

1 Introduction

1.1 Lack of consensus on the IPCC consensus¹

This study seeks to answer how climate action² (that must be an integral element of any sustainability transition) can be successfully fostered and implemented in a society that is in fact in deep cultural disagreement over how to approach the issue of climate change. These profound cultural differences – German society's divergent **climate cultures** – build its focus.

The main interest lies in the differences between social groups concerning how climate change is seen and (not) acted upon. In 'official'³ discourses, it is generally assumed that climate action should be conceived of and implemented as an inclusive project involving the whole of society⁴, as only then will it succeed on the scale that is needed. This means that different societal actors have to contribute, including political, corporate, civil and individual agents. In other words, it is considered to be everybody's **responsibility** to participate in climate action. Such societal responsibility is however intimately intertwined with the (perceived) level of **efficacy** an agent holds: if those who are endowed with substantial efficacy, i.e., high levels of resources and thus power over outcomes, were attributed a special responsibility, the positive climate impact may be particularly large. However, substantial societal resistance exists towards the majority of initiatives that disproportionately strain higher income groups. Election outcomes repeatedly confirm the unpopularity of

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- 1 See for instance Cook et al., 2013, p. 3: "Among abstracts that expressed a position on AGW [anthropogenic global warming], 97.1 % endorsed the scientific consensus. Among scientists who expressed a position on AGW in their abstract, 98.4 % endorsed the consensus".
 - 2 In this study, climate action is considered an integral part of any wider sustainability initiative and comprehensively refers to anything related to climate protection (mitigation but also potentially adaptation measures).
 - 3 In this study, 'official discourses' refers to discourses practiced by those who hold considerable (mainly *political*) power and decision-making capacities.
 - 4 See for instance German National Climate Protection Initiative (by the Federal Environmental Ministry): <https://www.klimaschutz.de/de/ueber-die-initiative/ziele-und-aufgaben> (accessed 31/10/2023).

redistributive measures like increased carbon taxation. Immediately, one sees the differences at play: not everyone in society has the same level of power over climate-related outcomes or similar access to participate in climate action. Thus, arguably, there are also variations in the amount of responsibility to be attributed. Both aspects, in turn, also strongly relate to an agent's level of climate **knowledge**⁵ and thus, at least to an extent, his or her education. Therefore, these three concepts, responsibility attributions, efficacy expectations and climate-related knowing, lie at the heart of this study. More precisely, the investigation centres on the different constellations of these three key notions that reflect certain cultural leanings that exist in particular segments of society.

For decades, there have been suggestions on how to grasp and sort such cultural differences. Nevertheless, they are still (or maybe again) being ignored by the decision-makers sending out (official) messages on climate change. Research mirrors this absence of cultural sensitivity:

Rather than attending to the culturally specific ways in which people make sense of and respond to climate change, most social scientific research on climate response has measured subjects' relationships to researcher-identified units of meaning, such as beliefs, attitudes, concerns, and behaviors, often without accounting for the researchers' own subjectivities, and the ways that those shape the questions being asked.

Ford and Norgaard, 2020, p. 45

This has significantly contributed to the lack of progress up to this point. To ameliorate this, this study builds upon ideas by Pierre Bourdieu and scholars who have followed into his footsteps. He has written extensively not only on cultural difference but also about societal power relations (Bourdieu, 1984/1998). The present study's explicit focus on diversity challenges dominant views of the population as one unified entity that will readily respond to official unequivocal messages of climate politics (Klimapolitik) sent out by the government along the lines of: 'Everyone must do their bit to save the climate!'

Bourdieu writes for instance: "Apparent, directly visible beings, whether individuals or groups, exist and subsist in and through *difference*" (1998, p. 31, orig. emph.). In his view, those with less power strive to express similarities with those at the top, whilst those at the top aim to distinguish themselves from those with less influence. For the advancement of climate action, "it is necessary to locate the source of power in order to challenge it and make changes" (Goldblatt, 2004, p. 126, paraphr. Fox-

5 Importantly, the present study conceptualises this as embodied and rooted in practice, which goes beyond knowing in the merely cognitive sense of the term.

Keller, 1985). It is therefore argued that understanding power relations in society and their links with questions of responsibility, efficacy and knowledge is an essential precondition for more effective climate action. This is precisely what the analysis of climate-cultural differences is particularly well suited to, because it sheds light on the variations in access to different behaviours: if you have to shop for groceries with your children when you live in the countryside and have a bus run only once every hour, will you really be convinced to “leave your car! [And think:] Let’s go by bike instead”⁶⁷?

Acknowledging societal difference goes hand in hand with the realisation that people make meaning not primarily in the absolute. The relative is what counts the most, as Richard Wilkinson and Kate Pickett have written:

What matters is where we stand in relation to others in our own society. [...] We should perhaps regard the scale of material inequalities in a society as providing the skeleton, or framework, round which class and cultural differences are formed. Over time, crude differences in wealth gradually become overlaid by differences in clothing, aesthetic taste, education, sense of self and all the other markers of class identity.

Wilkinson and Pickett, 2010, p. 25ff.

The need to include inequality

The Covid-19 pandemic has exacerbated inequality in Germany, not only economically, but also in terms of education, housing and health provision (Butterwegge, 2020; Statista Research Department, 2021). Since then, socio-economic inequality remains high because levels of redistribution are not sufficient to ameliorate this (see also i.e., Kenner, 2015, p. 02f.). Consequently, increasing shares of wealth are concentrated at the top which has profound implications for carbon emissions. Climate-relevant practices therefore must urgently be considered in concordance with inequality (Laurent, 2014, cited in Kenner, 2015, p. 03). People who are financially well-off often behave in ways particularly harmful to the climate, since they are the ones who can afford periodic vacation flights and fuel-intensive off-road vehicles (Bilharz, 2007, p. 116; Wahnbaeck, 2018). As ‘conspicuous consumption’ (Veblen, 1899) like driving SUVs, travelling to exotic destinations by airplane, or barbecuing one’s Kobe steak has served as means for distinction for those at the top, highlighting the negative climate impact of these practices is particularly

6 See for instance this article on initiatives to increase urban cycling: <https://www.ruhrnachrichten.de/nordkirchen/nordkirchen-macht-auch-2021-wieder-mit-bei-der-aktion-stadtradel-n-w1625025-2000217608/> (accessed 17/09/2022).

7 All translations were carried out by the author.

problematic for those societal segments who have meaningfully incorporated them into their everyday lives. Emerging resistance to climate action measures is thus unsurprising. Therefore, it must urgently be recognised that “if we do not deal with these twin challenges [of climate action and inequality] together our society could face collapse” (Motescharrei et al., 2014, cited in Kenner, 2015, p. 03). In Motescharrei et al.’s analysis, the authors investigated the historical conditions under which pioneering cultures (like the Romans and Mayans and in China and India) most often disintegrated. They found this repeatedly to have been “the stretching of resources due to strain placed on the ecological carrying capacity, and the division of society into Elites (rich) and Commoners (poor)” (Motescharrei et al., 2014, cited in *ibid*). These cultural mechanisms that serve to subtly maintain climate-relevant divisions and existing power relations thus build the study’s core focus.

An investigation that recognises the centrality of climate-cultural diversity is therefore of principal importance, because the way the topic of climate change has been approached thus far, scientifically as well as politically, springs predominantly from ‘elite’⁸ logics that the practitioners of these circles (naturally and habitually) employ. This insinuates that the whole of society could just practice climate action according to these particular logics, when actually only a fraction can, as the actual life realities of the majority of the public unfold in fact in markedly different ways. In this study, the term ‘elites’ denotes groups in society that are socio-economically privileged, influential and highly visible, partly because they enjoy easy access to key communication channels (TV, social media, scientific community, political decision spaces). As a result of this access to (cultural) capital, they significantly shape public debates, including those concerning climate change and action. They generally view themselves as leaders and influencers who can form public opinion and debate in key areas of social and cultural life. In the wake of the aforementioned official agenda-setting of climate action as an inclusive project, this elitist und differentiated type of communication is becoming increasingly irrelevant to growing segments of the population. Yet, paradoxically, “[...] it is the members of oppressed, objectified groups who are expected to stretch out and bridge the gap between the actualities of our lives and the consciousness of our oppressor” (Lorde, 1884, p. 854, cited in Ford and Norgaard, 2020, p. 59). Recognising this facilitates a better understanding of why some groups in German society are so ‘allergic’ to official calls for more climate action.

8 It is important to highlight from the very beginning, that in this study, the labels ‘elite’ and ‘privileged’ refer to Bourdieu’s understanding of those rich in cultural capital and those groups in society that hold considerably more power (e.g., in terms of education levels). It is vital note here, that I scrutinise differences and conflicts *within* the German population (between those more and less rich in this capital). I *explicitly do not* use these terms as the opposites of ‘the elites’ and ‘the population’ as the rhetoric of the political far right frames it.

What has thus far dominated most thinking and scientific approaches have been economic logics that focus on individuals and consider what ‘factors’ or ‘drivers’ ‘cause’ them to make (generally self-interested) decisions that harm the climate. For example, cultural or social factors are largely excluded from these dominant approaches and treated as ‘externality’ or ‘context’. However, cultural and social factors are not simply an add-on that can be left out, they are key to understanding why people do what they do. Economic theories focus on (average) individuals and are thus ill-equipped to handle actually existing differences within society.

In relation to this, Di Muzio writes that the common application of aggregate national indicators like GDP per capita in fact conceals the relative inequalities that exist within societies (cf. 2015, p. 27, cited in Kenner, 2015, p. 03). Here, Kenner argues that “the same could be said to apply to the ecological footprint” (2015, p. 03). As privileged and influential sections of society have the greatest incentive to maintain the status quo, questions of power and its distribution in society become central. This also reflects Meadows’ (1998, p. 4) observation that “indicators arise from values (we measure what we care about), and they create values (we care about what we measure)”. Therefore, the persistent marginalisation in climate debates and sustainability assessment of non-technical, non-quantifiable solutions such as the transformation of people’s everyday practices have greatly reduced the mobilising momentum of climate action (cf. Rau, 2018).

Existing approaches that at least attempt to account for differences in society, such as lifestyle- or milieu models like those suggested by the German Sinus Institute (as discussed in detail in chapter 7), have shed some of their explanatory power as traditional ways of assessing people’s socio-economic status are starting to become obsolete. Here, a 2016 study conducted by the German Federal Environment Agency (UBA) confirms that higher economic status does not automatically lead to people taking more responsibility for climate action, in fact quite the opposite is the case:

People with higher incomes usually consume more energy and resources – regardless of whether they perceive themselves to be environmentally aware or not. [...] ‘The surplus income is all too often spent on large cars, larger homes and more frequent air travel, even despite otherwise environmentally conscious behaviour. But it is precisely these ‘big points’ which have the largest human carbon footprint. The purchase of organic foods or a high level of waste separation do not offset this’.

Maria Krautzberger, UBA President, press release, 2016

This was recently confirmed by a 2020 rerun of the survey and subsequent publication of results:

A higher income leads to an increase in environmental impact in all areas of consumption. [...] There was no indication of any stabilisation or even decoupling of income and environmental damage. Particularly large are the increases [with income] in carbon emissions in the mobility sector. The impact of flying and driving in high-income households is over three times as high as in low-income households.

UBA, supplementary brochure, Oehlmann et al., 2021, p. 14

This implies that conventional socio-economic variables have somewhat ceased to explain the real societal differences that exist in Germany today. With respect to this, a member of the scientific committee of the 2020 study comments:

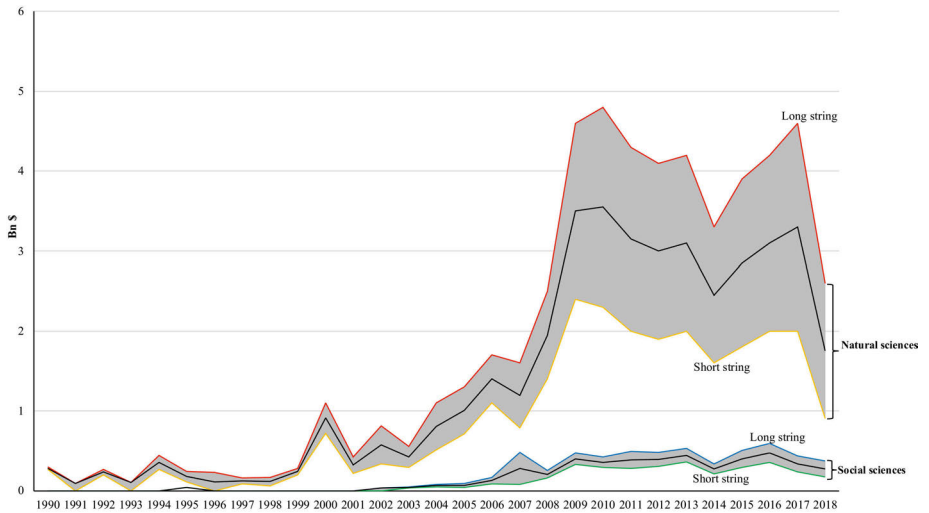
The new issue [of the study] presents some good news for us as well as a productive puzzle: the good news is that the pandemic has not led to people in Germany forgetting about the ecological crisis or considering it less important. The puzzle is that the differences in individual (environmentally) relevant readiness to change seem to be distributed in the population in a way that can only very marginally still be explained through the conventional variables of education, income, place of living, etc. In this way, the study encourages politics to become more ambitious and challenges the social sciences to continue working on their understanding of the potentially 'transformative' groups within society.

Manuel Rivera, (IASS), Potsdam, in UBA, 2021, p. 6

What is lacking, therefore, is a social-scientific perspective that prioritises the social, embodied, tacit and implicit components of mundane everyday sense-making about climate change that unfolds differently depending on social positioning. The aim of the present study is thus to counteract this repeatedly bemoaned "absence of the social" (Henkel et al., 2018, p. 11) in relation to climate debates.

Hence, the present study is located at the interface of human geography, environmental sociology, psychology, and the environmental humanities. As Overland and Sovacool argue, world-wide allocation of funding resources has been severely skewed towards the natural sciences (refer to figure 1 below), which is deeply problematic: "Although the natural and technical sciences often generate results that are, or are perceived to be, clearer and more concrete than the social sciences, they cannot handle issue areas – such as attitudes, norms, incentives, and politics – that are intrinsically social" (2020, p. 4). More funding streams must be steered into these directions and more social scientists have to urgently enter the picture and dedicate their energy and expertise to the climate crisis.

Figure 1: Funding for climate research in the natural and technical sciences versus the social sciences and humanities (USD, [global])



The grey areas represent ranges of estimates derived from short and long search strings; (taken from Overland and Sovacool, 2020, p. 3)

Sverker Sörlin reiterates this: “These [social-scientific] scholars sit on reservoirs of knowledge that must not remain untapped as we take on the immensity of the future of global change (2013, p. 22). Here, Norgaard writes: “[...] the question becomes not how do we better educate and inform the public, but under what circumstances are people able to move beyond a sense of helplessness, guilt or fear of the future and take actions that are in their collective, long term survival interest?” (2018, p. 4). This is the job of social science, a job that this study’s culturally sensitive analysis substantially contributes to.

It therefore presents an inquiry into what role climate action plays in people’s lives (if any) and how progress can be achieved by asking how measures fit into people’s everyday realities. Studies (cf. e.g., Nerlich et al., 2010) show that climate change is mainly perceived by the public as a scientific topic. However, overlooking its economic and political relevance results in “climate becoming the all-determining factor and climate science, more precisely: medially visible climate scientists become the guardians of truth and the prophets of the future” (Neverla et al., 2019, p. 64f.), rendering political negotiations largely redundant. Yet this disregards the crucial role of cultural and socio-economic aspects in climate related decision-making (cf. ibid.) that then unfold their full force in political debate. This is also stressed by Nerlich et al. in relation to climate change being a so-called ‘unobtrusive issue’: “People are thus liberated to argue from, and act upon, pre-established beliefs,

convictions, prejudices and superstitions' (Adams, 2007). This turns climate change from a purely scientific phenomenon into a cultural one" (Nerlich et al., 2010, p. 2). Consequently, it pays to also become aware of the inertia of climate-relevant lifestyles and cultural traditions. The reason we are so attached to our habits lies in us carrying them out subconsciously, i.e., without any kind of mental exertion (Ernst, 2010, p. 135). Therefore, this study's consideration of cultural practices elucidates us to the dynamic "meanings of normal and the patterns of consumption associated with them [that] require constant reproduction" (Shove, 2010, p. 1279). The way climate action has however been tackled thus far, being spoken about mainly in only one and a quite exclusive language of science and privilege, thus fails to address and include those segments of society that actually represent its largest share.

It is therefore necessary to pay attention to the "complex subuniversa, within which people organise their knowledge, experience changes in their life realities, practice different forms of acquisition or avoidance and search for and find frequently competing explanations" (Welzer et al., 2010, p. 16). Yet, clearly, these sub-universa "are in no way ascertainable by natural science or technology" (ibid.). Furthermore, the panaceas of technological innovation and continued economic growth collide with the urgent need to reduce carbon emissions caused by both production and consumption: in the eyes of many, a possible solution today may be what is understood by geo-engineering – "the deliberate large-scale intervention in the Earth's natural systems to counteract climate change" (Oxford Geoengineering Programme, 2018). Here, in 2011 the influential British Royal Society declared that in the case of climate emergency, interventions on a planetary level that partially seal off sunrays potentially embody the only way to reduce global temperatures fast enough (Klein, 2015, p. 256). Not to mention that intervening into global climate throws up questions of jurisdiction and democratic authority that have remained unanswered to date, but "whatever the scheme, relying on [such] a technological miracle carries tremendous, reckless risk" (ibid.).

It must thus be investigated instead how people actually live and how climate action can potentially be meaningfully integrated into their different everyday life realities. Here, the social environments in which practitioners operate on a daily basis should receive particular attention. These surroundings fundamentally shape internalised propensities that then collectively yield the respective stances with which they approach, in turn, their surroundings and life in general. This also includes which thoughts even occur to people in the first place. How these thoughts on the topic of climate change are then verbalised, presented and potentially defended in certain social settings lies at the core of this investigation.

So what exactly is meant by 'climate-cultural difference'?

In this study, differences between climate cultures revolve around the three central concepts of responsibility, efficacy and different types of knowledge. This answers Welzer et al.'s call to involve the social sciences because the examination of climate change "also concerns the cultural practices and contexts of meaning that have caused climate change, thereby challenging human interpreting and sense-making and the philosophical consideration of aspects of justice and responsibility [...] as well as the knowledge-sociological analysis of collective interpretative patterns (Welzer et al., 2010, p. 13). Taking seriously the everyday practices and realities of ordinary citizens highlights the limited efficacy of the individual and challenges the extensive overemphasis on individual responsibility that characterises approaches to climate action that privilege knowledge and information. Such particular discrepancies between attributed responsibility and perceived or real efficacy embody a further key aspect of the investigation. As Dubois et al. point out, "there is a gap between how households perceive their responsibility and ability to mitigate climate change and the responsibilities and roles communicated by climate policies" (2019, p. 152).

Besides pointing to these incongruences between the notions of responsibility and efficacy, this study also asks for a substantially broadened conceptualisation of knowledge. It is argued that questioning the unchallenged hegemony of conventional, cognitivist knowledge needs to be a central element of any future climate change debate, policy and action. This requires a new concept of (climate) culture that moves beyond mainly knowledge-oriented definitions that have established themselves in recent times (Heimann, 2016, p. 25). This study deliberately deviates from these narrow conceptualisations, offering instead a much more comprehensive notion of knowledge as being embodied and rooted in everyday practices. This is particularly pertinent as the existing literature, however, still defines climate cultures *in terms of* (cognitive) knowing (cf. e.g., Heimann and Mallick, 2016). Yet ever more precise scientific information on the changing climate fails to convey what this actually means in terms of practical consequences for people's everyday lives (see e.g., Welzer et al., 2010, p. 15). Advice based on such information must inevitably remain scientifically underdetermined with regard to the relevance of cultural aspects (cf. *ibid.*). Thus, one needs to consider instead "the ideas, practices, ways of thinking and doing in more or less organized forms that range from sophisticated academic knowledge embodied in highly regarded texts [...] to the common sense, routine practices of our daily lives, such as looking after ourselves and our children" (Goldblatt, 2004, p. 122).

Considering the role of emotions and how they might prevent people from acting in ways conducive to climate action therefore presents a further promising avenue for shedding light on climate inaction. Andreas Ernst suggests here "to con-

sider how environmentally conducive behaviour can be integrated into the existing social, institutional and material infrastructures, since this is where the powerful levers related to significant behavioural change can be found" (2010, p. 129). It is thus theorised that some segments of society can potentially be better reached emotionally than through inflating their informational base.

This is also reflected in Kari Mari Norgaard's ground-breaking research on *the social organisation of denial*. She, amongst others, enlightens us to the following: "The notion that well-educated, wealthy people in the Northern hemisphere do not respond to climate change because they are poorly informed not only appears inadequate [...] but also fails to capture how in the present global context *knowing* or *not knowing* is itself a political act (2006, p. 365). With this, Norgaard highlights the need to investigate how people organise themselves to handle the existential crisis of climate change. She theorises that climate inaction may result from feeling intensely overwhelmed by this tremendous threat. In this study, it is investigated how this is approached differently by each of the social groups analysed. Here, one of Norgaard's key contributions is the realisation that this denying of climate change happens on the collective level. Thus, the conventional focusing on individuals leaves central processes obscured: depending on the climate-cultural constitution of each group, existing knowledge about climate is being pushed away, responsibility is denied or diffused or one's own influence is negated, which yields group-specific denial tendencies that embody valuable insights for policymakers who wish to understand why their messages have thus far fallen on deaf ears.

Filling in these blind spots by recognising the need to go beyond an exclusive focus on the individual and integrating the analysis of (discursive) practices into the conceptual frame is precisely the path that needs to be taken to counterbalance the current overemphasis on cognitive forms of knowing with respect to climate change. This perspective recognises that

[...] education and knowledge are not the only aspects missing. [...] Behaviour does not stand alone, solipsistically in space, instead it is always embedded into a behavioural context that also contains social aspects. [...] In everyday life we routinely overestimate how much of our behaviour we actually determine ourselves. [...] (Therefore,) what is required is a co-evolution of behaviour and its material, social and institutional surroundings.

Ernst, 2010, p. 137

Hence in this study the climate cultures starring in media samples and focus group discussions are distinguished by certain clusters or sets of key discursive practices. From these emerge both – different concepts and constellations – of the three key notions of responsibility, efficacy and knowing. If we remain blind to how this dif-

fers in society between capital rich climate cultures and those whose members are underprivileged, climate action will remain no more than an *elite project*.

This study thus addresses the following research questions:

- Which societal actors are held responsible for climate action by the public?
- Which societal actors are perceived as efficacious when it comes to climate action?
- Is there a discrepancy between this attribution of responsibility and the expectation of power/influence/efficacy?
- How could this discrepancy be decreased? What is the potential role of information in reducing observable gaps between responsibility and efficacy?

1.2 Structure of study

After this introductory chapter (**chapter 1**), a critical review of leading literature is presented to identify gaps regarding the treatment of cultural phenomena in the context of climate change and climate action (**chapter 2**). This starts with a detailed examination of different scholars' takes on the three central notions of responsibility, efficacy and knowing. For the synthetisation of an alternative, more comprehensive knowledge concept, it draws on Bourdieu's *habitus* and subsequent thinking on *embodied knowledge*. Staying true to Bourdieu's tradition, Kari Mari Norgaard's revolutionary research on the social organisation of denial is then attended to and subsequently built upon, yielding this study's own definition of climate cultures that makes a clear distinction between attributions of responsibility and efficacy and their actual manifestations in people's everyday lives.

Chapter 3 presents the study's research design and methodological framework. These rest on the conviction that a social-scientific enquiry of collective societal patterns requires a particular (relational) mode of investigation. As a result, two out of the three empirical steps focus on what was being said *between* people and how they react and relate to each other. The other previous empirical step consisted in semi-structured (individual) expert interviews.

Chapter 4 is the first empirical chapter. Here, with these initial expert interviews, the objective was to investigate the current state of (official) knowledge. This was approached through semi-structured interviews with scientists, politicians, government- or NGO executives and one teacher. The chapter describes these experts' thoughts on responsibility, efficacy and knowing related to climate action.

In a conscious effort to move beyond elite perceptions, a second empirical step (media analysis) captured views of the public on social media (in addition to a second set of elite discourses). This is covered by **chapter 5**. As Udo Kuckartz writes, it is clear to see that knowledge about climate change stems from mass media (2010, p. 147).