DEMOS

LIVING IN THE EXPONENTIAL AGE

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LIVING IN THE EXPONENTIAL AGE

INTRODUCTION

I passed my driving test when I was eighteen. I took the test in my stepmother's white Nissan Micra, a car I'd only driven five times, and which handled very differently from the diesel saloon in which I'd done most of my driving practice. I kept stalling it. I was convinced I was going to fail, and was a pretty typical teenage bundle of nerves and agitation as I sat waiting at the test centre.

A few minutes into the test, it started to rain. I turned on the windscreen wipers and out of the corner of my eye I noticed the examiner tick a box saying I'd correctly used the 'auxiliary controls'. That was when I started to think I might be alright. Five minutes later, we were driving around a small lake in the suburbs of my local town - the kind with rowing boats, a small cafe and a lot of tourists. I had to slow for a horse and rider making their way along the road. Just as I was about to overtake the horse, a dog raced out from a hiking trail in front of me. Then a fat, brown duck waddled up out of the pond and took a leisurely walk across the carriageway. I managed not to panic but to keep the car under control and wait while the menagerie continued on its way. I made some sort of light hearted remark and the examiner laughed. That was when I just knew I was going to pass.

The driving test, a rite of passage most of us put ourselves through, may disappear in my lifetime if cars learn to reliably drive themselves. But it has been part of the legal landscape for driving since June 1935. It was needed: even with just 2.4 million vehicles on the road, more than 7000 people were being killed in car accidents each year. The driving test is,

of course, just one way in which the hazards of a vehicle free-for-all have been mitigated. Cars have far more stringent safety requirements, which make them far safer in the event of a collision. The humans in them are required to wear seatbelts. Road design, from layouts to lights, from crash barriers and warning signs to the road surface itself, has improved immeasurably. As a result, even with more than ten times as many vehicles on UK roads as there were in 1935, there are about a quarter as many deaths.

Safety has not been the only preoccupation of policy makers thinking about cars over the last century. At least as much effort - and certainly more money - has been put into the question of how we maximise the economic opportunity of the car. Billions of pounds' worth of roads have been improved, built and expanded to enable us to take advantage of the unparalleled mobility offered by private motor vehicles: door to door transport at speeds that would have been unimaginable to our ancestors.

I'm not going to delve into the rights and wrongs of car policy here. I want, simply, to use it as a standard model for how policy makers respond to technological innovation. On the one hand, they look for new harms that need to be reduced or eliminated through regulation. On the other hand, they look for new opportunities that can be realised through infrastructure, investment, or changes in regulation.

But there's a third set of policy questions that need to be considered when you're thinking about the transition from a society with low car ownership to one with high car ownership: the public health impacts, and I don't mean pollution. Pollution is an obvious impact of cars that most decent officials would consider part of "car policy". I mean obesity and heart disease.

A society without cars is one where people default to active travel: walking and cycling. They don't travel as far, but they burn a lot more calories when they do travel. Even if there's public transport, it rarely stops outside the door, so people have to walk to the relevant stop or station. With mass car ownership, people default to travelling comfortably in a metal box, forward momentum powered by petrol instead of body fat. So a society in which most families own a car is one where the government is going to have to think a lot harder about how to keep people active, for the sake of their hearts and their waistlines. To be fair, campaigners are starting to bring this dimension into the debate about the future of car policy, but it's only become mainstream thinking 100 years into widespread car ownership. That's because it's often hard to think about these kinds of subtle, diffuse and frequently social impacts of technological change: the way it changes the minute-by-minute patterns of our lives and choices, and what that means for what the state needs to do. Technology has huge benefits; it has internal harms we can and should regulate to reduce; but it can also contribute to the creation or exacerbation of seemingly separate problems.

We might not want to abolish cars to tackle obesity, but if we decide we want to keep a world dominated by cars, we have to lean harder on anti-obesity policy than we did before. The more general lesson is this: the state has to adapt in fundamental ways to technological change, and adaptation is about far more than just figuring out how to regulate the new technologies.

In other words: you don't have to think change is bad to believe the state might need to change radically in order to respond.

This paper, part of a series on reforming democracy, looks at the vast scope of the change we are living through, and the way in which that change shifts the landscape for the kind of state the country needs. The phrase "exponential age" I use to describe that change is not my own: I have borrowed it from writer and investor Azeem Azhar, whose work I've been following for years. Researching the way financial technology was disrupting consumer markets, back in 2015, I stumbled across his newsletter - Exponential View - which set out to "help us understand how our societies and political economy will change under the force of rapidly accelerating technologies." It's a weekly must-read, and it's Azeem's central analysis of the period in which we live, and the difficult dynamics it creates for politics and society, that drives much of my thinking.

As Azeem explains in his recently published book, The Exponential Age, we face "a new period of human affairs catalysed by accelerating technologies in four broad domains: computing, energy, biology and manufacturing. ... As these technologies mature from proto-science to well-understood breakthroughs, their compounding improvements become more and more noticeable. At some point, they become very,

very powerful (or very, very cheap) depending on how you look at things. [...] These technologies accelerate and create a gap between their potential and the ways our societies and economies run. The exponential gap causes ripples & ruptures in our ways of life."

I will argue, through this series, that to thrive through an era of exponential change we need a new "gravitational state". The final paper will set out in detail what that gravitational state should look like, but here my goal is simply to explain why it's needed.

In the first paper of this series, I looked at the forces that need to be in balance to sustain consensual policy making within a democratic society. The more divergence between the interests of different groups within that society, the harder it is. But the more individuals and groups trust, and feel solidarity with, others within their society, the more willing they are to support compromises and sacrifices in the interests of the common good.

In this paper - which I admit, is not a very cheerful one - I look at twelve different features of the age we live in that are sabotaging that delicate balance and making it harder for us to secure widespread democratic consent for the policies needed to respond. The first six are all characteristics of the kind of policy problems we are struggling to resolve: complex, divisive and at once personal and global in scope. These characteristics, together, are driving the divergence of interests between groups.

The last six are political and technological trends that are pulling those groups apart, eating away at the social capital that holds societies together, and sustains compromise in the common interest.

1. CHANGE IS TOUGH; FAST CHANGE IS HARDER

First things first: change is hard work.

It is a universally acknowledged truth in the marketing industry that the best thing to put on the packaging for your product is the word "new". You might assume that consumers' enthusiasm for trying new styles of frozen pizza or chocolate reflects a wider appetite for change, but this would be a mistake. Certainly: some people have a strong default enthusiasm for change, and my experiences in Westminster and Whitehall suggest many of those people work in government, on the front lines of policy, where they can have exciting conversations about how many different things are happening. Journalists, too, have an almost unrelenting appetite for the new and intriguing. So this creates a perception in the Westminster bubble, and the media landscape, that change is what we're all champing at the bit for.

But change enthusiasts are not the norm. Most people, on balance, prefer most things in their lives to stay the same. They approach change with a combination of rational and irrational scepticism. Change could make their lives worse. Change comes with adaptation costs: from learning how to use a new remote, to training for an entirely new career; from clearing out the loft so insulation can be laid, to moving house to make way for a new railway line.

Of course these changes could make life better. But our attitude to change is often influenced by what psychologists call our cognitive bias of "loss aversion". In experiments it's been shown that most of us will pay more to keep things we have than we would pay to acquire them. We get attached to things, and to ways of behaving. That can make all kinds of change difficult: from a change of address to a change to how we make appointments at the doctor's. In particular, as we get older, or among vulnerable people for whom the risk of change going wrong is higher, we avoid it where we can. If change is happening everywhere, and getting faster, it is destabilising for many people. Those who move more slowly get left further and further behind: in fact, exponentially further behind.

Our personal struggles are mirrored by the struggle the state faces. Economic transformation may create jobs in one sector while destroying them in another; in a democracy we can expect electoral pressure for state-supported unemployment payments, subsidies for retraining, or direct job protection. New technologies can create new harms - like revenge pornography - or new regulatory risks - like payday lending alongside new benefits. New migration into an area may change the language needs of health care and education providers or put pressure on infrastructure.

Markets are relatively able to respond to those pressures but state services often find it harder. Budget planning cycles are longer and slower. Regulation follows set procedures. Legislation takes years: the pathway from a green paper to the statute book is littered with failed plans and there is never enough time to get through all the laws the government would like to pass. Yes: legislation can be rushed through in an emergency, but the non-urgent updates to things like taxi regulation or employment law get left in draft often for years at a time.

When I'm bored I occasionally play a cooking game my kids downloaded onto my tablet computer. You have to serve customers from a fixed menu; you put the hamburger on the grill, wait five seconds then cross the kitchen for a bun, pick up the milkshake and serve. And then you make spaghetti with prawns for the next guy. It's pretty easy to start with. But then the customers arrive faster and faster and you've accidentally put the spaghetti in a bun and burnt the burger and you have to start cooking again. You lose once you can't keep up.

It's not that adapting to change in our public services or laws is impossible. Any few challenges could be navigated. It's that when you've got twenty issues clamouring for a response at the same time that you can't keep up.

If you accept that adapting to change requires effort, then you will see that the simplest problem we face right now is the scale of change. Not just one, but several revolutions are underway. Technology is transforming our society, our democracy, our jobs, and our lives as consumers. Climate change is a clear and present danger that could dwarf the impacts of even the Covid-19 pandemic. Our media networks and the ways we access information have been transformed in a generation. Across the west, our populations are ageing, and growing more diverse, creating new social and financial pressures as well as opportunities. Crime and terrorism cross borders at an unprecedented scale. Power is shifting eastward, while the trend toward globalisation is shifting towards regional blocs, which may end up ranged against one another in a new cold war.

Change is not simply happening quickly: the speed at which it is happening is accelerating. During the pandemic we have got used to the word exponential: change that adds fuel to the change that follows. This is the kind of change we face, on almost every front.

In the world of tech we have Moore's law – the observation that the computational power of a chip tends to double every two years, baking

in the acceleration of technological change over time. Demographic change can also be self-accelerating both in terms of age and diversity. The older your population, the smaller the proportion of people are of reproductive age, so the lower the birth rate. A high number of older people also puts financial pressure on the working age population, which makes them less able to afford large numbers of children, pushing the birth rate still lower. Diversity creates a different, but equally accelerative mechanism: people born abroad are more likely to come from cultures with a high birth rate, and therefore tend to have more children. People born abroad are also more likely to have relationships with people in other countries, whether as partners or family members. They are therefore more likely to sponsor additional migrants. This can be - and often is - overstated, with moral panics about chains of migration where a single person sponsors multiple waves of migration. This is extremely rare. Nevertheless, there is a marginal effect whereby the number of foreign-born people in a country tends to accelerate rather than follow a linear progression.

Climate change is unlikely to follow a smooth curve, but the hotter things get, the faster change will happen. And the economic changes we need to go through to reduce our carbon emissions follow their own difficult curve: the first are the easiest. The lower our emissions, the fewer easy wins there are, and the harder it is to win consent for the next stage of transition.

2. WE NEED TO CHANGE OUR OWN BEHAVIOUR

In 2014, the Food Standards Agency published data showing that 80% of the UK's more than quarter of a million food poisoning cases a year came from contaminated chicken. Chicken is often contaminated with campylobacter which can cause diarrhoea and vomiting, and sometimes more serious effects, so it needs to be cooked thoroughly. But under-cooked chicken isn't the biggest problem: one of the primary ways people get infected is when they wash their chicken under the tap. Water droplets bounce off the chicken and spray around the kitchen, taking bacteria with them. The bacteria-infected spray can travel half a metre in every direction. The advice is clear: don't wash raw chicken. And yet more than 40% of British people did so, as a matter of routine.

The FSA has been working on an end to end strategy to tackle this problem for years. They now have advice labels on all packaged chicken. And 15 percentage points fewer people report washing their chicken as a result: phenomenal change. But it's still about a quarter of us routinely washing chicken. It is culturally embedded. People have been taught by their parents or grandparents that this is the way to do it and – to them – it feels disgusting to cook an unwashed chicken. They are reluctant to change. So the food poisoning goes on.

Of course, while food poisoning is unpleasant and can cause long term problems, it is not one of the 21st century's greatest challenges. Nevertheless, it acts as a reminder of how long, and slow, the process of changing people's behaviour can be, even if we're asking people to make a change that will cost them nothing, and keep them healthier.

So the second characteristic of the Exponential Age we need to worry about is this: on many of the issues we face, citizens need to change our behaviour on a vast scale.

We need to drastically reduce carbon emissions to prevent catastrophic climate change. People need to change the way they travel, eat, heat their homes and more. Of course, it isn't just up to individuals to change their behaviour: whether it's decarbonising the electricity supply, investing in new transport options, or regulating the packaging of the food we eat, government intervention shapes the choices we can make, and over time, will make it easier for people to make low carbon choices. Many high-emission options need to simply disappear, like the old light bulbs with a filament, or leaded petrol, already have.

But whether you regulate us into changing our behaviour, or use subtler techniques like marketing campaigns, labelling or taxation, the changes we need to make will affect day-to-day life in profound ways. And climate change is not the only issue that is creating, or requires personal shifts in behaviour.

All across the West, we are struggling with obesity. People need to improve their diets to eat more healthily: as always, there is an argument between those who want the state to regulate the food companies and the supermarkets, and those who want us to take individual responsibility for our diets. But wherever you sit on that political spectrum, one way or another the food going into people's mouths needs to be different – or we need to accommodate ourselves to paying taxes to cover the high costs of obesity-related disease.

Social media allows us to express ourselves online in new ways and to new audiences. And yet even in its 20-year lifespan, social media has created its own behaviour problems that need to be addressed by behaviour change. Trolling and abuse. Fraud, catfishing and doxing. False information, deepfakes, and astroturfing. We talk about what should be banned; what kind of harms should be regulated away. But the movement for a better internet also campaigns for shifts in our collective behaviour to drive out those harms: we are told not to engage with trolls, encouraged to report abuse and fraud, to avoid content chosen by the algorithm and make our own choices about what to read and watch.

We are also going through cultural and demographic shifts that require people to change their day to day behaviour. Campaigns like Me Too and Black Lives Matter call for changes in the words people use, the questions they ask, and the expectations they have of other people. We can – and I do – advocate for those changes, but we have to acknowledge that they are work. Even though there is a compelling case that this work is a small amount of effort when compared against the experience of systematic racism or misogyny, it is still work.

So from the language we use to the products we buy, from the links we click to the food we put into our mouths, behaviour needs to change in intimate spaces in ways that – like the chicken under the tap – are far beyond the reach of any regulation or law. Behaviour in those intimate spaces will change through the far slower process of the steady accretion of social norms.

3. ABSORBING EXTERNALITIES

We've seen above that people can have an aversion to change per se, that goes beyond conventional measures of their rational self-interest, and that it takes time to shift behaviour. But we need to recognise that aversion to change is often perfectly rational, because the individual in question is likely to lose out as a result of the change. This problem is acute at the moment because many of the changes our society needs to go through are pushing new costs onto people that – in the past – they could avoid. Economists talk about "externalities": the impacts of any action that affect someone other than the person who took that action. If I run a factory that pumps out pollution into a neighbouring river, the harm I'm causing to the river and its ecosystem is one of these externalities. In an ideal system, regulation prevents these harms from happening, or taxes and charges recover the costs of remediating the harm caused. But if the taxes or regulations aren't sufficient, the factory is effectively receiving a subsidy from the people who are affected: they absorb the harm, and the factory reaps the benefits.

The impact of carbon emissions on our climate is one of the most enormous, unmitigated externalities in our economic system. For generations people have been burning fossil fuels in increasing quantities and increasing the concentration of carbon in the atmosphere. They have not been required to pay for the harm that carbon will cause to future generations – initially because it was not understood by scientists, but in recent years because representatives of those industries have made the case that it would cause too much economic damage to fully price in the cost of carbon impacts on the climate. Slowly, the case is being made for a Carbon Tax that would push up the cost of emitting carbon to reflect the harm it causes; generating funds to mitigate the impact of climate change, but most importantly creating a price incentive to find alternatives to carbon-intensive industrial practices.

However, people are simply not used to having to pay the full price of the harm caused by the carbon they emit. Prices of heating and electricity might rise. The price of plastic bottles; the price of transport; the price of meat. Some options might disappear altogether. The reality is that the prices of these items have been artificially low for a long time, and that new, higher prices, would be the "correct" ones. But that doesn't mitigate the impact on people who are forced to adjust their consumption patterns. And of course, a carbon price implemented today will have to be higher than a carbon price would have been if implemented thirty or fifty years ago. Effectively, we are going to have to pay the price now for the failure to tax carbon properly since the industrial revolution.

One of my first jobs in politics was working on the Liberal Democrats' proposal to replace Council Tax with a Local Income Tax. Under our plans, everyone would pay about 3% of their taxable income to the

council, instead of council tax. If your Council Tax bill was the average - about £1200 - and your household income was the average - about £27,000 at the time – then you'd be better off. When you looked at the population as a whole, this was a "progressive" proposal: it shifted money from poorer families to richer ones. However it was very easy for journalists and activists from other parties to come up with examples of people who would pay more: for example young people sharing a flat. If three people shared the Council Tax bill they'd pay £400 each. If they each earned the median wage of £21,000 a year, they'd pay about £500 each. There were plenty of other edge cases – student nurses who were exempt from council tax, single parents who got a single person discount and more. I spent hours on the phone to journalists trying to explain why the policy was fair, and simple. But the complexity of Council Tax, with its endless exemptions and discounts, made my job impossible. No-one believed the new policy would be simple, because the transition would be complicated.

The experience taught me a fundamental lesson about public policy. If you change an irrational system to a rational system, you automatically end up with an irrational set of losers. The problem is created by the old system, but the new system gets blamed. School funding, local authority grants, tax reform: I've come across the problem time and again. Every attempt to replace a complex formula with a simple one causes massive aggravation because it's impossible to explain why the 'losers' deserve to be punished. Saying it's the old system that created undeserved benefits gets you nowhere.

And this will continue to be the case with carbon pricing. We are asking people to pick up the tab for previous generations' mistakes, and adjust to a system that will feel different in unfair ways.

But it's not just on climate change that many people are being asked to pick up new externalities that, in the past, we were allowed to ignore. This way of thinking helps us to understand the rational aversion to many other kinds of policy and societal change.

Take the Me Too movement. Let's assume that indulging in sexist banter is enjoyable for the person or people who do it. For years, they've been allowed to get this benefit – enjoyment, camaraderie, status – without having to even acknowledge the externalities of this behaviour on those on the receiving end: primarily the women. The woman's distress has been allowed and ignored – banter, in fact, is so often coupled with the word "harmless", as if saying it is harmless can somehow erase the harm. Now, social change is forcing people to acknowledge the harm that "banter" causes. In some cases, employment tribunals are crystallising the costs to those on the receiving end into cash payments; in others regulation or workplace rules are preventing the harm from occurring at all. I welcome this change, just as I would welcome a carbon tax. But we should note that by shifting our expectations, we are imposing a cost onto those who want to keep their "harmless" banter. It is not surprising that some of them are reluctant to accept responsibility for the externalities of their actions given that those externalities have been ignored for generations, if not throughout most of human civilisation.

Once you start looking for it, you see this pattern everywhere in public policy: the need to price in externalities which have been ignored, and the huge resistance to change by those who benefited from an unfair system:

Vast amounts of housing wealth have been accrued by the Baby Boomer generation through a period of sustained house price inflation. These prices are propped up by planning policies that constrain housing supply; planning policies which those homeowners do everything to maintain. Younger people face higher house prices and rental costs as a result; and the whole of society faces higher housing benefit bills both now and in the future.

Social media companies have created platforms for vast quantities of content, increasing the ability of human beings to be awful to one another. There is emerging evidence of some impacts on mental health, in particular among girls and young women. They created the opportunity and yet they don't take full responsibility for mitigating the harm.

Pensions. We created a set of entitlements that were just about affordable at the time they were introduced. We linked entitlement to National Insurance payments, but spent that money as tax revenue rather than putting it aside. Then life expectancy rose, increasing the costs of pensions. And our population got older, on average, increasing the dependency ratio – the number of retired people for each working age person. So now our pension system is extremely expensive for the diminishing number of working age people, but everyone believes they've earned an entitlement.

Immigration. We massively increased immigration without, for years, factoring in the impacts on our public services or infrastructure – from the need for more homes to better accommodation at school for children with English as an additional language. Nevertheless, our public services and agriculture industries became heavily dependent on migrant workers, many of whom could be more easily exploited with poor working conditions. Now the government aims to reduce the numbers of lower paid migrant workers and has no serious plan for dealing with the consequences for industries that hired them.

4. HIGH TRANSITIONAL COSTS

Shifting from one system to another almost always comes with transitional costs. This is particularly true when it comes to climate change policies. Take home heating. I live in a Victorian terrace that would originally have been heated by fires in every room. The chimneys and fireplaces have long since been blocked up, and the attic has been converted into a room that's insulated to modern standards. But the back part of the house has a separate tiny loft space, which still has only a thin layer of insulation. The front and back of the house are solid brick, with no cavity in the walls, so they leak heat. My predecessor in the house replaced the old-style sash windows with the cheapest double glazing known to man, some of which don't quite close properly, and let in the cold air. All in all, it's a grade D house for energy efficiency, which makes it pretty average for a house of its age.

I could fix this. I could install solid wall insulation on all the external walls; replace the windows; insulate the little loft space and, if I wanted to be really thorough, put in floor insulation too. Ideally, I'd replace my gas boiler with a ground source heat pump that converts the heat in the ground into hot water and heat for the home: my little London garden is probably just big enough. In total, I'd probably need to spend at least £30,000: these are the transitional costs from converting my house to an energy efficient one. It would probably save me about £400 a year on my energy bills.

There are several problems. First, it's a pretty poor investment. I could probably get a much better return for my £30,000 on the stock market. But let's assume we can correct that with subsidies or carbon pricing that puts up the cost of doing nothing. Second, it's a lot of money, and essentially we're asking this generation of homeowners to make the investments to benefit future ones. Governments have tried to create financial products that allow us to spread the cost over the coming thirty years or so, like a mortgage, and attach them to the house. But these products have proved staggeringly unpopular, as have most efforts to subsidise anything other than the simple forms of home insulation: loft lagging and injecting insulation into cavity walls.

A large part of it is that there is one transitional cost that cannot be spread to the people who buy my house from me in ten or twenty years: the upheaval. I'd need to dig up most of my garden for a ground source heat pump; to insulate my loft space we'd need to cut a hole in the ceiling to get access; interior wall insulation is effectively solid blocks of foam attached to the walls, so I'd need new skirting boards, and I'd need to repaint the rooms, which would be a couple of inches smaller; and new windows would cause havoc in the house for days.

This is just one example of the impact of transitional cost: it puts people off making the change, for perfectly rational reasons. The best thing, financially, for me, would be to go back in time and get the previous owners to fix up the house. The next best thing is for the next owners to do it. The worst outcome is for me to do it. So people defer the problem.

Another example is training. We know that many of the jobs in the economy are under threat from both the transition to a lower carbon economy and the advance of technology. In the first group we have jobs on oil rigs, or making gas boilers. In the second group, we have factory workers at risk of being replaced by robots, and people in professional services – like lawyers and accountants – facing a future where their jobs are carried out by artificial intelligence. Some people believe that we will be moving towards an economy where there isn't enough work for everyone, but whether that's true or not, it's certain that many people will need to change from one job to another, perhaps in a different industry.

There are two costs associated with training. First: the direct costs of learning. Second: the loss of income from the time when you're not working. We can transfer some or even all of those costs to the state, or to companies by paying people's fees, or giving them an income while they are learning. But the costs are real wherever they fall.

When it comes to climate change, we're looking at a transition over twenty or thirty years to replace polluting industries with less polluting alternatives. Just as with the home insulation: it's the generation that decides to make this transition who has to pay.

Technology is creating the same pressure on training, but it may last even longer. In an era of fast and accelerating change, the chances are that people will have to retrain more regularly to keep up with the labour market. This may increase the total number of months and years people need to spend training. In effect, fast and accelerating change has created a training externality: it requires a higher volume of lifelong learning from workers and consumers alike. The faster change happens, the more time we need to spend developing the skills to cope.

5. FRAGILITY OF THE BOTTOM 1/3

Many of those who will be adversely affected by the changes we can expect over the next generation are already financially fragile, which makes the challenge of managing that transition even more difficult. We have seen the impact this fragility has on collective security during the pandemic.

Huge numbers of people and families had no savings or sick pay to fall back on and that made our whole economic system more fragile, increasing the call on the state for emergency aid. We have seen sharp differences between the rich and poor in terms of not just mortality, but wellbeing, safety, hunger and loss of income. The UK has comparatively high levels of obesity, diabetes and hypertension, all of which are risk factors for severe disease with a Covid-19 infection. Ministers have now accepted that the overall health of the population contributed to our systemic vulnerability to this pandemic and increased the number of deaths and ICU cases. More broadly, it is likely that high levels of anxiety and depression in wider society made us less resilient to the impacts of lockdown on our mental health and wellbeing. The UK has wide disparities in access to green space and a significant problem with food and fuel poverty - the latter, a significant factor during the winter lockdown period.

That unequal impact clearly has not just harmed those directly affected: the fragility of the bottom third has worsened the impact of the pandemic and the lockdowns on the health and wellbeing of the population as a whole. The pandemic is harder to suppress when some people cannot afford to isolate; have such inadequate homes that they cannot bear to stay indoors or don't have homes at all; cannot afford equipment to educate their children at home; or have so little power at work that they can be forced by unscrupulous employers into Covidinsecure workplaces.

And the economy will recover more slowly for all of us because of the long tail of scarring impacts: businesses that were too fragile to survive, jobs that have been lost and people who accrued debts they can't afford to repay.

Some of these risks will be replicated by the economic and technological transitions of the decades ahead. If we accept that transition has costs, these costs need either to be borne by the state, through taxation, or individuals. If a large part of the population does not have the financial or social resilience to be able to absorb those costs, then change can easily trigger a crisis. And crises are expensive to fix. Let me give you some examples of transitions that are already having a profound impact on those on the lowest incomes:

Services are increasingly going online. If you still want to get paper bills, or speak to someone on the phone, you may have to pay more or wait longer for service, or both. Estimates vary about the cost of digital exclusion, but it runs into the hundreds of pounds. A year.

Environmental regulations are putting new requirements on companies that manufacture white goods, so that they can be more easily repaired. This is a welcome shift, to reduce our resource consumption. However, it will push up the cost of a new product. Those who can buy a new product will benefit from the reduced running costs; those who cannot will not see this benefit. Our data-driven economy is now enabling more companies to charge different prices to different consumers. This has long been normal in the insurance market, where consumers have different risk profiles, but even in insurance, increasing personalisation is reducing the amount of risk that is pooled between customers, and pushing up costs for higher risk people – like young drivers. If personalisation continues to advance into consumer goods, there is a strong possibility that it will have a punitive effect on the poorest customers.

6. LONG TAIL OF LOW PROBABILITY/HIGH IMPACT EVENTS

For the last six months, my daughter and I have been reading the Alex Rider series of books about a teenage spy. The villains he confronts are all ambitious. Herod Sayle plans to kill every child and schoolteacher in the UK with smallpox. Hugo Grief replaces billionaires' children with clones of himself so he can inherit most of the world's assets. Alexei Sarov and Damian Cray each attempt a nuclear holocaust. Nikolei Drevin plans to drop a space station on Washington DC.

One thing that fascinates me about the series is that every book follows immediately after its predecessor. In the Famous Five, almost every story occurred over a different, timeless summer holiday. The children never got older but there were clearly gaps in these heroes' stories when they went back to school and got on with normal life. Alex, by contrast, has saved the world six times in quick succession; he goes into space to defuse a bomb just three weeks after heart surgery to repair a sniper's bullet wound.

At any one time, our security services are investigating a huge number of threats – but we do not, in fact, face different super villains with nuclear weapons every month. Nevertheless, there is a tiny kernel of truth in that shift from the Famous Five, who found treasure or saved a kidnap victim once a year, and Alex Rider, who saves millions of lives every few weeks. The risk of catastrophic events is rising. The Centre for the Understanding of Existential Risk at the University of Cambridge exists to catalogue, monitor, and help avert catastrophes that 'could lead to human extinction or civilisational collapse'. They've developed a science of existential risk, that categorises the growing number of low-probability, but high-impact possibilities that confront us. Their website is filled with information about all sorts of decidedly uncheerful possibilities including biological risks, from natural or artificially triggered pandemics; climate risk and weather events; risks from artificial intelligence; and warfare and global justice. The risks of asteroid impact or a supervolcano, that we know about from the movies, also remain.

The Covid-19 pandemic has been the worst disease outbreak in 100 years, but most forecasters don't think it will be the worst in the next 100 years. The 100-year risk cycle is used in weather models, too: certain kinds of flood or storm are categorised by insurance markets as events that are likely to happen once every 100 years. And yet those flood events are happening far more frequently; as are wildfires, hurricanes and droughts across the world. Globalisation and international trade make us richer, but they also create networks and faultlines that enable localised problems to spread incredibly fast – whether that's a new virus or a credit default swap. And technology, too, is another source of potentially catastrophic risk to humanity.

Our political and economic systems are not kind to those who invest or insure against low probability events. Experts have been predicting a respiratory virus pandemic for years. An airline that had set aside money over the last decade against that possibility would be in a much better position than its competitors right now; but it might not have survived until now, because it would have had to charge higher ticket prices for a decade, and been uncompetitive. Our system rewards efficiency; that's why globally we've seen a move to "just in time" supply chains, away from the "just in case" model of having warehouses filled with things you might need. The same is true in politics, though there's less competitive pressure given that elections only happen every few years. Nevertheless, who wants to be the politician spending billions putting aside enough PPE just in case there's a pandemic, when you could be the politician turning storage areas into new hospital beds?

Remember in The Day After Tomorrow, when Dennis Quaid – the climate scientist – is trying to persuade a sceptical President that we should take action to prevent a climate catastrophe? The politicians won't listen. Climate change is what Al Gore called an Inconvenient Truth – as we saw above the costs of transition are high, and the benefits mostly accrue to future generations, so no one person, or political leader, wants to take responsibility for paying the bill. It is hard to build a critical mass of public support for "just in case" spending, and that's partly because we human beings are quite bad at learning from anything other than experience. After the disaster, the President in The Day After Tomorrow is a convert – of course. But before it, he could look at models and spreadsheets all day long, it wouldn't have felt real. We see this all the time in our daily lives: it's why science teachers do experiments instead of just teaching theory, it's why writers are told "show don't tell" in their novels, it's why you don't realise how hard it is to drive a car until you're sitting in the driver's seat for the first time. We're experiential learners.

In summary, this growing long list of genuinely existential threats, which none of us will really get our heads around until it is too late, is another structural challenge for democracies to face. There are no votes in preventing disasters.

7. GOES BEYOND THE NATION STATE

Another characteristic of most of our public policy dilemmas – including the existential ones – is that we, as a single nation state, cannot deal with them alone.

Vast, global companies - which have grown far faster than any predecessors - are stretching our understanding of the relationship between state and corporation. Individual nation states - especially liberal democracies - seem feeble when acting against these global platforms. How do we tax them? How do we govern how they manage data? How do we set rules about who can and cannot use them, or what they can say, when every action is global, and the only locus of legal power is national? The internet has brought with it fake news, radicalisation, outrage and a new platform for international information warfare, but no new way for governments to manage those risks.

Crime crosses borders too: physical crimes, like drug smuggling and people-trafficking, of course, but also virtual crime. It's now possible to defraud an old lady in Basildon of her savings without ever leaving Kiev. Fraud is the fastest growing crime in the UK; it's the volume crime of our generation, and we are almost incapable of policing it properly because the criminals are far beyond our jurisdiction. Climate change, by its very nature, crosses borders. There are risks to any country which acts alone to push up the cost of carbon emissions: it may make their industries less competitive than countries which continue with fossil fuels. And if everyone else carries on burning fossil fuels, the country that did its best still suffers from climate change. That is why there have been, and continue to be, huge global initiatives to bring countries together to plan collective action.

The problem with international agreements is not that they don't work. They can. Technocrats who want to solve problems, from human trafficking to climate change, dive in and create protocols and treaties that help level up what can achieve together.

The problem is that no-one has found a way to secure the legitimacy of supra-national bodies; there's barely been an attempt to replicate the vast, generational work that goes into building a shared sense of identity and solidarity within a nation or community, or any democratic legitimacy for these organisations or the agreements that are signed under their aegis. So securing public consent for uncomfortable decisions made by these bodies, or at global conferences, remains difficult, and domestic political pressure undermines attempts to coordinate international action.

We've seen that in the UK with our withdrawal from the European Union. Bodies like the WHO and the WTO can be hobbled by their weakest members or their need to keep their funders – nation states – on side. The UN cannot act. The Bretton Woods institutions, set up in the aftermath of the Second World War, are outdated and struggling to adapt. We learnt from the experience of all out war that it was better, in our own direct interests, to set aside nationalism and collaborate. The public, traumatised by war, supported that. But the lesson has been forgotten because none of the current generation of political leaders, and most of the population, were there. So more and more voters are supporting strongman leaders who prefer an oppositional approach to foreign policy where might determines right, jeopardising the rulesbased international system that had prevailed for three quarters of a century.

8. SOCIAL MEDIA

Let me now turn to the five trends that are tipping the balance even further against securing the collective agreement we need to tackle today's policy problems. The first two are linked: the growing personalisation of our economy.

I still remember my first day on Facebook; I remember sending a flirtatious "poke" to someone I rather wanted to ask me out on a date. I was immediately hooked on posting photos, mostly of rather inebriated nights out, and tagging people in. I didn't use Twitter until the 2010 general election, when I got rather obsessed with the #nickcleggsfault hashtag after the leaders' debates in which my boss had trounced his opponents David Cameron and Gordon Brown. In other words: I loved social media when I started using it. I was one of the naive optimists who thought it simply delightful.

But the change in how we connect and consume media over the last fifteen years has been far more profound than I anticipated when waiting to be "poked" back on Facebook. It's changed our lives in countless ways.

The first is the basic and most obvious: we all see different news and information. Power has shifted from top-down systems where a relatively small group of news professionals and content creators create all the news, culture and art we see, to a fully democratised information system where anyone can create, and everyone can choose what they want to read or see, from an essentially infinite supply. 500 hours of content is uploaded to Youtube alone each minute: it would take 82 years to watch the content uploaded in a single day. This has a huge effect on our common perceptions of reality.

As a child I loved the poem about the blind men who went to see an elephant (though its language and treatment of disability seem rather grotesque with modern eyes). One holds the tail and declares the elephant is like a rope; another the ear and says it is like a fan; a third the trunk and says it is like a snake. Why the elephant tolerates these indignities is anyone's guess.

We must not idolise the past. There was never a time when we were all party to a single truth: those elite broadcasters and content creators curated a version of the elephant that was blurry, incomplete and distorted. What's changed is that instead of sharing that blurry halftruth we can find, and connect exclusively to, if we want, huge groups of people who are as invested as we are in arguing that the tail is the only truth of the elephant; who are ready to insult, harangue and abuse anyone who says the elephant is like a fan or a snake; and for whom any attempt by the "mainstream media" to explain the varying parts of the elephant is proof of conspiracy against the truth. Nothing, after all, unites us as much as a common enemy.

One accusation often levelled at the information put forward by your opponents is the Trumpian assertion: fake news. Trump's use of the term was outlandish, given that most of what he accused of being fake was, in fact true, and much of what he claimed to be true, was fake. But that's the essential problem with fake news: it's not so much that we might be tricked into believing something that is false. It's that we might stop believing anything we see is true. Reality can become so fragmented it barely exists. Every claim is met with the demand: pics or it didn't happen, and then when pictures are produced - even with detailed forensic analysis of those pictures like that produced by citizen journalists - the pictures are accused of being fake.

This cycle of confusion is exploited by our enemies. Extensive work by Demos has shown the misinformation tactics used by the Russian Internet Research Agency: their goal is to add to the cycle of information chaos. It's a new form of propaganda that does not seek to persuade, only to disrupt. In line with the "Gerasimov Doctrine", named for General Valery Gerasimov, Russia's chief of the General Staff, the objective is to achieve an environment of permanent unrest and conflict within an enemy state.

Not everyone has been converted into a radical by the internet; most people do not abuse others online. Nevertheless, we have to take this fragmentation of realities seriously. When I worked in the civil service, we would often have several meetings between departmental officials to agree on a common set of facts before we let the ministers meet to agree what to do about them. The civil service had long since learned that, if you give even talented, senior decision makers the opportunity to disagree about the facts, they will take it, trying to secure the advantage in the negotiation by destablising the ground on which the opponent stands. So you had to take that tactic away from them, with what often needed to be round after round of pre-negotiation. With the exception of small groups of well-intentioned fact checkers, and the communities moderating a few exceptional sites like Wikipedia and Stack Overflow, there is no-one on the internet replicating that job: working to establish common facts, and common realities between disparate groups.

That's because the economic incentives are driving the internet push in the opposite direction. Algorithms have been trained to capture and hold people's attention, to keep their eyeballs in front of advertising pixels for as long as possible. The algorithms have learned that what works is to take people down rabbit holes towards more and more extreme information: increasingly radical posts, channels and groups. The pathway is the same whether the topic is anorexia, anti-vaccine myths, radical Islamism, or far-right nazi groups. Like all the best advertisers, they manipulate feelings and relationships, to brutal effect.

While they do make efforts to control the worst excesses of radicalisation, and take down illegal content, it's in the social media platforms' interests for people to diverge in their interests. It enables the platforms to provide more and more personalised information about users to the advertisers; the central offer of internet advertising is that - unlike broadcast television or print newspapers - it can be tailored to exactly the right people at exactly the right time. The more the platforms can segment us into categories, the more money they can make - so they will never stop trying to diverge our realities.

The only alternative to pushing outrage is tapping into our envy. Sites like Instagram are panopticons of envy, where we can see and desire every impossible thing. Our wants become overwhelming. Our anxiety soars. Our inability to achieve the lives we see laid out in technicolour before us sucks us into an envy spiral that chews us up and spits us out. Most people think that inequality is rising. It almost certainly isn't, not by any of the measures that count. But our connectedness enables us to experience and witness inequality in ways our brains are not well equipped to handle. The new visibility of wealth, perfect bodies, happy families and sun-drenched travel adventures may cause as much harm as inequality itself.

9. CONSUMPTION DIVIDE

Social media is just one way in which our consumer economy is becoming more personalised. In many ways this is welcome; there's a huge benefit to having a greater range of products and services better designed to meet the extraordinary diversity of human preferences and needs.

Nevertheless, there are consequences. Many markets have pricing structures that allow risks and benefits to be pooled between large numbers of customers. This shifts much of the risk from the individual to the business. Over time, big data is enabling more businesses to offer more personalised pricing – this has long been the case in insurance, where safer drivers paid lower prices. But better data is allowing insurers to identify risk more and more accurately. That's great for those who pay less, who used to subsidise their riskier peers. But it's terrible for those priced out of insurance altogether.

Personalised pricing may make its way into more and more markets; it's possible to display different prices to every customer on a computer screen in a way that is impossible in a physical shop. Where you live, your history of returning products, the numbers of failed deliveries in your area in the last few months, your credit score, your reputation online: all these could be factored into the prices you see and pay.

The shift from physical to online interactions also reduces the interactions you have with other people, whether as a consumer or a citizen accessing public services. No queues, no casual hellos, no rudeness to navigate. Again: much of this is welcome. The computer can be a lot more friendly than the people you meet on a trip to the shops, and they're certainly less likely to cat call you or steal your handbag. People with mobility problems or agoraphobia are far better served by a bot than by a lengthy trip to ask for something in person.

Nevertheless, something is lost.

There's a classic scene in the Full Monty where the unemployed steelworkers start dancing in the dole queue. It's a symbol of their rediscovered dignity and purpose and, while of course it's fiction, there's something important about the fact that it happens at a physical place, where the characters are forced to meet. In today's benefits system, each would have logged into the Universal Credit system from home. No queue. No meeting. No dance.

No-one is going to start a moral panic about this. But it's worth noting, because throughout our history, citizens have had a dose of shared experiences and forced interactions with strangers in consumer and public services. It's happened by default without a single politician ever worrying about it. It's one small weight that's been sitting on our democracy scale, contributing to common identity, that we have always taken for granted.

If, in the future, we all buy different things, from different screens, at different prices; if we rarely have to mind our manners or make new acquaintances simply to get a doctor's appointment or buy a stamp, that little weight on our democracy scale will disappear. Personalisation and digitalisation of public and consumer services are good things, but they are also contributing to the fragmentation of society, which requires a societal-level response.

10. PARTY TRIBALISM

Our political parties have fallen deeply into the personalisation trap.

Online campaigning is one of a series of forces undermining the role of our political parties as social institutions that help to bridge divides. That might sound like an absurd claim: parties are there to divide not to unite - to put forward a case in opposition to the other parties. It is certainly true that a healthy democracy needs at least two political parties, to fight the battle of ideas, generate competition and put pressure on each other to do better.

And yet, political parties do play an important role in bringing together groups of people under a single banner. If you wanted to be in a party with only people who agreed with you on everything, you'd find yourself in a party of one. So parties start the process of compromise and negotiation between different groups and interests in a society. And the core incentive for a party is to get elected, so it ought to be structured to reach out and grow that coalition of groups and interests over time.

When my parents were children, in the 1950s, more than 4 million people - about 10% of the adult population - were members of a political party. The unions to which the Labour party was affiliated

accounted for another 10-15% of adults. Though membership was still a minority sport, these were truly mass movements. Now, after a huge surge in membership under Jeremy Corbyn, the Labour party is now the biggest political party in Europe and yet its membership is a paltry 1% of the UK adult population. The Conservative party is probably less than half that.

The parties say they are broad churches, and certainly both Labour and the Conservative parliamentary parties include representatives of any number of political traditions and ideologies. And yet the party memberships are far less broad than they used to be. As membership has dwindled, the intensity of the relationship between the parties and their members has intensified: the parties are more dependent on getting members up what they call the "engagement ladder" to make more donations, and be more active. So they have to give them what they want.

That's why over the past twenty years, there have been escalating efforts to make our political parties more democratic: to give members more power over policy, over their leader, and over the candidates put forward to the public in elections. All five of the biggest political parties now have a simple all-member ballot to elect their leader. This puts enormous pressure on the candidates for leader to appeal to the narrow interests of their members.

Political parties are now run like any other membership organisation: dependent on the members for both power and money, they are under constant pressure to satisfy the wishes of their members, instead of the voters at large.

David Cameron tried to break the vice-like grip of the deeply unrepresentative membership of the Conservative party over candidate choice by introducing open primaries, in which any interested member of the public could have a say on who they wanted as their Conservative candidate. The experiment died, because it undermined the power of the constituency association - a power those associations were not willing to surrender. On the Labour side, centrists have had to fight tooth and nail against "mandatory reselection" in which every Labour MP would have to face their members before every election, and ask to be chosen again. All the pressure is for more power for members, and those members are increasingly tribal. The MPs they want are those like Laura Pidcock who say they could never be friends with someone in the opposing party. The traditional role the parties had in building bridges between different groups has long gone.

Meanwhile, digital campaigning is fragmenting the relationship between parties and voters. Not long ago parties had three or four party political broadcasts to set out their vision for the country, broadcast on channels that everyone watched. The lawyer saw the same broadcast as the care worker, the voter in London saw the same debate as the voter in Clacton or Crewe. Leaflets in different constituencies, or to different voters, might have been targeted to a particular area. But the simple cost of production and delivery meant that most people saw broadly similar campaign literature.

Online campaigning has changed this entirely. Suddenly, each and every one of us sees a message directed to us and personalised to our interests, especially if we are in a swing seat or a swing demographic. Archives of political advertising from the last few years include messages about fishing policy, flood defences, bull fighting and protecting polar bears. These issues might well be important to some of us, but would never have made it into a 3 minute segment on the BBC. This new era talks to a politics that really works for you. The problem, of course, is that democracy is not, at its heart, about getting what you want. It is not a transactional relationship; the personalised sales techniques that work for finding you the best tap for your kitchen add up to a fundamental overpromise when it comes to democratic commitments.

Our political parties have trapped themselves in an impossible position, trying to balance competing and impossible promises made to their own tribe, and a plethora of atomised tribes of voters, while only being able to govern once.

11. LIBERALISM

We are all individuals, but we are not only individuals. In the previous paper in this series I look at how societies build solidarity between people. Here, I want to discuss the role that liberal ideology has played in dismantling too much of that solidarity, mostly by taking it for granted. In the song, You Don't Bring Me Flowers, Barbra Streisand and Neil Diamond tell the story of a failed relationship. "You don't bring me flowers," Streisand complains. "You hardly talk to me anymore, when I walk through the door at the end of the day," Diamond replies. I like it as a reminder of the simple truth about why we do nice things for other people: it's because we care about them. And it doesn't happen by accident.

It seems relatively natural for most of us to feel a bond of kinship with our families, including our extended families. Ed West, the writer, has called this "natural conservatism": a tendency to want to do right for your relatives, to support them, perhaps to build and pass on the family home. The family as an institution of mutual support has been proactively encouraged and supported, however: we haven't just left it to our natural instincts. That's why marriage was created and fostered as an institution, with legal obligations on both sides; it's why transfers of labour and property between family members usually go untaxed; it's why the right to family life is actively protected in human rights law.

Caring about people beyond your extended family takes a bit more work. Anthropologists seem to agree that our tribal ancestors tended to live in groups of no more than about 170: a bit bigger than a family – more like a clan. Any more than that and it was difficult to foster the relationships and collective spirit needed for effective self-government. As towns and cities developed, groups got larger and the need for strict rules and enforcement grew. Many rulers throughout human history enforced rules through brutal punishments. But most civilisations developed a second way of building up support for, and compliance with, laws: religion. Buddhism in China, Christianity in Europe, Islam in the Middle East: religions have historically helped to build a common identity between diverse populations, allowing cooperation far beyond those small tribal or family groupings – and in some cases actively breaking up the ability of families to focus on themselves at the cost of the collective interest, for example by banning cousin marriage.

Secular institutions, too, help to build social bonds beyond the family. Institutions can be created by nation states, by families, or by any group of people coming together to establish a framework for cooperation. Labour unions, universities, corporations, cooperatives, sports teams, professional associations, charitable organizations and even broadcasters, in the case of our own BBC: all fill a similar role of binding people together, and establishing rules that all agree to follow. Over time that shared participation contributes to a shared sense of identity.

Every one of these four frameworks for solidarity – the family, religion, nation states, and institutions – is in some form of trouble, and in large part because, over the last 200 years, liberals developed a series of important critiques against them. All essentially operate coercive and restrictive influences on human behaviour. Every institution risks acting in the interests of the institution itself rather than its members or community.

Religion has been, and still is, used to justify oppression of individual sexuality, gender, and freedom. Nationalism has been used, and was used ruthlessly by nation states throughout history, to motivate young men to serve their leaders' interests in war, and to persuade women to let them go. Many of those wars were important; many were not. Love of country and pride of homeland can be easily corrupted into jingoistic narratives of national superiority, often but not always associated with race. The wars of the 20th century proved how national myths could be used to waste lives. Religion can be used to drive hatred of others, too: from the crusaders' efforts to capture Jerusalem for Christianity a thousand years ago to ISIS' attempts in the last decade to ethnically and religiously cleanse Syria, Iraq and beyond.

Labour unions put their leaders into positions of political influence where they can often be distracted by power games and neglect the interests of their members; and like all institutions they protect members against not just their powerful foes, but marginalised outsiders, too. Sports teams can extract huge profits from their captive fans, and in the past tolerated a culture of hooliganism and inter-team violence. Media institutions can offer a restrictive, narrow perspective on the truth, and become too embedded with power to challenge it. Families can be places of coercion too: violent abuse, repressive identity and conformist expectation.

So liberalism is right in its critique: governments, religions and institutions are not just benign. They often use harmful techniques for holding groups of people together, and boosting their sense of shared identity or destiny. These include controlling access to information through censorship or regulation; brutal enforcement of rules and the ostracization of apostates; reinforcing group identity by starting or escalating rivalries with others.

It is liberals who made the case for a wider version of group identity: humanity, to disrupt the harm caused by malign institutions, aggressive nation states and repressive religions. Gladstone used the word "savage" to describe the people of Afghanistan, a word we would be disgusted by now, but he at least had the insight to see the word for what it was - an orientalist perspective - when he said in 1879:

Remember the rights of the savage, as we call him. Remember that the happiness of his humble home, remember that the sanctity of life in the hill villages of Afghanistan, among the winter snows, is as inviolable in the eye of Almighty God, as can be your own. ... Mutual love is not limited by the shores of this island, is not limited by the boundaries of Christian civilization, that it passes over the whole surface of the earth and embraces the meanest along with the greatest in his unmeasured scope.

These ideas are reflected in the human rights movement that dominated western political thought after the Second World War; in efforts to create an international rule of law; in current debates about the legitimacy of national borders; and in calls for development aid from richer countries to poorer ones. Every nation has other nations it can fight; every family has other families; every religion other religions. The only way to prevent this instinct to "other" our enemies was to focus exclusively on our common humanity.

But it's worth observing that Gladstone used a religious construct to establish the principle of common humanity and mutual love. He leant on one institutional framework to challenge another.

You don't need to dismantle religion to challenge harmful nationalist narratives of superiority; and you don't need to dismantle patriotism to challenge the restrictions that many religions put on human freedom - to love whomever or live how you choose.

And yet that is where many liberals have ended up. Liberals have been fighting for freedom against a series of forces that held people together, but as we saw above, those forces have been dissipating as our economic, social, and political systems grow ever more personalised and fragmenting. All the effort we have put into disestablishing the institutions and frameworks that have held us together rather took those institutions and frameworks for granted. It's like a game of tug of war, in which it's vital to pull hard while your opponent is pulling hard in the opposite direction. If they let go, all the force you're applying means you fall backwards.

Our institutions have been neglected because on the one hand, the liberals who dominated politics found them awkward and uncomfortable, while conservatives thought the point of institutions was that they should be fixed and unchanging. Instead of a steady process of institutional reform and innovation, we have stagnant, unresponsive institutions almost powerless against iconoclastic forces of the populist right and left.

While liberalism as a political agenda may have crashed, I remain convinced that its central ideology remains the correct, indeed only, way of creating a broadly stable society of diverse, free and equal citizens. Individuals matter and the collective will can be an oppressive force whether it is exercised by the state or by social means from peer to peer, community to community or even within the family. Liberal social policy has given people freedom to express their true identity, and live their lives as they choose, in a way that has brought joy and opportunity unknown by previous generations.

And yet freedom without connection and relationships with others is not freedom: it is our relationships and connections that make us fully human. The African concept of Ubuntu is a compelling one for liberals to consider, described by Sabelo Mhalambi, a fellow at the Harvard Berkman-Klein Centre for Technology, as "an alternative concept of personhood." As Mhalambi puts it:

"Ubuntu says 'a person is a person through other persons'. That means that people are only people through recognizing their interconnectedness to others, the rest of humanity. It doesn't mean that the community overpowers the individual. The community has to allow the person to be an individual. But not too far away, not too distant. That requires honouring the context of others." By failing to consider the vital importance of relationships in our lives, liberalism has undervalued institutions, families, nation states and faith alike. Many have assumed or hoped that the simple bond between all humans - our common humanity - would be enough to foster collective action and solidarity. But in the absence of healthy, inclusive institutions, people do not disaggregate into pure, atomised individuals: they simply self-organise in other ways. Without inclusive institutions, we default to tribalism not universal solidarity, as I will explain below.

12. IDENTITY POLITICS

In the classic novel, Little Women, the heroine Jo March argues for women's suffrage with the following words.

"Men do not vote because they are good; they vote because they are male, and women should vote, not because we are angels and men are animals, but because we are human beings and citizens of this country."

It's the scene in the Winona Ryder version that sticks most clearly in my mind. Jo - Ryder - is with her friend Friedrich Bhaer, struggling to break into a conversation between a group of men. Bhaer - played by Gabriel Byrne - quiets them so she can speak. As a teenager, I felt the line was a complete slam dunk. Women should have the vote because we are the same as men, not because we are different.

But it's not that simple. This question is not resolved by Jo March. Should women's rights be predicated on our sameness from men, or our difference? It's a fundamental question that pierces through the heart of so many feminist debates, to which the answer can only ever be: for both reasons.

Women are, as a group, different from men, as a group. Some of those differences are innate: women are on average shorter than men. Some of those differences are cultural: in UK society women are more likely to have longer hair than men, but there are now, and have been throughout history, societies in which men, too, wear (or wore) their hair long. Some differences are a mixture of the two: women's greater propensity to give up work to care for small children is likely to be a combination of innate preference and cultural expectation. Feminists, philosophers and social scientists will be arguing for generations about this third category: scanning brains and polling women to try to establish the nature of gender identity. But we don't need to worry, here, about when and how those debates are settled. We simply need to observe that group differences exist between men and women for a number of reasons at least some of which will never be eliminated.

Liberal feminism has focused on women's right to be free of the expectations placed on us by our membership of the group. I cannot be free of the obligation to be shorter than my brother, but I can be free of the expectation that I ought to work as a nurse (instead of a doctor), spend my time trying to look pretty (instead of developing my mind), or stay out of politics (and let the men make the big decisions.) Many of these battles have been won, and they've been won on the basis of Jo March's arguments that women are the same. There is still work to do, of course: the gender pay gap, where women on average learn less per hour than men; the under-representation of women in Parliament, the professions, and senior business leadership; gendered expectations about women's appearance, and more.

But this is where conservative feminism steps in and points out that women are not just "the same". Women are also different. The gender pay gap is widened by women spending more years out of work, caring for their family members, for example. Conservative feminists would argue that this is a natural phenomenon, and you do not need to believe that women should stay at home for a decade to agree with them that there is a difference between a birthing parent, with the biological ability to make milk for their infant, and a non-birthing parent. Most people would agree that difference persists for at least a number of weeks, even if it doesn't last beyond infancy. It is not exclusively a cultural phenomenon that more women choose to stay at home with their children than men do. Liberal feminists might be able to tilt the system further and further towards shared parenting and equal opportunity to do paid work outside the home - but there will never and should never be total equality in early parenting.

This is just one example of an alternative feminist narrative built around the irreconcilable differences between men and women. Women are naturally caring; our society does not value caring, it only values economic activity in the paid economy; this therefore puts women at a disadvantage. Feminism should be about equalising the power and rights afforded to women as carers, not in freeing women from their natural status as carers.

A similar debate is had, even within the paid economy, about occupational segregation, where women end up dominating low paid professions like hospitality, retail, and caring, while men dominate the highest paid sectors of computing and banking. Is this the patriarchy undervaluing the things women are naturally good at? Or is it the patriarchy keeping women out of the sectors that matter, even though they'd be just as good? Should we be paying carers and retail workers more? Or should we be training women to be good at computing and banking, and breaking down barriers to get them into those jobs?

Most people will be tempted to answer, as I did a few paragraphs ago, that the answer is both. We should desegregate occupations, but we should also accept that there are some professions that will always have a gender tilt, because more women (or men) are good at doing them. But before we settle down comfortably with the answer - a bit of both - we need to hold open the tension between "sameness" and "difference" because it's a central problem for liberals faced with the rise of identity politics.

I have started with women, and feminism, because I am a woman. I've helped launch a feminist party; I feel confident, partly because of my lived experience of being a woman, that I know what I'm talking about. But the pattern of argument is replicated across a whole range of equality issues, from race to disability. Do we want equality because people are the same? Or because they are different? Increasingly the upper hand is being taken by the second set of arguments.

Liberals have been arguing against racism primarily through the lens of individual freedom: we comfortably cite Martin Luther King and say that people should be judged by the content of their character not the colour of their skin. The focus should be put, liberals would argue, on offering opportunity for people to escape from any stereotyped expectations on them. Discrimination should not be allowed because people are all the same. The differences between "races" are far smaller than the individual variations between people. But there is another way of thinking, in many ways the corollary of conservative feminism, that rejects the idea that we are all the same, and focuses instead on the differences between groups. Critical Race Theory argues for active discrimination in favour of a range of ethnic minority groups in order to dismantle racism: it foregrounds group identity over individual. Liberals often feel uncomfortable with this way of thinking. We've spent a long time arguing (and believing) that people should not be judged by the colour of their skin: now, increasingly, it is argued that we should judge people by the colour of their skin - we should just stop rewarding people for being white.

Identity politics is both born of liberalism and a rejection of liberalism. Liberals fought against the homogenising, majoritarian impulse of national and religious conformity, arguing for the rights of individuals to define themselves as they choose, and live as they choose. This impulse brought us civil rights, feminism, gay rights, and a generational shift towards individual freedom. But liberalism has its own homogenising force.

To say that we are all the same is often to devalue the very things that make us feel the most like ourselves. To say that we are all the same is often to erase the very diversity that prompts creativity and innovation. And too often, saying that we are all the same means pressuring people to be the same as the majority population, but never asking the majority population to adapt.

People's experiences and identities shape their experiences profoundly, and an inclusive democracy must enable people to bring their full selves to their role as citizens. Freedom or tolerance were not enough: marginalised communities, quite rightly, demanded the right to be proud of who they were, and proud of their differences.

These arguments stem from a real truth. Liberal anti-racism was not, by any stretch of the imagination, a finished job. Millions of people in the UK and around the world are still comfortable expressing directly racist opinions or making judgements about people on the basis of their skin colour or perceived religion. But even if the work of eliminating prejudice were complete, Critical Race Theorists would have an important point to make. There are many structural disadvantages faced by people from ethnic minority backgrounds that go beyond individual discrimination in ways that it's very hard for individual women to escape from.

In his dystopian novel The Rise of the Meritocracy, Michael Young warned that a central danger of meritocracy was that the definition of "merit" would inevitably be one that advantaged those already in power. Academics and power brokers would define talent as being good at academics and power broking and create systems that rewarded people with those traits.

At the moment, we measure and reward many characteristics that are much harder to achieve if you grow up in poverty. If schools in poor areas are worse, and mostly Black people live in poor areas, then disadvantage is baked into the next generation. If it's easier to get a job when you speak received pronunciation, and Black kids are brought up speaking vernacular English, then Black kids are at a disadvantage in the labour market.

These group characteristics may not be innate in the way that women's preferences for caring roles may be; in fact it is hard to find any evidence of innate differences in capabilities between races as groups. Nevertheless, even if the genetic differences between Black and White children are confined largely to pigmentation, that doesn't make their lived experience or cultural preferences (on average) any more similar. As with women, it is right to think beyond freeing individuals from prejudice, and to think also about tilting the system to remove structural advantages for particular ways of being that just happen to be the natural inheritance of White, middle class men.

Identity politics has grown in strength because of legitimate outrage that this is not happening fast enough, if it is happening at all. We know that the costs of technological, climate, and demographic transition will not fall evenly: particular groups of people in particular industries and places will face disproportionate costs, and there is clearly a generational effect, too, between different age groups whose experiences will be very different. Many of the impacts of this inequality will fall along racial lines, as they did during the pandemic.

So if the anger is reasonable, why is identity politics a problem, not a solution? It's because we are most likely to compromise and collaborate

with people we feel a shared identity with. Identity politics finds strength in its enemies: the group pulls closer together the stronger its narrative about its opposition. Because identity politics focuses on the differences between groups, instead of our common humanity, it makes it harder to build trust and common purpose between groups. These are self-reinforcing problems. The greater the injustice, the easier it is to mobilise a factional identity; the more factional our politics, the harder it is to resolve the injustices.

It's no wonder the arguments once used to foreground the importance of identity and lived experience among marginalised groups are now being used to organise against those groups. This tactic has been deployed to facilitate the rebirth of white nationalism, Men's Rights Activism, and Islamophobic or anti-Semitic discourse.

This can only be overturned by a shift away from group identities as the major dividing lines in political debate. This will inevitably be a balancing act: we cannot and should not seek to erase the diversity of human experience from our political discourse. But the best way to build empathy and understanding between diverse groups is to focus on what unites them as human beings and as citizens in a society. A politics obsessed with our differences will build only enmity. A political conversation framed around culture, identity and political tribalism is not one that can succeed in building consensus for the transformative policies needed to confront the challenges our society faces. In the end, progress for marginalised groups has always been secured by focusing the attention of the powerful on what we share: forcing them to accept the rights that accrue to all of us, because of our shared identity. It is acceptance of our common humanity that grants us the right to be different.

Our identities are vital to the meaning of our lives. They are complex, shifting, and diverse. Nobel laureate Amartya Sen wrote in his book Identity and Violence:

"I can be, at the same time, an Asian, an Indian citizen, a Bengali with Bangladeshi ancestry, an American or British resident, an economist, a dabbler in philosophy, an author, a Sanskritist, a strong believer in secularism and democracy, a man, a feminist, a heterosexual, a defender of gay and lesbian rights, with a nonreligious lifestyle, from a Hindu background, a non-Brahmin, and a nonbeliever in an afterlife." Every one of those identities – or the many that I, the writer, or you the reader, might list – is important to our lives. At different times, different identities may have primacy. But we shouldn't let that prevent us from noticing that there is only one of these identities which is relevant when it comes to the people with whom we pool sovereignty in our democracy: our nationality. Being British may not be the most important part of my identity, but it's the only vote I get. It's the only government under whose laws I live. And therefore it has a de facto primacy that is simply unavoidable, whether I want to accept it or not.

Women are not self-governing as women. Liberals are not selfgoverning as liberals. Gay people are not self-governing as gay people. We couldn't live like that. We have to form self-governing groups smaller than "the whole of humanity" and we can't only do it with people we like or who look like us, however much more fun that might seem. You have to build some sort of shared identity with your fellow travellers in the nation, simply because it holds the boundaries of governance.

The United Kingdom has an increasingly diverse population. Most people in the UK, myself included, think this is a good thing. However, it poses its own challenges. It shifts us from an easy default in which most people feel a sense of common history and identity with most of their fellow citizens to one where identity is complex, shifting, and contested.

Often people argue for integration as if it is a one-way street: it is for ethnic minorities, or people born abroad, to integrate themselves into homogeneity with white or settled populations. If you believe, as I do, that we benefit from diversity, then you need to take a different view of integration: building a cohesive identity across ethnic, religious, generational and geographic identities is work for us all to share.

It is not, however, work that is happening right now.

FINAL THOUGHTS

I believe that together, these problems and trends put us in a revolutionary moment - but it's one we are in danger of ignoring. It might sound ludicrous to suggest a revolution could take place without people noticing. But one of the most remarkable realities about revolutions is how slowly they happen. One of the most vicious attacks on liberal democracy in living memory occurred this January, when Trump supporters stormed the Capitol building to disrupt the certification of the presidential votes. It was a historic and horrifying event. The accounts from inside the building speak of terror; and in the conflict there were moments of shocking violence, including the death of one Capitol police officer. But when I watch the footage, what shocks me is how pedestrian most of it is. People mill about. They take selfies. They rifle through papers and climb on tables, but they take their time doing so. They amble through broken doors; crowds process slowly down corridors looking for something to do; people wander away looking rather uncertain whether it's over or not.

We've all watched enough movies to know how Hollywood would stage a coup. Fast cuts. High action. Pulsating music. A moving speech by the good guys from the top of a desk, with a loud hailer. Lives saved by a whisker. Falling debris and endless gun shots. It means that when a coup is attempted in real life, it's rather boring. It makes it hard to absorb the significance of what's happening when it takes hours instead of seconds to unfold.

That's why it's easy for us to miss the fact that we are living through an age of revolution. Change is happening faster than ever and even the speed of change is accelerating. Technology is transforming our society, our democracy, our jobs, and our lives as consumers. Climate change is a clear and present danger that could dwarf the impacts of even the Covid-19 pandemic. Our media networks and the ways we access information have been transformed in a generation. Across the west, our populations are ageing, and growing more diverse, creating new social and financial pressures as well as opportunities. Crime and terrorism cross borders at an unprecedented scale. Power is shifting eastward, while the trend toward globalisation is shifting towards regional blocs, which may end up ranged against one another in a new cold war.

And yet, for almost all of us, yesterday was almost exactly like the day before. Even after the greatest health shock in a generation, that has transformed lives with lockdown across the world, more things are the same as they were two years ago, or even ten years ago, than are different.

In Ernest Hemingway's The Sun Also Rises, Bill asks Mike how he went bankrupt. "Two ways", replies Mike. "Gradually and then suddenly." I've heard this same description attached to the process of falling asleep or watching a sunrise, and in John Green's The Fault in Our Stars, the narrator says it's how she fell in love: "Slowly, and then all at once." It's a seductive and familiar way to think about the experience of change. Yet when it comes to political transformation, very often the "all at once" stage never happens. There never is that crystallising moment when night has become day: there's just slow, incremental change that we can ignore almost in perpetuity. Like the boiling frog, we will not notice the impact of change until it is too late.

We need to stop expecting the revolution to feel revolutionary. It's time to pay attention to the scale of change we face, and stop being complacent that a system of government designed for simpler times can cope.

The next paper in this series will look at that system of government and ask if it is working for our times. But here's a spoiler alert: I will argue that the stagnant institutions and bureaucratic processes established in the 19th and early 20th century are no longer fit for purpose in our fastchanging world. The only way to protect and promote democracy, and the liberal principles on which it is based, is to reform it.

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