

A speculative conversation on climate change and sociology

THE IPCC PREDICTS fundamental changes to the biophysical world, with fundamental changes for human and non-human societies across the globe (IPCC 2023). Changing societies is the ‘origin story’ of sociology: revolutions, industrialisation, capitalism, and the break with premodern tradition. While this suggests that sociology should be well-equipped to grapple with the coming changes, there is scope, and possibly even need, to rethink, strengthen, and develop sociology’s contributions to the resolution of the climate crisis. This speculative text attempts to approach some of the dimensions of this rethinking.

In the vein of academic multilogue, this text takes on the form of a conversation. Thus, we aspire to reflect the collaborative, yet nuanced, nature of academic research, and push boundaries for how texts are normally written in our domains. It is based on an actual conversation that took place between the authors on a sunny summer’s day, when we gathered to discuss the role of sociology for the climate crisis and vice versa. The conversation transcript was cut, cleaned up, developed in places, and references were added. What remains is what we believe reflects some of the most central aspects of these questions. We discuss the following topics in order: a) how the likely magnitude of the impending societal changes renders sociology especially relevant; b) the need for sociology to enhance its framing and contributions to climate policy; c) approaches to being normative about normativity; and d) methods for studying climate futures, sociologically and beyond. Headlines are sparingly used, in order to help orient the reader, without distracting from the multilogue flow. We conclude with a brief meta-reflection on this conversation, where we also consider the influence of our personal research backgrounds.

Sara: 2023 has seen extreme weathers and temperatures, whose intensity has been attributed to climate change (O’Driscoll 2023). Globally, July was the hottest month ever recorded (NASA 2023). Rainfall, floods, wildfires, and cyclones have brought destruction across the globe (O’Driscoll 2023). We know that this is caused by greenhouse gas emissions, that humans and animals are already suffering the consequences, and that these will worsen in decades to come. We also know that change is the only answer (IPCC 2023). As such, it is clear that climate change, society, and humans are closely intertwined. Many people, disciplines, and interdisciplines are trying to make sense of these relationships, and generate knowledge and insight to better work towards just resolutions of climate change and other environmental issues. What I would like us to discuss today is where sociology is in all this, what it could contribute to this

resolution, and how it needs to develop in order to stay relevant.

Sociology's capacity for understanding large-scale societal changes

Mikael L: Sociology can of course offer many important insights into the workings of society, sociality, and humanity, but on a more aggregated level, I believe it relevant to first make a quick pass to the origins of sociology. The classical narrative goes that sociology rose with the industrialisation of Western societies, with a view to understand this change, its consequences, and how to ameliorate the human condition under the new societal conditions, so to speak, or even how to support a revolution. What did capitalism, rationalisation, the dissolution of tradition, urbanisation, etc., do to humans, and how did these work? Those questions ignited our disciplinary ancestors. In a poetic sense, sociology could then be useful in understanding both how, and with which social effects, de-industrialisation (of affluent nations) may be ushered in, including the transformation from fossil energy-dependent to fossil energy-free.

Mikael K: Perhaps I quibble here, but your term *de-industrialisation* seems very big and appears to possibly range from low-tech small-is-beautiful societies to an ever-increasing high-tech society minus fossil fuel. What place on this continuum are you referring to?

Mikael L: In this context, a societal change on par with the industrialisation of Western societies. However, the transformation now required must break with the idea of human exemptionalism, i.e. the assumption that the biophysical environment is irrelevant to modern, industrialised societies (Dunlap & Catton, 1994). This idea has justified so much exploitation, extractivism and depletion of natural resources, emissions, and urban and industrial sprawl. If we are to adhere to the planet's biophysical limits and reduce emissions, the 'ever-increasing high-tech society' (albeit without fossil fuels) is simply not possible. Hence, the relevance of sociology in this transformation is to explore and explain the social and structural consequences of "reversing the trend toward tightly coupled nature-society assemblages" (Bowden, 2017:64), and to "identify alternatives to the high-carbon, low-equity social structures that organise the modern world" (Klinenberg et al. 2020:663). In other words, by de-industrialisation I refer to processes which will inevitably lead us towards "low-tech, small-is-beautiful" societies.

Sara: Building on that - we don't yet know what magnitude of change we are looking at, both in terms of a changing climate as well as societal and systemic change, either enforced or as a result of climate change. Based on various scenario assessments, however, it seems highly unlikely that we will limit warming to 1.5, and maybe even 2, degrees (Engels et al. 2023), which would mean significant changes to the biophysical world, with likely significant changes to the social world. As such, I am inclined to believe that regardless of our intentions and actions, the magnitude of the impending changes will be industrialisation-level, meaning it will likely shake and reshape much

of society, and force or facilitate a change in how we organise ourselves, and relate to each other. Although you emphasise ‘low-tech, small-is-beautiful’, Mikael L, the actual direction is not yet determined – more direct democracy or more autocracy; stronger neoliberal, steady state or even degrowth policies; more cooperation or more competition; closed borders or no borders; new organisational systems or a patchwork of old ones; new norms or a reversion to old traditions; liberation or oppression?

Lea: I think we already now see great pressure on categories that we took for granted for centuries, such as the nation state, markets, corporations, and nature. Think of movements calling for climate passports or global climate policies that would substantially change the relevance of the nation state as a jurisdiction (Dijstelbloem 2021). The challenge of the corporation by the platform economy as the dominant form of organising work (Frenken & Fuenfschilling 2021). The rise of new socio-economic models like degrowth that question the fundamentals of economics. New laws and regulations in the area of environmental protection and animal rights suggest a rethinking of the dominant exploitative strategies of the past decades. Simultaneously, we see billionaires who want to colonise the Moon or Mars (instead of helping *this* planet), the UK government banning certain kinds of protests in the wake of Extinction Rebellion, and not to mention that all these developments intersect with - and potentially reinforce - the current reckoning in terms of categories like gender and ethnicity. The effects of climate change are expected to cause and intensify all types of societal pressures: migration, poverty, inequalities, war, conflict, crime, welfare state, work, etc. As such, climate change will lead to societal developments that sociologists are very familiar with, as well as new developments. So on the one hand, we can see climate change as yet another domain in which we can do sociological research - where we take our established categories and theories and apply them. On the other hand, I also believe that climate change will likely alter our societies to a point where we will need new categories and theories to explain social dynamics.

Engagement with policy and practice

Mikael K: These are all very good points, but I'd like to change the temporal focus for a bit, because while climate change will likely have serious effects in the future, our timeframe to act is now. Something I think sociology, and environmental sociology, could do better is engage more with policy and practice.

Mikael L: Yes, in a recent review by Davidson (2022) they note that despite its many achievements, not to mention its suitability for addressing emerging climate-related research questions, sociology still remains in the back seat in climate policy and science. Consequently, we have come some way but there is still more work to be done in order to make sociological knowledge crucial in combating the climate crisis. Here I agree with Kari Marie Norgaard that the role of individuals and individual consumption has been drastically overemphasised, and that we need to focus more sociological research on whether and how institutional, political, and economic transformation might be

achieved, including the consequences of this transformation (for example, what would it be like to live in a post-growth society?). As she succinctly sums it up, “the focus on individuals is more than a theoretical choice, it has the political function of leaving government and corporations unaccountable” (Norgaard 2018:174).

Lea: I believe an important step here is for sociology, and not only environmental sociology, to frame contributions more clearly in the context of climate research, so that this type of ‘evidence’ can more easily be used in the formulation of climate policies. Sociological research also has a long tradition of critical perspectives, which I believe is very much needed on this question. For example, we see a decoupling of discourse and practice; of the symbolic, ceremonial signalling of environmental sustainability in reports, newspapers, and social media versus its actual performance in practice (de Freitas et al., 2020). Think of greenwashing, expansion of fossil-based industries, lack of behavioural changes, etc. All these developments can be understood through existing sociological theory, and I would argue that these insights can be tremendously helpful in understanding the dynamics of climate politics and climate action.

Mikael K: I agree that the decoupling you’re talking about is definitely a big issue. It’s often hidden from most people through clever marketing tricks. Existing sociological theories can spot some of these tactics, but I don’t think they’re enough to tackle the whole problem. New theories - and revisions of the old ones - are needed to capture increasingly complicated decoupling strategies, and by extension to say something about what can be done about it, for instance policy-wise. Decoupling seems to be more and more tangled up in trade-offs and mixed messages about different types of benefits and drawbacks. For example, ecological goals are often seen as conflicting with social and economic sustainability. Plus, there’s always the argument of scientific uncertainty slowing things down (Klintman 2019). I believe the real challenge with this decoupling issue is the slowness. It’s tricky how being in power and simply saying we’re ready to ‘move in the right direction’ is often seen as an achievement in itself. And when it comes to actually picking up the pace, those calls for speed are usually brushed off as being too emotional or naive, with this dismissal being dressed up as level-headed and showing mature moderation.

Criticality and normativity

Sara: What you mention about policy processes, critical perspectives and the need for sociology to scrutinise decoupling, Lea and Mikael, ties in with questions of normativity, which seem to have become a hot topic in recent public-academic debates. Simultaneously, it’s something that has accompanied sustainability research since its inception, as well as sociology, but I believe it will become even more important to deal with these questions in the decades to come, for many reasons, including policy relevance. Normativity is perhaps used as a bit of a catch-all term for a variety of choices and practices, from taking a particular sustainability perspective as a starting point for one’s research to storming the stage of the Eurovision Song Contest (like

a researcher did in Sweden in February, 2023, to protest climate change (Westling 2023)). The debates, the criticisms, and where opinions diverge is around what is acceptable and what isn't, i.e. what is 'good' normativity (for researchers)? There are different perspectives on this (van der Hel, 2018), but I think the starting point is quite simple – and yes, I will now be normative about normativity. I assume that most of us, who are in the fields of environment-human intersections, are here because we want to support the creation of more sustainable and fair systems and practices. Being critical and reflexive researchers should ideally lead us to the conclusion that it is in the interest of these 'goals' to be critical and to scrutinise both the status quo, as well as alternative paradigms, as thoroughly as we can, and not blindly adhere to anything. How we use our position as researchers is up to each and everyone - of course there is a case for that certain actions can have effects on the legitimacy of research, but so can knowing and not doing anything.

Mikael K: Yes, but in my view, criticality is so fundamental to the principle of scientific process that it becomes almost tautological to talk in terms of critical research. Of course, any academic work should be based on a critical gaze. At the same time, I believe that we might find it difficult not to take a normative stance, because of what our sociological imagination makes visible for us, in terms of climate change impacts on poorer countries, marginalised groups, etc. Taking that as a starting point, we can attempt to adhere to a few principles around managing normativity. Firstly, we must make our normative stance clear, especially if it could make a difference for our study. Secondly, we must consistently dare ask ourselves: am I producing knowledge that just confirms my belief and normative stance? Third, we must be ready to be surprised by our research findings, and we need our readers to trust that we are ready to produce knowledge that goes against our normative stances. Lastly, we must make sure that our normative stances are well-informed, and not sweeping - we must, for instance, learn about, and learn to respond to, counter-arguments.

Studying the future, sociologically and beyond

Mikael L: Another interesting aspect, I think, is to be normative regarding something which doesn't exist, or is in an emerging state of existence, like an alternative form of societal organisation. I believe that to be policy-relevant, we can't only be reactive, we also have to do our best to study the future, but from the present. This is also an epistemological question – how do we study something that constitutes a future possibility? When it comes to economic growth-critical fields, we can study what Demaria et al. (2019) and others call nowtopian practices and projects. That is, actual initiatives and modes of existing that challenges our habitual consumerist and individualist Western lifestyle. This includes movements like voluntary simplicity and downshifting, as well as eco-villages, transition networks, and off-grid living. Another way is to study explorative scenarios and imaginaries of alternative future societies, e.g. alternative climate futures (Urry 2016), post-capitalist ideal-type futures (Frase 2016), and degrowth futures (Alexander 2021). Important to note, these types of studies do

not usually idealise what living in a post-fossil, post-growth society would be like. On the contrary, challenges and difficulties are often highlighted. Consequently, regardless of your empirical material, exploring alternative modes of existence does not imply proclaiming one vision as better or more preferable than another (as for example in normative back-casting methodology), but rather demonstrates the non-determinism of social change.

Mikael K: Sure, there are solid reasons to see social change as non-deterministic, especially to boost public involvement. But I think the idea is often over-interpreted into ‘anything could happen if we’re only radical and imaginative enough’ in sociological future studies. To move from unqualified to qualified guessing, sociologists should team up with evolutionary sociology, psychology, and anthropology (Klintman 2018). This collaboration could enhance our understanding of the interplay between basic human social drivers and the cultural, conditional, and constraining influences of our evolutionary origins on possible climate futures. Understanding the drivers of social status struggles and the constant redefinition of ‘us’ versus ‘them’ dynamics that are inherent in us but can be recanalised into, for instance, progressive climate endeavours, is essential for translating sociological research on climate futures into realistic operational strategies (Klintman 2012). On that note, there’s also a strong case for this mix of disciplines when we think about futures where humans (as well as nonhuman animals) compete and cooperate for livable spaces. Here, individual genetic variations in tolerance to extreme temperatures could play a significant role. Therefore, research on the future must be more informed about these basic conditionalities, allowing us to narrow down which futures are plausible.

Sara: While I am a firm believer in all kinds of disciplinary boundary-transgressing, I don’t quite agree that it is evolutionary psychology and the like we should turn to. I think it opens up a so-called can of worms to suggest, on the basis of an evolutionary perspective, that we can better predict what we, as humans, will, and will have to, do. Evolutionary explanations can be criticised for many things, including methodological challenges and limitations (Gannon 2002), but more than that – what do such explanations crowd out? And at what cost? I am much more inclined to look toward more open-ended possibilities and paths – which evolutionary perspectives, being based on (ideas about) what has been, may reduce to impossibilities to be disregarded and discarded.

Lea: More specifically, in the context of studying the future, we need to recognise two things. One crucial aspect is being able to navigate uncertainty, including the uncertainty of scientific evidence. This ability will be decisive for the success of climate policies. Another thing that research in the realm of sustainability has pointed to for identifying possible futures is the importance of experimentation: experimenting with new policies, new technologies, new lifestyles, new economies (Turnheim et al. 2018; Sengers et al. 2019; Fuenfschilling et al. 2019). This research highlights the need for

local participatory structures (e.g. urban living labs), the importance of plurality of solutions, and the diversity of stakeholders involved. For developing sociology, including environmental sociology, we should not only look inward, but also outward, to other disciplinary and interdisciplinary fields, where experimentation is a standard practice. Dealing with direct engagements, such as action research, will be necessary for studying climate change as well as opening up to scenario planning, visioning, futuring, or being part of living labs and other experimental settings. Expanding our theoretical and methodological practices beyond our standard disciplinary boundaries may be exactly what is needed to continue staying relevant and to better support a resolution to the climate crisis.

Conclusion

In this brief text, we have discussed four important aspects that, in our opinion, hold potential for the future of sociology – a) sociology’s aptitude in addressing large-scale change; b) the need to strengthen sociology’s climate policy contributions; c) normativity in research; and d) using sociological and broader methodologies for studying futures. We do not claim that these aspects are exhaustive or form a comprehensive research agenda. Our aim has been to strengthen, or to call for a strengthening of, the sociological voice, insight, and imagination, so that we - along with the whole community of scholars with interest in climate as a sociological issue – can better contribute to the knowledge basis needed for improving the quality of life and livability for humans, non-human animals, and other life forms. However, reflecting on our own positionality and how it has shaped our viewpoints may be both welcome and necessary.

Each of us approached the discussion with diverse backgrounds and perspectives on sociology, climate change, and the relationship of the two. Sara Skarp has thrived in many interdisciplinary, sustainability-focused settings, where the idea that education and research should be guided and justified by goals of sustainability and fairness is a normal and integral part. In this text, this is expressed through her emphasis on normativity. Mikael Klintman also has a background in interdisciplinarity and, through his research and teaching, has primarily aimed to be critical and normative by emphasising the duty of research to challenge *itself*, allowing for provocative findings for mainstream society, the researcher and their own, normative community. His emphasis on sociology embracing insights from evolutionary sister disciplines illustrates this. Mikael Linnell has a background in sociologies of risk, crisis, and uncertainty, applied in empirical areas such as disaster preparedness, and more recently focussed on social resilience and how people prepare for turbulent climate futures. This focus is telling for his insights on how to study futures. Lea Fünfschilling’s research has focused on using sociological insights from e.g. institutional theory to better conceptualise sustainability transitions. She has also worked closely with policy-makers to translate and co-create knowledge to govern sustainability transitions in various industries. Her emphasis on transdisciplinarity and experimentation is an expression

of this background. These diverse emphases and backgrounds have been decisive in the shape of this text's foci - simultaneously, this approach has enabled us to gain a deeper understanding for each other.

The conversational format has hopefully shed light on the nuances and the sometimes subtle, sometimes stark, differences between us. Hopefully, it has also made visible the incremental, connected, and complex nature of research. While this format may not be suitable for all texts, our hope is that it could inspire new forms of academic writing, or simply encourage more conversations in general.

References

- Alexander, S. (2021) *Beyond capitalist realism. The politics, energetics, and aesthetics of degrowth*. Melbourne: The Simplicity Institute.
- Bowden, G. (2017) An environmental sociology for the Anthropocene. *Canadian Review of Sociology*, 54 (1):48-68. <https://doi.org/10.1111/cars.12138>.
- Davidson, D. (2022) Climate change sociology: Past contributions and future research needs. *PLOS Climate*, 1 (7):1-3. <https://doi.org/10.1371/journal.pclm.0000055>.
- de Freitas Netto, S.V., Sobral, M.F.F., Ribeiro, A.R.B., Soares, G.R.D.L. (2020) Concepts and forms of greenwashing: A systematic review. *Environmental Sciences Europe*, 32 (1):19. <https://doi.org/10.1186/s12302-020-0300-3>.
- Demaria, F., Kallis, G. Bakker, K. (2019) Geographies of degrowth: Nowtopias, resurgences and the decolonization of imaginaries and places. *Environment and Planning E: Nature and Space*, 2 (3):431-450. <https://doi.org/10.1177/2514848619869689>.
- Dijstelbloem, H. (2021) *Borders as infrastructure: The technopolitics of border control*. MIT Press.
- Dunlap, R. Catton, W. (1994) Struggling with human exemptionalism: the rise, decline and revitalization of environmental sociology. *The American Sociologist*, 25(1), pp. 5-30.
- Engels, A., Marotzke, J., Gonçalves Gresse, E., López-Rivera, A., Pagnone, A., Wilkens, J. (eds.); (2023) Hamburg Climate Futures Outlook 2023. The plausibility of a 1.5°C limit to global warming—Social drivers and physical processes. Cluster of Excellence Climate, Climatic Change, and Society (CLICCS).
- Frase, P. (2016) *Four futures. Visions of the world after capitalism*. London: Verso.
- Frenken, K., Fuenfschilling, L. (2021). The rise of online platforms and the triumph of the corporation. *Sociologica*, 14 (3):101-113.
- Fuenfschilling, L., Frantzeskaki, N., Coenen, L. (2019) Urban experimentation & sustainability transitions. *European Planning Studies*, 27 (2):219-228.
- Gannon, L. (2002) A critique of evolutionary psychology. *Psychology, Evolution & Gender*, 4(2), 173–218. <https://doi.org/10.1080/1461666031000063665>.
- IPCC (2023) Climate Change 2023: Synthesis Report. A Report of the Intergovernmental Panel on Climate Change. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland.

- Klinenberg, E., Araos, M. Koslov, L. (2020) Sociology and the climate crisis. *Annual Review of Sociology*, 46: 649-669. <https://doi.org/10.1146/annurev-soc-121919-054750>.
- Klintman, M. (2012) *Citizen-Consumers and Evolution: Reducing Environmental Harm through Our Social Motivation*. Palgrave Pivot.
- Klintman, M. (2018) *Human Sciences and Human Interests: Integrating the Social, Economic, and Evolutionary Sciences*. Routledge.
- Klintman, M. (2019) *Knowledge resistance: How we avoid insight from others*. Manchester University Press. <http://www.manchesteruniversitypress.co.uk/9781526135209>.
- NASA. (2023) NASA Clocks July 2023 as Hottest Month on Record Ever Since 1880. Retrieved 2023-08-24 from <https://www.nasa.gov/press-release/nasa-clocks-july-2023-as-hottest-month-on-record-ever-since-1880>.
- Norgaard, K.M. (2018) The sociological imagination in a time of climate change. *Global and Planetary Change*, 163:171-176. <http://dx.doi.org/10.1016/j.gloplacha.2017.09.018>.
- O'Driscoll, J. (2023) The world's most extreme weather events in 2023. Retrieved 2023-08-24 from <https://www.theweek.co.uk/news/environment/960113/the-worlds-most-extreme-weather-events-in-2023>.
- Sengers, F., Wieczorek, A.J., Raven, R. (2019) Experimenting for sustainability transitions: A systematic literature review. *Technological Forecasting and Social Change*, 145, 153-164.
- Turnheim, B., Kivimaa, P., Berkhout, F. (Eds.). (2018) *Innovating climate governance: moving beyond experiments*. Cambridge University Press.
- Urry, J. (2016) *What is the future?* Cambridge: Polity Press.
- van der Hel, S. (2018) Science for change: A survey on the normative and political dimensions of global sustainability research. *Global Environmental Change*, 52, 248–258. <https://doi.org/10.1016/j.gloenvcha.2018.07.005>.
- Westling, F. (2023) Forskaren Dávid Alcer stormade scenen - blev inte visiterad. Retrieved 2023-12-18 from <https://www.aftonbladet.se/nojesbladet/a/q1Qmo1/forskaren-david-alcer-stormade-scenen-blev-inte-visiterad>.

Author biographies

Sara Skarp is a postdoctoral researcher at the Department of Sociology, Lund University. Her research interests include sustainable consumption, organisation, and societal transformation, mainly in tourism, travelling, and waste. Within her research, she works to emphasize collective action and organisation, possibility, and prefigurative action in the face of climate change.

Lea Fünfschilling is an associate professor (docent) at the Department of Sociology and a member of CIRCLE (Center for Innovation), Lund University. Her research interests are interdisciplinary, located at the intersection of sociology and science and technology studies. In particular, she has contributed to the development of a distinctly institutional perspective on sustainability transitions.

Mikael Klintman is a professor of sociology at the Department of Sociology, Lund University. His research focuses on how individuals and organizations produce, manage, sort, and sometimes ignore knowledge about sustainable development, health, social well-being, and technology. In his research, Mikael utilizes complementarities between sociology, other social sciences, behavioral economic thinking, and evolutionary theory.

Mikael Linnell is a postdoc researcher at the Department of Sociology, Lund University. His research interests include social resilience and preparedness in the context of climate change. In previous projects he has written about climate change adaptation and future images of the Swedish energy transition.