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# Climate Change<sup>1</sup>

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Sociological studies increasingly address climate change as a research topic. This contribution describes different subfields of sociological climate change research (e.g., climate politics, economy, global flows). A stronger focus on climate change research within the discipline could facilitate knowledge spillovers that stimulate other fields of sociological inquiry as well as climate debates in society at large.

## Introduction

Climate change does not only lead to alterations in weather events and climate trends but generates also social impacts. These impacts can take different shapes. They can assume the form of mitigation and adaptation measures such as the promotion of electric mobility, the construction of wind farms, the shutdown of coal power plants, and the extension of urban green spaces as a protection against heat waves in cities. But the changes can also become visible in political mobilization for or against more ambitious climate policies, as well as in rising political polarization, and in increasing social inequalities in living standards between wealthy and poor populations.

As climate change has social causes and implications, there is scope for sociological knowledge to unfold these societal causes and impacts of climate change as well as the potentials and limitations of mitigation and adaptation strategies and climate engineering strategies. In recent years, sociology has increasingly engaged with climate-change-related research.

In this contribution, we first describe the term “climate change” and how it relates to sustainability. Then, we discuss how sociology has addressed this

topic. The sociological study of climate change includes two types of contributions: (a) sociological contributions to inter- and transdisciplinary climate change research and (b) contributions within the discipline (e.g., disciplinary journals, anthologies, monographs). We mostly focus on contributions in the discipline and describe different sub-fields of research (e.g., politics, economy, global flows). We conclude with a reflection on the need of sociological climate research and its relevance for public debates on climate research in society at large and for sociology as a discipline.

## Climate change and Sustainability

Anthropogenic climate change is a process by which weather patterns and temperatures change due to greenhouse gas emissions. Industrialization paired with an ever-rising demand for consumption goods and services (e.g., mobility) has fuelled this process. While Global North countries and wealthy populations are responsible for the vast amount of greenhouse gas emissions, climate change most strongly affects vulnerable populations already living in poverty (especially in Global South countries, e.g., through extreme weather events such as flooding and droughts).

Climate change is closely related to sustainability (for the term “sustainability”, [see Wendt et al. 2023](#)), as it is an example of an unsustainable process of environmental change provoked by human activities. Being entangled with other sustainability issues such as social inequality, sociological sustainability research frequently addresses social phenomena related

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1 This contribution is based on an article published in *Current Sociology* (Koehrsen et al., 2020). The article provides a detailed reference list, containing many sociological studies on climate change that could not be quoted here due to space restrictions.

to climate change as a topic.

## Climate Change in Disciplinary and Inter-disciplinary Sociological Research

Sociological climate change research has traditionally been related to environmental sociology and, thereby, has been embedded in the discipline. However, most existing research engages in debates beyond the boundaries of the discipline. Climate change has become a major topic of inter- and transdisciplinary research, which brings together insights and scholars from various fields in numerous academic networks and environmental, climate change, and sustainability journals. Sociological contributions to this research have addressed different topics such as mobility, consumption, urban energy transitions, governance of sustainable transformations, and the relationship with religion. Notably, this work draws upon a broad range of sociological theories such as, for instance, practice theory, differentiation theory and boundary analysis, discourse analysis, role theory, critical theory, sociological field approaches, the sociology of expectations as well as theories of reflexive modernity and risk society.

Contrasting the strong engagement in inter- and transdisciplinary spaces, sociological commitment has generated less resonance within the discipline itself. A survey of climate-change-related articles, published in eight top-ranked general sociological journals until 2018, has resulted in only 37 publications (Koehrsen et al. 2020). Compared to topics such as social inequality, climate change represents a very minor topic in these eight journals. The disciplinary studies published in these journals include five main subfields of research: (a) reflections on the role of the social sciences, (b) politics, (c) economy, (d) media and public perceptions, and (e) global flows. Most of the research is theoretical or applies qualitative methodologies whereas quantitative studies remain almost absent.

Of the 37 publications found, reflections on the *role of the social sciences* in climate change research are the most numerous. Lever-Tracy's (2008) seminal cont-

tribution about the lack of sociological climate change research has generated vigorous debates on the potentials and limitations of sociology – and, more generally the social sciences – with regard to this topic. Scholars have argued that studying the social dimensions of climate change could be an entry point for sociology into the debates on climate change (Yearley 2009). However, it is controversial whether the engagement of sociologists should include active advocacy or even alarmism. Moving on from this initial debate, this subfield includes the development, extension, evaluation, and criticism of specific sociological theories for the study of social dynamics related to climate change. These latter contributions indicate a shift from “whether” to “how” sociology should study climate-related social change. In the course of this shift, sociologists reflect on their conceptual toolkit and consider in what ways they need to expand it.

Sociological studies on the *politics* of climate change tend to assume critical positions with regard to predominant policy frameworks and their focus on technological or economic solutions. They criticise behavioural-driven solutions as well as the political focus on economic growth (Webb 2012). Contributions to this subfield furthermore show that designing appropriate climate policies is troubling for policymakers because they have to create popular and manageable responses within the existing political system on the one hand and deal with climate change as a stigmatized issue in parliament on the other hand (Willis 2018)<sup>1</sup>. Overall, these studies demonstrate the reflexive potential of sociology by evaluating and challenging existing approaches and prevalent power constellations.

Similarly, contributions on *economy* illustrate that sociology enables to scrutinise capitalist production and consumption structures. These publications suggest that present modes of capitalist production and consumption are inherently unsustainable (Leahy 2008; Redclift 2009; Urry 2008, 2009). They provide impulses for extending sociological thinking about

1 More recently, however, a “climatisation” of many discourses in the wake of the UN COP conferences has been observed.

the economy and offer empirical insights into internal paradoxes and complexities of late modern economies by focusing on the excessive practices, inequalities, and power asymmetries that contemporary capitalism generates (Vara 2015). Even though post-modernist scholars have problematized utopian and dystopian thinking, the looming climate catastrophe appears to force the discipline to rediscover the power of critique and the development of desirable alternatives to existing frameworks.

Studies on *mass media and public perceptions* show how media actors and prevalent narratives influence understandings of climate change (White 2017). They discuss how representations of climate change in the media create a climate imaginary that promotes the idea of 'green capitalism', implying soft transformative pathways that contradict visions of radical change (Luke 2015). Other contributions indicate that natural catastrophes such as heat waves and floods do not necessarily shift public opinion on climate change while ideologies remain the dominant predictor for climate change perceptions (Hamilton et al. 2016). In this subfield, sociology points to differences in the (re)production of climate change knowledge, as understandings of it vary across geographical regions as well as social milieus, and aims to understand how actors seek to make sense of it based on their prevalent perceptions of reality and operational logics.

Finally, sociological contributions on the *global flows of knowledge and people* analyse how climate change takes shape in the form of environmentally-related migration, international academic collaboration, unequal knowledge flows between the Global North and South (Connell et al. 2018), and global civil society networks. Publications in this subfield illustrate how climate change affects the social dynamics of world society. They draw attention to the importance of global flows, including flows of communication and people.

### Thinking Further: A Changing Climate in Sociology?

There is a rising global interest among sociologists in

climate change. Important sociologists, such as Ulrich Beck (2015) have placed the topic at the centre of their works, addressing the fundamental structural changes to be aligned with this topic. Furthermore, studies increasingly look beyond the Global North to consider Africa, Asia, and Latin America (for the term "Global South", see Roysen et al. 2023). A common denominator in sociological climate change research is the analysis of different forms of reflexivity, namely analytical-descriptive, critical-normative, and political-practical reflexivity (Henkel et al. 2021). Many sociological contributions to climate change research provide critical perspectives on hegemonic transformation strategies and address power and inequality in climate discourses.

Nevertheless, it remains an open question to what extent sociological research has an impact on policy agendas and broader societal perceptions of climate change, not least given the existing inequalities in academic knowledge production, dissemination, and policy advice (i.e., the predominance of the natural sciences and economics). There is a need to study the communication of different forms of scientific knowledge about climate change in general, and of sociological knowledge in particular, into politics, economy, civil society, and mass media. Sociological knowledge may not only inform academic knowledge production and political decision making, but also broader debates in the media and civil society about alternative societal futures.

At the same time, the interest and reception within the discipline remain disputable. Rather than bringing the study of climate-related social dynamics to the publication centres of the discipline, sociological climate change research has been thriving in the inter- and transdisciplinary area of environmental and sustainability studies. Creating greater resonance for climate change research within sociology itself, however, could benefit the discipline by stimulating theoretical and methodological innovation. For instance, to integrate insights about low carbon transformations into the discipline could improve its general knowledge about societal transformations, enabling to apply this knowledge to social change in

other domains (e.g., gender, agriculture, and digitalization).

## Further Readings

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