

**NEXT**  
**LEVEL**  
**CLIMATE**  
**THINKING**  
**AND**  
**ACTION**

# NEXT LEVEL CLIMATE THINKING AND ACTION

CLIMATE  
ACADEMY

## Chapter Ten Social Tipping Points

Draft Version: Jan 2022

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## INTRODUCTION

### Who would have thought it possible?

Look at this image of a New York Street, taken in 1900.



There is a car in there. But it is very difficult to spot.

The same street. However, this picture was taken in 1913.



There is a horse in there, but it is very difficult to spot.

No one walking down that street in 1900 could have possibly imagined that such a radical transformation of New York's transportation system would happen in just 13 years. But it happened.<sup>1</sup>

Now imagine a different street. It is 1st December , 1955.

The city is Montgomery, Alabama.

This time our attention is focused on the National City Lines bus, N° 2857. It is being driven by a man named James F Blake. On board, there is a woman named Rosa Louise McCaulay Parks. She is sitting in a seat that she will be asked to give up, once the bus has no more seats available for white people.

This is the Deep South.

This is the time of Jim Crow laws - the latest tragic episode in the suffering of black people in the USA. Although at the end of the Civil War in 1865, slavery was abolished by the 13<sup>th</sup> Amendment, laws to keep black people in their place proliferated in the South. Racial segregation was enforced on buses and trains, in schools and shops, in restaurants and restrooms, in waiting rooms and at water fountains.

And in this deep South sits Rosa Parks. On a bus, four rows back. Heading home.

The bus comes to a stop in front of the Empire Theatre. The driver James F Blake gets out from behind the wheel, "Y'all better make it light on yourselves and let me have those seats".<sup>2</sup>

She refuses. She is arrested.

Rosa Parks does not know it – but a social tipping point is underway.



The significance of the event will only be clear later. She will be put on trial in four days' time and fined \$10. On the day of the trial 35,000 leaflets will be distributed calling on black people to boycott the buses in Montgomery. A man named Martin Luther King will become the leader of a protest movement that will develop unstoppable momentum.

Between the seemingly insignificant defiance of Rosa Parks on a bus seat on 1<sup>st</sup> December , 1955, and the signing of the Civil Rights Act by President Johnson in a Presidential seat, there was a gap of just nine years.

Who could have imagined such a thing in 1955? There was no reason at all to think that something dramatic was about to shift. It was not the first time Rosa Parks had been mistreated on a bus. She

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<sup>1</sup> *"The Shock of the Anthropocene"*, by Christophe Bonneuil and Jean-Baptiste Fressoz, (translated by David Fernbach). Verso, 2017. This lucid and brilliantly detailed book lifts the lid on so many transformations such as this. Pages 112-116 provide details on the US transportation's rapid revolution to the individual car.

<sup>2</sup> Rosa Parks recognised the driver. A few weeks before, Mr Blake had accelerated away, abandoning her in the rain on the sidewalk. She had bought a ticket onboard, but disembarked because the law required her to pay, get off, and reboard the bus at the back – if she was lucky enough to get there in time.

was not the first black person who refused to move.<sup>3</sup> Indeed, any view on Montgomery, any examination of Alabama and the Deep South, and any wide zoom on the whole of the USA in 1955 only show centuries of deeply entrenched racism. There had been countless acts of violence and defiance, countless moments of ignorance and resistance, and so much hatred matched by resolute stands of solidarity. When Rosa Parks stayed put, it was just another dot in the sprawling scatter graph of black oppression.

Human systems, be they transport systems or social systems are dynamic. As underlined in the previous chapter, they can move beyond critical thresholds and trigger irreversible tipping points. From within, before these points, the concrete realities of the present can look intransigent and impossibly heavy. Who could imagine from here, that humanity will exit the climate crisis with a warming under 2°C? From most angles, political, social, and economic, the transformative change needed looks remote. As Chapter 7 underlined, we only have six years left before the gigaclock counts down to zero for a 1.5°C heating rise, and one \* year before we lock-in a 2°C rise.

We have political commitments happy to tinker with small incremental policy changes, and a media that seems happy enough to go along with that. Yes, there are flickering signals of change in the climate crisis, but there is a serious amount of unenlightened darkness out there.

### **Mamie Till**

The story of the Civil Rights Movement is well known. The marches and the speeches of Martin Luther King are etched clearly into history. The pivotal role of Rosa Parks, the “First Lady of the Civil Rights Movement”, is also well documented.

However, with climate change in mind, if we are concerned to find the most informative character in the dramatic social transformation of American society in this period, then there is another woman who demands our attention: Mamie Elizabeth Till-Mobley. The sudden vault of American society towards greater justice was triggered by her bold decision to have her son’s coffin left open at his funeral. She “wanted the world to see what they did to my little boy”.<sup>4</sup> Her story illuminates the utterly improbable nature of the social change that happened from 1955 with much greater force.

These are the details.

### **Lynching**

For reasons that are absurdly skin deep, violence and hatred had become so normalised that it had become shockingly common for black people to be lynched. These convulsions of repellent mob violence started with arbitrary judgements against a black victim, usually accusing them of a sexual crime. After rumours were spread, the person was seized, and a public torture used to take place that would usually finish with a burnt corpse hanging idle from a tree, “swingin’ in the Southern breeze”. For example, in 1931 Maryville (Missouri) Raymond Gill was set alight in front of an

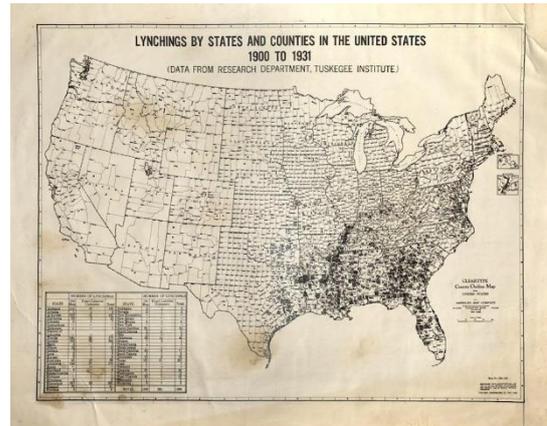
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<sup>3</sup> Bayard Rustin (1942), Irene Morgan (1946), Lillie Mae Bradford (1951), Sarah Louise Keys (1952) had refused before Rosa Parks. And Claudette Colvin, Aurelia Browder, Susie McDonald and Mary Louise Smith refused after Rosa Parks – these four women won the lawsuit *Browder v Gayle* in 1956 which affirmed that bus segregation was unconstitutional.

<sup>4</sup> Recollection by Joyce Ladner of conversation with Till's mother, in the context of a Brookings Institution panel discussion on the Civil Rights Movement Archived 2010-06-06 at the Wayback Machine

audience of 2000-4000 people. This act was made possible by the slack responses of the local Sheriff.<sup>5</sup>

The systemic, background abuse against black people had been punctuated 3,446 times by such grotesque lynchings<sup>6</sup>. They functioned like symbolic rites, where all the mad disgust and grievances of a community were unleashed. A 1930s editorial in the *Raleigh News and Observer* noted, "Whole families came together, mothers and fathers, bringing even their youngest children. It was the show of the countryside – a very popular show. Men joked loudly at the sight of the bleeding body ... girls giggled as the flies fed on the blood that dripped from the Negro's nose."



After celebratory picnics at the scene, charred body parts would often be taken home as trophies, souvenirs, or relics, depending on the macabre psychology of the attendees. The arresting song, "*Strange Fruit*", sung with formidable power by Billy Holiday and Nina Simone, is a song that captures the savage ugliness of these lynchings with a haunting directness and strength.

**"Strange Fruit"**

"Southern trees bear a strange fruit  
Blood on the leaves and blood at the root  
Black bodies swingin' in the Southern breeze  
Strange fruit hangin' from the poplar trees

Pastoral scene of the gallant South  
The bulgin' eyes and the twisted mouth  
Scent of magnolias sweet and fresh  
Then the sudden smell of burnin' flesh

Here is a fruit for the crows to pluck  
For the rain to gather  
For the wind to suck  
For the sun to rot  
For the tree to drop  
Here is a strange and bitter crop

The depth of the peaceful transformation achieved by the Civil Rights Movement, can only be properly appreciated when these marks of trauma have been noted on the social body of America. Rosa Parks sat on the bus in a society that was institutionally, viscerally, formidably racist. It is easy to forget how improbable systemic change must have seemed in 1950s USA.

Indeed, the whiff of this "*Strange Fruit*" was particularly pungent in 1955.

In a town called Money (Mississippi) a young boy, of only 14 years old, had been lynched. His name was Emmett Till. What was Rosa Parks thinking of when she refused to move from her seat on that bus?

The answer is, Emmett Till. "I thought of Emmett Till, and when the bus driver ordered me to move to the back, I just couldn't move".

A brief sketch of his case will demonstrate why.

**Emmett Till**

<sup>5</sup> Lawrence O. Christensen (1999). "*Gunn, Raymond*". Dictionary of Missouri Biography. University of Missouri Press. pp. 359–360

<sup>6</sup> <http://archive.tuskegee.edu/repository/digital-collection/lynching-information/> In total 4,743 were lynched (3,446 African Americans, 1297 whites) between 1886 and 1962.

Emmett was an effervescent 14-year-old black boy. He had left his mother in Chicago to go on his cotton-picking summer visit of 1955 to the Deep South. The town where his cousins lived was called Money (near Mississippi). It was outside their local store where Emmett, a naïve city boy from the North, allegedly wolf-whistled at a white woman, Carolyn Bryant.

The details are obscure, but the ending is not.

A few days later, on 28th August, Emmett was kidnapped in the middle of the night, taken away in the back of a green pick-up truck, brutally beaten and shot. His skull was in bits. A bullet had delivered its explosive violent load with shattering force. One of his eyes was out its socket; and his naked body was bloated because he had been dumped into the Tallahatchie River - with a 35kg metal fan blade fastened around his neck with barbed wire.

Upon receiving his body back in Chicago, his mother, Mamie Till, took the courageous decision to leave Emmett's brutalised corpse in full view at his funeral. Those who saw the photo in *Jet Magazine*, or *The Chicago Defender* on 15th September never forgot it.



On 23<sup>rd</sup> September, an all-white jury acquitted the two men who murdered him - after just 67 minutes of deliberation. A juror commented, "If we hadn't stopped to drink pop, it wouldn't have taken that long." The sticky summer heat of the courtroom was noted by many reporters at the time, but it was nothing compared to the stifling oppression of the *status quo*.

Yet.

That beautiful, but mutilated body in a suit. It was transformative. "Emmett Till's body proved iconic because it could simultaneously express the brutalisation and the dignity of black life. It told them simultaneously what they were fighting against, and what they were fighting for".<sup>7</sup>

Education has been far too tentative in its acknowledgement of the climate crisis. It is unquestionably a difficult topic to handle. But we do not offer our students a 'diet' version of American History because the truth is too hard, we do not manicure aspects of the Third Reich because it could be upsetting.

We should not flinch then with the Climate Crisis.

Mamie Till did not whitewash her son's murder, and we should not greenwash sustainable education either.

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<sup>7</sup> Adam Green, author of "*Selling the Risk*", speaking on the BBC, "*The Ballads of Emmet Till*", Saturday 25<sup>th</sup> August 2018.



CHICAGO DEFENDER

#### BBC – Soul Music

##### *“Strange Fruit”*

<https://www.bbc.co.uk/programmes/b03jb1w1>

#### BBC – Soul Music

##### *“A Change is gonna come”*

<https://www.bbc.co.uk/programmes/b07x2zd2>

### Questions

- At what age should we educate children about tipping points and systemic collapse?
- Can education be clear and reliable about the alarming conclusions of science, and yet remain engaging?
  - How?
- What reasons lie behind the slow reaction of education to the climate crisis?

## Main Text

### Facing the truth

#### 1. Schools

Let's be brutally honest, climate education is far too saccharin. It is artificially sweet and has no real nutritional or energy value. Indeed, actual Saccharin ( $C_7H_5NO_3S$ ) does not react chemically with other food ingredients around it, and after the fake high that it provides, there is a bitter aftertaste. For those who have a clear view of the proportions of the crisis, it is truly eye-watering to observe how so few educational initiatives in school get beyond the usual climate change *clichés*.

#### Climate Change Bingo!

Queue Kitsch music.

“Who says that the Climate Academy does not put the *fun* into the fundamentals?”, asks the glittering gameshow host.

“It is time for Climate Change Bingo”, he announces, to the thrill of the studio audience.

This game is open to anyone aged 13 or over. Before that age, it is wonderfully legitimate to increase awareness about the environmental crisis, through every tactile and resonant issue. Unfortunately, the deeper truths about what lies ahead could cause damage to your head and heart. So, enjoy your innocence and freedom, it is profoundly beautiful, like the natural world.

From 13 years old, because your future is threatened by massive systemic failure, you have the right to know what is going on. You should be equipped with the key competences that enable you to play your role effectively in the positive changes ahead.

**Health Warning** – this game might cause some people to choke.

The reality of Climate Change is an offence to common sense.

### **Equipment**

Any of the following:

- a secondary school website that speaks about its commitment to the environment
- a speech by a school leader, or teacher that addresses climate change
- a letter from the school to the parents about their commitment to a greener future

A pen

2 Climate Change Bingo Cards:

- Greenwash School
- Deep Green School

A tough skin – to raise questions about the *status quo*

A brave heart – to challenge the school to explore much further

### **How to Play**

Take the document, take your pen, and you are now ready for Climate Change Bingo!

The game is simple. Every time you see or hear a word you may colour in the box – either on the “Greenwash” card or the “Deep Green” card.

On the Greenwash card, you win a bio-apple for being the first to colour in the corners. You win an energy efficient light bulb for the first completed line. Fill in the whole grid, and you can put an Eco Friendly School certificate in the front window of your school and on your website.

You probably won't need the “Deep Green” card.

Greenwash School				
Recycling	Waste	Litter	Turn off the lights	Plant trees
Bio Fruit	School allotment	Sustainability	Green	Reduce Plastic
Light bulbs	Vegetarian Option	No Car	Litter	Energy saving
Woolly Jumper Day	Save water	Net Zero	Polar Bear	Solar Panels

Real Climate Change Education				
Tipping Points	System change	The Anthropocene	Catastrophe	Carbon Budget
Critical thinking	Civic Service	Social Entrepreneurship	Exponential	The Great Acceleration
Ecocide	Mass Extinction Events	Climate Justice	Exploratory Thinking	Systems thinking
Consumption	Capitalism	Democracy	Legal limits	Feedback Loops
Planetary Boundaries	Resource Extractions	System collapse	Gigatonnes	Population
Infrastructure	Per capita	Negative Emissions	Overshoot	Human Development



The irony of this little thought experiment is to be taken lightly – but the message a deadly serious one. Of course, every green impulse, every green engagement and plan has a value. It is normal that a school will start with a background ‘greenwash’ to establish a space for the next level of work. However, to simply stop at this most rudimentary background phrase is not OK. We must be brave enough to call it for what it is: utterly inadequate, *without the fuller picture in place too*.

The great Elizabethan songwriter John Dowland wrote lamentingly, “Must I praise the leaves, when no fruit I find?”.<sup>8</sup> His experience of love would have been a good preparation for reading most school policies and programmes on sustainability.

It is a truly daunting and difficult task for any student to invite their school to move into the critical higher gears of climate change education. How do you offer a critique of people’s earnest efforts with the heavy truth that it does not touch upon the main problems? How does a young person speak with authority about such things to people who are far older and who should be much wiser? Schools, like so many other sectors of society, are engaged in so many diverse green initiatives that are worthy of endorsement, but it nearly always pushes away any space to actually get some traction with the core issues.

Any voice that questions a *status quo* that appears to be working will seem painfully shrill<sup>9</sup>.

The same tricky social dynamics are most evidently in play at the annual COP meetings which were started by the UNFCCC in 1995 with one singular goal in mind, “to stabilize the concentration of greenhouse gases to prevent dangerous anthropogenic interference with the atmosphere” (Article 2). Since then, the UNFCCC has promoted myriad promises and a kaleidoscopic range of initiatives – yet they have never eyeballed the central problem, the *accelerating* emissions.

If these meetings have never clearly addressed the fundamental, systemic drivers of the problem, what do we say in response? Do we clap? Do we praise the little, knowing it is not a lot? Chapter 5 has all the details.

In both a secondary school and at COP, and indeed in any situation, the proximity of the tipping points that we face necessitates boldness and clarity in our assessment of what we are actually doing.

Is there a national government anywhere in the world that has an official programme of education that provides a clear view of the depth and dimensions of the problem? It is simply extraordinary that in the face of an existential crisis the scale of which has never been seen before, we have been content to shuffle around various *clichés* and superficial responses without ever facing up properly to the conclusions of mainstream science.



We have left our young people on the brink of an ecological catastrophe by patronising them with mild, fragmented, and incoherent coverage of the situation. And the fact that this paragraph might feel a bit tense or even alarmist to some readers reflects the wider truth that our media and our public leaders have failed to square up to the truth too.

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<sup>8</sup> John Dowland, “*Can She Excuse My Wrongs*” (1597) First Booke of Songes or Ayres (Peter Short, London).

<sup>9</sup> This textbook is written for students, but there is sharp message in here for teachers. The “Fridays For Future” movement, amongst other impulses, has led to the peculiar situation in which students have a better instinctive grasp of an issue; sometimes are they also better informed. We need to stand alongside them. As teachers, we need to help them speak and innovate with the necessary tact, urgency and strength.

The mother of Emmett Till could have turned inward in her grief. She could have shrunk away from the world. She did not need to invite the photographers in to capture the raw pain and trauma experienced by the community connected to her son's murder.

Yet, she was open, courageous, and unflinching in her response.

And what did she do after all the media had moved on?

The answer is that she committed herself to education about the civil rights movement. She boldly carried her experience on the *long* walk.

## 2. The Media

### The Overton Window

The dangerously cropped view of climate change that is offered in schools is mirrored by the continued poverty of the media coverage of the crisis. The long failure of education to present the full truth of our situation leads inevitably to a limited and pithy view of what is going on above our heads. It is not surprising to find that the general public seems to have little sense of the proportions and the depth of the situation we are in. In the absence of an informed and engaging educational input into the public space, the *status quo* will surely remain entrenched on its fast track to collapse.

The paucity of the general framework of understanding held by many people and mirrored by the media coverage was illuminated by one comment made in the build-up to COP26 in Glasgow. This (delayed) meeting was proudly hosted by the UK who claimed at various points before and after that they were a world leading nation in the fight against climate change.<sup>10</sup> On 27th July, four months before the conference, the UK government's climate change spokesperson Allegra Stratton took to Twitter: "Could not rinsing the dishes b4 the dishwasher be your #onestepgreener ahead of COP26?". Adding, "And if that is too hard a habit to kick. Pick something else".

It is difficult to know what to do with this statement. It strikes right to the heart of the problem that has beset our response to the climate crisis for decades. Individual. Superficial. Pitiful. Is it even possible to think of a more insignificant action? And then, to have the audacity to offer an alternative if such a level of commitment might prove too much.

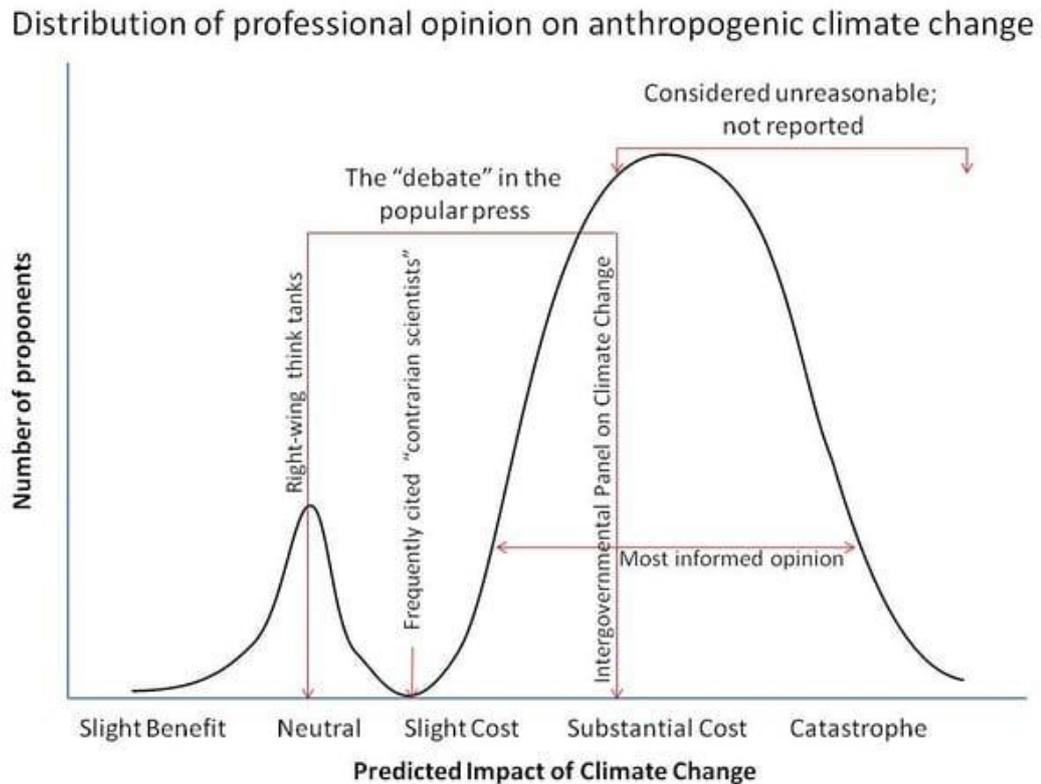
This statement triggered a nauseous sense of vertigo. It either signalled a breathtaking level of ignorance by a high ranking government official from a G7 nation, or it was a breathtaking example of corruption - where fossil fuel interests use their direct or indirect power to distract the public from systemic reform structural questions, and guide the governments' narrative line. Who knows?

Either way, there is no good way to look at it. Tellingly, Allegra Stratton was a former political editor for "Newsnight", the BBC's flagship news programme. Indeed, the BBC is a broadcaster with a global reputation for reliability and depth that counts many graduates from Oxford and Cambridge amongst their staff. Indeed, Stratton is an *alma mater* of Emmanuel College, Cambridge. It is absurd that advanced economies have such a reckless level of ecological illiteracy at the highest places in their society.

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<sup>10</sup> <https://ukcop26.org/uk-presidency/uk-climate-leadership/>

To help get a mental map of the current gap between culture and reality, it is informative to look at the image below. This chart provides an approximate sketch of the situation that exists when the scientific knowledge and the media coverage are superimposed onto each other.



The lines and curves that are drawn in this image<sup>11</sup> are not based on a statistical study, but people familiar with climate change at a decent level will recognise its basic accuracy. In the chart, the “Most informed opinion” represents the science stated in the earlier chapters of this book. The reason for the spread of the informed opinion is that the climate system is so complex, and it is therefore very demanding to work out how quickly all the different mechanisms will interact, and on what timescale. Just to be clear, the word “catastrophe” refers to the collapse of ecological systems that human life depends on, and the “slight costs” would be the various natural disasters that have already killed millions of people and caused trillions of dollars of economic damage.

Of course, the advantage of such a broad zoom here makes it implausible to connect the lines to a set of data or results. Yet despite all the numerous variables that lie behind this sketch of the predicted impacts, the overall image remains informative.

### A disjunction

The ‘box’ that depicts the range of “debate in the popular press” has a technical name, it is known as “The Overton Window”. The media might touch upon some of the substantial impacts of climate change, but most commonly they are individual weather events that are tagged as “possibly” related to climate change by “some” scientists.

<sup>11</sup> by US scientist Michael Tobis

For example, the BBC 6pm “News Tonight” programme (17<sup>th</sup> January 2022) ran a short feature<sup>12</sup> to explain what an average temperature rise of 4°C would look like for the United Kingdom: “Infrastructure: roads, sewage systems, power stations will struggle as storms, draughts, floods and heatwaves become more frequent and intense. How health and productivity will suffer, farms will struggle to produce as much food, and the supply of food from abroad is likely to be disrupted. ... But the good news is that today’s report finds that investing and protecting the country from climate change is good value, with every pound invested delivering up to 10 times that in economic benefits. But we all need to begin to make these investments now to be ready for the coming storms. Justin Rowlett, BBC News”.

Compared to the mainstream scientific consensus, this ‘Overton Window’ is pushed far away to the side, towards the idea that the impacts of climate change are neutral. Sometimes this box is called the ‘Discourse Window’, because it describes the width of a debate that is permitted for any political issue.

A more detailed view of this window looks like this:

More Freedom

Less Freedom

Thinking more widely than the climate crisis for a moment, in the 18th century, a vote for all women would have been an unthinkable policy. Likewise, the abolition of slavery would have been unthinkable for some and radical for most. Now they are both considered as commonsense policies.

Moves like this along the Overton window can take centuries, but sometimes the cultural shift is very sudden. For example, who would have thought that LGBTQ+ rights<sup>13</sup> would have shifted so dramatically in the last few years? The intransigence over LGBTQ+ seemed so webbed into some general cultural assumptions about what was ‘natural’ or not. The taboos were so imposing, and there were so few signals that major change could occur for so long. Yet, in the end, the media shift in attitude happened, and the new framing of the issue swiftly cascaded into most levels of society.

Even more rapidly, after the Fukushima disaster in 2011, there was a dramatic swing in public perception against the merits of nuclear power. This did not only occur in Japan. Germany suddenly decommissioned its nuclear power stations (and much of the energy gap was regrettably taken up by coal).<sup>14</sup>

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<sup>12</sup> The feature was in response to the publication on that day of the “*UK Climate Change Risk Assessment 2022*”.

<sup>13</sup> And all the different variations on that base.

<sup>14</sup> There are many different data sources to confirm this, but perhaps it is most informative to note that despite its reputation as a modern economy, coal was Germany’s primary energy source in 2021. [https://www.destatis.de/EN/Press/2021/09/PE21\\_429\\_43312.html](https://www.destatis.de/EN/Press/2021/09/PE21_429_43312.html)

In the chart there is a small bump entitled, “Rightwing think tanks”. Even though it has nothing at all to do with science, it has been very influential in pulling public discourse away from reality. These think tanks have flooded the media with content and messages that just function as a fake news distraction. The most notable example of this has been the influence of the ‘Kochtypus’, a massive sprawling network of manipulative power headed by the billionaire brothers Koch. The tentacles of their investments extend into so many areas of the United States’ cultural and political life. Their shared wealth<sup>15</sup>, totalling well over \$100bn, primarily came from investments in the coal industry. Their shared determination to protect that wealth has been formidably successful.

QR Code - Kochtypus

For decades, ‘doubt’ or just simple lies stalled governmental policy changes. It is worth looking at all the subtle and not so subtle ways in which the Kochtypus has operated. Its behemoth project illustrates the systemic problems that confront those who want to push the Overton Window towards the truth.

### **A new Overton Window**

Yet.

Is it that difficult to image a world in which the framing of the media coverage of climate change flips to acknowledge the problem squarely?

There is a massive latent energy and capacity stored up in people’s concern for their world. The problem has been that this anxiety and interest have simply not been given many appropriate channels of expression, because the media has kept climate change inside such a constrained window of thinking and action. Billions of people make very committed efforts for the sake of the climate with a genuine motivation to make a difference. Billions of people have a strong emotional investment in the preservation of the natural world and have a profound concern for their children’s future and the future of their communities.

Indeed, it is even conceivable that the strongly conservative media could flip to move in line with the mainstream science. This is because, fundamentally, climate change poses a devastating affront to people’s rights to life, and a right-leaning audience has key concerns about property, shelter and security. Proper coverage of the crisis would also illuminate the huge risks to global markets and would highlight the costs of mass migration.

In fact, there is quite an ironic truth about the influence of neo-liberal thinking on climate reporting. This odd twist is due to the fact conservative think tanks and personalities are committed to the guiding hand of the free market and are against government subsidies. Yet, the figures for government spending to protect that fossil fuel industry are staggering – and far outstrip the spending on green investments in infrastructure. ‘Big Government’, often portrayed by those on the political right as an unwelcome intrusion, is doing a Big Job of propping up the old energy systems.

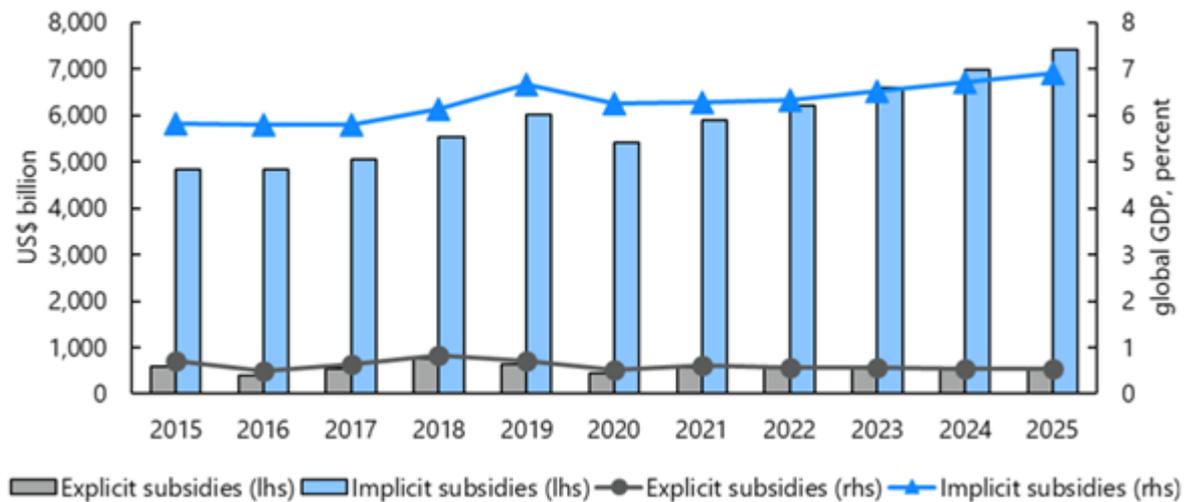
In 2021, IMF research estimated global fossil fuel subsidies at about \$6 trillion, with about 70% from “under-charging” for the environmental costs associated with the fuels<sup>16</sup>. In 2015 the subsidy was worth \$5.3 trillion, and in 2017 an estimated \$5.2 trillion. Viewed from another angle, these figures mean that public money is being used to destabilise the future at a rate of over \$10million every

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<sup>15</sup> Since David Koch died in 2019, it is more accurate to speak about the Koch family fortune.

<sup>16</sup> <https://www.imf.org/en/Topics/climate-change/energy-subsidies>

minute of every day. There is a graphic reminder of the cost to real GDP below – in 2021 it was over 7%.



The first time the IMF researched the true cost the subsidies in 2015 the lead author, David Coady commented, “When the [5.3tn] number came out at first, we thought we had better double check this!”. But he affirmed that the broad picture they established was “extremely robust. It is the true cost associated with fossil fuel subsidies”. Vitor Gaspar the head of the IMF’s fiscal affairs commented, “These estimates are shocking... Energy prices remain woefully below levels that reflect their true costs”. These thoughts are echoed by Sir Nicholas Stern; “This very important analysis shatters the myth that fossil fuels are cheap by showing just how huge their real costs are.”<sup>17</sup>

### A different kind of ice melt

There is a very fine line between the current perception of climate change and a situation where the penny drops. Anyone who “gets it” about climate change, can sense immediately in a conversation if the person they are talking to also “gets it”. There is a shared sense of incredulity at the limpness of our responses, and a restlessness about getting beyond the *clichés* that tangle so knottily around our feet.



The odd, but uplifting truth is that there are millions of people who do “get it”. It is therefore more than plausible to suggest that the situation that we are faced with in climate change is not dissimilar to the major shifts in social perception in our past.

A tipping point could be close.

Consider the thresholds between different states of H<sub>2</sub>O. The freezing point of water at 0°C marks the line between two utterly distinct conditions. Underneath this level, the molecules are bound together in a compact state; above this level everything is loosened up. They are the same individual molecules, but the external temperature changes everything about the state that they are in. There is a critical melting point. And crucially, that threshold line is wafer thin.

<sup>17</sup> <https://www.theguardian.com/environment/2015/may/18/fossil-fuel-companies-getting-10m-a-minute-in-subsidies-says-imf>

Once the systemic threat to us becomes widely known and accepted, then every major weather event will drive home the point. Given how dumb it is to push the entire natural world into a hostile state, once the Overton Window moves into the right position it would surely be entrenched there for good.

Maybe one day soon, many people will “Look Up”. Or as the soul singer Sam Cooke sang so memorably before his murder in 1964, “A Change is Gonna Come”.

BBC Sounds – *Soul Music*

“A Change is Gonna Come”,

Sam Cooke

## Questions

- Do you think this is a good summary of media coverage and public imagination of the climate crisis today for the country that you live in?
- What types of climate change denial still exist?
- Is “net zero” the new type of denialism?

# Conclusion

## A shock to the system

A panoramic view of the climate crisis still reveals two things with clarity. Firstly, if we look up, the concentration of greenhouse gases in the atmosphere has now broken through the 420ppm barrier for the first time in millions of years<sup>18</sup>. The pace of the *increase* is not slowing down, and yet by contrast what is required is a sharp *decrease*. Secondly, if we look down, the social reality explains why this is the case. For all the good will, and all the heightened rhetoric about climate change, the structural overhaul of our economies and of our hearts and minds has just not happened.

We have not yet reached that point of genuine humility in which such regenerative changes are possible. We have not yet allowed the conclusions of science to interrogate the *status quo* with the depth required. Those who can see the current mismatch between the science and the social facts, struggle to keep both in view at the same time because the dissonance is just too jarring. The Overton Window is still firmly centred in the notion, “it’s the economy, stupid”,<sup>19</sup> rather than “it’s the ppm, stupid”. Those claiming to be ‘realists’ still point at GDP rather than the GHG.

A jolt is needed to push a general concern into a sharp minded focus. This jolt could happen through an external shock. The radically increased level of thermal energy in the atmosphere has led to a sharp upswing in the number and intensity of the violent spasms in nature. Perhaps one of these events will be so destructive and formidable, it will shock our human systems into a new mode of operation. The scatter graph of climate change impacts dictates that these shocks will come. Who knows if one of them will produce the reality check strong enough to break us out of ‘The Rigidity

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<sup>18</sup> This happened in April 2022. <https://gml.noaa.gov/ccgg/trends/>

<sup>19</sup> First stated by the political consultant James Carville in 1992, “It’s the economy, stupid” became the *de facto* slogan of Bill Clinton’s presidential campaign of that year.

Trap’? (See Chapter 12). What counts against any natural shock jump starting a proper level of response is the fact that these events tend to hit hardest in the nations that are responsible for the fewest emissions, not the most, and these nations have a correspondingly lighter influence on global politics, media and economics.<sup>20</sup>

Indeed, waiting for the hand of nature to shunt us in the right direction is an abject response; and is just as inadequate as the wait for the invisible hand of the market to do the same thing.

What is required is agency. We need a systems response to a systemic problem. There are more constructive and creative ways to bring about this kind of Emmet Till moment – where we are both brave enough to look at the truth, and brave enough to demand the whole operating system changes.

This chapter is going to finish by pointing at two triggers that could make this external jolt happen. The first prompts change from the bottom up, the second comes at the problem from the top down. The first revisits the importance of *education*. A major gear shift is needed in climate awareness, as outlined in these chapters, and schools across the globe need to treat the crisis as the emergency that it is. The second offers the chance to get a quick and secure grip on the key infrastructure decisions that must urgently be taken: through *the law*. The establishment of climate change laws based on the latest science of the carbon budget would signal that we are finally serious about the problem.

They are both just acts of common sense that have been absurdly noticeable by their absence for decades. Both, however, hold the potential for triggering the rapid transformative change we all need.



### 1. A proper systemic education.

How many students leave school with a grasp of the systemic understanding of the threat posed by climate change? How many young people have received an education about the crisis that takes them beyond a simple, fragmented impression of the problems? Why do we continue to bore and patronise the older students with the same old environmental *clichés* when there is such an intriguing and complex world out there to understand? How well are we preparing them for the world if we have not informed them about the true depth of the problem and if we have not given them the skills to respond? Why is education not asking itself the tough systemic questions?

Malcolm Gladwell’s influential work, *“The Tipping Point”* (2000) had an important subtitle: *“How Little Things Can Make A Big Difference”*. Let’s not be too modest about the power of education to transform a society, schools are full of “little things that can make a big difference”, so to speak. At first glance, this trigger to bring about a regenerative transformation of society might seem like a longshot because students do not occupy any official positions of power. However, this is to ignore the fact that over 600 million students attended high school in 2022.<sup>21</sup> Imagine the superpower potential that could be energised and mobilised if they had access to a balanced and informed view of the situation.

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<sup>20</sup> Perhaps it is informative to note that despite the increasing frequency and size of mass shootings in the USA (cf. BBC, [“America’s Gun Culture in 7 graphs”](#), 25<sup>th</sup> June 2022, public opinion has not shifted towards tighter regulation of guns.

<sup>21</sup> <https://www.statista.com/statistics/1227098/number-of-pupils-in-secondary-education-worldwide/>

Greta Thunberg put paid to the idea that one person can't make a difference. Yes, she had a gift of clarity, resilience and understanding, but let's not make an unhelpful idol out of her. There are surely millions of other students of a similar age who might offer transformative responses if they were given the chance.

Here is one simple example. Here is Jasper Van Zanten (16), a very modest, open young man who attends the 'Willibrord Gymnasium' in Deurne, The Netherlands. But between May 16-20 2022, he attended the first Climate Academy Summit in Brussels.

After an hour of learning about the science of the crisis on the Monday morning, and then a follow up session about the CUTx numbers on Tuesday, Jasper applied his skills and energy to designing an app. Within 10 days it was done.

Before Jasper the only way to get the vital statistics of the crisis was through an email with a rather heavy pdf. After Jasper, the numbers were easily accessible within seconds to anyone on the planet with a mobile phone. This mobilisation of talent, led to the rhizomatic mobilisation of the numbers, which will have further important effects in helping shift the Overton Window towards the truth.



## 2. The law



With all the diffuse interests and angles to the crisis – from deforestation to divestments, from no-fly to no-meat and with all the myriad scientific areas of research – it can be difficult to believe that there is any really decisive way to get a grip on everything. But there is one. We have the power to affect change at a systemic level, because behind every social and economic interaction there is an invisible but all-pervasive matrix: the law.

If local, national, and international legal frameworks could be put in place to clearly frame the boundaries of our economic plans, then all the details could be settled with the security of knowing that key thresholds in nature would not be crossed. In those nations where there is democratic rule, these details could be settled through all the different organs of the democratic state.

The details will be further explored in the final chapter. The power of the law, however, brings us back to where this whole chapter started: The Civil Rights Movement.

### The Civil Rights Movement

All the protest marches and speeches of the Civil Rights Movement were united in their grief, suffering and anger. However, they were also united in a common goal. And it was the *combination of the two* that made that movement so formidably powerful. The energy generated by the great leader of the movement, Martin Luther King, was not dissipated into different initiatives. It was not a diffuse wave of emotion that changed the racial landscape of America, it was something singular,

and focused. The Civil Rights Movement had a singular objective – the *structural* change that could only be achieved through the law.

MLK unapologetically upheld the values and the vision that were needed to sustain an effective response to the systemic racism that black people had suffered for centuries. His striking skills of oratory managed to billow the sails of movement with strength and courage, but he never lost sight of the final destination for all of the protests and activism: civil rights had to be enshrined into law. “Keep your eyes on the prize” went the famous protest song. Any other gestures made by those in power were considered as a patronising distraction.

In 1963, in the middle of a speech at the Lincoln Memorial, Washington, Mahalia Jackson shouted out: “Tell us about the dream, Martin!” – and he set off on a rhetorical riff that gave the speech its name. These lines about his dream provided the headlines and fixed the key vocabulary of how that moment would be remembered by history. However, before the request by Mahalia Jackson, MLK had been delivering some major points too. It is helpful to read this lesserknown section of his speech with the context of the climate emergency and the recent climate protests borne in mind:

“We have also come to this hallowed spot to remind America of the fierce urgency of now. This is no time to engage in the luxury of cooling off or to take the tranquilizing drug of gradualism. Now is the time to make real the promises of democracy. Now is the time to rise from the dark and desolate valley of segregation to the sunlit path of racial justice. Now is the time to lift our nation from the quicksand of racial injustice to the solid rock of brotherhood. Now is the time to make justice a reality for all of God’s children.”

Throughout his leadership of the Civil Rights Movement, Martin Luther King would never accept small political victories or concessions as something that he was supposed to be grateful for. He refused to accept that the *status quo* was reasonable, and that any progress was some sort of a gift.

He was intolerant of each incomplete gesture towards the systemic problems faced by non-white people in America, even if they were positive steps forward. He understood that the only proper response to their demands for justice was *full equality before the law*. Anything less than that was piecemeal, patronising and fundamentally ineffective.

### **Medgar Evers**

And so finally.

Martin Luther King was the strong face and the resonant voice of the Civil Rights Movement, but , there were many other people with pivotal roles who stood right alongside him. This chapter is bookended by two of them. It started by pointing at the impact of Mamie Elizabeth Till-Mobley; her contribution is too often overlooked. It will finish by putting the spotlight on another character whose fundamentally important contribution to the Civil Rights Movement is not often recognised either.

His name is Medgar Evers.

Like with Emmett Till, his story and his death are revealing.

The Civil Rights Movement was not only a protest movement. It also had a legal backbone. This was sustained by the NAACP (National Association for the Advancement of Coloured People). As well as the decisive breakthroughs in both 1964 (The Civil Rights Act) and 1965 (The Voting Rights Act), they

also put together and fought the Brown vs Board of Education of Topeka in 1954 (successfully argued by the black lawyer Thurgood Marshall).<sup>22</sup>

Indeed, the legal fight led by the NAACP, was just as visceral as the other aspects of the Civil Rights movement. Medgar Evers' commitment and work was a major reason for their eventual success.

Born in the Deep South, as a young boy Evers walked 19 kilometres every day to attend a segregated school. He applied to study at Mississippi State University Law School, but his application was rejected on the grounds of his race.<sup>23</sup> Yet after his graduation in Business Administration, Evers was soon the first field secretary of the NAACP in Mississippi. He organised boycotts and set up many different chapters of the organisation in the state. In 1955, as soon as he had heard about the death of Emmet Till, he got himself over to the location and disguised himself as a cotton picker, in the hope that he could glean some crucial evidence for the case. He also undertook important work in the court case that led to the first black man (James Meredith) gaining entry into the University of Mississippi in 1962.

Having led so many campaigns for desegregation and wider social justice, it was very appropriate that it was Medgar Evers himself who had the honour of being the first African American to be admitted to an all-white hospital in Mississippi.

There is, however, a twist.

Evers was initially refused entry to the hospital because he was black. Although he was eventually admitted, he actually only used up 50 minutes of their time, because it took him less than an hour to die there. In reality, there was nothing much the hospital could have done. His heart had already exploded because a bullet from an Enfield 1917 rifle had slammed through his body.

Evers had been shot as he got out of his car on his driveway; his wife found him on the floor a few metres from the front door of their home. He had done well to make it to 12th June 1963. White supremacists had tried to kill him before: the Molotov Cocktail had not worked (28<sup>th</sup> May 1963) and the car that tried to run him over just missed (7<sup>th</sup> June 1963).<sup>24</sup>

In the end it was a bullet that put a decisive full stop to his paragraph of American history.

Legislative change is powerful, and his opponents knew it.

### **Social Tipping Points**

Human society is, well, human.

This means that things can flip quickly because we have the remarkable capacity for self-reflection. This means that what appears utterly entrenched and permanent in one decade can be gone in the next. Social tipping points have happened throughout human history; they always had countless false starts because of the weight of the *status quo*. However, when they get triggered and new norms become established, it then looks really odd to look back and think that the old paradigm could have lasted so long.

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<sup>22</sup> The NAACP was also heavily involved in developing important networks and co-organising various marches, such as the March on Washington for Jobs and Freedom.

<sup>23</sup> p16, "*The Assassination of Medgar Evers*"; Ribeiro, Myra. The Rosen Publishing Group, 2001.

<sup>24</sup> Evers' life in Jackson (Mississippi) was under such constant threat, that most of the time that he drove home in an area that was heavily populated with members of the KKK, he had police or FBI protection. It is therefore rather suspicious that on the day of his death, no such security was there.

The Civil Rights Movement was one of the most successful social movements of modern times, and it has much to teach us. It is important to remember the 3.5% rule from Chapter \*, and recall the photos of at the start of this one.

The entire transport system of New York was transformed in a decade. The gap between the Montgomery Bus Boycotts to the signing of the Civil Rights Act was just nine years. These time frames are not far off the time frames we have left to exit the climate crisis.