

Philosophy Ripped From The Headlines!



Issue #9, May 2018
Compiled & Edited by *Philosophy Without Borders*

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Defending Lecturing, Citizens of the World, Hyper-Liberalism, Neo-Romanticism, & Physics-Without-Time?

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1. “In Defense of the Lecture”

By Miya Tokomitsu

Jacobin, 26 FEBRUARY 2017

URL = <https://www.jacobinmag.com/2017/02/lectures-learning-school-academia-universities-pedagogy/>



Few have savaged lecturers as brutally as the the Enlightenment-era printmaker William Hogarth. In [*Scholars at a Lecture*](#), the presenter reads from his prepared text, his eyes down, indifferent to his audience. The budding academics are no more impressive; those in thrall to the lecturer’s nonsense have slack faces with lolling eyes and open mouths. The others don’t offer any critique but yawn, doze, or chat idly among themselves.

In [*The Reward of Cruelty*](#), the lecturer, who cannot be bothered to rise from his chair, pokes lackadaisically at Tom Nero, a criminal whose body has been turned over for dissection. The audience shows little interest. Hogarth’s most damning image of a lecturer, however, depicts one who does inspire his audience, but to dubious ends. In [*Credulity, Superstition, and Fanaticism*](#), a minister thunders on about witches and devils as parishioners swoon with terror. The minister’s text quotes II Corinthians: “I speak as a fool.”



“Scholars at a Lecture,” by William Hogarth

Hogarth’s satirical prints repeat a common belief about lectures: Those who claim the lectern are dullards or charlatans who do so only to gratify and enrich themselves. The louder they speak, the more we should suspect them. True knowledge, he implies, does not come from speechifying blowhards and self-satisfied experts, but from practical observation of the world.

This distrust has now spread to the lecturer’s natural habitat, [the university](#). Administrators and instructors alike have declared lecturing a stale teaching method and begun advocating new so-called content delivery techniques, from lab- and project-based learning to flipped classrooms and online instruction, that “disrupt” the sage-on-the-stage model. While these new methods work well, we should not completely [abandon the lecture](#). It remains a powerful tool for teaching, communicating, and community building.

Detractors claim that lectures' hierarchical, inflexible, and unidirectional structure doesn't suit our dynamic, crowd-sourced world. To be sure, lectures are top-down affairs that occur at fixed times. But these aspects are assets, not weaknesses: they benefit both students and instructors.

Lectures are not designed to transmit knowledge directly from the lecturers' lips to students' brains — this idea is a false one, exacerbated by the problematic phrase “content delivery.” Although lecturers (hopefully) possess information that, at the beginning of a lecture, their students do not, they are not merely delivering content. Rather, giving a lecture forces instructors to communicate their knowledge through argument in real time.

The best lectures draw on careful preparation as well as spontaneous revelation. While speaking to students and gauging their reactions, lecturers come to new conclusions, incorporate them into the lecture, and refine their argument. Lectures impart facts, but they also model argumentation, all the while responding to their audience's nonverbal cues. Far from being one-sided, lectures are a social occasion.

The regular timing of lectures contributes to their sociality, establishing a course's rhythm. The weekly lecture, or pair of lectures, draws students together at the same time and place, providing a set of ideas to digest while reading supplementary material and breaking into smaller discussion sections. Classrooms are communities, and typically lectures are the only occasion for the entire group to convene physically. Remove the impetus to gather — either by insinuating that recorded lectures are just as effective or by making the lecture optional — and the benefits of community disappear.

One common lament among university students is a [sense of social isolation during the school year](#). While lectures won't necessarily introduce students to their best friends or future partners, they do require attendees to get dressed, leave the house, and participate in a shared experience. This simple routine can head off loneliness and despondency, two triggers and intensifiers of depression.

Further, dismissing the value of attending lectures only encourages students to skip weeks of classes and then frantically try to catch up later, a destructive cycle that compounds loneliness with anxiety. Students not only fall behind but also miss opportunities to speak with their peers and instructors.

Like a metronome, lectures regularly punctuate the week, grounding other elements of students' lives by, for instance, encouraging regular sleep schedules and study periods, which can also reduce anxiety and stress.

Audiences outside academia clearly understand the benefits of collective listening. If [public lectures](#) did not draw sizable crowds, then museums, universities, bookstores, and community centers would have abandoned them long ago. The public knows that, far from being outdated, lectures can be rousing, profound, and even fun.

The attack on lectures ultimately participates in neoliberalism's desire to restructure our lives in the image of just-in-time logistics. We must be able to cancel anything at the last minute in our

desperate hustle to be employable to anyone who might ask. An economic model that chops up and parcels out every moment of our lives inevitably resists the requirement to convene regularly.

Critics frequently complain that lectures' fixity makes it difficult for students to work. We should throw this argument back at those who make it: the need for students to work makes it hard for them to attend lectures. Work, not learning, is the burden that should be eradicated. Education is not an errand to be wedged between Uber shifts; it represents a long-term commitment that requires support from society at large. This support is thinning; eroding the legitimacy of lecturing makes it thinner still.

Neoliberalism has also made it hard to recognize the work students perform in lectures. Many critics dismiss lecture attendance as "passive learning," arguing that students in lectures are aren't doing anything. Today, declaring something passive completely delegitimizes it. [Eve Chiapello and Norman Fairclough argue](#) that activity for its own sake has become essential to personal success: "What is relevant is to be always pursuing some sort of activity, never to be without a project." Indeed, in our constant scramble to project adaptable employability, we must always seem harried, even if our flailing about isn't directed toward anything concrete. Without moving around or speaking, lecture attendees certainly don't look busy, and so their activity gets maligned as passive, unproductive, and, consequently, irrelevant.

But lecture attendees do lots of things: they take notes, they react, they scan the room for reactions, and most importantly, they *listen*. Listening to a sustained, hour-long argument requires initiative, will, and focus. In other words, it is an activity. But today, the act of listening counts for very little, as it does not appear to produce any outcomes or have an evident goal.

No matter how fast-paced the world becomes, listening will remain essential to public dialogue and debate. As Professor Monessa Cummins, department chair of classics at Grinnell College [states](#):

Can [students] listen to a political candidate with a critical ear? Can they go and listen to their minister with an analytical ear? Can they listen to one another? One of the things a lecture does is build that habit.

Discussion sections after lectures always reveal the expert listeners. They ask the best questions, the ones that cut straight to the speaker's main themes with an urgency that electrifies the whole audience, producing a flurry of excited responses and follow-up questions. Good listening grounds all dialogue, expands our body of knowledge, and builds community.

Although they probably haven't thought about in these terms, many of the lecture's critics would probably favor one side of [Aristotle's scheme of knowledge](#), which separates theory from practice. Historian Pamela H. Smith succinctly [describes the difference](#): theory (*episteme*, *scientia*) describes knowledge based on logical syllogism and geometrical demonstration. Practice (*praxis*, *experientia*) encompasses things done — like politics, ethics, and economics — or things made — *technē*, which require bodily labor.

Before the modern era, *technē* was widely denigrated. Smith writes, “*Technē* . . . was the lowly knowledge of how to make things or produce effects, practiced by animals, slaves, and craftspeople. It was the only area of knowledge that was productive.” Today of course, the tables are turned; *technē*’s productive quality elevates it above supposedly impractical theory. Indeed, under capitalism, anything that doesn’t immediately appear as productive, even if only in the most superficial way, is dismissed as a waste of time.

Good lectures build knowledge and community; they also model critical civic participation. But students have suffered a wide variety of bad lecturers: the preening windbag, the verbatim Powerpoint reader, the poor timekeeper who never manages to cover all the session’s material. Lecturing does not come naturally and can take years to master, yet very few instructors have the opportunity to learn how to deliver a good lecture. Given the outsize emphasis many universities place on publication and grants — not to mention the [excessive workloads, low pay, and job insecurity](#) the majority of instructors face — lecturers have little incentive to invest the time and effort it takes to gain these skills.

Meanwhile, active learning partisans sometimes overlook the skill it takes to conduct their preferred methods effectively. Becoming a good lab instructor, project facilitator, or discussion leader also takes time and practice. In addition to bad lectures, I’ve sat through plenty of bewildering labs and meandering seminars. Because these teaching methods have the guise of activity, however, their occasional failures are not dismissed as easily as those of the supposedly passive lecture.

Lecturing is increasingly impugned as an inactive and hierarchical pedagogical method. The type of labor demanded in the lecture hall — and the type of community it builds — still matters. Under an economic system that works to accelerate and divide us, institutions that carve out time and space to facilitate collectivity and reflection are needed more than ever.

ONE Follow-Up:

Is the following argument sound? If so, why? If not, why not?

1. The educational critique of lecturing as a merely passive and hierarchical pedagogy that should be relegated to the dustbin of educational history, is based on the neoliberal assumption that only ceaseless job-related instrumentally-directed activity in a capitalist economy is of ultimate value.
2. But this neoliberal assumption is false. On the contrary, what is of ultimate value are various kinds of *non-instrumental* activities that satisfy true human needs, amongst which is the need for sustained rational thinking, reflection, and enlightenment—call it *theoria*.

3. And well-conducted lectures not only publicly manifest *theoria*, via the role of the lecturer, but also make it really possible for students to engage in *theoria* collectively, as a social activity.

4. Therefore, the educational critique of lecturing is faddish, false, and fundamentally misguided; and the (well-conducted) lecture should continue to be the primary vehicle of teaching and learning.

ONE Link:

“Twenty Terrible Reasons for Lecturing”

URL = <https://www.brookes.ac.uk/services/ocsltd/resources/20reasons.html>

2. “Cosmopolitans”

By Nigel Warburton

Aeon, 4 MARCH 2018

URL = <https://aeon.co/essays/you-are-a-citizen-of-the-world-how-should-you-act-on-that>



People lining up for food in Haiti. Photograph by William Daniels/Panos

Near the opening of *A Portrait of the Artist as a Young Man* (1916), James Joyce’s alter ego Stephen Dedalus opens the flyleaf of his geography textbook and examines what he has written there:

Stephen Dedalus
Class of Elements
Clongowes Wood College
Sallins
County Kildare
Ireland
Europe
The World
The Universe

Most of us will, no doubt, remember writing a similar extended address as children, following through the logic of this series of ever-larger locations. The last two entries in Dedalus’s list are,

obviously, redundant in any real address. Only an alien sending a postcard home from another universe would think to add them. We are all, in some loose sense, ‘citizens of the world’, or at least its inhabitants.

And yet, as adults, we don’t usually think about much outside our immediate surroundings. Typically, it is our nation that defines us geographically, and it is our family, friends, and acquaintances who dominate our social thinking. If we think about the universe, it is from an astronomical or from a religious perspective. We are locally focused, evolved from social apes who went about in small bands. The further away or less visible other people are, the harder it is to worry about them. Even when the television brings news of thousands starving in sub-Saharan Africa, what affects me deeply is the item about a single act of violence in a street nearby.

Life is bearable in part because we can so easily resist imagining the extent of suffering across the globe. And if we do think about it, for most of us that thinking is dispassionate and removed. That is how we as a species live. Perhaps it’s why the collective noun for a group of apes is a ‘shrewdness’.

Yet there is a tradition that stretches back to the fourth century BCE that encourages us to see ourselves not as citizens of a state or nation, but of the world. It began with the eccentric philosopher Diogenes of Sinope (today’s Sinop is in modern Turkey). Sometimes known as Diogenes the Cynic, he should not be confused with his namesake, Diogenes Laertius, whose account of the life of Diogenes the Cynic is the fullest that has survived. Our Diogenes famously renounced all worldly wealth, begged for his food and slept in a kind of empty storage jar that he would roll from place to place. Known as ‘the dog’ (the Greek word gave us the name ‘Cynic’), he defecated at the theatre, masturbated in public, and cocked his leg to urinate on some youths who teased him by barking and throwing bones to him. Diogenes was certainly a philosopher, albeit a quirky one, and he was respected as such. But today we would probably see him as a cross between a satirical comedian and a homeless performance artist.

Diogenes believed in expressing his philosophy through creative actions. He told people what he thought, but he also showed them. When Plato was teaching a class of eager students that man was ‘a featherless biped’, Diogenes turned up brandishing a plucked chicken and shouting ‘Look, I’ve brought you a man!’ Plato called him a ‘mad Socrates’. He used to wander the Athenian marketplace in full daylight, carrying a lit lantern and claiming to be looking for an honest man — which, of course, he would never find. Alexander the Great visited him at home in his storage jar and asked whether there was anything he’d like. Diogenes replied to the most powerful person on the planet: ‘Yes, please move, you’re blocking my sunlight.’ Unfazed, Alexander said that if he wasn’t Alexander, he’d have liked to be Diogenes. Diogenes replied: ‘Yes, and if I wasn’t Diogenes, I’d like to be Diogenes too.’

It’s wishful thinking to imagine that transition to a world government could be achieved without triggering terrorism and war in the process

He might have been the first Cynic, but Diogenes’ cynicism was not a flood of relentless negativity and bile: unlike modern cynics, he had a profoundly idealistic streak. When asked where he was from, Diogenes said ‘I’m a citizen of the world.’ The word he used was

kosmopolites, from which our ‘cosmopolitan’ derives, so strictly speaking he was expressing allegiance with the cosmos; but the term is usually translated as ‘citizen of the world’. This would have sounded heretical to an Ancient Greek: strong allegiance to your city-state was meant to be the source of your identity, security, and self-respect.

But Diogenes wasn’t simply trying to scorn orthodoxy and shock those around him. His declaration was a signal that he took nature — the cosmos — as his guide to life, rather than the parochial and often arbitrary laws of a particular city-state. The cosmos had its own laws. Rather than being in thrall to local custom and kowtowing to those of high status, Diogenes was responsible to humanity as a whole. His loyalty was to human reason, unpolluted by petty concerns with wealth and power. And reason, as Socrates well knew, unsettled the status quo.

It might be tempting to see this kind of thinking as simply a quaint notion from the museum of the history of ideas — a utopian fantasy. On the contrary, I suggest that it has a special relevance for us in the 21st century.

Cynicism evolved into Stoicism, and aspects of Diogenes’ cosmopolitanism found eloquent and refined Roman defenders in Seneca, Cicero and Marcus Aurelius. But it was Hierocles in the second century who provided the most useful way of understanding the basic concept. He described a set of concentric circles. The individual self was at the centre, then came the immediate family, then the extended family, neighbours, nearby towns, your nation, and eventually, on the outer ring, the entire human race. The task before us, Hierocles believed, was to draw these circles ever more tightly towards the centre. We were to move from a state of near-indifference to humanity as a whole, to a state where humankind was a major part of our daily concern.

This target-like image vividly captures the problem for anyone attracted to cosmopolitanism. How can we see ourselves as citizens of the world when we seem so naturally drawn to the centre of Hierocles’ model? Indeed, why would we even want to, since it seems to be going so much against our natural inclinations?

Some religions have encouraged us to think this way for millennia, saying that it is God’s will that we recognise a common maker and a common humanity. Christianity isn’t alone in affirming the equality of individuals and the need to love everyone as you do yourself. Nonetheless, believers see themselves as subjects of God at least as much as citizens of the world and that is not what I understand by cosmopolitanism.

Nor do I believe that we can only truly be cosmopolitans by having some form of world government with nations as federal states rather than independent entities, and that we should bring this about as soon as possible to avoid the catastrophes of war, environmental destruction and poverty. Few cosmopolitans seriously advocate this as the best way of achieving lasting peace. It is hard enough to keep a connected Europe from self-destruction, and it’s wishful thinking to imagine that transition to a world government could be achieved without triggering terrorism and war in the process. Besides, even if world government were practically achievable, it is not something that many people would like to see realised, given the corrupting effects of power.

What hope then for cosmopolitanism? Great hope, in my view. Not as a manifesto for world government, or a religious-based movement, but as a philosophical stance that transforms our outlook, a starting point for thinking about our place in the world.

If a child was burning to death in the museum, who would save the painting first?

It is a cliché to say that the internet has transformed the nature and speed of our links with people around the world, but it is true. I no longer need to rely on national news reporting to learn about what is happening around the globe: I can discover citizen journalists Tweeting, blogging, or uploading their stories to YouTube, and I can get access to Al Jazeera or Fox News as readily as I can to the BBC. This connection is not merely passive, delivered by journalists who alone have access to the people in far-off lands. I can, through comments on blogs, email, Facebook, and Twitter, interact with the people about whom the news is being written. I might even be able to Skype them. I can express opinions without having them filtered by the media. And it isn't only facts and angles on the news that we can share. We are connected by trade and outsourcing in ways that were unimaginable 10 years ago. Our fellow workers and collaborators might just as easily live in India as in London.

In *Republic.com* (2001), the American legal scholar Cass Sunstein expressed the fear that the internet would make us more entrenched in our own prejudices, because of our ability to filter the information that we receive from it. We would find our own niches and create a kind of firewall to the rest of the world, allowing only selected angles and information: the 'Daily Me', as he put it. Racists would filter out anti-racist views, liberals wouldn't need to read conservatives and gun freaks could have their stance on the world confirmed. That risk might still exist for some. Yet even within conventional media, new voices are being heard, their videos and Tweets providing first-person, human stories with an immediacy that no second-hand report could achieve. And this is happening on a scale that is breathtaking.

One source of evil in the world is people's inability to 'decentre' — to imagine what it would be like to be different, under attack from killer drones, or tortured, or beaten by state-controlled thugs at a protest rally. The internet has provided a window on our common humanity; indeed, it allows us to see more than many of us are comfortable to take in. Nevertheless, in principle, it gives us a greater connection with a wider range of people around the world than ever before. We can't claim ignorance if we have wi-fi. It remains to be seen whether this connection will lead to greater polarisation of viewpoints, or a new sense of what we have in common.

In recent years, two Princeton-based philosophers, Peter Singer and Kwame Anthony Appiah, have presented competing views of our human connectedness. For Singer, it is obvious that suffering and death from lack of food, shelter and medical care are bad, no matter who endures them or where they are located. If we could prevent such things occurring, he maintains, most of us would. Singer does not couch his arguments in terms of cosmopolitanism, but he does want to minimise suffering on a world scale. His utilitarian tradition gives equal weight to all those who are in need, without privileging those who happen to be most like us.

Singer makes his case forcefully through a thought experiment designed to show that most of us share his assumptions. Imagine, he asks, that you are walking past a pond and hear a young child

in trouble, drowning. You are wearing expensive shoes. Even so, you wouldn't hesitate to jump into the pond and rescue the child, no matter what it did to your shoes in the process. Why, then, he asks in his book *The Life You Can Save* (2009), don't you make a small sacrifice to your lifestyle and donate at least five per cent of your income to aid agencies? That alone would save numerous children from suffering and even death from curable disease and malnutrition.

There are now an estimated 1.4 billion people living in extreme poverty — almost a quarter of the world's population. If we see ourselves as citizens of the world, with responsibilities and concerns for suffering wherever we find it, surely we should follow Singer's line. We should do everything we can to help others rise above a threshold that will make life tolerable for them, even if this involves some sacrifice on our part: fewer exotic holidays; no expensive laptops, designer watches or diamond rings. Singer takes this point further, arguing that a rich philanthropist who donates millions of dollars to a museum to save a 13th-century painting by Duccio should really have spent that money saving children: if a child was burning to death in the museum, who would save the painting first? Yet for the price of a Duccio, one could save a whole football stadium of children.

We only have an obligation to pay what is fair for us – we needn't feel bad if we fail to go beyond this

There are numerous potential replies to this, most of which Singer pre-empts. One of the more challenging, however, comes from Appiah. A cosmopolitan figure himself (he combines British and Ghanaian parentage with US citizenship), Appiah is an eloquent defender of a notion of cosmopolitanism as universalism plus difference. He insists that all humans share a common biology and overlapping needs and desires. At the same time, he argues in *Cosmopolitanism: Ethics in a World of Strangers* (2006), we can celebrate our diversity: cosmopolitanism does not entail homogeneity. Far from it. His ideal requires us to balance a recognition of our common humanity, and the moral obligations that follow from that, with our sense of where we have come from, where we belong.

Appiah is sympathetic to the view that we have significant obligations to our fellow human beings wherever they are. He agrees that we should see ourselves as connected, our lives inextricably intertwined. Even so, he argues, Singer goes too far. For Appiah, the affluent have a duty to pay their fair share to alleviate extreme poverty around the world. But that needn't entail giving until you yourself become relatively poor. His point is that we only have an obligation to pay what is fair for us, and that we needn't feel bad if we fail to go beyond this. We in the West don't have to follow Diogenes' example of giving everything away and sleeping rough: 'If so many people in the world are not doing their share — and they clearly are not — it seems to me I cannot be required to derail my life to take up the slack.'

Singer has responded to this with a variation on his pond thought experiment. What would you do if there were 10 children in the pond and 10 adults, including yourself, nearby? If only you and four others jumped in while the other five adults strolled on, you wouldn't just save your 'fair share' of one child and let the others drown, and no one would excuse you if you did that. Singer is convinced that our obligation to others goes far beyond our sense of a fair share of the solution.

Is this a sticking point for cosmopolitanism? If you want to see yourself as a citizen of the world, as I think you should, does that mean you have to give up most of your worldly goods, forego opera, fine wine, live football, or any other expensive indulgences? Even if Singer is right about our moral obligations, there is a danger that the sacrifices he demands will just make the whole view unattractive. Who is ready to follow him even as far as donating five per cent of their annual income? This is a genuine philosophical problem about how to live. It is a serious challenge to complacency and indifference. And there are many ways of avoiding the problem, including embracing inconsistency — the ‘living high and letting die’ option.

However, there is another, more acceptable solution — to recognise the power of Singer’s arguments, and even his conclusions, without choosing the life of a latter-day Diogenes. We can each give at least our fair share, even if it isn’t really such a consistent approach to world citizenship. We can recognise that our fair share is insufficient, that most of us fall short of ideal morality in many ways. That shouldn’t stop us moving in the direction that Hierocles recommended. The more we can haul in that outer circle of humanity, the better for all.

ONE Follow-Up:

Is the following argument sound? If so, why? If not, why not?

1. Cosmopolitanism, as per Diogenes the Cynic, means thinking about yourself and everyone else as belonging to a single moral world community that encompasses the Earth and also the entire natural universe.
2. Peter Singer’s ethics says that everyone should always be doing as much as they can, given our limited powers and material resources, to reduce other people’s pain and suffering (and, if also possible, to increase their happiness), even if this involves our giving up some things of significant value to ourselves. Let’s call this “Singer’s Moral Imperative.”
3. Anthony Appiah’s view of cosmopolitanism says that everyone should think about themselves and other people everywhere as members of a single moral world community, which means respecting everyone’s fundamental value (dignity) as a person, while also acknowledging their differences; but this does not entail Singer’s Imperative, even if any given individual’s freely choosing to act on Singer’s Imperative for him- or herself could also be a very good kind of human life.
4. Singer’s Imperative in its unqualified version is a form of *moral extremism*, in that it is excessively demanding as a universal moral principle.

5. Therefore Singer's Imperative is false and Appiah's cosmopolitanism is true.

ONE Link:

“Cosmopolitanism”

URL = <https://plato.stanford.edu/entries/cosmopolitanism/>

3. “The Problem of Hyper-Liberalism”

By John Gray

TLS, 27 MARCH 2018

URL = <https://www.the-tls.co.uk/articles/public/john-gray-hyper-liberalism-liberty/>



Rhodes Must Fall protester, Hertford College, Oxford, 2016 David Hartley/REX/Shutterstock

For liberals the recent transformation of universities into institutions devoted to the eradication of thought crime must seem paradoxical. In the past higher education was avowedly shaped by an ideal of unfettered inquiry. Varieties of social democrats and conservatives, liberals and Marxists taught and researched alongside scholars with no strong political views. Academic disciplines cherished their orthodoxies, and dissenters could face difficulties in being heard. But visiting lecturers were rarely disinvented because their views were deemed unspeakable, course readings were not routinely screened in case they contained material that students might find discomfiting, and faculty members who departed from the prevailing consensus did not face attempts to silence them or terminate their careers. An inquisitorial culture had not yet taken over.

It would be easy to say that liberalism has now been abandoned. Practices of toleration that used to be seen as essential to freedom are being deconstructed and dismissed as structures of repression, and any ideas or beliefs that stand in the way of this process banned from public discourse. Judged by old-fashioned standards, this is the opposite of what liberals have stood for. But what has happened in higher education is not that liberalism has been supplanted by some

other ruling philosophy. Instead, a hyper-liberal ideology has developed that aims to purge society of any trace of other views of the world. If a regime of censorship prevails in universities, it is because they have become vehicles for this project. When students from China study in Western countries one of the lessons they learn is that the enforcement of intellectual orthodoxy does not require an authoritarian government. In institutions that proclaim their commitment to critical inquiry, censorship is most effective when it is self-imposed. A defining feature of tyranny, the policing of opinion is now established practice in societies that believe themselves to be freer than they have ever been.

A shift to hyper-liberalism has also occurred in politics. In Britain some have described [the ascendancy of Jeremy Corbyn](#) as the capture of the Labour Party by a Trotskyite brand of [Marxism](#). No doubt some factions in the party hark back to the hard-left groups that fought for control of Labour in the 1970s and 80s in their rhetoric, methods and policies. But there is not much in the ideology animating Corbynite Labour that is recognizably Marxist. In Marx, the historical agent of progress in capitalist societies is the industrial working class. But for many who have joined the mass party that Corbyn has constructed, the surviving remnants of this class can only be obstacles to progress. With their attachment to national identity and anxieties about immigration, these residues of the past stand in the way of a world without communal boundaries and inherited group identities – a vision that, more than socialism or concern for the worst-off, animates this new party. It is a prospect that attracts sections of the middle classes – not least graduate millennials, who through Corbyn’s promise to abolish student fees could be major beneficiaries of his policies – that regard themselves as the most progressive elements in society. But there are some telling differences between these hyper-liberals and the progressives of the past.

One can be seen in the frenzy surrounding the question of colonialism. The complex and at times contradictory realities of empire have been expelled from intellectual debate. While student bodies have dedicated themselves to removing relics of the colonial era from public places, sections of the faculty have ganged up to denounce anyone who suggests that the legacy of empire is not one of unmitigated criminality. If he was alive today one of these dissident figures would be Marx himself, who in his writings on India maintained that the impact of British imperialism was in some ways positive. Acknowledging that “the misery that was inflicted by the British on Hindostan is of an essentially different and infinitely more intensive kind than all Hindostan had to suffer before”, Marx continued by attacking the “undignified, stagnatory and vegetative life” of Indian villages:

we must not forget that these idyllic village communities, inoffensive though they may appear, had always been the solid foundation of Oriental despotism, that they restrained the human mind within the smallest possible compass, making it the unresisting tool of superstition, enslaving it within traditional rules England, it is true, in causing a social revolution in Hindostan, was actuated by only the vilest interests, and was stupid in her manner of enforcing them. But that is not the question. The question is, can mankind fulfil its destiny without a fundamental revolution in the social state of Asia? If not, whatever may have been the crimes of England, she was the unconscious tool of history in bringing about that revolution. (“The British Rule in India”, *New-York Daily Tribune*, June 10, 1853)

Of course, Marx may have been mistaken in this judgement. Along with most progressive thinkers of his day, he assumed that India and other colonized countries would replicate a Western model of development. But like other progressive thinkers at the time, he also took for granted that this was a question that could and should be debated. He never believed that colonialism was self-evidently damaging in all of its effects.

There are other features that distinguish hyper-liberals from progressive thinkers of previous generations. Last year's Labour Conference was notable for a fringe event, later condemned by the Labour Party, in which one speaker seemed to suggest that questioning whether the Holocaust happened should be a legitimate part of public debate. This sits oddly with curbs on debate that many of those present would – I imagine – have supported on other issues, such as colonialism. Again, no one at the meeting proposed that the myths surrounding communism – such as the idea that large-scale repression originated with Stalin – should be exposed to critical inquiry. The costs and benefits of European colonialism and Soviet communism are not simple matters of fact; assessing them involves complex historical and moral judgements, which should be freely discussed. In contrast, suggesting that the Holocaust may not have occurred is a denial of incontrovertible fact. If Holocaust denial is accepted as a respectable branch of historical inquiry, the most infallible symptom of anti-Semitism is normalized. At the same time a key part of the ideology of the alt-right, according to which facts are not objectively identifiable features of the world, is affirmed.

However, indifference to facts is not confined to the alt-right and the hyper-liberal Left. It is pervasive among liberals who came of age at the end of the Cold War. Francis Fukuyama's claim that with the fall of communism the world was witnessing "the universalization of western liberal democracy as the final form of human government" is nowadays widely mocked. Yet when he made this pronouncement in 1989, in the summer issue of the *National Interest*, it expressed what most liberals believed, and, for all that has since transpired, most continue to insist that the arc of history curves in their direction. They believe this even though the Middle East is a patchwork of theocracy, secular authoritarianism and states fractured by Western intervention; much of post-communist Europe is ruled by illiberal democracies (regimes that mobilize popular consent while dismantling protections for individuals and minorities); Russia is governed through a type of elective autocracy; and the US under Trump appears to be on the way to becoming an illiberal regime not unlike those that have emerged in Hungary and Poland. They pass over the fact that parties of the far Right attract growing support from voters in several of the countries of the European Union. In Germany – the centre of the stupendous liberal project of a transnational European state – a recent poll showed larger numbers of the electorate intending to vote for the far-right Alternative for Germany party (AfD) than for the centre-left Social Democrats. In Italy, Centre Left and Centre Right have been rejected in favour of extreme parties, some of them with links to Fascism. One reason liberal democracy is not going to be universalized is that in some cases it is morphing into a different form of government entirely.

Many who believe liberalism is in crisis have identified the underlying causes as being primarily economic in nature. With some caveats, this is the view of Edward Luce in one of the better recent books on the subject, *The Retreat of Western Liberalism* (2017). If the West cannot keep up with the economic and technological advance of China, and distribute the fruits of economic growth more widely, Luce asks, how can it maintain its claim to superiority? In this view, the

populist upheavals that have shaken Western countries are clearly a backlash from those who have been excluded from the benefits of an expanding global market. Certainly this was one of the reasons for the revolt against established ruling elites that erupted in 2016. Brexit and the Trump presidency are different in many ways, but neither would have happened had it not been for large numbers of voters having a well-founded sense of being left out. Revulsion against Washington-centric oligarchical capitalism was part of the mood that Trump exploited. But it was not only their marginalization in the economy that the voters resented. They were also responding to the denigration of their values and identities by parties and leaders who claimed to be fighting for social justice. Hillary Clinton's contemptuous reference to a "basket of deplorables" was emblematic. In recent years, no social group has been more freely disparaged than the proles who find themselves trapped in the abandoned communities of America's post-industrial wastelands. With their economic grievances dismissed as "whitelash", their lives and identities derided, and their view of the world attributed to poor education and sheer stupidity, many of these despised plebs may have voted for Trump more out of anger than conviction. If this mood persists and penetrates sections of the middle classes it has not yet deeply affected, he could yet win a second term. It may not be the economy but a need for respect that decides the outcome.

It is at this point that the rise of an illiberal liberalism becomes politically significant. What happens on campus may not matter much in itself. Anxiously clinging to the fringes of middle-class life, many faculty members have only a passing acquaintance with the larger society in which they live. Few have friends who are not also graduates, fewer still any who are industrial workers. Swathes of their fellow citizens are, to them, embodiments of the Other – brutish aliens whom they seldom or never meet. Hyper-liberalism serves this section of the academy as a legitimating ideology, giving them an illusory sense of having a leading role in society. The result is a richly entertaining mixture of bourgeois careerism with virtue-signalling self-righteousness – the stuff of a comic novel, though few so far have been up to the task of chronicling it. We are yet to see anything quite as cutting as Malcolm Bradbury's *The History Man* (1975) or Saul Bellow's *The Dean's December* (1982), where the campus radicals of a generation ago were depicted with dark humour and cruel wit. Despite being on a larger scale than ever before, the campus may be too small and self-enclosed a world to interest many novelists today.

Yet the identity politics that is being preached on campus has effects on society at large. Mark Lilla's *The Once and Future Liberal* ([TLS, February 9](#)) has been widely attacked for claiming that a Rooseveltian project of building a common identity that spans ethnicities can produce a more enduring liberal politics: any such view, faculty inquisitors hiss, can only be a disguised defence of white supremacy. Lilla's book cannot be faulted on the ground that it harks back to Roosevelt. By attacking a liberal conception of American national identity as a repressive construction, hyper-liberals confirmed the perception of large sections of the American population – not least blue-collar workers who voted Democrat in the past – that they were being excluded from politics. Showing how the decline of liberalism in America has been mostly self-induced, Lilla's book has performed an important service. If his analysis has a fault, it is that it does not go back further in time and explore the moment when liberalism became a secular religion.

[John Stuart Mill](#)'s *On Liberty* (1859) may seem an unlikely point of origin for an illiberal brand of liberalism. In the second chapter of that celebrated essay, the author presented a canonical argument for free expression:

the peculiar evil of silencing the expression of an opinion is, that it is robbing the human race; posterity as well as the existing generation; those who dissent from the opinion, still more than those who hold it. If the opinion is right, they are deprived of the opportunity of exchanging error for truth; if wrong, they lose, what is almost as great a benefit, the clearer perception and livelier impression of truth, produced by its collision with error.

For some, all would be well if only we returned to these old liberal verities. But Mill's argument has limitations. It depends on the premiss that truth should be valued as an end in itself – an assumption hard to square with his Utilitarian moral philosophy, according to which the only thing valuable in itself is the satisfaction of wants. What if many people want what Mill (citing an unnamed author) described as the “deep slumber of decided opinion”? In a later work, *Utilitarianism*, Mill suggested that anyone who had known the intellectual pleasure of free inquiry would prefer it over mere contentment: “It is better to be a human being dissatisfied,” he declared, “than a pig satisfied”. If the pig thinks otherwise, it is because the pig is not familiar with the delights of the mind. Mill's certainty on this point is droll. A high-minded Victorian, he was insufficiently familiar with the lower pleasures to make a considered judgement. His assertion that human beings would prefer intellectual freedom over contented conformity was at odds with his empiricist philosophy. Essentially unfalsifiable, it was a matter of faith.

While he never faced up to the contradictions in his thinking, Mill was fully aware that he was fashioning a new religion. Much influenced by Auguste Comte, he was an exponent of what he and the French Positivist philosopher described as “the Religion of Humanity”. Instead of worshipping a transcendent divinity, Comte instructed followers of the new religion to venerate the human species as “the new Supreme Being”. Replacing the rituals of Christianity, they would perform daily ceremonies based in science, touching their skulls at the point that phrenology had identified as the location of altruism (a word Comte invented). In an essay written not long before the appearance of *On Liberty* but published posthumously (he died in 1873), Mill described this creed as “a better religion than any of those that are ordinarily called by that title”.

Mill's transmutation of liberalism into a religion marked a fundamental shift. Modern liberal societies emerged as offshoots from Jewish and Christian monotheism. The idea that political and religious authority should be separated is prefigured in the dictum of the charismatic Jewish prophet who came to be revered as Christianity's founder: “Render unto Caesar the things that are Caesar's, and unto God the things that are God's”. In seventeenth-century England, Milton defended freedom of conscience and expression as a condition of true faith, while John Locke saw toleration as a duty to God. When they claimed universality for these values they did so in the belief that they were divinely ordained. Mill and the secular liberals who followed him did not give up the claim to universality. They made it all the more strongly, and in a more radical form. What this meant for Mill becomes clear in the third chapter of *On Liberty*, “Of Individuality as one of the Elements of Well-Being”. Here, freedom no longer refers only, or even mainly, to protection from coercion by the law or other people – a system of toleration – but to a radical type of personal autonomy – the ability to create an identity and a style of life for

oneself without regard for public opinion or any external authority. In future, only a single type of life would be tolerated – one based on individual choice.

It is a problematic vision, some of whose difficulties Mill glimpsed. A society that promotes individuality of this kind will iron out differences based in tradition and history; but since much of the diversity of human life comes from these sources, the result may be mass conformity. Again, in a society of the sort Mill envisioned, other religions and philosophies would be gradually eliminated. But if only one view of the world is acceptable, what becomes of intellectual diversity? This was not a theoretical risk for Mill. He found it exemplified in Comte, whose philosophy he came to believe led to “liberticide” – the destruction of intellectual freedom that comes when everyone is required to hold the same view. A hostile critic of liberalism who valued free inquiry only insofar as it was useful in weeding out irrational beliefs, Comte welcomed the rise of an intellectual orthodoxy with the power to impose itself on society. Mill was horrified by the prospect. He could scarcely have imagined that such an orthodoxy would be developed and enforced by liberals not unlike himself.

Mill’s religion of humanity has deeper problems. Like Comte, he believed that humanity is a progressive species, though he diverged profoundly in how he understood progress. And what is “humanity”? The conception of humankind as a collective agent gradually achieving its goals is not reached by observation. All that is empirically observable are human beings muddling on with their conflicting goals and values. Nor is it clear that many people yearn for the sort of life that Mill promoted. If history is any guide, large numbers want a sense of security as much as, or more than, personal autonomy.

Liberals who rail at populist movements are adamant that voters who support them are deluded or deceived. The possibility that these movements are exploiting needs that highly individualist societies cannot satisfy is not seriously considered. In the liberalism that has prevailed over the past generation such needs have been dismissed as atavistic prejudices, which must be swept away wherever they stand in the way of schemes for transnational government or an expanding global market. This stance is one reason why anti-liberal movements continue to advance. Liberalism and empiricism have parted company, and nothing has been learnt. Some of the strongest evidence against the liberal belief that we learn from our errors and follies comes from the behaviour of liberals themselves.

That modern politics has been shaped by secular religions is widely recognized in the case of totalitarian regimes. Yuri Slezkine’s *The House of Government* ([TLS, December 22 & 29, 2017](#)) is a magisterial account of Bolshevism as an apocalyptic sect, which differed from earlier millenarian groups in the vast territory over which it ruled and the scale of the power it exercised. Whereas Jan Bockelson and his early sixteenth-century Anabaptists controlled only the city of Münster, Lenin and his party ruled over the peoples of the former Romanov empire. By destroying existing institutions, they aimed to open the way to a new society – indeed a new humanity. The Bolshevik project came to nothing, apart from death and broken lives for tens of millions. But the Bolsheviks would not be the last millenarian movement to seize control of a modern state. In his pioneering study *The Pursuit of the Millennium* (1957), Norman Cohn showed how Nazism was also a chiliastic movement. Mao’s Cultural Revolution and Pol Pot’s

Cambodia can be added to the list. Much of twentieth-century politics was the pursuit of apocalyptic visions by secular regimes.

While liberals have been ready to acknowledge that totalitarian movements have functioned as corrupt religions, they resist any claim that the same has been true in their own case. Yet an evangelical faith was manifestly part of the wars launched by the West in Afghanistan, Iraq and Libya. No doubt these wars served geopolitical strategies, however poorly thought out and badly executed, but underpinning them was an article of faith: that slowly, fitfully and with many relapses, humankind was evolving towards a worldwide society based on liberal values. Existing humans might vary greatly in their devotion to these values; some might be bitterly hostile to them. But this was only a result of having been repressed for so long. Sweep away the tyrants and their regimes, and a new humanity would emerge from the ruins. And when it failed to materialize, it was only because there had been insufficient preparation for its arrival.

The true lesson of these wars was quite different. While intervention may be justified in order to prevent the worst crimes against humanity – a genocidal assault on the Yezidis, for example – the freedoms of thought and expression that have existed in some societies in the past few centuries cannot be transplanted at will throughout the world. Late growths of Judaism and Christianity, these liberties are products of a particular pattern of historical development. At present, they are being discarded in the societies where they originated. The idea that the world is gradually moving towards a universal civilization based on old-fashioned liberal values is as fanciful as Comte's notion that altruism emanates from a bump on the head.

Hyper-liberals will reject any idea that what they are promoting is an exorbitant version of the liberalism they incessantly attack. Yet the belief persists that a new society will appear once we have been stripped of our historic identities, and switched to a system in which all are deemed different and yet somehow the same. In this view, all identities are equal in being cultural constructions. In practice some identities are more equal than others. Those of practitioners of historic nationalities and religions, for example, are marked out for deconstruction, while those of ethnic and sexual minorities that have been or are being oppressed are valorized. How this distinction can be maintained is unclear. If human values are no more than social constructions, how can a society that is oppressive be distinguished from one that is not? Or do all societies repress an untrammelled human subject that has yet to see the light of day?

The politics of identity is a postmodern twist on the liberal religion of humanity. The Supreme Being has become an unknown God – a species of human being nowhere encountered in history, which does not need to define itself through family or community, nationality or any religion. Parallels with the new humanity envisioned by the Bolsheviks are obvious. But it is the affinities with recent liberalism that are more pertinent. In the past, liberals have struggled to reconcile their commitment to liberty with a recognition that people need a sense of collective belonging as well. In other writings Mill balanced the individualism of *On Liberty* with an understanding that a common culture is necessary if freedom is to be secure, while Isaiah Berlin acknowledged that for most people being part of a community in which they can recognize themselves is an integral part of a worthwhile life. These insights were lost, or suppressed, in the liberalism that prevailed after the end of the Cold War. If it was not dismissed as atavistic, the need for a common identity was regarded as one that could be satisfied in private life. A global space was

coming into being that would recognize only universal humanity. Any artefact that embodied the achievements of a particular state or country could only be an obstacle to this notional realm. The hyper-liberal demand that public spaces be purged of symbols of past oppression continues a post-Cold War fantasy of the end of history.

Liberals who are dismayed at the rise of the new intolerance have not noticed how much they have in common with those who are imposing it. Hyper-liberal “snowflakes”, who demand safe spaces where they cannot be troubled by disturbing facts and ideas, are what their elders have made them. Possessed by faith in an imaginary humanity, both seek to weaken or destroy the national and religious traditions that have supported freedom and toleration in the past. Insignificant in itself and often comically absurd, the current spate of campus frenzies may come to be remembered for the part it played in the undoing of what is still described as the liberal West.

ONE Follow-Up:

Is the following argument sound? If so, why? If not, why not?

1. Hyper-liberalism, or illiberal liberalism, aka identity politics, aka multiculturalism, is an outgrowth of J.S. Mill’s political philosophy that trades on crucial ambiguities in Mill’s defense of liberty in general, and of freedom of thought and expression/speech in particular.
2. More specifically, hyper-liberals hold that other people’s freedom of thought and expression should be restricted, by coercive means up to and including legal punishment and/or vigilante violence (e.g., “punching Nazis”) if they are find those kinds of thought and expression/speech personally or morally offensive, e.g., “hate speech.”
3. But this is inconsistent with the very idea of freedom of thought and expression/speech.
4. Therefore, hyper-liberalism should be rejected and resisted by anyone who cares about genuine freedom of thought and expression/liberty.

ONE Link:

“Freedom of Speech”

URL = <https://plato.stanford.edu/entries/freedom-speech/>

4. “Enlightenment Rationality is Not Enough: We Need a New Romanticism”

By Jim Kozubek

Aeon, 18 APRIL 2018

URL = <https://aeon.co/ideas/enlightenment-rationality-is-not-enough-we-need-a-new-romanticism>



“A Moonlight with a Lighthouse, Coast of Tuscany (1789),” by Joseph Wright of Derby/ Tate Britain, London

Neuroscience was part of the dinner conversation in my family, often a prerequisite for truth. Want to talk about [art](#)? Not without neuroscience. Interested in justice? You can’t judge someone’s sanity without parsing scans of the brain. But though science helps us refine our thinking, we’re hindered by its limits: outside of mathematics, after all, no view of reality can achieve absolute certainty. Progress creates the illusion that we are moving toward deeper knowledge when, in fact, imperfect theories constantly lead us astray.

The conflict is relevant in this age of anti-science, with far-Right activists questioning climate change, evolution and other current finds. In his book *Enlightenment Now* (2018), Steven Pinker describes a second assault on science from within mainstream scholarship and the arts. But is that really bad? Nineteenth-century Romanticism was the first movement to take on the Enlightenment – and we still see its effects in such areas as environmentalism, asceticism and the ethical exercise of conscience.

In our new era of Enlightenment, we need Romanticism again. In his speech ‘Politics and Conscience’ (1984), the Czech dissident Václav Havel, discussing factories and smokestacks on the horizon, explained just why: ‘People thought they could explain and conquer nature – yet ... they destroyed it and disinherited themselves from it.’ Havel was not against industry, he was just for labour relations and protection of the environment.

The issues persist. From use of [GMO](#) seeds and aquaculture to assert control over the food chain to military strategies for gene-engineering bioweapons, power is asserted through patents and financial control over basic aspects of life. The French philosopher Michel Foucault in *The Will to Knowledge* (1976) referred to such advancements as ‘techniques for achieving the subjugation of bodies and the control of populations’. With winners and losers in the new arena, it only makes sense that some folks are going to push back.

We are now on the verge of a new revolution in control over life through the gene-editing tool Crispr-Cas9, which has given us the ability to [tinker](#) with the colour of butterfly wings and [alter](#) the heritable genetic code of humans. In this uncharted territory, where ethical issues are rife, we can get blindsided by sinking too much of our faith into science, and losing our sense of humanity or belief in human rights.

Science should inform values such as vaccine and climate policy, but it must not determine all values. For instance, life scientists are pricing new drugs as high as the market will allow: a gene therapy to restore vision for \$850,000; the first genetically engineered immune system T-cell to fight cancer for \$475,000, eight times the median income in the United States despite manufacturing cost [estimates](#) of \$25,000. Medicine or extortion? Humanitarians, not scientists, must decide.

With science becoming a brutal game of market forces and patent controls, the skeptics and Romantics among us must weigh in, and we already are. In one [study](#) that provides free genome sequencing for newborns, only 7 per cent of parents wanted to take part, suggesting that the public is cautious about how data might be abused by insurers, business and government. Pinker’s solution to the distortion is investing science with secular humanism, an elastic concept of goodness that plies against financial pressures. But can we depend on technologists for such a benevolent spirit? Right now, in biotech, only the market rules. Modern-day Romantics have a right to be concerned about the *motives* of scientists, if not of science itself.

The energising force of Romanticism is that it promotes humanity against the forward progress of science and the rise of scientism – the broad, commercial, facile manipulation of science beyond anything that evidence allows. Romantic artists, who accepted our decentralised position in the universe of Galileo, painted people small against expansive backdrops of nature – the sheer expanse emphasising a tension between science as an organising principle and the inexplicable mysteries of the natural world. According to the science historian Steven Shapin at Harvard University, our modern fascination with science derives from unease with this tension – or perhaps the sense that, since nothing much matters anymore, at least science must. ‘Resurgent scientism,’ he [wrote](#) in 2015, ‘is less an effective solution to problems posed by the relationship between *is* and *ought* than a symptom of the malaise accompanying their separation.’

The industrialisation of the 20th century put an end to Romanticism, but with its passing we risk losing a power of introspection, and indeed of personal conscience and responsibility. The tension that typified Romanticism – that nature exists beyond the dominion of human reason – requires active contemplation and conscience. Evolution is true, and science meaningful, but glib or mercenary extrapolations of what science shows put us all at risk.

All the way back in 1817, the poet John Keats called this ‘negative capability’: the capacity to sustain uncertainty and a sense of doubt. In his [lecture](#) ‘The Will to Believe’ (1896), the psychologist William James complained that ‘scientific absolutists pretend to regulate our lives’, and explained in his dissenting opinion that ‘Science has organised this nervousness into a *regular* technique, her so-called method of verification; and she has fallen so deeply in love with this method that one may even say she has ceased to care for truth by itself at all.’

The tension persists. The biggest tug-of-war is not between science and religious institutional power, but rather between the primal connection to nature and scientific institutional power. There are many who say that Romanticism is dead. But the tensions between Romanticism and the soldiers of the original Enlightenment are rising up again. We are undergoing a cultural reawakening – a sort of Romantic revivalism – as scientific enquiry fails to fully construct a complete picture of nature, as theories of everything continue to fail, and as science is exploited into dystopian realities – such fraught areas as neo-eugenics through gene engineering and unequal access to drugs and medical care.

Precisely because scientific institutional authority has become a paradigm, it must have a counterculture.

ONE Follow-Up:

Is the following argument sound? If so, why? If not, why not?

1. Science is good, in and of itself, but *scientism*—the dogmatic valorization of science—and *science-driven technology and technocracy in support of morally and politically questionable goals* (let’s call this *Frankenscience*) are rationally unjustified and immoral.
2. 19th century Romanticism, at its best, provided a serious aesthetic, moral, and political critique of scientism and Frankenscience.
3. Therefore, we should be challenging contemporary scientism and Frankenscience by creating a new Romanticism.

ONE Link:

“Scientism and Its Discontents”

URL = <https://roundedglobe.com/html/1b42f98a-13b1-4784-9054-f243cd49b809/en/Scientism%20and%20its%20Discontents/>

5. “A Science Without Time”

By Gene Tracy

Aeon, 25 APRIL 2018

URL = <https://aeon.co/essays/why-doesn-t-physics-help-us-to-understand-the-flow-of-time>



From the Robert Kennedy funeral train, USA, 1968. *Photo by Paul Fusco/Magnum*

‘What then is time? Provided that no one asks me, I know. If I want to explain it to an inquirer, I do not know.’ Saint Augustine, *Confessions* (397-400 AD)

‘Out of fear of dying, the art of storytelling was born.’ Eduardo Galeano, *Mirrors: Stories of Almost Everyone* (2009)

I have a memory, a vivid one, of watching my elderly grandfather wave goodbye to me from the steps of a hospital. This is almost certainly the memory of a dream. In my parent’s photo album of the time, we have snapshots of the extended family – aunts, uncles, and cousins who had all travelled to our upstate New York farm to celebrate my grandparents’ 50th wedding anniversary. I am in some of the photos along with my brother, a pair of small faces mingled with smiling giants. I remember the excitement of the evening, being sent off to bed but then staying up late at the top of the stairs, listening to the pleasant babble of adult voices. I have no memory of what happened later, but it did not involve a timely visit to the hospital. My father told me many years

afterward that my grandfather took ill that night and was rushed to the emergency room, where he died on the operating table.

My memory of my grandfather's farewell still provokes in me a longing for a world where a more lawful order holds, where connections with those we love are not bound by time and space. A central purpose of early science and philosophy was to satisfy such longings: to get off the wheel of time and life to which we are bound and to glimpse what the French-born writer George Steiner has called a 'neighbouring eternity'. Our human sense of time is that we are bound by it, carried along by a flow from past to future that we cannot stop or slow.

The flow of time is certainly one of the most immediate aspects of our waking experience. It is essential to how we see ourselves and to how we think we should live our lives. Our memories help fix who we are; other thoughts reach forward to what we might become. Surely our modern scientific sense of time, as it grows ever more sophisticated, should provide meaningful insights here.

Yet today's physicists rarely debate what time is and why we experience it the way we do, remembering the past but never the future. Instead, researchers build ever-more accurate clocks. The current record-holder, at the Joint Institute for Laboratory Astrophysics in Colorado, measures the vibration of strontium atoms; it is accurate to 1 second in 15 billion years, roughly the entire age of the known universe. Impressive, but it does not answer 'What is time?'

To declare that question outside the pale of physical theory doesn't make it meaningless. The flow of time could still be real as part of our internal experience, just real in a different way from a proton or a galaxy. Is our experience of time's flow akin to watching a live play, where things occur in the moment but not before or after, a flickering in and out of existence around the 'now'? Or, is it like watching a movie, where all eternity is already in the can, and we are watching a discrete sequence of static images, fooled by our limited perceptual apparatus into thinking the action flows smoothly?

The Newtonian and Einsteinian world theories offer little guidance. They are both eternalised 'block' universes, in which time is a dimension not unlike space, so everything exists all at once. Einstein's equations allow different observers to disagree about the duration of time intervals, but the spacetime continuum itself, so beloved of *Star Trek's* Mr Spock, is an invariant stage upon which the drama of the world takes place. In quantum mechanics, as in Newton's mechanics and Einstein's relativistic theories, the laws of physics that govern the microscopic world look the same going forward or backward in time. Even the innovative speculations of theorists such as Sean Carroll at Caltech in Pasadena – who conceives of time as an emergent phenomenon that arises out of a more primordial, timeless state – concern themselves more with what time does than what time feels like. Time's flow appears nowhere in current theories of physics.

For most of the past few centuries, conscious awareness has been considered beyond the pale for physics, a problem too hard to tackle, postponed while we dealt with other urgent business. As scientists drove ever deeper into the nucleus and out to the stars, the conscious mind itself, and the glaring contrast between our experience of time's flow and our eternalised mathematical

theories, was left hanging. How did that come to pass? Isn't science supposed to test itself against the ground of experience? This disconnect might help to explain why so many students not only don't 'get' physics, but are positively repulsed by it. Where are they in the world picture drawn by physicists? Where is life, and where is death? Where is the flow of time?

The Atomist Greek philosopher Democritus had already pointed out the conundrum here back in the 4th century BCE. By careful observation and reasoning, he argued, we come to the conclusion that the senses can fool us, but it is through evidence from the senses that we have come to that conclusion. This realisation lead to a sophisticated philosophical understanding of how we come to know things about the world: not by trusting our senses naively, but by testing our thoughts of how the world works empirically. It is an insight that has borne tremendous fruit, yet one that counsels perennial humility.

The phenomenology of experience, such as our internal perception of the passage of time, is an area owned by cognitive science and philosophy. The exterior world is traditionally the playground of physics. Yet to separate the inner and outer realms in this naive way is misleading. It is our brain that does physics, after all. In the end, the two sides strive to find bridges between them, if only through metaphor, to find connections between the myriad ways in which humans experience themselves in the world.

One useful connective metaphor is to think of the brain as a storytelling engine. In *Physics and Philosophy: The Revolution in Modern Science* (1958), the German physicist Werner Heisenberg reflects upon the fact that language and our sense of the world are interwoven. Pulling on those threads: our sensory organs and the brain are products of long millennia of evolution. Our DNA is a kind of memory carried down through aeons of deep time by direct lineage, parent to child, all living and dying on the same planet, all learning to survive within a narrow range of space, time and energy scales. Our genes, our personal memories and the very structure of our languages – these are all encoded forms of knowledge about the world. But this knowledge is based upon an extremely restricted range of physical experience.

Language is infinitely variable, and comes in a wide variety of forms, from the metaphorical, evocative, dreamlike and magical, to the logical and direct, highly formalised and tightly organised. What form of language is most useful for talking about the world beyond our everyday experience? What language can take us into the heart of the atom and beyond the edge of the galaxy, and describe the passage of time that pulls the world inexorably forward on these scales? Heisenberg argued it is the logical and mathematical language used in modern physics, precisely because that language is so rigid and formalised. When building a bridge into the dark, build using careful, sure steps. But we want to understand our own place in the world, not just how the world is out there; we also want to understand how we come to experience the world as we do. That calls for the more fluid and evocative language of poetry and storytelling.

'Now' is a local theory of what's happening, cobbled together using bits of news from the sensory hinterlands

Current cognitive science says that our memories are a kind of story that our brain creates, formed from the clay of sensory input, sorted into patterns based upon our past life experience,

guided by predilections we have inherited in our DNA. Some of the intuitions that infuse those memories are basic to our sense of the world: the smooth geometry of three spatial dimensions, the clear and obvious distinction between before and after, and the flow of time. Current physics calls into question the smoothness of space and time, the psychological flow of time, and even asks: why do we remember the past but not the future?

The question might seem nonsensical, but pulling on that thread leads to the heart of the matter.

Consider our experience of ‘now’. This seems at first to be a simple thing, a well-defined point in time. We certainly seem to anticipate a particular now coming at us from the future, and then receding from us into the past. Our experience of the ‘now’ is built out of a mix of recent memories and our current sense perceptions, what we see, hear, feel, taste and smell. Those sensory perceptions are not instantaneous, but signals from stimulated nerve endings. Those signals are sent to the brain, a dynamic network that itself has no global clock. The brain is like the Palace of Dreams in Ismail Kadare’s 1981 novel of the same name: a massive bureaucracy, full of intrigues, gathering intelligence from the restive provinces about the Sultan’s dreaming subjects in hopes of divining their intent. ‘Now’ is a construct of the angst-ridden Sultan-brain, a local theory of what’s happening, cobbled together using bits of news from the sensory hinterlands.

We usually don’t sense this mingling of near past and near future because our brain works quickly enough to obscure the process, but there are moments when it struggles to keep up. This is why baseball pitchers can throw exploding fastballs, where the ball seems to suddenly leap across the space between the pitcher and the batter, and why batters can hit frozen rope, where the ball seems to stretch out into a line: if the ball moves too rapidly for the brain to track, the brain makes up a different story about the motion.

Sitting in the right field bleachers at Camden Yards in Baltimore, more than 400 feet from home plate, Kirby Puckett of the Minnesota Twins once hit a line drive right at me. Before I could move, before I could consciously perceive the ball crossing the intervening space, it was in front of me, dropping into the crowd a few rows away. As a physicist, I know the ball followed a smooth parabolic trajectory from start to finish. But that day, the ball seemed to leap from the bat, arriving before the sound of the hit, arriving before the thought of it in my mind could catch up.

It’s possible that our experience of the flow of time is like our experience of colour. A physicist would say that colour does not exist as an inherent property of the world. Light has a variety of wavelengths, but they have no inherent property of ‘colour’. The things in the world absorb and emit and scatter photons, granules of light, of various wavelengths. It is only when our eyes intersect a tiny part of that sea of radiation, and our brain gets to work on it, that ‘colour’ emerges. It is an internal experience, a naming process, an activity of our brain trying to puzzle things out.

So the flow of time might be a story our brain creates, trying to make sense of chaos. In a 2013 [paper](#), the physicists Leonard Mlodinow of Caltech and Todd Brun of the University of Southern California go even further and argue that *any* physical thing that has the characteristics of a

memory will tend to align itself with the thermodynamic arrow of time, which in turn is defined by the behaviour of extremely large numbers of particles. According to this theory, it is no puzzle that we remember the past but not the future, even though the microscopic laws of nature are the same going forward or backward in time, and the past and future both exist. The nature of large systems is to progress toward increasing entropy – a measure of disorder, commonly experienced as the tendency of hot or cold objects to come into equilibrium with their surroundings. Increasing entropy means that a memory of the past is dynamically stable, whereas a memory of the future is unstable.

In this interpretation, we are unable to see the future not because it is impossible to do so, but because it is as unlikely as seeing a broken window heal itself, or as a tepid cup of tea taking energy from the atoms of the surrounding room and spontaneously beginning to boil. It is statistically extremely, extremely unlikely.

We can also think of the self as emerging from chaos visually, as a story told with light. The massive sculpture *Quantum Cloud* (1999-2009) by the British sculptor Antony Gormley stands on a pier next to the Millennium Dome in London. It consists of a dense, three-dimensional pattern of steel rods, arranged in a semi-random pattern, that appear to converge on a central, ghostly human figure. It is natural for the viewer to identify with that figure, but the self one sees in Gormley's sculpture varies from different perspectives, so who is the 'I' in the cloud?

Similarly, our sense of self derives substantially from our memories, which seem continuous and durable. Yet those memories must emerge as a story that the brain develops from something less structured, a chaos where before, now and after have no rigid moorings.

The use of the term 'quantum' in Gormley's artwork points to physics. As the American physicist Richard Feynman noted in his 1942 PhD [thesis](#), the time evolution rules of quantum mechanics can be reinterpreted as saying that particles such as electrons travel along all possible paths from beginning to ending points, with the quantum transition rules emerging through a kind of averaging over that microscopic chaos. In this view, the world has a profligate richness of histories, each eternally present even if not perceptible to us. Feynman's 'sum over histories' interpretation is now a standard tool in fundamental physical theory, and is even used in fields far removed from theoretical physics. A recent Google search on the related term 'path integral' returned almost half a million hits.

If the Feynman approach gives good experimental results – and it does – by implication do all those histories truly exist? Most physicists believe they are struggling to understand the Universe as it is, not simply developing computational tricks that reveal nothing beyond our own cleverness, and yet few of them regard every possible quantum path to be its own, genuine reality. Somehow, only certain potentialities become realities, and somehow large systems such as human observers are swept along from past to future.

the Universe consists of a collection of static moments, like a pile of unsorted photographs tossed into a shoebox

So why do we remember the past but not the future? Perhaps the answer lies in the very unpredictability and inconstancy of reality at the smallest scale. In the mind's eye of the modern physicist, even the vacuum seethes. Having spent my professional life peering at nature through the lens of theoretical physics, I no longer recoil from the thought that nature might be chaotic at heart. It now seems to me that it opens within us a glimmer of freedom, not by equating mere randomness with an ersatz free will, but by reminding us that the question of our freedom is not yet settled.

Lee Smolin at the Perimeter Institute in Ontario argues that scientists must change tack, accepting the flow of time as real and building the church of a new physics upon that rock. The British physicist Julian Barbour takes an opposite stance; going beyond Newton and Einstein, in *The End of Time* (1999) he proposes that time itself is an illusion. Instead, the Universe consists of a collection of static moments, like a pile of unsorted photographs tossed into a shoebox. Each photo contains a snapshot of the world entire, a unique configuration of all things: planets, galaxies, bumblebees, people. Barbour gives the collection of all possible moments an evocative name: The Heap.

Because each instant in The Heap is a moment of the entire world, it contains references to all other moments, so the shoebox also contains an implied web of connections, branching threads of mutual association. Following a single thread, one would experience an apparent flow of time. Most threads would follow isolated paths that are without sense or meaning, but a very few threads and their neighbours follow paths that are mutually coherent. We might say that such paths tell a story, or that they include a sensible memory of the past at each step. The family of threads that are mutually coherent is robust, whereas the isolated and incoherent threads are fragile, with brittle associations providing no neighbouring reinforcement.

This idea is interpreted in two time-lapse videos created by Ti Tracy. Both shot over a minute just before midnight on 3 June 2015 on the Las Vegas Strip, the videos contain the same set of a few thousand images. In the first, the time ordering has been scrambled; the second gives the images in the original time order:

Version A: <https://youtu.be/bXQx9oVU7V8>

Version B: <https://youtu.be/kHTbbnJ2cdg>

Version A is hard to follow, because there is nothing to hang on to. Attentive viewing of Version B, in contrast, reveals a multithreaded story from the 35-second mark to the 45-second. Someone is surrounded by police. An ambulance arrives on the scene. We make a U-turn and another policeman arrives on the 45-second mark. Given the date, the location and the approximate time, it would be straightforward, in principle, to find out more details from police reports. The time-ordered images in Version B allow us to follow a coherent narrative thread through the collection of images – Barbour's Heap – and to make deeper inferences about their meaning. There is a narrative coherence in Version B that's absent from Version A.

we lose sight of the fact that scientific theorising and storytelling are both, at heart, driven by a fear of dying and by an itch for the eternal

Barbour's Heap reminds me of a photo I found among my parent's things when they were old. Luckily, my mother was still alive to talk about it at the time. In the photo, my parents are both in their 20s, not yet married, at a nightclub in New York City. It is during the Second World War and they are with friends in uniform, all merchant seamen like my father. That night, he was dressed like a gigolo, clearly off-duty and having fun. My mother is shockingly young, smoking a cigarette, looking like an ingénue. The other men around the table are about to ship out for convoy duty in the North Atlantic. Within a week, all those men in uniform at the table would be dead.

For me, that photo carries layers of memory and meaning. There is the grief my parents must have felt for their friends, people I never met, carried away by time's flow long before I was born. The direct experience of mass death during the war helps to explain the silences I experienced in our home growing up, silences I now know were full of memories. Looking at the photo today, I know who my mother and father would become, how my father would leave the merchant service and buy a farm. A city boy, gone to sea, then settled far away from the water. In that photo I think I see a glimpse of why: the memory of friends lost in the North Atlantic, drowning. I can understand my father's anxiety, his need to stand on firm ground in a dangerous world. All his life he told us stories so that he would not be forgotten.

He acted out same eternalising impulse as the ancient Pythagoreans, just differently expressed. He told stories out of fear of dying, like Galeano says. We tend to fence off science from other areas, imagining that a quantum wave function or a set of relativistic field equations express a fundamentally different aspect of time than the kind of time that is embodied in old family tales. In the process, we lose sight of the fact that scientific theorising and storytelling are both, at heart, driven by a fear of dying and by an itch for the eternal.

Before I am carried away by time's flow, I want to share one last memory, again as a small child. I am sitting in a warm sunbeam on the living room floor of our farmhouse, watching the gentle chaos of drifting dust motes, small worlds entire, next to my sleeping dog, King. We were – are – will be – best friends forever. Always at peace.

ONE Follow-Up:

Is the following argument sound? If so, why? If not, why not?

1. The flow of time—that is, time as a forward-directed dynamic process inherently involving past, present, and future, earlier-and-later, and so-on—is an essential feature of human experience.
2. On the hand, most leading contemporary physicists believe that the flow of time is *unreal* and *epiphenomenal*—that is, even though it may be psychologically important in our lives (aka “the phenomenology of time”), it

is strictly reducible to underlying physical facts, forces, and laws, hence it is at most “virtual reality,” and causally irrelevant.

3. But on the other hand, a few contemporary physicists offer the revolutionary thesis that instead of denying the reality of the flow of time, we should instead incorporate the flow of time directly into our physical theories. Let’s call this *The Revolutionary Thesis*.

4. Other things being equal, we should prefer theories that fully preserve the manifest reality of human experience, over theories that turn human experience into an unreal epiphenomenon.

5. Therefore, instead of simply accepting the claims of most leading contemporary physicists without further argument, we should be actively exploring and developing The Revolutionary Thesis.

ONE Link:

“Time”

URL = <https://plato.stanford.edu/entries/time/>
