CAST BRIEFING 24 - March 2024

‘Moments of Change’ for Low-Carbon Behaviour

Key messages:

- Many existing policy interventions are unlikely to be successful unless they engage with habits, which ‘lock in’ unsustainable behaviours. However, when stable contexts that drive habitual behaviour are disrupted, people become more amenable to change.
- Many life transitions (e.g., moving home, retiring) and exogenous events (e.g., health crises, extreme weather events) serve as ‘moments of change’ (MoCs), providing opportunities for the delivery of targeted interventions.
- Timings vary for different MoCs, with biographical life events involving more pre-planning, and many exogenous events requiring swift responses, highlighting the importance of the timing of interventions.
- A variety of individual (e.g., values, self-identity) and contextual factors (e.g., available infrastructure) play significant roles in shaping individual responses to MoCs.
- To avoid exacerbating the (often disproportionate) adverse effects associated with societal disruptions (e.g., the COVID-19 pandemic), intervention development and policy responses should integrate considerations of fairness and equity.

Centre for **Climate Change** and **Social Transformations**

CAST is a global hub for understanding the systemic and society-wide transformations that are required to address climate change. Based at the University of Bath, our additional core partners are Cardiff University, the University of East Anglia, the University of York, the University of Manchester and the charity Climate Outreach.

Introduction

This briefing note is intended as a resource for decision-makers and other stakeholders who aim to improve the design and implementation of climate policy.

Addressing climate change requires a profound societal transformation in which substantial lifestyle changes are essential. Changing lifestyles is challenging, however, because many of our everyday behaviours, such as travelling, eating, and using energy, have become habitual. Habits 'lock in' behaviour, meaning that many interventions designed to target unsustainable behaviours are often unsuccessful at doing so because they have not disengaged habits. However, 'moments of change', which are transitions or events that disrupt habits and serve as catalysts for change, present important opportunities for policy-makers to reshape habits.

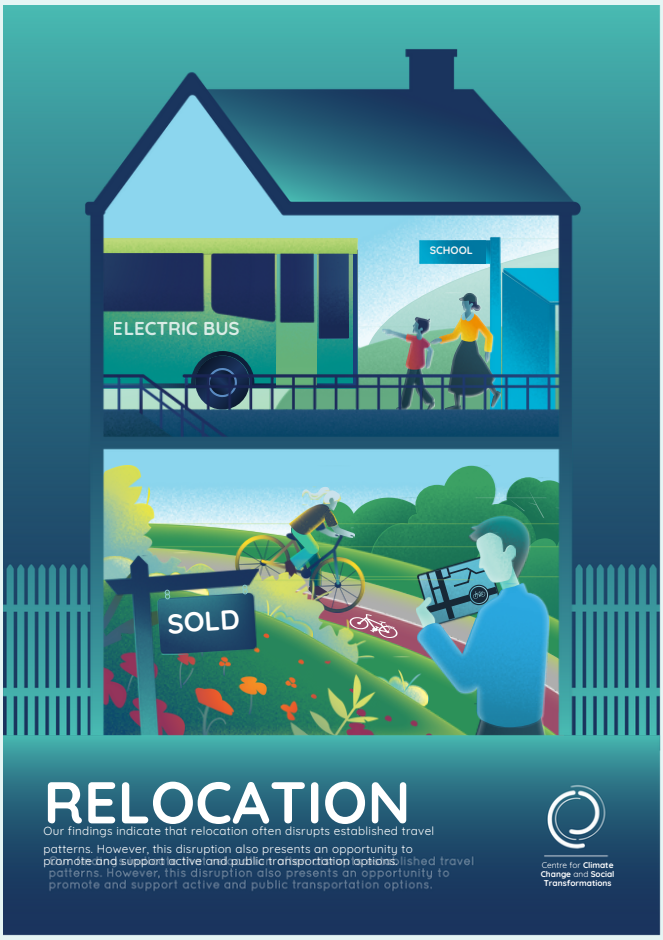
Habits are defined as frequent, repeated actions that are triggered by certain conditions (e.g., certain places or times)[1]. Because habitual behaviour is more unconscious than deliberative, providing information about behavioural alternatives (e.g., the environmental benefits of a plant-based diet) does not always result in changes to decision-making. Since habits rely on stable conditions, however, the disruption to routines during 'moments of change' (MoCs), defined as 'significant or sudden changes in circumstances or context'[2], can lead to more deliberative decision-making and openness to change, presenting windows of opportunity for behaviour change. Consistent with this, research shows that interventions tend to be more successful when delivered during MoCs[3].

Broadly, MoCs can be divided into two categories. The first relates to biographical events or 'life transitions' which operate at an individual or household level, including residential relocation, becoming a new parent, transitions in study or employment (e.g., retiring, going to university), and changes in personal relationships (e.g., cohabiting, marriage, or divorce). The second encompasses exogenous events that operate at a wider, societal scale, including health crises, extreme weather events, economic shocks, political crises, and infrastructure disruptions. Research has tended to focus more on biographical MoCs.

Biographical MoCs

Biographical events, such as moving home (see Box 1), retiring, or becoming a new parent, can trigger significant lifestyle changes. Biographical MoCs tend to involve pre-planning (e.g., purchasing a car in preparation for parenthood), and often co-occur[4] (e.g., residential relocation may coincide with a new job). This means that the starting point of biographical MoCs can vary, so interventions could be timed before the 'event' takes place.

The extent to which life transitions impact low-carbon behaviours depends on many contextual and individual factors. Changes in mobility during residential relocation, for instance, may depend on the attributes of the transport infrastructure in the new area (e.g., good public transport links)[4]. Evidence also suggests that the effects of MoCs are stronger amongst people with higher environmental concern[5]. Environmentally conscious individuals may also choose to relocate to areas with more sustainable options ('residential self-selection'), and equally, exposure to more sustainable ways of living may lead to attitude change, which can consequently transform behaviour. Some life transitions, such as becoming a parent or retiring, can trigger a change in self-identity, potentially impacting pro-environmental choices (e.g., seeing retirement as 'time for me' and increased global travel[6]). Framing the personal benefits of low-carbon behaviours in ways that align with personal values and identity may increase intervention effectiveness.



(Illustration produced by Motion Manor)

Box 1. Residential Relocation

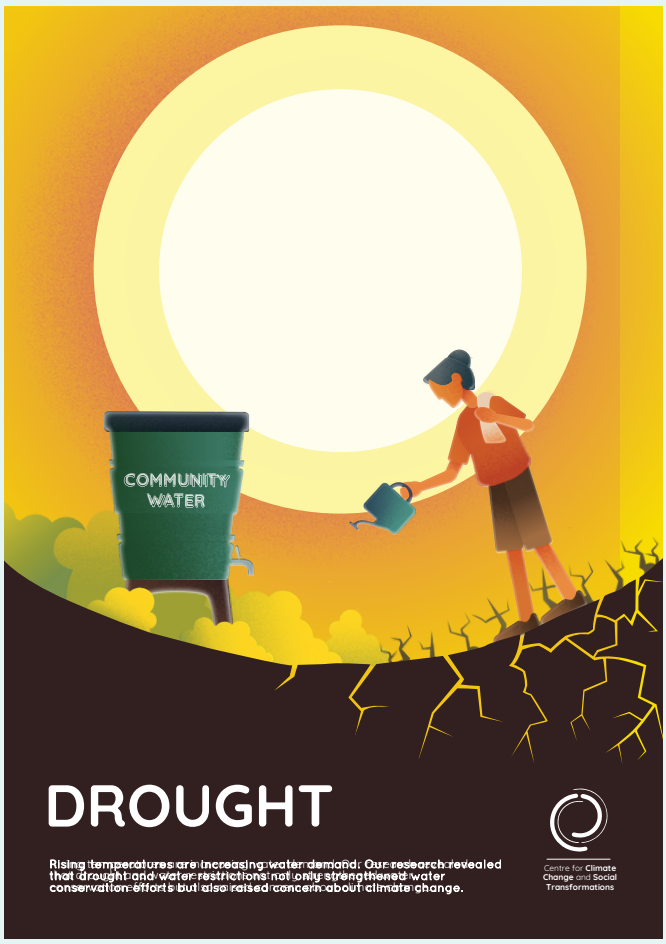
- Moving house is one of the most widely explored MoCs, with numerous studies suggesting it presents an opportune moment to maximise the impact of interventions[8],[9]. One field study[3], for example, found that people who had moved home in the last three months were more likely to adopt pro-environmental behaviours after receiving an intervention package (consisting of an interview, a sustainable goodie bag, tailored and general information, and a newsletter) compared to people who had not recently relocated.

- Many features of the physical environment surrounding the new home can also contribute to behaviour changes, such as a reduction in car use. For example, moving from suburban to more urban areas typically increases public transport use, walking, and cycling[7], and vice versa[10], highlighting the importance of density and accessibility of available infrastructure during relocation.

Exogenous MOCs

In comparison to biographical MoCs, less work has focused on how exogenous events can reshape behaviour, yet emerging evidence shows that they can significantly disrupt lifestyles. Many exogenous MoCs have been found to impact behaviours in ways we might expect, for example, reduced consumption (e.g., of energy, transport, and material goods) tends to follow from financial crises[11] and health crises, such as pandemics (see Box 2). During natural disasters, some conservation behaviour occurs as expected (e.g., water conservation during droughts; see Box 3), whereas some low-carbon responses depend on available options (e.g., relocating offices following an earthquake to where sustainable travel is more viable). Transport infrastructure disruption (e.g., road closures) or new infrastructure (e.g., new cycle lanes) generally results in reduced car use and increased low-carbon mobility[12],[13], though the durability of more temporary disruptions (e.g., rail strikes) is uncertain. For many exogenous MoCs, changes may only be temporary unless accompanied by interventions that lock in habit change, highlighting an important opportunity for policy-makers to capitalise on disruptions in ways that foster long-term sustainable behaviour change.

As with biographical MoCs, there are many characteristics of exogenous MoCs that may impact their effect on low-carbon behaviour. For instance, while most exogenous MoCs are generally unexpected events, shocks, or crises, some (e.g., new transport infrastructure) may involve more pre-planning, highlighting the importance of delivering interventions as early as possible to influence decision-making. Exogenous MoCs also vary in their relative scales, with some impacting individuals at a neighbourhood level (e.g., transport infrastructure disruption) and some at a national or global scale (e.g., pandemics), which is an important consideration during the design of interventions and policy responses. Likewise, it is important to consider fairness (see also CAST Briefing 20) when delivering interventions during societal disruptions (e.g., financial or health crises) which may have disproportionately adverse impacts on marginalised groups (e.g., isolated communities during natural disasters). By tailoring interventions to address the unique experiences of these groups during social disruptions, decision-makers can ensure more equitable outcomes.



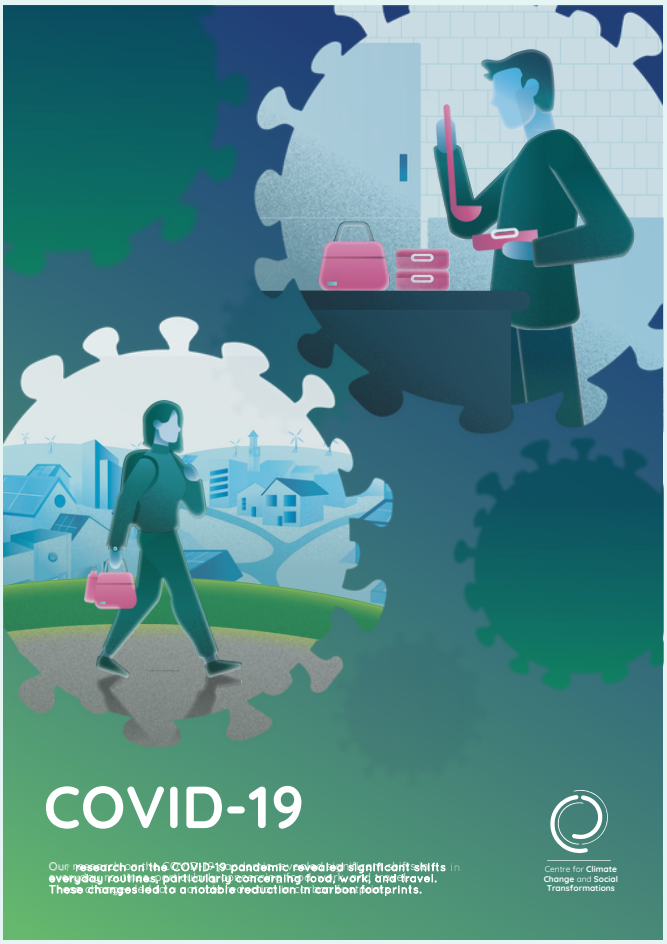
(Illustration produced by Motion Manor)

Box 2. Drought

- During the Summer of 2022, record-high temperatures in the UK led to a drought and subsequent enforcement of hosepipe bans across much of the country. CAST research examined whether Summer 2022 acted as a MoC to disrupt water use habits and influence change risk perceptions of water scarcity and climate change. A representative survey of the UK public (N=1,002) in September 2022 found that compared to Summer 2021, more households reported using less water (40%) than using more (24%).

- Water-saving behaviours and support for water efficiency policies were predicted by older age, being female, being in a hosepipe ban region, and having received information about the need to save water. Most (86%) said they were worried about climate change, and climate worry was predicted by being in a hosepipe ban region and having received water-saving information. A follow-up survey in 2023 showed climate concern was still high (82%) but that being affected by drought in 2022 was not predictive of water-saving behaviours a year later.

- Overall, the results indicate that the drought and water restrictions not only increased water-saving behaviours (in the short term), but also primed climate concern, highlighting the potential opportunities for promoting water conservation and wider low-carbon behaviour during similar weather events in the future.



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Box 3. Covid 19

- The COVID-19 pandemic emerged as one of the most transformative events in living memory, disrupting lifestyles on an unprecedented scale. A CAST survey conducted in late May 2020 (N=1,526) during the UK's first lockdown period revealed decreased consumption, travel, energy, and water usage, along with heightened support for climate action compared to 2019. A follow-up survey in October 2020 (N=1,334) found that while some of the earlier lockdown habits that served to cut people's carbon footprints (e.g., reduced consumption) did not endure, others, including remote working and online shopping, did.

- A qualitative study[14] across seven countries further examined the impact of lockdowns on food practices. Interviews conducted between May-July 2020 revealed reduced consumption (*"I don't feel good about extensive shopping, so I'm quickly doing my shopping and quickly getting out of there."*) and changed food practices that reduced food waste (*"We have planned more and – and yes, maybe got a little better at using up the food and knowing a bit better what we have"*). While many existing policy interventions typically target food practices directly (e.g., promoting better planning, storing, and cooking), these findings highlight the potential for wider social contextual disruptions to reconfigure food practices.

Summary & conclusion

‘Moments of change’ present important opportunities

Research on moments of change, including pioneering research by CAST, highlights the important opportunities presented by personal and social transitions. Findings suggest that delivering interventions to ‘lock in’ habit change during these moments are is essential for fostering long-term sustainable behaviour change.

Interventions should be timed carefully

The beginning and end points of different types of MoCs are hard to define. Biographical life events typically involve more pre-planning, and though some exogenous events (e.g., new transport infrastructure) may involve prior public engagement, most societal disruptions occur without warning. This means that the timing of intervention delivery is important and needs to be tailored to the specific type of MoC.

The impacts of MoCs vary

Many different individual and contextual factors moderate the impact of a MoC on low-carbon behaviours. For example, low-carbon mobility changes are more likely during residential relocation if an individual is more environmentally conscious and/or there is local public transport or active travel infrastructure accessible from the new home. Exogenous MoCs also impact individuals on varying scales, whether geographically (e.g., at a neighbourhood or national level) or in relation to adverse impacts (e.g., certain households or communities being disproportionately impacted by financial crises). Considering these factors by deploying tailored, timely, and equitable interventions can drive meaningful shifts in lifestyles.

Further reading

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CAST is a global hub for understanding the systemic and society-wide transformations that are required to address climate change.

We research and develop the social transformations needed to produce a low-carbon and sustainable society; at the core of our work is a fundamental question of enormous social significance: How can we as a society live differently – and better – in ways that meet the urgent need for rapid and far-reaching emission reductions?

Based at the University of Bath, our additional core partners are Cardiff University, University of East Anglia, University of York, University of Manchester and the charity Climate Outreach.

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