchell and Jessen said, ‘We are proud of the work we have done for our country.’”

Read more here:

www.vanityfair.com/news/2007/07/torture200707?printable=true%2%A4tPage=all

An article titled “The Black Sites” written by Jane Mayer, published in *The New Yorker* in August 2007 picked up the same story:

“The use of psychologists [on the SERE program] was also considered a way for C.I.A. officials to skirt measures such as the Convention Against Torture. The former adviser to the intelligence community said, ‘Clearly, some senior people felt they needed a theory to justify what they were doing. You can’t just say, ‘We want to do what Egypt’s doing.’ When the lawyers asked what their basis was, they could say, ‘We have Ph.D.s who have these theories.’ He said that, inside the C.I.A., where a number of scientists work, there was strong internal opposition to the new techniques. “Behavioral scientists said, ‘Don’t even think about this!’ They thought officers could be prosecuted.”

“Nevertheless, the *SERE* experts’ theories were apparently put into practice with Zubaydah’s interrogation. Zubaydah told the Red Cross that he was not only waterboarded, as has been previously reported; he was also kept for a prolonged period in a cage, known as a “dog box,” which was so small that he could not stand. According to an eyewitness, one psychologist advising on the treatment of Zubaydah, James Mitchell, argued that he needed to be reduced to a state of ‘learned helplessness.’ (Mitchell disputes this characterization.)”

Read more here: www.newyorker.com/magazine/2007/08/13/the-black-sites

A subsequent Senate Intelligence Committee report from 2014 confirms that:

“The CIA used two outside contract psychologists to develop, operate, and assess its interrogation operations. The psychologists’ prior experience was at the Air Force Survival, Evasion, Resistance and Escape (SERE) school. [...]

“The contractors developed the list of enhanced interrogation techniques and personally conducted interrogations of some of the CIA’s most significant detainees using those techniques. The contractors also evaluated whether detainees’ psychological state allowed for the continued use of the techniques, even for some detainees they themselves were interrogating or had interrogated. [...]

“In 2005, the psychologists formed a company to expand their work with the CIA. Shortly thereafter, the CIA outsourced virtually all aspects of the program. The CIA paid the company more than \$80 million.”

Read more here: www.feinstein.senate.gov/public/index.cfm/senate-intelligence-committee-study-on-cia-detention-and-interrogation-program

¹⁰³ “The discovery of phenothiazines, the first family of antipsychotic agents has its origin in the development of the German dye industry, at the end of the 19th century (Graebe, Liebermann, Bernthsen). Up to 1940 they were employed as antiseptics, antihelminthics and antimalarials (Ehrlich, Schulemann, Gilman). Finally, in the context of research on antihistaminic substances in France after World War II (Bovet, Halpern, Ducrot) the chlorpromazine was synthesized at Rhône-Poulenc Laboratories (Charpentier, Courvoisier, Koetschet) in December 1950. Its introduction in anaesthesiology, in the antishock area (lytic cocktails) and “artificial hibernation” techniques, is reviewed (Laborit), and its further psychiatric clinical introduction in 1952...”

From the abstract to a paper titled “History of the Discovery and Clinical Introduction of Chlorpromazine” authored by Francisco Lopez-Muñoz, Cecilio Alamo, Eduardo Cuenca, Winston W. Shen, Patrick Clervoy and Gabriel Rubio, published in the *Annals of Clinical Psychiatry*, 17(3):113–135, 2005. Read more here: www.researchgate.net/publication/7340552_History_of_the_Discovery_and_Clinical_Introduction_of_Chlorpromazine

¹⁰⁴ From *Psychiatry's New Brain-Mind and the Legend of the “Chemical Imbalance”* written by Ronald W. Pies, Editor-in Chief Emeritus and published by *Psychiatric Times* on July 11, 2011. Read more here: www.psychiatrictimes.com/couch-crisis/psychiatrys-new-brain-mind-and-legend-chemical-imbalance

¹⁰⁵ From a paper titled *Mental health and wellbeing in England: Adult psychiatric morbidity survey 2014* by McManus S, Bebbington P, Jenkins R, Brugha T. (eds.) (2016).

¹⁰⁶ As quoted in *Wisdom for the Soul: Five Millennia of Prescriptions for Spiritual Healing* (2006) by Larry Chang, p. 412; this might be a paraphrase, as the earliest occurrence of this phrase thus far located is in the form: “Ronald David Laing has shocked many people when he suggested in 1972 that insanity can be a perfectly rational adjustment to an insane world.” in *Studii de literatură română i comparată* (1984), by The Faculty of Philology-History at Universitatea din Timioara. A clear citation to Laing's own work has not yet been found.

¹⁰⁷ Extract taken from *The varieties of religious experience: study in human nature*, Lectures VI and VII, “The Sick Soul,” by William James (1902)

¹⁰⁸ For more information: Pickett KE, James OW, Wilkinson RG. Income inequality and the prevalence of mental illness: a preliminary international analysis. *Journal of Epidemiology and Community Health* 2006;60(7):646-7.

Wilkinson RG, Pickett KE. The problems of relative deprivation: why some societies do better than others. *Social Science and Medicine* 2007; 65: 1965-78.

James O. *Affluenza*, London: Vermilion, 2007.

Friedli L. “Mental health, resilience and inequalities: how individuals and communities are affected”, *World Health Organisation*. 2009.

Wilkinson RG, Pickett KE. *The Spirit Level*. Penguin. 2009.

Notes and graph are also available by following the link: www.equalitytrust.org.uk/mental-health

¹⁰⁹ From a journal entry by Søren Kierkegaard in 1847.

¹¹⁰ Extract from *The Divided Self: An Existential Study in Sanity and Madness* by R. D. Laing, first published 1959/60; “Preface to the Pelican Edition” written September 1964.

¹¹¹ From *The Politics of Experience* by R. D. Laing, (Ballantine Books, N.Y., 1967)

¹¹² From an article titled “Down with meritocracy: The man who coined the term four decades ago wishes Tony Blair would stop using it” written by Michael Young, published in *The Guardian* on June 29, 2001. Read more here: www.guardian.co.uk/politics/2001/jun/29/comment

¹¹³ Quote taken from a sermon by Martin Luther King Jr. delivered at Temple Israel of Hollywood delivered on February 25, 1965. An audio recording of King’s speech and a full transcript is available here: www.americanrhetoric.com/speeches/mlktempleisraelhollywood.htm

¹¹⁴ Quote taken from a meeting on April 22nd, 2000 with American white supremacist and former Grand Wizard of the Ku Klux Klan, David Duke, that was recorded as “American Friends of the British National Party” video.

The clip was shown in BBC1’s *Panorama: Under the Skin* first broadcast on November 25, 2001. The complete transcript is available here: news.bbc.co.uk/1/hi/english/static/audio_video/programmes/panorama/transcripts/transcript_25_11_01.txt

¹¹⁵ For more information read “The Indian Health Service and the Sterilization of Native American Women” by Jane Lawrence, published in *The American Indian Quarterly*, Volume 24, Number 3, Summer 2000. Pp 400–419: Link: muse.jhu.edu/login?auth=0&type=summary&url=/journals/american_indian_quarterly/v024/24_3lawrence.html

¹¹⁶ From the same *Guardian* article titled “Down with meritocracy” written by Michael Young, published in June, 2001.

¹¹⁷ Tony Blair speaking in Singapore on January 7, 1996.

¹¹⁸ The source for this definition is given as the *Longman Business English Dictionary* (although the link is lost). Here is another link: lexicon.ft.com/Term?term=stakeholder-society

¹¹⁹ Extract from *The soul of man under socialism* by Oscar Wilde (first published 1891).

¹²⁰ *The Open Conspiracy* was published in 1928, subtitled “Blue Prints for a World Revolution”. These extracts are taken from Chapter 1 titled “The present crisis in human affairs”. *The Open Conspiracy* was later revised and republished as “What Are We to Do with Our Lives?” in 1931. Full text is available here: www.voltairenet.org/IMG/pdf/Wells_The_Open_Conspiracy.pdf

¹²¹ *Ibid.*

¹²² *Ibid.*

¹²³ Extract from *The soul of man under socialism* by Oscar Wilde (first published 1891).

¹²⁴ From *A Modern Utopia* by H. G. Wells (published 1905).

¹²⁵ Extract from *The Open Conspiracy* by H.G. Wells (first published 1928).

¹²⁶ Extract from *The soul of man under socialism* by Oscar Wilde (first published 1891).

¹²⁷ *Ibid.*

¹²⁸ Extract taken from *In Praise of Idleness* by Bertrand Russell (first published 1932).

¹²⁹ In answer to a question posed during a ‘Reddit Ask Me Anything’ session on October 8, 2015. Read more here:
www.reddit.com/r/science/comments/3nyn5i/science_ama_series_stephen_hawking_ama_answers/cvsdmkv

¹³⁰ Extract taken from *In Praise of Idleness* by Bertrand Russell (1932).

¹³¹ Extract taken from *Cargo Cult Science* by Richard Feynman. Adapted from the Caltech commencement address given in 1974. Read more here:
www.lhup.edu/~DSIMANEK/cargocul.htm

¹³² *Ibid.*

¹³³ *Ibid.*

¹³⁴ From an article titled “Science exams easier, says Ofqual” published by *The Independent* on May 1, 2012. Read more here: www.independent.co.uk/news/education/education-news/science-exams-easier-says-ofqual-7704067.html

¹³⁵ Taken from *Propaganda* (1928), the opening to Chapter 1 titled “Organising Chaos,” by Edward Bernays

¹³⁶ *Ibid.* Chapter 4, “The psychology of Public Relations”

¹³⁷ *Ibid.* Chapter 11, “The mechanics of propaganda”

¹³⁸ Quote taken from Chapter 4 “Beauty” of *The Philosophy of Andy Warhol: (From A to B and Back Again)* (1975).

¹³⁹ “A decade ago about 70 people a year were being jailed for TV licence fee offences with a far higher scale of prosecutions for licence fee evasion which then accounted for one in nine of all Magistrates Court cases.

“More than 180,000 people – almost 3,500 a week – appeared before the Magistrates Courts in 2012, accused of watching television without a valid licence in [*sic*], with 155,000 being convicted and fined.”

From an article titled “Dodging TV licence will not be a crime” written by Tim Ross, published in *The Telegraph* on March 7, 2014. Read more here:

www.telegraph.co.uk/culture/tvandradio/bbc/10684639/Dodging-TV-licence-will-not-be-a-crime.html

In 2021, in light of growing concern and following a public consultation, it was decided that plans to decriminalise non-payment of the TV licence fee would be shelved. The *BBC news* reported:

“The government said it remained determined that any change to the TV licence enforcement scheme ‘should not be seen as an invitation to evade the TV licence requirement, nor should it privilege the rule-breaking minority over the rule-abiding majority’.

“‘The issue of decriminalisation will remain under active consideration while more work is undertaken to understand the impact of alternative enforcement schemes,’ it added.”

From an article titled “TV licence fee decriminalization decision shelved” published by BBC news on January 21, 2021. Read more here: www.bbc.co.uk/news/entertainment-arts-55754914

¹⁴⁰ Extract taken from *The soul of man under socialism* by Oscar Wilde (first published 1891).

¹⁴¹ *Unto This Last* is based on a collection of four essays first published in the monthly *Cornhill Magazine*, 1860, and then reprinted as *Unto This Last* in 1862. This extract is drawn from his second essay: “The Veins of Wealth”

¹⁴² *Ibid.*

¹⁴³ *Ibid.*

¹⁴⁴ “BEYOND NATIONS & NATIONALISMS: One World,” Noam Chomsky on Post Modernism and Activism. From a discussion that took place on LBBS, *Z-Magazine's Left On-Line Bulletin Board*, 1997.

¹⁴⁵ *Ibid.*

¹⁴⁶ All quotations without footnotes in this section are drawn from “Postmodernism for Beginners” by Richard Appignanesi and Chris Garratt, Icon Books Ltd. Whether or not these are the words of Jacques Derrida is not always made clear, but then why should we worry about authorship when as Bartes pointed out: “readers create their own meanings, regardless of the author’s intentions: the texts they use to do so are thus ever-shifting, unstable and open to question.” (p.74)

¹⁴⁷ Published in *Social Text* #46/47 (spring/summer 1996) pp. 217-252. Duke University Press.

¹⁴⁸ Sokal, Alan (May 1996). A Physicist Experiments With Cultural Studies. *Lingua Franca*.

¹⁴⁹ *Ibid.*

¹⁵⁰ *Ibid.*

¹⁵¹ “Dennett’s dangerous idea”: a review written by James Brookfield (6 November 2006) of *Breaking the Spell: religion as a Natural Phenomenon*, by Daniel Dennett, Viking Adult, 2006. Review taken from *World Socialist Web Site* published by the International Committee of the Fourth International (ICFI).

¹⁵² *Ludwig Feuerbach and the End of Classical German Philosophy*, Part 4: *Marx* by Friedrich Engels, First Published: 1886, in *Die Neue Zeit*, and translated by Progress Publishers in 1946.

¹⁵³ Quote taken from *Nineteen Eighty-Four*, Part 1, Chapter 7.

¹⁵⁴ Extract taken from *Zen Flesh, Zen Bones*, an anthology of Zen and pre-Zen writing compiled by Paul Reps, published by Penguin Books, reprinted in 2000 p.123. From “The Gateless Gate” by Ekai, called Mumon. Transcribed by Nyogen Senzaki and Paul Reps.

¹⁵⁵ *Ibid.*, p.75.

¹⁵⁶ From *The Sane Society*, Ch. 9: Summary — Conclusion, written by Erich Fromm, published in 1955.

¹⁵⁷ “Bostrom, a 43-year-old Swedish-born philosopher, has lately acquired something of the status of prophet of doom among those currently doing most to shape our civilisation: the tech billionaires of Silicon Valley. His reputation rests primarily on his book *Superintelligence: Paths, Dangers, Strategies*, which was a surprise *New York Times* bestseller last year and now arrives in paperback, trailing must-read recommendations from Bill Gates and Tesla’s Elon Musk. (In the best kind of literary review, Musk also gave Bostrom’s institute £1m to continue to pursue its inquiries.)”

From an article titled “Artificial intelligence: ‘We’re like children playing with a bomb’” written by Tim Adams, published in *the Guardian* on June 12, 2016.

¹⁵⁸ “The response to the coronavirus pandemic has been unprecedented in terms of speed and scale. Commitments from governments and central banks to date are close to \$7 trillion, according to an analysis by CNN Business. The total includes government spending, loan guarantees and tax breaks, as well as money printing by central banks to buy assets such as bonds and stock funds.

“The figure includes the \$2 trillion US relief package working its way through Congress and an anticipated 30 trillion yen (\$274 billion) in stimulus from Japan that could be approved next month. In Europe, CNN Business tallied stimulus efforts by the biggest economies: Germany, France, the United Kingdom, Italy and Spain.

“The combined effort dwarfs the response to the 2008 financial crisis, which smashed records at the time. But economists worry even the Herculean efforts undertaken so far won’t be sufficient should the crisis extend beyond June.”

From an article titled “The bill for saving the world economy is \$7 trillion and rising” written by Julia Horowitz published by CNN Business on March 27, 2020. Read more here:

<https://edition.cnn.com/2020/03/26/economy/global-economy-coronavirus-bailout/index.html>

¹⁵⁹ From an article titled “Ctrl-Alt-Del inventor makes final reboot: David Bradley, we salute you” written by Andrew Orlowski, published in *The Register* on January 29, 2004.

¹⁶⁰ From the Epilogue of *Eichmann in Jerusalem: A report on the Banality of Evil* written by Hannah Arendt, published in 1963.

¹⁶¹ “The Universal Declaration of Human Rights (UDHR) is a declaration adopted by the United Nations General Assembly on 10 December 1948. It consists of 30 articles which have been elaborated in subsequent international treaties, regional human rights instruments, national constitutions and laws. Eleanor Roosevelt, first chairwoman of the Commission on Human Rights (CHR) that drafted the Declaration, stated that it ‘may well become the international Magna Carta of all men everywhere.’”

Notes are taken from the *wikipedia* entry on UDHR.

¹⁶² “After 30 years of rapid growth in agricultural production, **the world can produce enough food to provide every person with more than 2 700 Calories per day** a level which is normally sufficient to ensure that all have access to adequate food, provided distribution is not too unequal.”

From report of World Food Summit of FAO (Rome 13-17 November 1996) titled *Food for All*. Read more here: www.fao.org/3/x0262e/x0262e05.htm#e

¹⁶³ “[However,] the slowdown [of worldwide agricultural production] has occurred not because of shortages of land or water but rather because demand for agricultural products has also slowed. This is mainly because world population growth rates have been declining since the late 1960s, and fairly high levels of food consumption per person are now being reached in many countries, beyond which further rises will be limited.” - “This study suggests that world agricultural production can grow in line with demand, provided that the necessary national and international policies to promote agriculture are put in place. Global shortages are unlikely, but serious problems already exist at national and local levels and may worsen unless focused efforts are made.” - “Agricultural production could probably meet expected demand over the period to 2030 even without major advances in modern biotechnology.”

Extracts from the Executive Summary of the FAO summary report “World agriculture: towards 2015/2030,” published in 2002. Read more here: www.fao.org/3/y3557e/y3557e.pdf

¹⁶⁴ “During an interview with The Wall Street Journal last month, the president said many of the C.I.A.-supplied weapons ended up in the hands of ‘Al Qaeda’ — presumably a reference to the Qaeda-affiliated Nusra Front, which often fought alongside the C.I.A.-backed rebels. [...]

“Once C.I.A.-trained fighters crossed into Syria, C.I.A. officers had difficulty controlling them. The fact that some of their C.I.A. weapons ended up with Nusra Front fighters — and that some of the rebels joined the group — confirmed the fears of many in the Obama administration when the program began. Although the Nusra Front was widely seen as an effective fighting force against Mr. Assad’s troops, its Qaeda affiliation made it impossible for the Obama administration to provide direct support for the group.

“American intelligence officials estimate that the Nusra Front now has as many as 20,000 fighters in Syria, making it Al Qaeda’s largest affiliate.”

From an article titled “Behind the Sudden Death of a \$1 Billion Dollar Secret C.I.A. War in Syria” written by Mark Mazzetti, Adam Goldman & Michael Schmidt, published in *The New York Times* on August 2, 2017. Read more here: www.nytimes.com/2017/08/02/world/middleeast/cia-syria-rebel-arm-trump.html

¹⁶⁵ Read more here: web.archive.org/web/20131018052135/http://www.newamericancentury.org/Bushletter.htm

¹⁶⁶ Read more here: www.whitehouse.gov/briefing-room/speeches-remarks/2021/08/16/remarks-by-president-biden-on-afghanistan/

¹⁶⁷ From “The end of history?” written by Francis Fukuyama, published in *The National Interest*, Summer 1989. Read more here: www.wesjones.com/eoh.htm

¹⁶⁸ From an article titled “Nobel lies and perpetual war: Leo Strauss, the neocons and Iraq” written by Danny Postel based on an interview with Shadia Drury, published on October 15, 2003 by *Open Democracy*. Read more here: https://www.opendemocracy.net/en/article_1542jsp/

¹⁶⁹ From *The end of history?* written by Francis Fukuyama, published in *The National Interest*, Summer 1989.

¹⁷⁰ From an article titled “Nobel lies and perpetual war: Leo Strauss, the neocons and Iraq” written by Danny Postel based on an interview with Shadia Drury, published on October 15, 2003 by *Open Democracy*.

¹⁷¹ *Ibid.*

¹⁷² *Ibid.*

¹⁷³ From an essay titled “What is Fascism?” by George Orwell, first published in *Tribune*. — *GB*, London. (1944). Read more here: orwell.ru/library/articles/As_I_Please/english/efasc

¹⁷⁴ “How Bush’s grandfather helped Hitler’s rise to power” written by Ben Aris and Duncan Campbell, published by *The Guardian* on September 25, 2004. Read more here: www.guardian.co.uk/world/2004/sep/25/usa.secondworldwar

Although not attributed, the original research can actually be traced back to Webster G. Tarpley’s *George Bush: The Unauthorised Biography* which was published more than a decade earlier in 1992 and that is available for free online at tarpley.net/online-books/george-bush-the-unauthorized-biography/

¹⁷⁵ A translation of the Benito Mussolini *Doctrines* section of the “Fascism” entry in the 1932 edition of the *Enciclopedia Italiana*. From the publication *Fascism: Doctrine and Institutions*, by Benito Mussolini, 1935, ‘Ardita’ Publishers, Rome.

All quotes have been taken from the only complete official translation I can find on the web. Read more here: www.worldfuturefund.org/wffmaster/Reading/Germany/mussolini.htm

¹⁷⁶ *Ibid.*

¹⁷⁷ *Ibid.*

¹⁷⁸ *Ibid.*

¹⁷⁹ *The Fear of Freedom* by Erich Fromm, published by Routledge, 1960. Extract taken from Chapter 1, “Freedom - a psychological problem?,” p3.

¹⁸⁰ p 15. *Ibid.*

¹⁸¹ From “Notes on the way” by George Orwell, first published in *Time and Tide*. London, 1940. Read more here: orwell.ru/library/articles/notes/english/e_note

¹⁸² From a review of Adolf Hitler’s *Mein Kampf*, written by George Orwell, published in *New English Weekly*, March 21, 1940.

¹⁸³ From a *Channel 4* article titled “What is fuelling the rise of the far right?” published November 14, 2011. Read more here: www.channel4.com/news/has-the-euro-crisis-fuelled-a-rise-of-the-far-right