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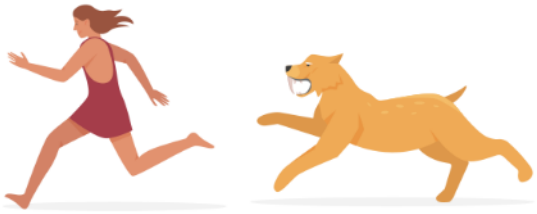
The psychology of climate change engagement: A guide for educators

A few different theories of psychology, mainly in the form of cognitive biases, offer explanations for human inaction on climate change mitigation, on the individual and collective scale. But we can also look at insights from psychology to help motivate us to take action, even if it is small.

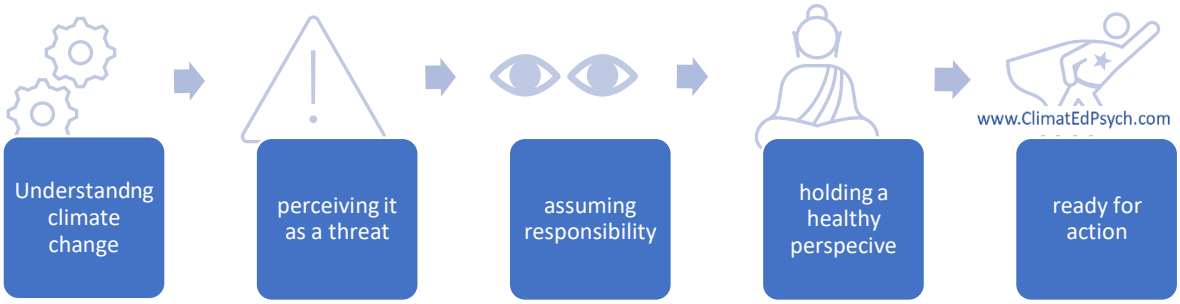
This guide, written by an Educational Psychologist and ex-science teacher, will talk you through some of the things that might help or hinder students and families from getting involved in decarbonisation actions in your setting. Practical strategy recommendations are made throughout.

We like to think we think logically, but we actually make assumptions and thinking 'shortcuts' all the time. These shortcuts in thinking originally evolved to ensure our ancestors' survival by allowing them to think quickly and filter out unnecessary information to avert danger. We didn't want to waste energy thinking and worrying about things that weren't an immediate physiological need. Rather, it was an evolutionary advantage to be on the look-out for predators, to gather resources and be accepted by tribe.



However, when we act on the assumptions and instincts in this 'fast' mode of thinking (Kahneman, 2011), we can struggle to make rational, balanced decisions based on a fair assessment of the information available. What once kept us safe, may now be working against us.

The point is that we all slip in and out these thinking traps which can lead to 'stuckness' or 'denial' of the objective truth. It's important to remain non-judgemental and **understanding** of where different people may be in their engagement with the climate agenda. Everyone's own circumstances and past experiences are different.



Consider the psychological processes that would have to happen before an individual is ready to take action on climate change, defined in this guide as:

1. Understanding climate change
2. Perceiving it as a threat
3. Assuming responsibility
4. Holding a healthy perspective

There are 'thinking traps' or psychological biases that affect human thinking at each stage:

1. (not) Understanding climate change

The scale and reach of the interacting causes and impacts of climate change make it complex, overwhelming and hard to fully grasp. As Time Magazine puts it: 'Climate is Everything'. It is an intangible 'Hyperobject' that 'massively out scales us' (Morton, 2013). It can be hard to know where to begin.

Most people perhaps have more imminently pressing things to think about, such as meeting a deadline, caring responsibilities, or how to pay the rent.

Even if you do choose to engage with the topic, finding the right information is not straightforward when presented with so many different sources.

We tend to seek out comforting news (optimism bias), or articles that agree with what we already believe (confirmation bias).

This can result in the '**echo chamber**' phenomenon, with social media algorithms serving up more of what we seem to be interested in.

The algorithms also tend to expose us to attention grabbing news, even if it is fake. Many trusted influencers may unwittingly share or re-post something without even knowing it is 'fake', giving it more traction.

The growing phenomenon of artificial intelligence (A.I.) generated 'deep fakes', (where voices and faces can be cloned, creating a very convincing video) poses an even greater challenge to spot.

Together, the combination of echo chambers and a mistrust of those outside the 'chamber', high uncertainty and complexity can breed conspiracy narratives. While conspiracy theories can offer a soothingly simple solution to a complex problem, they are known to reduce intentions to act on climate (Jolley, 2013).

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Recommendations: Understanding climate change

Check understanding:

- Ask students what they already know about a topic and idenfity any **misconceptions**.
- Use this as an opportunity to discuss the concept of '**echo chambers**', importance of who they follow, fact checking and the quality of information sources

Relevant curriculum:

- All educators would benefit from protected time to engage in **CPD** to top up their existing understanding of climate science, solutions, geopolitics, climate psycology and climate justice
- Look for reputable information sources, such as those endorsed by the DfE, NASA, BBC, National Geographic or any resource that draws upon the **Intergovernmental Panel on Climate Change** (IPCC) summaries of research
- Where possible, try to link teaching up to the practical involvement in decarbonisation projects, **sharing the benefits and rationale** with students
- Think of climate and ecological crisis as a **spiral curriculum**, with age appropriate information in bitesized chunks given at all stages

Community engagement:

- It will be important to conduct a survey or some community focus groups to understnad the particular **needs of your locality** (e.g. if most people can walk to school or rely on cars). Focus first on projects that improve people lives, or save money in the long run. This can help with engagement and people's williness to learn about projects underway
- **Share information** about any decarbonisation projects and measures with famlies via a newsletter, highlighting the benefits and rationale
- Invite any parents or community members in '**Green Careers**' to come in and talk with students e.g. in assembly

2. (not) Perceiving climate as a problem

Even those that understand climate change can still struggle to perceive it as an existential threat. That is because, according to Harvard psychologist Dan Gilbert our brains have evolved to respond to threats that have the following features:

- **Personal** – a threat from other humans e.g. a pickpocket.
- **Abrupt** – sudden changes e.g. a bomb.
- **Immoral** – things that are indecent or repulsive e.g. violence against a person
- **Now** – happening immediately or could happen soon e.g. losing your job.

So, while the threat of escaped prisioners or terrorism taps into all four features (and therefore affects policy and behaviour), climate change is for many people, a somewhat distant, unfolding problem, not involving any particular perpetrator or amoral 'enemy'.

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We struggle to *feel* alarmed at reports of '400 parts per million of CO_2'. Even if the consequences are dire.

However, climate is now being recognised as an existential threat. The impacts of flooding, drought and wildfires are becoming 'personal', 'abrupt' and 'now' for increasing numbers of people.

The historic 'cover up' of climate impacts by oil giants is increasingly recognised as immoral (Wallis-Wells, 2019).

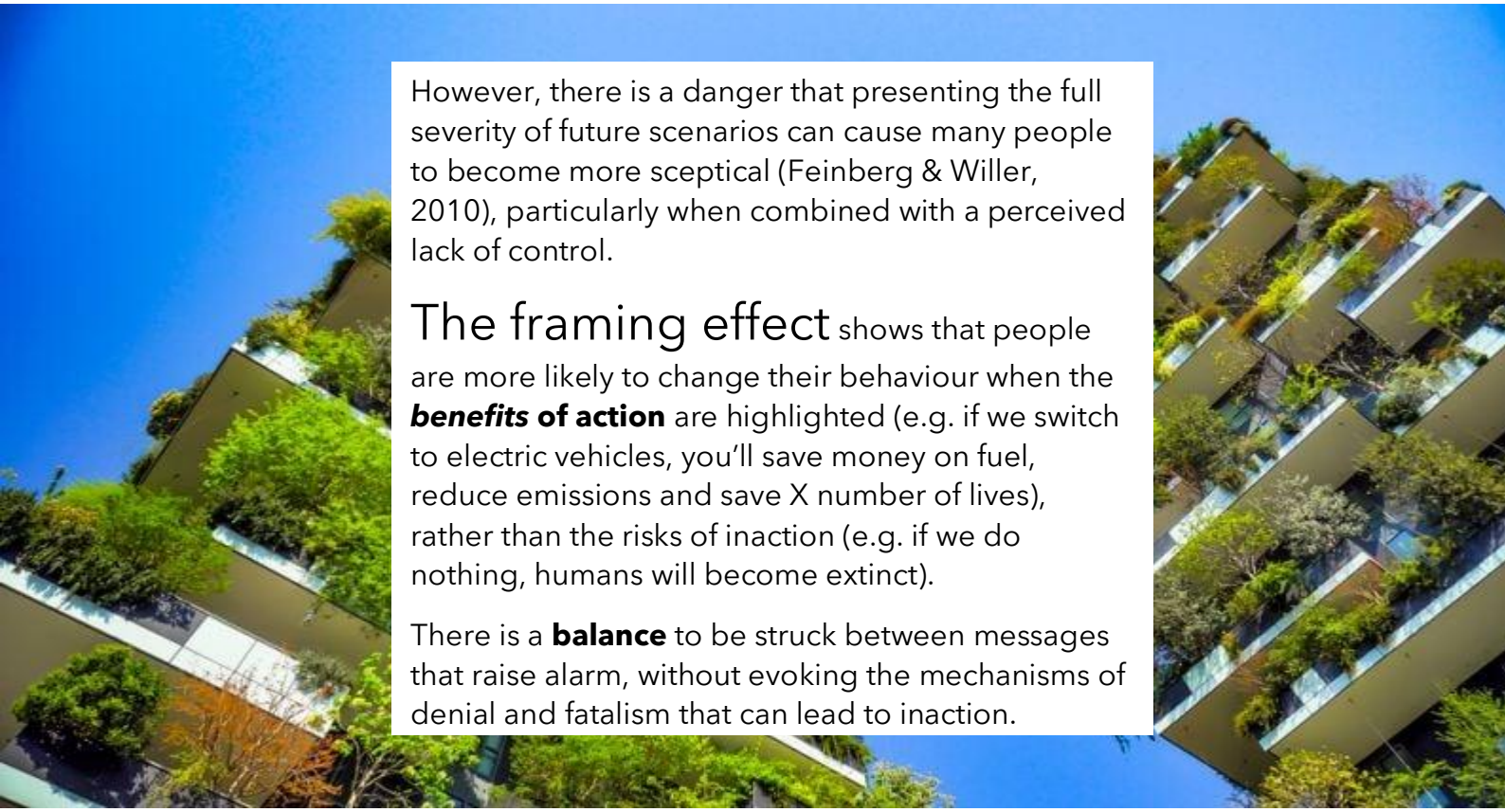
Activists and campaigners perhaps have been successful in highlighting climate change as a threat because they have helped highlight the 'immorality' of some

Another barrier we have with regard to threat perception is our difficulty in **thinking mathematically** (Slovic, 2020). A 2˚C level of global warming does not mean that your 20˚ days will just become 22˚. The seemingly small degrees of warming refer to global average temperatures and perhaps hide the extremes of variability and unpredictability across the globe, as well as ignoring the impacts of secondary consequences (e.g. disease outbreaks, crop failure).

We also have difficulty with an exponential curve. Biases such as 'anchoring' and the availability heuristic (where people are swayed by recently seen and readily available figures) mean that we automatically tend to make linear projections of change.

In other words, we look at the last five years' temperature rise and assume that the next five years will be similar. This is not the case.

The rate of change in temperature is actually accelerating due to interacting feedback systems that reinforce each other (e.g. warmer oceans hold less CO_2 which causes more warming).



However, there is a danger that presenting the full severity of future scenarios can cause many people to become more sceptical (Feinberg & Willer, 2010), particularly when combined with a perceived lack of control.

The framing effect shows that people are more likely to change their behaviour when the ***benefits* of action** are highlighted (e.g. if we switch to electric vehicles, you'll save money on fuel, reduce emissions and save X number of lives), rather than the risks of inaction (e.g. if we do nothing, humans will become extinct).

There is a **balance** to be struck between messages that raise alarm, without evoking the mechanisms of denial and fatalism that can lead to inaction.

Recommendations: Communicating the risk

Balance and truth:

- When teaching or talking with chldren about climate change risks, we have a **responsibility not to 'sugar-coat'** the climate situation, but to state age appropriate truths. State that the climate and ecological crisis will make life harder for all, until we can collectivly mobilise a transition to a sustainable society
- Present 2/3 **solutions** for every difficult fact. e.g. https://drawdown.org/climate-solutions-101
- Be careful not to present projections and risks as facts

Hopeful Narratives to counter the risks:

- 'The Future we Choose' (Figueres & Rivett Carnac, 2020) is an article which explores two alternative futures in 2050, neatly balancing out the severity of the situation, while presenting a path forward
- Media within the genre of **'solar punk**' offers a utopian vision of a sustainable future
- **Thrutopian** stories help describe the narrative of moving through difficult times, into more sustainable societies. These are particularly good at helping people imagine a way through adversity

3. (not) Assuming responsibility

Even if we understand climate change to be a real threat, there are other biases that result in us tending to ignore climate change and carry on as normal.

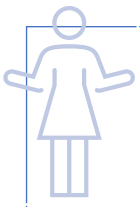
So even though we are no longer in 'cognitive' denial, we are in denial through our actions – carrying on with our more 'convenient lives' and assuming someone else will sort it.

It's natural for all of us to slip into convenience and familiarity from time to time, but the aim is to maintain awareness of progress towards sustainability.

Here are a selection of the most common biases, from Gifford (2011) and Kahneman (2011):

Technosalvation

The belief that technology or AI alone (e.g. carbon capture options) will save us

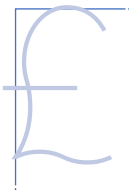


Bystander effect

In a large group, we tend to assume that someone else will sort a problem or situation (e.g. governments)

Inconsistent world views

Belief in the power of free-market capitalism or anthropocentrism (that humans are the central being in the universe) isn't compatible with sustainable behaviours



Sunk Costs Fallacy

If time or money has been invested in something (e.g. fossil fuel infrastructure), we tend to hang onto cling to the suboptimal investment

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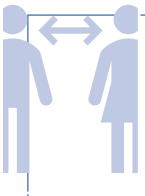

Social comparison effect

We are less likely to act if we see others not acting and perceived inequality. e.g. using the justifications 'everyone else is eating meat!'.

The reality is social change can't be driven by governments businesses or consumers alone, we need all parts of the economic and societal systems to act together. It's up to all of us.

"We don't need a handful of people doing zero waste perfectly, we need millions of people doing it imperfectly."

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Anne-Marie Bonneau

Recommendations: Imperfect Action

Embrace and celebrate imperfection:

- **Don't judge** yourself or others when you notice a denial mechanisms at play
- Model **staying 'aware' of denial tendancies** and share how they may show up in your life. You might like to try 'Gifford's 33 dragons audit' on yourself
- As an educator, **model small and consistent behaviour changes** and actions e.g. recycle in your classroom
- Show understanding and curiousity for family beliefs and identities that do not support decarbonisation (e.g. parent works in aviation)- this can lead to a productive conversation about future directions

4. Holding a healthy Perspective on action

Taking action feels good. So once people start, there can sometimes be a tendency to 'overdo it' become **overwhelmed**, and **burn out**.

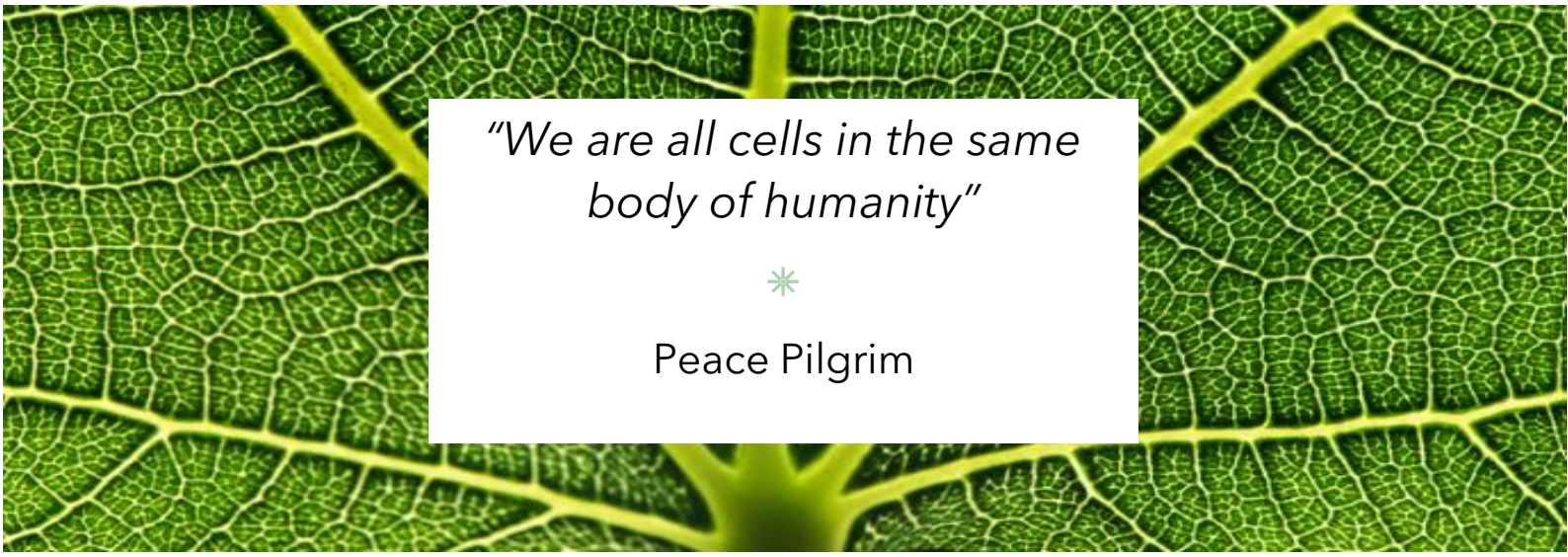
Spending all hours learning and acting can seem justified when we understand the urgency, but there is a need to pace ourselves, and for **balance with everyday life**.

If our actions are compromising our quality of life, health and relationships, it is probably time to pull back.

Otherwise, the risk is that people become disheartened when they don't see change happening fast enough. This can lead to a sense of **'giving up' and falling into fatalism**.

While some threats may be real, the doomist thoughts about what could happen are not *actually* fact.

It's also not helpful to spread such messages, as it may cause other people to 'give up'.



"We are all cells in the same body of humanity"

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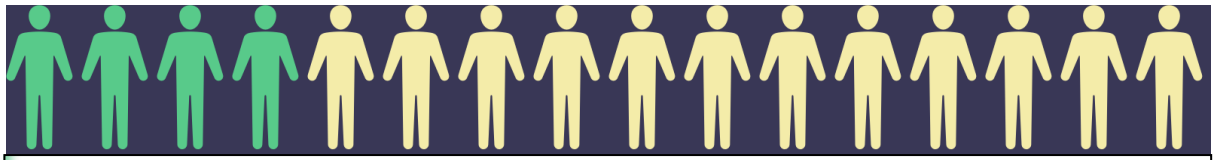
Peace Pilgrim

It can be helpful to prevent overwhelm by retaining a sense of perspective about the individual's role in climate change mitigation and adaptation. While it is true that the actions of one person alone aren't enough to affect the scale of change required, we affect each other all the time through the social comparison effect.

Small changes can influence others in positive ways, making ripples which gather momentum and compound as more and more people join in. No one has to 'save the world' (a very overwhelming responsibility) - we are all responsible for our part.

You never know the outcome of a side conversation with someone – we may be planting ideas and seeds that will germinate and bear fruit later.

And if you think that there are too many self-interested people in the world, think again. Miller (1998) has demonstrated the 'Myth of self-interest'. Happily, we tend to overestimate selfish behaviour in others.



Experiments show that just 25% of a group committed to a cause is the tipping point for large scale social change to occur (Centola et al., 2018) www.ClimatEdPsych.com

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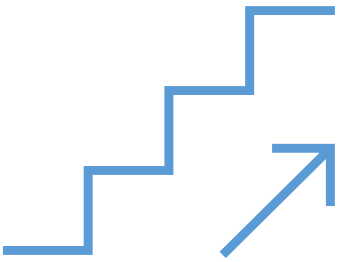
Recommendations: Balanced action



Reframe faulty thinking:

- If a pupil (or yourself) has an unhelpful thinking pattern (e.g. nothing I do makes a difference), **acknowledge the validity** of their concerns then see if you can **modify the statement**, one step at a time to take reality into account. e.g. my actions have a small invluence on others, I might not see how much that is etc.
- Embody the changes you wish to see. '**Be the change**' and explain to students that ultimately, all we really have control over is ourselves

Stay local, personal and celebrate:

- Focus **on community or smaller scale** projects if you wish
- Encourage students to engage in action which plays to their **strengths** and **intestests** e.g. social media/ writing to an MP/ tree planing. the Japanese concept of Ikagai is helpful to identify what is at the intersection of what we need, what we're good at and what we enjoy
- **Highlighting successes** in the area or progress you are making will feel more rewarding, achievable and personal to young people, activating a sense of agency and hope
- Consider signing up for the Climate Leaders Award to recognise and celebrate progress

Enjoy yourself

- Take time out to do the things you enjoy, connect with others, nature, and have fun. Self-care is a form of activism

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