Leaving No One Behind: Climate Change as a Societal Challenge for Social Justice and Solidarity

17

Michèlle Bal and Marijn Stok

Introduction

Climate change poses a major challenge to societies worldwide. Environmental degradation and global problems of an unprecedented scale are arising because of global warming and contemporary generations are the first to experience these negative consequences first-hand. That climate change is a problem that needs immediate action is recognized by researchers, policymakers, and citizens alike. Several influential scientific reports allude to the urgency of the problem (IPBES, 2019; IPCC, 2018), stating that if we do not act now, the negative consequences of climate change will be irreversible, such as the extinction of species, increases in extreme weather types, and rising sea levels. Moreover, many governments are working together in treaties such as the Paris agreement and the EU Green Deal, where the latter emphasizes social justice in their key aim to 'leave no one behind'. In these treaties, governments are trying to curb the climate crisis by reducing the emission of greenhouse gasses and investing in circular economies (i.e., climate change mitigation) as well as by developing resilience plans to cope with the impact of rising temperatures (i.e., climate change adaptation).

That at least a substantial proportion of citizens is also concerned about climate change and feels we need to act now is exemplified by the large climate change protests of 2019. The grassroots initiative for these protests quickly grew into a massive worldwide movement of youth and young adults especially (mostly students) taking to the streets to raise public awareness and pressure politicians into taking action (Wahlström et al., 2019). The protests were instigated by the individual actions of Greta Thunberg, a young Swedish climate activist who went on strike from school to protest climate change inaction. In December 2018, at the UN Climate Change conference, in a moving speech that went viral, she stated: "You say you love your children above all else, and yet you are stealing their future in front of their very eyes" (Thunberg, 2018), which brought about the worldwide climate protests a few months later. In the current chapter, we will discuss environmental justice principles and broader beliefs and norms as important drivers of climate change protest and sustainable behaviour change. Moreover, we will explain why these are not enough to understand sustainable behaviour change or lack thereof.

M. Bal (✉) • M. Stok
Utrecht University, Utrecht, The Netherlands
e-mail: m.bal@uu.nl

Environmental Justice in Reaction to Climate Change

The term 'environmental justice' was initially used as an activist term to flag that lower socio-economic and Black communities were disproportionately burdened and put at risk by environmental hazards as these are often located near their neighbourhoods (e.g., toxic waste sites (Bullard & Johnson, 2000)). Moreover, the negative consequences of climate change, such as injury, illness, and deaths from extreme climate events or infectious diseases, as well as food and water insecurity, disproportionately burden already vulnerable populations (Ebi & Hess, 2020; Green, 2016; Mitchell & Chakraborty, 2014; Shepard & Corbin-Mark, 2009), and thus further exacerbate existing inequalities. This effect can be seen both when comparing countries (e.g., developed countries versus developing countries (Ebi & Hess, 2020)), but also within countries and regions when comparing, for example, racial/ethnic minority groups to majority groups and lower socio-economic status groups to higher socio-economic status groups (Mitchell & Chakraborty, 2014).

In social scientific research, the term environmental justice has also been applied more broadly, to encompass a set of questions related to fairness and justice in climate change adaptation and mitigation. Within the social sciences, different terms are used to refer to environmental justice (e.g., green justice, climate justice). Moreover, with regard to specific sustainability transitions, specific operationalizations of justice have been put forward (e.g., energy justice (Jenkins et al., 2016; Sovacool & Dworkin, 2015)). In the current chapter, we discuss and refer to environmental justice throughout, as we consider this to be the most widely adopted and neutral terminology.

Research on environmental justice has revealed that three justice principles can be distinguished (Clayton & Opotow, 2003; Reese & Jacob, 2015). These principles can be viewed as extensions of the traditional scope of justice in which rights of and responsibilities towards specific others are recognized (cf. justice as recogni-

tion, Chap. 4 this volume). First, regarding environmental issues, the scope of justice can be extended with the inclusion of future generations, including current younger generations (i.e., *intergenerational environmental justice*). The quote by Greta Thunberg above illustrates how intergenerational justice can indeed be an important motive for climate action. By considering the interests of future generations, questions regarding the burdens we are putting on them become explicitly included in distributive justice decisions. Second, by adopting a *global environmental justice* principle, people worldwide are included into one's scope of justice, especially taking economically disadvantaged groups into account. Global environmental justice most closely aligns with the way environmental justice was conceived as an activist term. Questions regarding what is fair for the Global South, where individuals have been historically burdened and currently struggle more in transitioning to more sustainable forms of living than individuals in the Global North, are key to a global environmental justice principle. Third, *ecological environmental justice* is about extending of the scope of justice toward an inclusion of nature and non-human species (i.e., other animals). By extending the scope of justice beyond the human species, as with intergenerational environmental justice, entities that otherwise do not have a voice in the environmental debate are included in people's fairness considerations.

Research on these environmental justice principles in relation to climate change reactions has only recently started to develop. In studies on sustainable behaviour intentions, intergenerational justice concerns were found to increase people's anger about environmental damage, and this in turn somewhat increased people's sustainable behaviour intentions (e.g., protecting biodiversity; buying products from local farmers (Reese & Kohlmann, 2015). In contrast, adhering to an ecological justice principle increased a sense of responsibility, which had a stronger positive effect on people's sustainable behaviour intentions. Of the three environmental justice principles, global justice concerns were least influential on intentions for sustainable behav-

iour. Nevertheless, subsequent studies focused specifically on increasing these global justice concerns. Such studies showed that activating a global human identity positively influenced sustainable behaviours and intentions, and that this relationship was mediated by global justice concerns (Reese & Kohlmann, 2015; Reese, 2016; Renger & Reese, 2017). Questions of social justice, and environmental justice specifically, are thus important drivers of people's motivation to take action against climate change.

Individual Behaviour in Climate Change Mitigation

To date, the sociotechnical perspective dominates the conceptual understanding of sustainability transitions, a perspective where economic development, technological innovation, and policy change are considered critical factors in shaping sustainability transitions, the energy transition in particular (Cherp et al., 2018; Sovacool & Hess, 2017). Sustainability transitions encompass a transition from less sustainable ways of being to more sustainable ones and these are needed in several life domains, such as energy, food, and mobility. Accordingly, research investigating sustainability transitions overwhelmingly focuses on the development of new technologies and their implementation. The sociotechnical transitions approach has been critiqued for its biased focus on technologies and systems (de Haan & Rotmans, 2018; Shove & Walker, 2010) and a lack of attention for people's behaviour and underlying drivers of behaviour (Bögel & Upham, 2018). Crucially, a successful sustainability transition requires major and unprecedented adaptations to citizens' attitudes and behaviour (Franceschinis et al., 2017; Glad, 2012; Kammen & Sunter, 2016; Michie et al., 2011). Individuals must critically change their energy use (e.g., adopting technological innovations like solar panels and heat pumps, investing in home insulation, taking shorter showers), food consumption habits (e.g., eating more local and seasonal products, reducing food waste, and decreasing animal protein intake), transportation patterns (e.g., flying less, switching to electric cars, using more public or shared modes of transportation), and general consumerism (e.g., buying sustainable clothing, recycling waste, switching to reusable and green products) to enable a successful sustainability transition.

Value-Belief-Norm (VBN) theory provides extensive insight into this 'human side' of the transition process (Steg et al., 2014; Stern, 2000). According to VBN theory, values (i.e., the general goals that people strive for in life), more sustainable-behaviour-specific beliefs, and personal norms are key determinants of people's sustainability attitudes and behaviours. Four types of core values have been discerned (de Groot & Steg, 2008; Steg et al., 2014; Stern et al., 1998). First, two types of *self-transcending values* (see Chap. 1, this volume) motivate sustainable behaviour intentions, namely biospheric values (i.e., valuing the environment) and altruistic values (i.e., valuing the welfare of other human beings and fairness considerations). These self-transcending values overlap with the environmental justice principles presented earlier. Altruistic values overlap with intergenerational and global justice principles, while biospheric values and ecological justice principles also align. Second, two types of *self-enhancing values* typically hamper sustainable behaviour intentions, namely egoistic values (i.e., valuing personal resources and achievement), and hedonistic values (i.e., valuing pleasure and comfort).

VBN theory further posits that the extent to which people hold these four values (biospheric, altruistic, egoistic and hedonistic) affects sustainable-behaviour-specific beliefs (i.e., awareness of the consequences of climate change and beliefs about who is responsible for (mitigating) climate change). These beliefs, in turn, shape people's personal norms – their perceived moral obligations to preserve the environment. Research has shown that among people who hold strong pro-environmental personal norms, a so-called 'green identity' can be discerned and cultivated (Soron, 2010). Such self-identification as a pro-environmentalist predicts engagement in various sustainable behaviours (Johe & Bhullar, 2016;

Schwartz et al., 2020; Whitmarsh & O'Neill, 2010).

Alongside personal norms and self-identity, social norms (Cialdini & Goldstein, 2004; Deutsch & Gerard, 1955) and social identity (Tajfel, 1974; Turner, 1975) play a crucial role in shaping people's sustainability intentions and behaviours (Fielding & Hornsey, 2016); Chap. 2, this volume). Research has shown that when social ingroups hold pro-environmental social norms, this positively affects individuals' engagement in, for example, sustainable activism (Fielding et al., 2008), organic product purchase and sustainable food consumption (Kim, 2019; Salazar et al., 2013), energy conservation (Smith et al., 2012) and littering less (Kallgren et al., 2000).

Beyond the Motivation for Sustainable Behaviour

Environmental justice research, VBN theory and the social identity approach increase our understanding of the factors underlying people's motivations for (not) wanting to engage in sustainable behaviours. Yet, motivational processes alone are insufficient for understanding why people do or do not engage in sustainability transitions. In fact, by focusing on motivational processes only, we run the risk of blaming those who lag behind in this transition for lacking the motivation to counter climate change. For instance, people with a low socio-economic position are sometimes portrayed as not behaving in sustainable ways because of a lack of motivation (e.g., because they do not feel responsible for climate change or do not feel it is very urgent (see, for example, Santangelo & Tondelli, 2017). Yet, more factors are at play. The Capability-Opportunity-Motivation-Behaviour (COM-B) model (Michie et al., 2011) outlines why the transition to more sustainable behaviours is not equally achievable for everybody, and why being motivated to act sustainably is insufficient. Following this model, engagement in the sustainability transition is shaped not only by individuals' *motivation* (mental processes that energise and direct certain behaviour), but also by their *capabilities* (psychological and physical capacity to engage in a particular act) and *opportunities* (factors located in the physical as well as social environment that enable or prompt behaviour). Crucially, capabilities to transition may lag behind in certain groups, most notably lower socio-economic groups, as these groups tend to have a lower level of sustainability-related skills and knowledge (Pohjolainen et al., 2016; Vainio et al., 2020). Indeed, it has been shown that groups with lower socio-economic status tend to be late adopters of new, sustainable behaviours (Franceschinis et al., 2017). Moreover, people who occupy less privileged positions in society typically have fewer resources (e.g., finances, time, social capital) available to support them through the energy transition (Abrahamse & Steg, 2011; Trotta, 2018). Crucially, multiple studies have shown that lower socio-economic status groups are *not* less motivated, nor do they have fewer intentions to behave sustainably (Abrahamse & Steg, 2011; Pearson et al., 2018).

Moving beyond a primarily motivation-based account of sustainable behaviour and applying insights from COM-B to the sustainability transition can provide deeper insights into the processes shaping the transition for different groups in society. This in turn can inform policies and interventions aimed at facilitating participation in the sustainability transition for everybody, contributing to the global aim of 'leaving no-one behind'. However, research specifically targeting specific socio-economic groups in the sustainability transition is scarce. Primary insights come from a Dutch case study on social housing residents' attitudes (who typically belong to lower socio-economic groups) toward a sustainable renovation of their building (Bal et al., 2021). This study found that residents were in fact concerned about climate change and held corresponding environmental justice beliefs. Moreover, they typically already engaged in various sustainable behaviours, and were motivated to increase their sustainable behaviours following the renovation. They largely believed global warming was problematic and had a personal norm to save energy. Hence, motivation to take part in the sustainability transition was high.

Interestingly, respondents were motivated both by self-transcending values as well as by self-enhancing values, while the latter usually hamper sustainable behaviour intentions (de Groot & Steg, 2008; Steg et al., 2014). It might be the case that sustainable renovations and sustainable technology investments by municipalities and housing corporations can decrease energy consumption and, at the same time, increase residents' living comfort while decreasing their expenses, particularly in social housing. Nevertheless, in line with the COM-B model, perceived social norms were not always supportive of behaving sustainably and respondents sometimes failed to recognize the sustainable value of these behaviours, indicating limited capabilities to transition. Especially when the sustainability aspect of certain sustainable behaviours was unclear (e.g., leaving the heating on when leaving the house or actively blocking the sun from your apartment), unsupportive social norms negatively impacted people's intention to engage in these sustainable behaviours.

Sustainability Transitions: Challenges for Solidarity and Social Justice

Taken together, climate change and the necessary sustainability transitions raise important challenges for solidarity, and social justice. First, social justice can be an important instigator of climate action. However, an extension of the scope of justice is necessary, going beyond the here and now and beyond the human species. Research on environmental justice shows that three principles of social justice can be distinguished that extend the scope to future generations (intergenerational environmental justice), to people worldwide, with an emphasis on disadvantaged groups (global environmental justice), and beyond the human species to nature and other animals (ecological environmental justice). These environmental justice principles can stimulate sustainable behaviour.

Related to this, an important goal of the Green Deal is to 'leave no one behind'. Most social sci-entific research has been focused on factors motivating individuals to engage in sustainable behaviour. However, the shift towards a sustainable transition is not equally attainable. Existing social inequalities will likely transfer into this sustainable transition process or may even become exacerbated (Shepard & Corbin-Mark, 2009). Not taking part in the transition is sometimes attributed to a lack of interest or motivation. However, studies show that this is not the case, and that other factors, notably a lack of opportunities and capabilities, also hamper the transition process. Moreover, the burdens of climate change are not equally distributed across all people, with vulnerable groups carrying a disparately large share. Thus, vulnerable populations suffer a double burden in the sense that they are disparately affected by the negative effects of climate change, while at the same time they have structurally lower opportunities and capabilities, which makes it more difficult for them to participate in the sustainability transition. This may, in fact, even undermine these groups' solidarity towards sustainable efforts.

Together, the issues described in this chapter clearly demonstrate that climate change is a wicked problem (Incropera, 2016). This means the problem is complex, influenced by a multitude of factors, with outcomes of both action and non-action being uncertain. Because of its wicked nature, several justice questions arise (e.g., How can we take future generations into account? How should we account for uncertainties inherent to the transition process? What does a just transition process look like? Who should get a voice in this process?). These questions are difficult to answer and evoke ample discussion both in policymaking and within the general public, which can lead to polarization on climate change issues and climate change scepticism (see Box 17.1 below). Solving wicked problems requires the involvement of all sectors of society and considerations across a multitude of dimensions (e.g., technological, medical, social, economic, political, moral). In the current chapter, we discussed several questions surrounding solidarity and social justice that warrant further discussion in transitioning to a more sustainable world.

Box 17.1   Climate Change Scepticism

Up until now, most research on climate change reactions has focused on identifying the factors driving sustainable behaviour. However, in contemporary societies, climate change scepticism seems to be on the rise (e.g., Eurobarometer, 2019; O'Neill, 2020). Such scepticism can be an important barrier to sustainable behaviour. Although climate change scepticism has only recently started to attract substantial scholarly attention (Postmes, 2015), at least four types of scepticism have been distinguished: trend (Is the climate changing?), attribution (Is climate change caused by humans?), impact (How severe are the consequences?), and effectiveness (Do my actions help counter climate change? (Poortinga et al., 2011). Climate change scepticism seems to fit well in larger, contemporary trends of growing distrust towards governments (e.g., the rise of populism), science (e.g., science scepticism), large corporations (e.g., fears of greenwashing, where companies use PR and marketing to present themselves as greener than they actually are), and the growing attraction of conspiracy theories in society (e.g., related to COVID-19 and vaccination in general; e.g., (Douglas et al., 2017; Rutjens & van der Lee, 2020).

Approaching climate change scepticism from a motivated reasoning perspective, where people's reasoning processes are biased towards attaining a certain desired reasoning outcome as opposed to an accurate one (e.g., to reduce negative emotions or cognitive dissonance), (Feygina et al., 2010; Haltinner & Sarathchandra, 2018; Hennes et al., 2020), these forms of scepticism could paradoxically be stemming from a concern about climate change. That is, climate change can be perceived as a threat to us (e.g., our existence, our values, the current status quo) and we already know from research on victim blaming and system justification (Chap. 4, this volume) that we sometimes deal with threats by using defensive coping strategies. As such, we may sometimes be motivated to reduce the threat of climate change by increasing climate scepticism. Studies have indeed shown that after a dire message regarding climate change, climate scepticism increased, particularly among those for whom justice was salient and for whom living in a just world was more important (Feinberg & Willer, 2011). Moreover, people who saw environmentalism as a threat were more likely to be sceptical of climate change (Hoffarth & Hodson, 2016).

Glossary

Capability-Opportunity-Motivation-Behaviour (COM-B) model: a model outlining how capabilities (psychological and physical capacity to engage in a particular act), opportunities (factors located in the physical as well as social environment that enable or prompt behaviour), and motivations (mental processes that energize and direct behaviour) shape people's intentions to change their behaviour.

Ecological environmental justice: an extension of the scope of justice towards nature and non-human species.

Environmental justice: a set of questions related to fairness and justice in climate change adaptation and mitigation, and the theories and research studying them. (The term was initially used as an activist term to flag that lower socio-economic and Black communities were disproportionately burdened and put at risk by environmental hazards as these are often located near their neighbourhoods.)

Global environmental justice: an extension of the scope of justice towards people worldwide, especially taking economically disadvantaged groups into account

Green identity: the extent to which you see yourself as a type of person who acts environmentally friendly.

Intergenerational environmental justice: an extension of the scope of justice towards the inclusion of future generations, including current younger generations

Sustainability transitions: a shift in how we use the earth's resources from exhaustive to sustainable by reducing as well as changing our consumption patterns. (Sustainability transitions can be identified in different realms, such as energy, food, and transport.)

Value-Belief-Norm (VBN) theory: a theory outlining how self-transcending (i.e., biospheric, altruistic) and self-enhancing values (egoistic and hedonistic), more sustainable-behaviour-specific beliefs, and personal norms shape people's sustainability attitudes and behaviours.

Comprehension Questions

1. Which three environmental justice principles can be distinguished, what do they entail, and how do they relate to sustainable behaviour (intentions)?

2. What do the letters V, B, and N stand for in VBN-theory and why does this theory not suffice in explaining sustainable behaviour (intentions)? What other types of factors should also be considered?

3. What do the results of the study amongst residents of a social housing building during the sustainable renovation of their apartment building show in terms of the COM-B model?

Discussion Question

1. This chapter discusses extensions of the scope of justice towards including new groups (i.e., future generations, people worldwide and specifically disadvantaged communities, and non-human species and nature). However, in Chap. 4 (this volume) several other forms of justice

have also been introduced. How could these be used to stimulate sustainable behaviour?

2. Would you consider sustainable behaviour and climate scepticism opposite sides of the same coin? Why or why not? Based on your answer, how could we best address climate scepticism and stimulate sustainable behaviour?

References

Abrahamse, W., & Steg, L. (2011). Factors related to household energy use and intention to reduce it: The role of psychological and socio-demographic variables. *Human Ecology Review, 18*(1), 30–40.

Bal, M., Stok, F. M., Van Hemel, C., & De Wit, J. B. (2021). Including social housing residents in the energy transition: A mixed-method case study on residents' beliefs, attitudes, and motivation toward sustainable energy use in a zero-energy building renovation in the Netherlands. *Frontiers in Sustainable Cities, 3*. https://doi.org/10.3389/frsc.2021.656781

Bögel, P. M., & Upham, P. (2018). Role of psychology in sociotechnical transitions studies: Review in relation to consumption and technology acceptance. *Environmental Innovation and Societal Transitions, 28*, 122–136. https://doi.org/10.1016/j.eist.2018.01.002

Bullard, R. D., & Johnson, G. S. (2000). Environmental justice: Grassroots activism and its impact on public policy decision making. *Journal of Social Issues, 56*(3), 555–578. https://doi.org/10.1111/0022-4537.00184

Cherp, A., Vinichenko, V., Jewell, J., Brutschin, E., & Sovacool, B. (2018). Integrating techno-economic, socio-technical and political perspectives on national energy transitions: A meta-theoretical framework. *Energy Research & Social Science, 37*, 175–190. https://doi.org/10.1016/j.erss.2017.09.015

Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology, 55*, 591–621. https://doi.org/10.1146/annurev.psych.55.090902.142015

Clayton, S., & Opotow, S. (2003). Justice and identity: Changing perspectives on what is fair. *Personality and Social Psychology Review, 7*(4), 298–310. https://doi.org/10.1207/s15327957pspr0704_03

de Groot, J. I. M., & Steg, L. (2008). Value orientations to explain beliefs related to environmental significant behavior – How to measure egoistic, altruistic, and biospheric value orientations. *Environment and Behavior, 40*, 330–354. https://doi.org/10.1177/0013916506297831

de Haan, F. J., & Rotmans, J. (2018). A proposed theoretical framework for actors in transformative change. *Technological Forecasting and Social*

Change, 128, 275–286. https://doi.org/10.1016/j.techfore.2017.12.017

Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *The Journal of Abnormal and Social Psychology, 51*(3), 629.

Douglas, K. M., Sutton, R. M., & Cichocka, A. (2017). The psychology of conspiracy theories. *Current Directions in Psychological Science, 26*(6), 538–542. https://doi.org/10.1177/0963721417718261

Ebi, K. L., & Hess, J. J. (2020). Health risks due to climate change: Inequity in causes and consequences. *Health Affairs, 39*(12), 2056–2062. https://doi.org/10.1377/hlthaff.2020.01125

Eurobarometer. (2019). *Special Eurobarometer 490 report climate change.* Retrieved July 24, 2021, from https://ec.europa.eu/clima/sites/clima/files/support/docs/report_2019_en.pdf.

Feinberg, M., & Willer, R. (2011). Apocalypse soon? Dire messages reduce belief in global warming by contradicting just-world beliefs. *Psychological Science, 22*(1), 34–38. https://doi.org/10.1177/0956797610391911

Feygina, I., Jost, J. T., & Goldsmith, R. E. (2010). System justification, the denial of global warming, and the possibility of "system-sanctioned change". *Personality and Social Psychology Bulletin, 36*(3), 326–338. https://doi.org/10.1177/0146167209351435

Fielding, K. S., & Hornsey, M. J. (2016). A social identity analysis of climate change and environmental attitudes and behaviors: Insights and opportunities. *Frontiers in Psychology, 7*. https://doi.org/10.3389/fpsyg.2016.00121

Fielding, K. S., McDonald, R., & Louis, W. R. (2008). Theory of planned behaviour, identity and intentions to engage in environmental activism. *Journal of Environmental Psychology, 28*(4), 318–326. https://doi.org/10.1016/j.jenvp.2008.03.003

Franceschinis, C., Thiene, M., Scarpa, R., Rose, J., Moretto, M., & Cavalli, R. (2017). Adoption of renewable heating systems: An empirical test of the diffusion of innovation theory. *Energy, 125*, 313–326. https://doi.org/10.1016/j.energy.2017.02.060

Glad, W. (2012). Housing renovation and energy systems: The need for social learning. *Building Research and Information, 40*(3), 274–289. https://doi.org/10.1080/09613218.2012.690955

Green, D. (2016). The spatial distribution of extreme climate events, another climate inequity for the world's most vulnerable people. *Environmental Research Letters, 11*(9). https://doi.org/10.1088/1748-9326/11/9/091002

Haltinner, K., & Sarathchandra, D. (2018). Climate change skepticism as a psychological coping strategy. *Sociology Compass, 12*(6). https://doi.org/10.1111/soc4.12586

Hennes, E. P., Kim, T., & Remache, L. J. (2020). A goldilocks critique of the hot cognition perspective on climate change skepticism. *Current Opinion in Behavioral Sciences, 34*, 142–147. https://doi.org/10.1016/j.cobeha.2020.03.009

Hoffarth, M. R., & Hodson, G. (2016). Green on the outside, red on the inside: Perceived environmentalist threat as a factor explaining political polarization of climate change. *Journal of Environmental Psychology, 45*, 40–49. https://doi.org/10.1016/j.jenvp.2015.11.002

Incropera, F. P. (2016). *Climate change: A wicked problem: Complexity and uncertainty at the intersection of science, economics, politics, and human behavior.* Cambridge University Press.

IPBES. (2019). *Global assessment report on biodiversity and ecosystem services of the intergovernmental science- policy platform on biodiversity and ecosystem services* (E. S. Brondizio, J. Settele, S. Díaz, & H. T. Ngo, Eds.). IPBES Secretariat.

IPCC. (2018). *Global warming of 1.5°C.* Intergovernmental Panel on Climate Change.

Jenkins, K., McCauley, D., Heffron, R., Stephan, H., & Rehner, R. (2016). Energy justice: A conceptual review. *Energy Research & Social Science, 11*, 174–182. https://doi.org/10.1016/j.erss.2015.10.004

Johe, M. H., & Bhullar, N. (2016). To buy or not to buy: The roles of self-identity, attitudes, perceived behavioral control and norms in organic consumerism. *Ecological Economics, 128*, 99–105. https://doi.org/10.1016/j.ecolecon.2016.02.019

Kallgren, C. A., Reno, R. R., & Cialdini, R. B. (2000). A focus theory of normative conduct: When norms do and do not affect behavior. *Personality and Social Psychology Bulletin, 26*(8), 1002–1012. https://doi.org/10.1177/01461672002610009

Kammen, D. M., & Sunter, D. A. (2016). City-integrated renewable energy for urban sustainability. *Science, 352*(6288), 922–928. https://doi.org/10.1126/science.aad9302

Kim, Y. H. (2019). Organic shoppers' involvement in organic foods: Self and identity. *British Food Journal, 121*(1), 139–156. https://doi.org/10.1108/bfj-03-2018-0202

Michie, S., van Stralen, M. M., & West, R. (2011). The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science, 6*. https://doi.org/10.1186/1748-5908-6-42

Mitchell, B. C., & Chakraborty, J. (2014). Urban heat and climate justice: A landscape of thermal inequity in Pinellas County, Florida. *Geographical Review, 104*(4), 459–480. https://doi.org/10.1111/j.1931-0846.2014.12039.x

O'Neill, S. (2020). More than meets the eye: A longitudinal analysis of climate change imagery in the print media. *Climatic Change, 163*, 9–26.

Pearson, A. R., Schuldt, J. P., Romero-Canyas, R., Ballew, M. T., & Larson-Konar, D. (2018). Diverse segments of the US public underestimate the environmental concerns of minority and low-income Americans. *Proceedings of the National Academy of Sciences of the United States of America, 115*(49), 12429–12434. https://doi.org/10.1073/pnas.1804698115

Pohjolainen, P., Tapio, P., Vinnari, M., Jokinen, P., & Rasanen, P. (2016). Consumer consciousness on

meat and the environment – Exploring differences. *Appetite, 101*, 37–45. https://doi.org/10.1016/j.appet.2016.02.012

Poortinga, W., Spence, A., Whitmarsh, L., Capstick, S., & Pidgeon, N. F. (2011). Uncertain climate: An investigation into public scepticism about anthropogenic climate change. *Global Environmental Change-Human and Policy Dimensions, 21*(3), 1015–1024. https://doi.org/10.1016/j.gloenvcha.2011.03.001

Postmes, T. (2015). Climate change and group dynamics. *Nature Climate Change, 5*(3), 195–196. https://doi.org/10.1038/nclimate2537

Reese, G. (2016). Common human identity and the path to global climate justice. *Climatic Change, 134*(4), 521–531. https://doi.org/10.1007/s10584-015-1548-2

Reese, G., & Jacob. (2015). Principles of environmental justice and pro-environmental action: A two-step process model of moral anger and responsibility to act. *Environmental Science & Policy, 51*, 88–94. https://doi.org/10.1016/j.envsci.2015.03.011

Reese, G., & Kohlmann. (2015). Feeling global, acting ethically: Global identification and fairtrade consumption. *Journal of Social Psychology, 155*(2), 98–106. https://doi.org/10.1080/00224545.2014.992850

Renger, D., & Reese, G. (2017). From equality-based respect to environmental activism: Antecedents and consequences of global identity. *Political Psychology, 38*(5), 867–879. https://doi.org/10.1111/pops.12382

Rutjens, B. T., & van der Lee, R. (2020). Spiritual skepticism? Heterogeneous science skepticism in the Netherlands. *Public Understanding of Science, 29*(3), 335–352. https://doi.org/10.1177/0963662520908534

Salazar, H. A., Oerlemans, L., & van Stroe-Biezen, S. (2013). Social influence on sustainable consumption: Evidence from a behavioural experiment. *International Journal of Consumer Studies, 37*(2), 172–180. https://doi.org/10.1111/j.1470-6431.2012.01110.x

Santangelo, A., & Tondelli, S. (2017). Occupant behaviour and building renovation of the social housing stock: Current and future challenges. *Energy and Buildings, 145*, 276–283. https://doi.org/10.1016/j.enbuild.2017.04.019

Schwartz, D., Loewenstein, G., & Aguero-Gaete, L. (2020). Encouraging pro-environmental behaviour through green identity labelling. *Nature Sustainability, 3*(9), 746–752. https://doi.org/10.1038/s41893-020-0543-4

Shepard, P. M., & Corbin-Mark, C. (2009). Climate justice. *Environmental Justice, 2*(4), 163–166.

Shove, E., & Walker, G. (2010). Governing transitions in the sustainability of everyday life. *Research Policy, 39*(4), 471–476. https://doi.org/10.1016/j.respol.2010.01.019

Smith, J. R., Louis, W. R., Terry, D. J., Greenaway, K. H., Clarke, M. R., & Cheng, X. L. (2012). Congruent or conflicted? The impact of injunctive and descriptive norms on environmental intentions. *Journal of Environmental Psychology, 32*(4), 353–361. https://doi.org/10.1016/j.jenvp.2012.06.001

Soron, D. (2010). Sustainability, self-identity and the sociology of consumption. *Sustainable Development, 18*(3), 172–181. https://doi.org/10.1002/sd.457

Sovacool, B. K., & Dworkin, M. H. (2015). Energy justice: Conceptual insights and practical applications. *Applied Energy, 142*, 435–444. https://doi.org/10.1016/j.apenergy.2015.01.002

Sovacool, B. K., & Hess, D. J. (2017). Ordering theories: Typologies and conceptual frameworks for sociotechnical change. *Social Studies of Science, 47*(5), 703–750. https://doi.org/10.1177/0306312717709363

Steg, L., Perlaviciute, G., van der Werff, E., & Lurvink, J. (2014). The significance of hedonic values for environmentally relevant attitudes, preferences, and actions. *Environment and Behavior, 46*(2), 163–192. https://doi.org/10.1177/0013916512454730

Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues, 56*(3), 407–424. https://doi.org/10.1111/0022-4537.00175

Stern, P. C., Dietz, T., & Guagnano, G. A. (1998). A brief inventory of values. *Educational and Psychological Measurement, 58*(6), 984–1001. https://doi.org/10.1177/0013164498058006008

Tajfel, H. (1974). Social identity and intergroup behaviour. *Social Science Information Sur Les Sciences Sociales, 13*(2), 65–93. https://doi.org/10.1177/053901847401300204

Thunberg, G. (2018). You are stealing my future. Speech provided at the 2018 UN Climate Change conference, Katowice, Poland.

Trotta, G. (2018). Factors affecting energy-saving behaviours and energy efficiency investments in British households. *Energy Policy, 114*, 529–539. https://doi.org/10.1016/j.enpol.2017.12.042

Turner, J. C. (1975). Social comparison and social identity: Some prospects for intergroup behavior. *European Journal of Social Psychology, 5*(1), 5–34. https://doi.org/10.1002/ejsp.2420050102

Vainio, A., Pulkka, A., Paloniemi, R., Varho, V., & Tapio, P. (2020). Citizens' sustainable, future-oriented energy behaviours in energy transition. *Journal of Cleaner Production, 245*. https://doi.org/10.1016/j.jclepro.2019.118801

Wahlström, M., Sommer, M., Kocyba, P., de Vydt, M., De Moor, J., Davies, S., & Uba, K. (2019). Protest for a future: Composition, mobilization and motives of the participants in Fridays for future climate protests on 15 March, 2019 in 13 European cities.

Whitmarsh, L., & O'Neill, S. (2010). Green identity, green living? The role of pro-environmental self-identity in determining consistency across diverse pro-environmental behaviours. *Journal of Environmental Psychology, 30*(3), 305–314. https://doi.org/10.1016/j.jenvp.2010.01.003