

# Climate change and behaviour change

Daniel Mathews

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The question:

*Climate change and energy are the biggest problems facing our society, possibly the biggest problems humanity has faced since the last Ice Age. We need to change. Most of us don't know how to change, why to change, or what to change to. Which is the biggest obstacle to change? Where should efforts be focussed most? Or do we need to do everything at once?*

I don't think this is a question specific to climate change or global warming or sustainable development. It's a question which arises in all social change, all cultural change, all activism. If you like, this is the definition of activism: how to actively take a part in one's society, how to change it by the direct application of action, whether individual or collective. I think it is one of two defining questions of all social change; one of two defining questions of all practical social science.

Question one, not so much here under discussion, is: what do we want to see? How can society be organised? That is the fundamental question of economics, in my view; and one that almost all professional economists professionally ignore; most of all, the "neoclassicists". It is the fundamental question of sociology; the fundamental question of politics; the fundamental question of kinship, socialization, and culture. This question, question one, is basically impossible — though I think we can say something, perhaps enough — but it is much easier than question two, the question at hand here: the question of what we are actually to do now. How do we get there? Even if we completely understand the present situation (which we don't), and we completely understand where we want to get to (which we most certainly don't!), the question of what to do to get from here to there may still be utterly unanswerable. But it must be answered, because we are beings in three spatial and one time dimensions, and thus objects must be somewhere doing something at each point in time. Life is nothing more than what you do; life is nothing more than time economy; life is logistics. You are always doing something, and all you can do is make a choice, to the extent you have the power to do so, about what it is that you do. So you answer the second question, the impossible among impossibles, one way or another. As it turns

out, in practice the impossible of all impossible questions is actually answered by definition; by experience; by physical continuity; by the intermediate value theorem.

But, whatever the difficulties, this question certainly has a particularly acute application to the questions arising from climate change — climate change presenting us with consequences of unimaginable, planetary, super-historical, possibly apocalyptic scale. Climate change is not alone in presenting consequences on this scale; similarly existential threats exist from nuclear weapons, at least, and from natural disasters, such as celestial impacts. Moreover, existential threats are not only risks, they are certainties; the laws of thermodynamics ensure them. The sun's fuel is finite; we can be certain that one day, there will be no earth; we can be certain that one day, there will be no day; contemporary cosmology predicts a torturous fade to black as the ultimate fate of the cosmos, far worse than anything imagined in the twisted minds of medieval theologians within the circles of hell. Existential crisis is written into the fabric of the universe; there is a message written in the stars, and it is abject, utter nihilism.

Climate change goes further: it is, in some sense, even worse than this. It is not only nihilistic, it is anti-human. It does not say we are ignorable, it says we are actively evil; it does not say we are pathetic, it says we are odious protoplasm slurping up resources; it does not say we are nothing, it says we are cancer. There is this quote of George Monbiot:

When terrorists threaten us, it shows that we must count for something, that we are important enough to kill. They confirm the grand narrative of our lives, in which we strive through thickets of good and evil towards an ultimate purpose. But there is no glory in the threat of climate change. The story it tells us is of yeast in a barrel, feeding and farting until they are poisoned by their own waste. It is too squalid an ending for our anthropocentric conceit to accept.

In a sense, there is no gruelling struggle; in a sense, there are no battles that we win and enjoy. To win, we must lose. To succeed, we must stymie ourselves. To fight, we must shoot ourselves in the foot.

So, it is against this background — a background too nauseating for most to contemplate — that our response to the horrors of climate change is played out.

But that is probably the worst one can say about it; in many ways, the situation is actually quite hopeful — at least, in comparison to other horrors that the future has in store for us. Compared to the brutal facts of cosmic reality, this is a minor hiccup! And this is true not only from the point of view of magnitude of the problem, but also in view of the consequences, and of prospects, and of realistic predictions.

It is not actually true that there is no heroic battle to fight; that is only a statement at the level of philosophy. There is in fact an epic struggle for the future of humanity; there are corporations, anti-scientific fools, fundamentalist

religious demons, and corrupt governments, a whole pantheon of villainy for us to take on. It is not for us to live in quiet times; this is the most crucial time in all of history, at least so far. And there is no eternal cosmological torture; this problem confronts the earth on a timescale compressed by nine orders of magnitude. Our torture will be swift!

It is really no exaggeration to say that the future lies in our hands: not only "our" hands, as humans living today; but also in "our" hands, as people who have knowledge and power at our command to do something about it. At least taken objectively in our circumstances, we are elites — although there is no justice, in fact massive injustice, in the fact that we are. Actually, this is extremely important, and I will return to it. But if we put our gloves on, then we see that now is the time, and this is the place, to push towards a better future; we know who to take on; we know, in broad terms, what to do; we know, at least at the broadest level, how to get there. Unlike the laws of thermodynamics, there is no doubt that there is a solution to the problem \*at the level of theory\*. And most of all, \*we are winning\*. We may assess that the position is hopeless, and that might be an accurate assessment — I think so myself — but it is improving, drastically so.

I am prepared to make an assessment, at the level of culture — and I am quite likely to be massively wrong in this! — knowing fully well the oversimplifications and certain errors this involves. Plus, I'm limiting myself to western societies, the ones we deal with directly. But my assessment is that basically people understand. They know we are in deep trouble. They know we are facing monumental, stupendous problems. They know that the consequences are grave. They know that their children and grandchildren will live with the consequences of what is done today. And they know that something has to be done.

Before proceeding any further, we should note what a victory it is to have this level of awareness and education. Climate change is counterintuitive; it is faraway; it is global; it is difficult science with dangerous uncertainties; it is often intuitively contradicted by local data, by sensory data. We have a cold summer here, more rain there, do people then abandon the idea that global warming exists? My assessment is they do not. Clearly this is not true across all of society, but I do recall from what I have seen that while the polling figures are not unanimous, they are very high. Even in the US, where one might expect less from a population subject to powerful doctrinal and reactionary institutions, I believe the level of understanding is quite high. In general, that is a massive achievement for the environmental movement, and something that ought to be celebrated.

I would say more than that, actually — totally stretching the bounds of any credibility I have in understanding culture! — I would say that people know we are in the shit, more than environmentally. They know the world has gone to pieces, in almost every possible way. They know that political systems are corrupt; they know that corporate power subverts democracy; they know that their elected representatives do not really represent them. They know that the economic system is fundamentally unfair; they know that their society is full of people who earn much more than them without working anywhere near

as hard; they know that they get bossed around; they never see, hear or feel democracy in practice; and they know that in many ways they do not have the power to make decisions about their own lives. They know that personal lives are alienated; they know that work, commercialism and materialism sucks the life out of the world. Tales of dark corporate dystopias are totally commonplace in our culture, where it is not escapist, and even then. With some exceptions, of both a delusional and genuine sort, they know that government is a sham, is posturing, is at best buffoonish and at worst criminal. In general, my assessment is that people pretty much, at a vague level, understand and internalise the entire standard left-wing critique of contemporary society. But unlike the environmental issues, I don't think that is due to any great educational efforts by left organisations, which for several decades now have been highly ineffective. I think it is due to this understanding of society being obvious, and culturally prevalent; the left-wing critique of society is obvious, though perhaps not as much to the people at the top. It is not just global, it is local; it is seen every day; despite media protestations to the contrary, it is transparent. The left, in this sense, has won, and has won for a long time. And the situation is hopeless, and has been hopeless for a long time, perhaps always. I think that is quite a general assessment of the position facing both the environmental movement, and other social movements.

As to the form of the environmental solution, it must involve changes in individual consumption; that much is clear. It certainly cannot involve such common habits as are seen today: massive car driving, massive inefficiency of roads, massive inefficiency of engines, rapacious energy usage, minimal recycling. But obviously there is a lot more to a solution than that. The entire economy must be refitted and redesigned in a sustainable way; even if the requisite drop in carbon emissions is made in time, the end of oil will come soon enough. It is not a marginal question, it is not a matter to be treated on the margins. This is a minimal reason to reject neoclassicism as the appropriate economic response, which treats everything marginally; there are much stronger reasons also. In many cases, we don't know what the best form of the refitted industrial or commercial or transportational or agricultural or architectural or urban or whatever solution looks like; in some cases, we do. But in very few cases will the answer be: as it is. Given the timescale involved, what needs to be done is to turn the economy on a dime. More than that: what needs to be done is to turn the economy on a dime into a direction where we have barely started looking, let alone know what exists in that direction, let alone know how to proceed in that direction.

Many advocate subsidies, tax breaks, and various incentives for research and entrepreneurship in these directions, whether sustainable energy, sustainable industry, or whatever else. But that is a minimal approach; that is a marginal approach, and it will turn things, but slowly, far too slowly it seems to me. It is true that some contemporary industries have arisen basically overnight; we see this in technology and with the internet, but these are very different from the sectors of the economy that actually do something in the real world, like agriculture, mining, energy production, transport, and manufacturing.

In any case, it's clear that there is much more to the solution than changes at the level of individual consumption. We need changes in production, in distribution, in exchange, and in \*collective\* consumption. Perhaps, even, these dwarf the issues of individual consumption. Some argue that we should focus on one or the other; I have seen several debates between those that argue for changes in individual consumption, against those who argue for better regulation; in general I find them counterproductive. Everything runs together, and I think one will change with the other; each will lead or follow the other; they stand or fall together. They will flow with the general political and cultural climate, I think.

And politically, much depends on what happens in the near term — as in, over the next year or two. We have the massive reports of the IPCC, itself a great scientific achievement of humanity, and they tell us, on extremely conservative assumptions, appropriate targets for reductions in carbon emissions. Is it 60% by 2020, or 80% by 2030, or 90% by 2030, or by 2050? We now have some idea; and with every revision, the situation seems to get worse. We see, right now, just this week, politicians and leaders stumbling over each other to fail in taking the first steps in response; those first steps being, even if they succeed entirely, woefully inadequate. There is no way they will take the scientifically necessary actions unless they respond to the pressures of the population to save the planet, adjust their orientation fundamentally, and determine to succeed. That can be done, the most polluting nations are democracies, and they can be held accountable. Already several nations have pledged to reduce 100%, that is, to become carbon neutral. But there is great urgency in the present.

Nonetheless, from the point of view of the individual, deciding — or not deciding and ritually following habits — what to consume and what lifestyle choices to make, one can understand the inertia. It is easy to denounce the ignorance and lack of consciousness of the general population when it cries out against high petrol prices and don't want to buy a more fuel efficient vehicle. But that is most likely perfectly rational. If people are struggling to make ends meet, and they live in a rural area or woefully poorly designed city, regularly travelling large distances by car — which means, most of the population almost everywhere in the industrialised world — then of course a rise in the price of a necessary commodity hurts. It is perfectly consistent with an understanding that the planet is in dire straits. And if everybody else is gouging and profiting out of it — oil producing monarchies, oil companies, and governments — then why should the hardship fall on those who are the most vulnerable, the most dependent, the least able to deal with the problem, and the most honest in the whole process? If the solution involves vastly more efficient cars, or vastly improved public transport, those options are hardly available when one needs to drive to work right this morning. A carbon tax is often proposed as a good market incentive to improve the environmental impact of the economy. Like most mainstream suggestions, it downplays distributional aspects: if it amounts to a tax on petrol, the effect will be regressive and socially damaging. (Probably it can be patched and fixed.) And, one hardly sees massive investment into or production of clean energy, clean cars, and extended public transport systems.

So, it is quite rational.

From a mainstream (not just neoclassical) economic point of view, the situation is that massively inefficient systems of urban design, transportation, and industry have been allowed to grow up because they are based on the premise that fossil fuels are cheap, abundant, and without harmful effect. The incentive structure that flows from that pricing leads to a situation of sprawled cities, super-reliance on 4-seater cars seating one person, and public transport a second class system for poor people. There is more to it than this, of course, but this is one part of it. Our system prices goods in a market where not only are externalities ignored, but pricing vastly undervalues the long term. Moreover, our mainstream (not just neoclassical) economists take as a given the logic of unending growth: a rising tide lifts all boats, goes the platitude of the Kenyesians, and the liberals, and many social democrats. But this is insane on minimal grounds — because the earth is finite — while in our conventional wisdom, we assume that the earth is an infinite resource, and an infinite garbage can.

Think of how much work has gone into a litre of petrol: that is not just the prospecting, and the drilling, and the extraction, and the shipping, and distribution, and financing, and pumping. That is nothing; that happened yesterday. Oil was constructed in geological timescales, in the millions-years hell of extinct plants and animals, crushed, ground, pummelled, absorbed, and refined by massive, epochal processes. That is work! And it is an obvious theorem that there were only finitely many plants and animals that could have contributed to it. Yet we expect to pay a few dollars a litre for it. Of course we should not; but we should not have built ourselves such an insane social infrastructure based on that expectation, either, and now we have to dig ourselves out of this global-historical hole.

These considerations only supplement the inertia. Well, I doubt many people who struggle to fill their cars with enough fuel to get to work each day pause to reflect on its geological history! But it is certainly true in the sense that there is a social context, that there is an infrastructure, by which the only way they can keep a livelihood, the only way they can eat, is by continuing to drive their car large distances each day and not pay so much for it that they can't afford to pay for bills and groceries.

This goes much further than petrol, of course. The context of a social system in which vast amounts of carbon are emitted each day means that whether or not you recycle this item, whether or not you turn the light off, whether or not you turn on the air conditioner, have minimal effect. So much so, that well-meaning suggestions about reducing a household's carbon footprint seem like a drop in the ocean. And they seem that way, because they are. Urging minor lifestyle change that amounts to pissing into the wind — and to boot, usually imposing hardships, however minimal — means that the wind blows it back at you. And worse, when there is no massive society-wide, industrial effort to confront the problem, it seems patronising. It is easy to see how the earnest urgings of the environmental movement can sound like the condescending tones of who knows best for you. Anybody can see that changing a light bulb is no response to the shit we are in. And, worse again than patronising, it can easily be seen

as hypocritical. The earnest corporate environmentalists on television work for a corporation for which, most likely, the preponderant environmental efforts are in greenwash. Jetsetting executives use up their entire yearly allowance of carbon emissions in one flight — including both corporate executives, and environmental NGO executives.

Of course, this is the most hostile response possible from the average citizen. But the justifications are there, and they are substantial. My feeling is that very few are so hostile; most people might have such thoughts, but would like to do their part in not fucking up the world. That's certainly my view! But hostility towards "elites" — whether your boss, or the government, or the presumptively hypocritical environmentalist — is palpable; it is a broader symptom of an undemocratic and alienating society and economy. Nevertheless, the approaching of changing individual habits can obviously work; if there is a broad shift towards more environmentally friendly consumption, production will follow demand; and culture and political climate will shift along with it. It is worth noting, while on this point, that the most environmentally friendly type of consumption — that is, as close as possible to zero — is actually doom for a capitalist economy, premised on overproduction. Go all the way in reduction of consumption, and you have a recession, you have a depression. A principled capitalist economy may be an oxymoron; but principled consumption in an unprincipled capitalist economy is a death sentence.

So, if we want people to change their lifestyles and their behaviours, we should be consistent, we should be honest about our own failings and our own biases. Fight for massive social investment in public transport and sustainable energy; fight for environmental regulation; fight for the economy to go on a war footing to save the world. Fight against the pillage of the earth; fight against corporate greenwashing; fight against the well-financed, well-connected soothsayers who would lead the world singing and dancing over the brink. Fight hopelessness, envision a hopeful future, and then create it. Be suspicious of incentive-based solutions that turn out to be environmental versions of the usual elite, corporate, regressive measures. Suggest to people what they could or should do; but also, work to create circumstances where it is obvious, it is natural, and it is cheap and incentive-compatible to do what should be done. Make individual changes a natural part of a society-wide shift. And when suggestions are not taken, ask why, listen, and sympathize. Never talk down; there is no claim to expertise on lifestyle choices and personal consumption. This is not rocket science. Do not make believe that minimal changes are substantial. Be careful when talking about changing behaviour, for when done without the obvious qualifications, it comes dangerously close to a horribly instrumental view of human beings; and there is much to be ashamed of in the history of social science, springing from such assumptions. Every individual who needs to change their lifestyle has their own hopes, dreams, families, and values — and probably far more practical intelligence than I will ever have. The person who knows their life best is themselves, and if they are engaged to think about the world, then short of pathology, they will change their life if they can, and if they think it is the right thing to do.

It has been done before; economies were turned on a dime for the second world war, for instance. There is evidence for the proposition that the most efficient economy of all time was Britain during the war — authoritarian in many ways, to be sure, but broadly accepted by the population in the spirit of equality. It is worth noting that the second world war brought Britain so together, so socially conscious, that the great social institution, the National Health Service, was established among the rubble of a nation bankrupt and in ruins. But we don't need the authoritarianism in our case; there is no threat but ourselves. A spirit of self-sacrifice, a sense of coming together to remedy a threat, is not only consistent with and necessary for solving the climate change problem; it will also strengthen society, reduce alienation, and improve the sanity of our social arrangements.

So that is a good approach, I think; but then, it is just the same approach for everything.