

LINKING INDIVIDUAL BEHAVIOR AND SYSTEMS CHANGE: FRAMING THE CONVERSATION

BOTH INDIVIDUAL AND SYSTEMS CHANGE ARE NEEDED

Moving toward sustainable lifestyles requires both individual behavior change as well as broader systematic and political change. Bottom-up behaviors at the personal, household, and community levels can work to change the system, but systems changes are needed in order to fully enable behavior change.

There was broad agreement among grantees that sustainable behavior requires changes at both the individual and political levels, and that these two areas are not only linked, but also reinforce one another. This idea is clearly articulated in the 1.5 Degree Living report, which states: “the sheer magnitude of change required for a shift towards 1.5-degree lifestyles can only be achieved through a combination of system-wide changes and a groundswell of actions from individuals and households” (Akenji, Lettenmeier, Koide, Toivio, & Amellina, 2019). Similarly, One Earth identifies that sustainable lifestyles encompass not only individual action, but also the way in which our lives and behaviors are shaped by our identities, habits, practices, and the social systems we inhabit (Sustainable Lifestyles: Options and Opportunities., 2018).

IT'S NECESSARY

Behavior change and sustainable lifestyles are a necessary, but often missing strategy for reaching 1.5 degree goals. Importantly, shifting to low-carbon lifestyles can reduce overall energy demand as well as reduce the dependence upon future negative emissions technologies.

The IPCC 2018 report calls for “the acceleration of wide-scale behavior changes consistent with adapting to and limiting global warming to 1.5°C.” The report asserts that change in human behavior and lifestyles are one of the major strategies necessary to create the conditions that would enable us to cap warming at 1.5 degrees (Intergovernmental Panel on Climate Change, 2018). Despite the knowledge that, if adopted, sustainable lifestyles could reduce emissions relatively quickly and reduce the need for additional carbon-intensive infrastructure, it is often excluded from mitigation scenarios, which instead include unproven carbon dioxide removal (CDR) technologies such as BECCS (bio-energy with carbon capture and storage). (Creutzig et al., 2016). Using an integrated assessment model, Vuuran et al. found that by combining lifestyle change, reduction of other greenhouse gases, and rapid electrification through renewable energy, it was possible to reduce, but not eliminate, the use of CDR. (Vuuren et al., 2018) Grubler et al. explore an alternative mitigation scenario which includes: lifestyle changes, accelerated adoption of renewable energy, agricultural intensification, and lab grown meat. These changes reduce overall energy demand 40% from today's levels, which in turn reduces the burden on overall supply and makes it possible to reach the 1.5 degree target without relying on negative emissions technologies (Grubler et al., 2018).

REDUCING DEMAND REQUIRES INDIVIDUAL BEHAVIOR CHANGE

Related to the point above, reducing demand or using less energy is a crucial strategy for reducing emissions. Reducing demand will involve technological and infrastructure change as well as targeted individual behavior changes at the individual and household levels. The definition of individual sustainable behaviors should move beyond simple tasks (e.g. recycling, changing light bulbs, straws) or green consumer purchasing choices to emphasize practices that yield meaningful emissions reductions, especially in the areas of home energy, transportation, and food.

A report by Rare identifies and ranks 30 (of the original 80) Drawdown recommendations that are dependent upon behavior changes at the individual level. They categorize the recommendations into four domains: food, agriculture and land management, transportation, and energy and materials. The top recommendations include: reducing food waste (#1), plant rich diets (#2), electric vehicles (#4) and rooftop solar (#6) (Williamson, K., Satre-Meloy, A., Velasco, K., & Green, K., 2018). The 2019 1.5 Degree Lifestyle report emphasizes reducing meat and dairy consumption, switching to non-fossil based energy, and reducing car use and air travel. Taken together, food, housing, and transportation comprise approximately 75% of total carbon footprints (Akenji et al., 2019). A UNEP report also includes consumption and leisure as top areas for personal emissions reductions, alongside food, transportation, and housing (United Nations Environment Programme, 2018). In addition to reducing emissions, sustainable behaviors provide multiple co-benefits that can be achieved at low cost or reduced costs (Creutzig et al., 2016).

BEHAVIORS AT SCALE REDUCE EMISSIONS

While individual behaviors may seem insignificant when considered on a person-by-person basis, substantial emissions reductions are possible when those individual behaviors are massively scaled up. This could happen in a geographic population or within specific types of communities, such as religious communities, schools/universities, or companies.

To understand the role of population level interventions, we might draw upon the lessons from epidemiologist Geoffrey Rose's seminal 1985 paper, which looked at population level sickness. Rose's research shows that it is possible to shift the health outcome a small amount over an entire population (Rose, 1985). The result can have a relatively large impact when compared with individual level health strategies. In the sustainable behavior field, this is similar to nudge theory, which focuses on designing interventions that make changes relatively easy and painless. Because nudges, when combined over a large population, can have a large overall impact, they might be used to help get us on a downward pathway toward 1.5 degrees. Yet, the small changes from simple nudges are unlikely to get us to zero or net negative emissions. Thus, strategies for scaling more meaningful emissions reductions are necessary. While most of this data available on large-scale sustainable behaviors is theoretical, it is important to identify its overall potential. In the Rare report's analysis of the top behavioral mitigation recommendations, they calculated that when taken together, the thirty actions could mitigate 19.9 to 36.8 percent of global emissions between 2020 and 2050 (Williamson, K., Satre-Meloy, A., Velasco, K., & Green, K., 2018). In another report, dietary shift has the potential to reduce emissions in the agricultural sector by more than 70 percent by 2055 based on BAU scenarios (Creutzig et al., 2016).

A related scaling talking point is connecting sustainable behaviors to voting. Statistically speaking, one vote doesn't matter, but when people vote in groups or collectively, and when this is scaled up across a community or country, it does matter (Hiller, 2011). This same idea could be applied when communicating the importance of meaningful individual change (flying less, eating more plants, not having cars) particularly when people are acting as part of a group or community.

THE COMMUNITY CONNECTION

At the community level, people are empowered to act because they can experience the power of the group to make larger social or political change, and at the same time they can also see change within members of their own community - their own friends, family, neighbors, and networks. In short, thinking about change at the community level can help bridge the gap between individual or household actions and political or systems change. For some groups working at the community level, this was a powerful way to engage individuals in sustainable behaviors, including an expanded definition that included community engagement, communications, political advocacy, and direct action.

It is said that all politics are local, and the same could be said for emissions reductions. Individual advocacy can make change on the local/municipal level. In turn, this engagement with cities and towns can have a direct impact on state and federal policies. Community level engagement is also required for blockadia - direct action against fossil fuel operations and development - and for divestment campaigns. In public climate actions (communicating, volunteering, protesting, voting), community or group engagement is particularly important for growing the movement. Doherty and Webler found that in Global Warming's Six Americas 'Alarmed' segment, people were more likely to participate in public sector actions if they knew others who were also engaging politically. In fact, this social norm factor was the greatest predictor of political participation among those considered by Doherty and Webler (Doherty & Webler, 2016). Less is known about the normative influence of group behaviors when it comes to private-domain activities, but we might well hypothesize that if strong sustainable behaviors are visibly practiced by members of a given community group, then other people who identify with the community or who join the group would be highly influenced to adopt the behavior. A 2017 article identifies this as a gap in the research: "less research has been conducted on identities such as being a member of a community concerned about climate change....Specific research on identification with the community that is concerned about climate change has not yet been tested to assess if climate change knowledge significantly relates to stronger identity resulting in greater engagement in pro-environmental behaviors" (Estrada, Schultz, Silva-Send, & Boudrias, 2017). For groups that have strong community connections, it could be very promising to explore the link between community engagement in public actions and the adoption of pro-environmental behaviors.

THE POWER OF SOCIAL NORMS

Using the power of social norms, it is possible for deeply committed individuals and groups to change the social norms around sustainable behaviors and thus help with the uptake of sustainable behaviors and also create the conditions for broader social and policy change.

It is well established in social science research that people are heavily influenced by social norms. It is also well established that current normative behaviors around food, transportation, energy, and consumption are unsustainable. Thus, to shift from an unsustainable way of living to more sustainable or low carbon living, we might utilize “norm entrepreneurs” to help bring about this change (Sunstein, 2019). This term ‘norm entrepreneur’ was first coined by Cass Sunstein to identify individuals or groups of people who were interested in changing a social norm (Sunstein, 1996). To change norms, we need to change both what people are doing (social norms) and what people believe others think they should be doing (the norm expectations) (Bicchieri & Mercier, 2014). Individuals and groups can work to shift social norms towards a low-carbon lifestyle by visibly practicing and clearly articulating a set of sustainable behaviors. Additionally, new research about dynamic norms (norms that are shifting) indicates that by articulating a changing or trending norm, we can help speed up the rate of change and thus the movement towards normalizing sustainable living. (Sparkman & Walton, 2017). For instance, ‘norm entrepreneurs’ who decide to actively push back on routine flying for work or leisure may influence others to join. If these ‘norm entrepreneurs’ are able to establish that this idea or movement is gaining traction, these norms can shift even more quickly.

WALKING THE TALK BUILDS CREDIBILITY

As leaders in the field, we have a special role to provide leadership on this issue by practicing sustainable behaviors in our own personal lives and in the practices of our organization. By adopting and practicing sustainable behaviors in our own lives and in our organizations, we can become more credible and effective advocates.

There is evidence that leaders who demonstrate a commitment to sustainability through their actions are considered to be more credible. Attari et al. conducted two online surveys to measure whether a climate researcher’s perceived energy use (in the areas of flying, public transportation, and home energy use) affected their credibility and influence. The study found that researchers were considered less credible if they had a large personal carbon footprint (Attari, Krantz, & Weber, 2016). Just as personal commitments to sustainable, emissions-reducing practices make leaders more credible, there is some evidence that their personal behaviors influence others’ actions. A large field study analyzing a solar panel installation program found that community organizers who had installed solar panels on their own homes through the program had recruited 62.8% more residents than those who did not (Kraft-Todd, Bollinger, Gillingham, Lamp, & Rand, 2018).

TRANSFORMATION REQUIRES AN ENGAGED AND ACTIVE PUBLIC

Substantial policy change requires an active and engaged public that is willing to fight for and advocate for those changes. Otherwise, we will not see the implementation and uptake of climate policies and practices and may even encounter public resistance to these much needed changes.

This idea is clearly articulated by Climate Outreach in their most recent report on Public Engagement: “The 1.5 °C target also requires lifestyle changes on a range of totemic issues like diet, personal travel and home heating in a relatively short period of time. Without public buy-in, these could prompt significant resistance. Given the short timescale, the infrastructure of public engagement needs to be put in place just as the infrastructure of policy change does” (Clarke, Corner, & Webster, 2018). UNEP also concludes that bottom up approaches are important for creating the conditions for sustainable solutions (Akenji & Chen, 2016). This is especially important in democracies where elected officials are primarily interested in the concerns of the people they represent. Research by Willis concludes that because climate change is a global issue impacting everyone while representation only occurs within a smaller level population, it is important for active concerned citizens to help policy makers shape and promote climate solutions (Willis, 2018).

SPECIAL NOTE: CONCERNS ABOUT SUSTAINABLE LIVING FRAMING BEING TOO DEVELOPED COUNTRY FOCUSED

There was a sense that some of the individual level behavior change framing was not necessarily relevant to people living in developing and emerging economies. There were a few reasons stated including: people in developing countries being under consumers, people not seeing themselves as part of the problem, and communities actively fighting against the politics and social systems that help create the unsustainable lifestyles. There is much work to be done to better understand and articulate the complexities of these issues for developing and emerging country perspectives and then aligning them with the emissions recommendations from the 1.5 Degree report from which calls for reductions in some developing country footprints 23- 84% (Akenji et al. 2019). There is also an important role to play in shifting away from the aspiration of developed countries and creating a new definition of the good life, while also meeting basic human needs.

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