Chapter 7
The Social Facts of Climate Change: An Ethnographic Approach

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Abstract Climate change is considered to be global in at least two respects: it firstly denotes social-ecological processes affecting the whole world and secondly refers to a scientific body of knowledge claiming universal validity. Climate change, however, is not directly perceptible; knowledge about its causes and effects has to be mediated and can only become socially relevant at particular local sites if it connects to general life experiences and culture-specific patterns of interpreting the environment. Against this background, one might question the supposed global distribution and acceptance of climate change knowledge beyond academia. Drawing upon current experiences of the junior research group *Climate Worlds*, this chapter queries the prospects of climate change for becoming a globally shared issue of concern, paying particular attention to the role of social and cultural sciences in climate change research. It argues against an equation of physical and social facts of climate change and the disciplinary self-limitation to the study of mitigation and adaption strategies. In this regard, the parallels between the current shape of climate change-related social and cultural studies and the research tradition within the modernisation paradigm will be highlighted. The last part of the chapter finally explores the potentials of ethnography for developing a non-nostrifying approach to comparing distinct "climate cultures." In respect thereof the notions of culture and belonging will be refined from a cross-linked ethnographic perspective.

7.1 Who Are *We* in Times of Global Climate Change?

> The story of humankind and our relationship to the earth may be seen as a continuing adventure or a tragedy shrouded in mystery. The choice is ours. (see p. 79 in Gore 1992)

Due to high social relevance and a sense of urgency regarding the phenomenon of global warming, research on climate change has become intimately connected with

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politics. This implies a trend towards applied science, namely concerning the production of knowledge serving for policy making. Moreover, by sharing common concerns about the planet's future, scientists and politicians have established a common agenda for a global social movement. Seeking to answer the question of "how do we know we have global environmental problems," Taylor and Buttel (2005) highlight this relationship between "scientists and political actors [who] jointly construct them in global terms … [and] act as if we are a unitary and not a differentiated 'we'" (see p. 408 in Taylor and Buttel 2005). Al Gore is probably the most illustrative example of climate aware politicians who are committed to changing people's attitudes towards sustainability. His initially posted statement indicates this unified notion of we, but at the same time reflects a particular view of the world, as well as humans' position in it. According to Gore, it is a matter of choice to dispose over our (i.e. humankind's) future, and even that of the planet.

In his highly regarded book, "Why we disagree about climate change," climatologist Mike Hulme challenges such a simplifying "problem-solution framing" (see p. 328 in Hulme 2009) of climate change. Pointing to the complexity and 'bigness' of socio-ecological processes, Hulme defines climate change as a "wicked problem" (see p. 359 in Hulme 2009) that resists any (global) answers. According to Hulme, any attempts to solve environmental problems of this magnitude would rather bring forth further unintended problems. Rather than "seeking ever larger and grander solutions to climate change … [thereby] unleashing ever more reactionary and dangerous interventions" (see p. 359 in Hulme 2009), he proposes to "reveal the creative psychological, ethical and spiritual work that is climate change doing for *us*," hence framing climate change as an "intellectual resource around which *our* collective and personal identities and projects can form and take shape" (see p. 326 in Hulme 2009; *italics H.G.*). Despite distinctly disagreeing regarding its social meaning, for both the politician and climatologist climate change seems to stimulate the engagement with a unitary *we*.

The primarily natural-scientific orientation of climate research has been challenged in recent years. Social scientifically oriented climate researchers argue that social and cultural impacts of global climate change cannot be 'measured' with natural scientific instruments. The ways in which affected communities and societies might be able to deal with the impacts of global warming could in fact only be assessed by exploring the diverse 'climate cultures' that have been evolving across the world throughout human history, with this originally being a matter of the social and cultural sciences (Leggewie and Welzer 2009; Szerszynski and Urry 2010).

Climate Worlds[1] is one of a number of research initiatives investigating the social implications of climate change with methods of social and cultural studies that have

been stimulated by this critique. Since June 2010, the *Climate Worlds* research team has been ethnographically studying the social implications of global climate change and its cultural framings in several local spots around the world. In order to narrow down our focus a little, the research concentrates on the respective effects of global warming and rising sea levels in coastal regions. While the group was being assembled, one of the project's parameters was to choose regions that are already experiencing strong impacts of climate change. Moreover, the doctoral students held a personally motivated ambition to participate in the project: they wanted to take action against climate change and assumed that inhabitants of their coastal field sites would feel similarly concerned about this matter. The research team was all the more surprised upon realising that climate change concerns in most of the studied communities were not as easy to trace as we had assumed.

Despite being regarded a serious problem for all humans in present and future times, climate change is not directly perceptible. Knowledge about the causes and effects of global warming has to be mediated and can only become socially relevant at particular local sites if it connects to general life experiences and culture-specific patterns of interpreting the environment. Hence, some authors question the globality of climate change in terms of a globally shared concern about a present and future threat of humans' livelihoods, particularly from the perspective of people living in precarious conditions, as Demerit emphasises:

> They contend that the threat of future climate change holds little meaning for developing nations and the poor people in them struggling daily in the face of crippling structural-adjustment policies with more basic and immediate needs of sanitation, health, and hunger. From this perspective the environment is not self-evidently or exclusively global in nature. (see p. 313 in Demeritt 2001)

Current social research initiatives have also been struggling with empirical evidence suggesting that natural-scientific findings on regional effects of climate change are not always in line with local perceptions (Romankiewicz and Doevenspeck, Chap. 5, this volume). Moreover, the conception of global climate change as a socio-ecological process that is not only caused by humans (through massive emission of CO_2) but could also be prevented by mankind has proven not to be the most meaningful explanation of environmental changes in all locations (Grill, Chap. 6, this volume). During the course of the *Climate Worlds* research, we learned that even in regions where meteorological and environmental effects of global warming are most obvious, people do not necessarily share these perceptions, or if so, they might resort to (from their perspective) more self-evident patterns of interpretation.

How do we interpret and respond to these findings in actual research projects? Are they all 'sceptics' or ignorant? Do we primarily have to enlighten our research fields about the 'real' causes and dynamics of the global socio-ecological system in the age of the 'Anthropocene'? Or, to turn the question around: whose choices, ethics, collective and personal identities are compatible with global climate change and whose are not? Who are *we* in times of global climate change and how do culture, ways of belonging and even society become puzzled in the dawn of a 'new age'? This chapter discusses the challenges of global climate change in terms of becoming (or not) a socially shared reality all over the world, paying particular attention to the role of social and cultural sciences in 'globalising' climate change knowledge. Hulme emphasises that:

> far from simply being a change in physical climates […] climate change has become an idea that now travels well beyond its origins in the natural sciences and as this idea meets new cultures on its travels […] climate change takes on new meanings and serves new purposes. (see p. xxvi in Hulme 2009)

With this in mind, I shall recall Alfred Schütz (1953), who pointed to a fundamental difference between physical and social facts, which I consider a suitable starting point for reflecting on the methods, aims and possible roles of the social and cultural sciences in an emerging and intrinsically interdisciplinary field of research. It is argued that social climate change research does not discriminate conceptually between the physical and social facts of climate change. This lack of reflexive distance to its own research object suggests linking up with the tradition of social research, termed as "nostrification" by Joachim Matthes (1992) in his critique of modernisation theory.

The structure of the argument is as follows. The first part of the chapter is dedicated to the question *how do we know about climate change in everyday life*? It briefly touches on some of the problems related to different scales, practices and modes of knowing and informing about climate change. Drawing upon current experiences of the junior research group *Climate Worlds*, the second part of the chapter subsequently addresses the question *how do we know whether or what others* (*should*) *know about climate change*? Far from positioning within any of the competing climate change ideologies of *scepticism*, *gradualism* and *catastrophism* (see p. 22ff. in Urry 2011), this part critically responds to the taken-for-granted globality of climate change, albeit in terms of a *social* reality. Using the example of *Climate Worlds*, the last part of the chapter finally explores the potentials of ethnography for developing a non-nostrifying approach to comparing distinct "climate cultures." In this regard, I shall refine the notions of culture and belonging from a cross-linked ethnographic perspective. As our findings indicate, global climate change challenges traditional conceptions of culture and belonging of both our research fields *and* disciplines. By way of cross-linking and juxtaposing different fields, perspectives and scales of observations, the assumed unified *we* collapses into a mosaic of diverging and often conflicting *we's* and *they's*; in other words, communities of interests that are drawn together by the challenge of negotiating the inconsistent meanings and purposes they associate with climate change.

7.2   How Do *We* Know about Global Climate Change in Everyday Life?

Let us assume that we were part of the *we*-group evoked by Al Gore and others to join the battle against climate change and change *our* way of life accordingly. *We* were supposed to be part of the first generation with a 'global consciousness,' fostered by an image of our own planet that one of the astronauts of *Apollo 8* took during the first manned moon landing in 1968. In other words, *we* were growing up in the wake of the mediated experience of the "Overview Effect,"[2] witnessing how, at the same time, "the still emergent environmental movement" was mobilised (mainly in particular sites in North America and Europe) by the massively circulating image of the *Blue Planet* (see p. 25 in Urry 2011; see also Radkau 2011). Imagine, *we* were living most of our lives in some urban, if not metropolitan, in any case industrialised and technologised site in the world, having water, energy and all other kinds of necessities at our disposal in abundance almost always and everywhere. A great deal of the air we breathe would be conditioned. We would use our eyes regardless of the time of the day and would communicate with others bridging any geographic distance. Most of what we knew about the world, we would have learned from media. Therefore, if we assume to be *us*, how do *we* know about climate change and what does it mean in our everyday lives? On the one hand, we cannot experience climate change with our own senses, as we experience single weather phenomena. On the other hand, according to our urban lifestyle, including an experienced distance from ecological processes and the technological means at our disposal, we might feel rather independent from (seasonal) climatic varieties such as temperature, precipitation or hours of daylight. That is to say, it might be plausible for *us* to think that *we* affect *our* climate rather than climate affecting *us*.

Now, imagine we were inhabitants of a small Cape Verdean island.[3] *We* would mainly make a living engaging in fishing or agriculture. Missing rain could destroy our crop and a severe storm could even decide upon our life, in case we misinterpret a weather situation and go to sea. *We* would thus feel strongly dependent on actual weather changes in our daily life. We would use any available source of knowledge to evaluate current weather situations. We would measure the sea current with our feet in the water, while waiting for our peers to share the current weather forecasts published via the internet. Periodic restricted energy resources and power failures would be as normal for us as seasonal alterations, including dry spells and rainfall periods. Given that we only had television at our disposal after the first moon landing and none of our compatriots were astronauts anyway, the mediated experience of the "Overview effect" would not have had any appreciable impact on us. In any case,

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[2] Many astronauts report about a radical change of perspective on the Earth and humans' place on it due to the experience of having seen the planet in space with their own eyes (see Planetary Collective 2012).

[3] Many thanks to Jelena Adeli for providing me with her field observations from Cape Verde, upon which the following notions are based.

what we knew about the world from media would be limited to rather locally relevant issues. We would not have yet heard much about global warming. Nevertheless, shrinking fish stocks would be a serious problem for us, although we would primarily blame the international trawlers we usually observed off the coast for snatching our good catches away. Coastal erosion would also be threatening our livelihood, although we would assess this as merely being a home-made problem. It would be obvious for us to relate coastal erosion with the massive digging of sand, which has recently been used as construction material, particularly in the growing tourism sites of Cape Verde. After all, the idea of humans affecting the course of nature and causing climatic alterations would be rather incompatible, as much with our daily experiences as with our deep faith in divine justice.

The contrastive juxtaposition of the (assumed) experiences of environmental changes in two considerably different local contexts points to the limited connectivity of the 'travelling-through-cultures-idea' of climate change. But how do climatic changes become at all relevant in our everyday lives? In terms of making sense of abstract phenomena such as global climate change in ordinary life, there are two points of reference that I wish to briefly touch upon: first, weather; and second, as indicated above, media systems.

7.2.1 What Is the Weather Like (in Times of Global Climate Change)?

While weather refers to the current and local state of the atmosphere, including the day-to-day temperature and precipitation activity, climate, as well as climate change, denotes much more complex correlations between average atmospheric conditions stretching over space and time. The phenomenological features of the current weather are sensible, observable and talkable. Indeed, weather is a basic yet permanently shifting constituent of our locally grounded life-worlds, which makes it a suitable topic of small talk in almost any encounter. Weather is a rewarding issue in encounters on the move or states of transition between one and another activity. It serves to end awkward lulls in conversations, as much as sailing around sensible issues, although it similarly works as a source for relational talk (Coupland and Ylänne-McEwen 2000). Put briefly, whether or not we like a certain state of the atmosphere, talking about the weather helps to resolve many interactional problems.

However, as far as global climate change is concerned, weather turns from a "phatic resource […] filling out those moments in social interaction when people are 'avoiding other problems'" (see p. 163 in Coupland and Ylänne-McEwen 2000) into the problem itself. In contrast to weather, climate, and particularly climate change, is not sensible as it denotes aggregated average values. The meaning of climate and climate change at best can be experienced by humans in everyday life as "the weather phenomena at large at their place of residence" (see p. 17 in Stehr and von Storch 1999; *own translation*). However, individual and socially shared memories of the local weather at large might significantly differ from meteorological recordings.

Fig. 7.1 "Future of global warming" (Branco 2013)

"Typical weather" (see p. 17 in Stehr and von Storch 1999; *own translation*) serves as a rule, especially in situations of sudden or severe irregularities. An extremely cold or long-lasting winter, unseasonable storms or exceptional amount of rainfall are phenomena that shape the respective perceptions of 'normal' weather and climatic changes much more than average temperatures or precipitations. In everyday life, these exceptional weather phenomena in relation to 'normal' weather are manifest references for the local appropriation of abstract knowledge about global climate change. This is what we often do in small talk situations, explaining why 'climate sceptics' can take it for granted that we get the joke in Fig. 7.1.

7.2.2 Performing Globality: 'Weather and Climate Talk' in Media Systems

Given that knowledge about the causes and effects of climate change has to be transmitted through means other than sensual perception, media and news agencies play a particularly important role at the interface between climate change-related concerns in science, politics and (recipients') life-worlds. Indeed, mass media coverage of climate change-related issues has been growing in many countries across the world over the last decade, simultaneously corresponding to significantly increasing political and scientific concerns about global warming (Neverla and Schäfer 2012).

However, mass media do not merely 'transmit' scientific knowledge or 'report' about political issues; rather, they construct a particular body of knowledge about climate change that ties in with everyday practices of weather talk in times of climate change, yet combine them with "own rules for treating subjects, attracting attention and eventually construct a media specific shape of reality" (see p. 9 in Neverla and Schäfer 2010). Similar to everyday conversations, newscasts also show a marked preference for irregular weather phenomena around the world, such as extreme weather events, floods, storms and unusually heat or cold snaps. These are often explained as being caused by climate change. Moreover, scientific knowledge about global warming is likely to be illustrated with extreme weather events. Therefore, climate change can be easily depicted as a global phenomenon by means of comparing images and stories about meteorological events across time and space. In this way, climate change becomes a plausible global phenomenon. As a result, by employing a specific set of functional rules, global media systems substantially contribute to an intuitively plausible yet delusive concept of weather and climate change relationship.

At the same time, global climate change has emerged as a suitable issue for demonstrating the global reach of media systems. However, the media coverage of global climate change is not global at all, with spots on the world map where climate change is rarely a mentionable issue in public discourse. Although media in the digital age are deemed as potentially global, there are significant differences regarding the actual coverage of particular media systems, which in turn distinguish global news agencies from those operating on a rather regional or local level. Eskjaer's (2009) comparative study of regional news systems in Denmark, Jordan and Lebanon points to a highly unequal distribution of climate change-related news coverage in different regions, which can be partly explained by unequal distributed financial resources of the news systems, but at the same time reflects regionally differing focal points in public discourse. "Whereas climate change is a topic of public debate and political dissent in the Danish newspaper, in the Middle Eastern it is treated as part of international politics, with almost no public engagement in the matter" (see p. 364 in Eskjaer 2009). In other words, while climate change has become a domestic affair in some communities, in others it largely remains a concern 'elsewhere.' This impression is reinforced by data gathered in the course of the *Climate Worlds*' research. In general, the media environments in San Francisco and Tokyo are much more comprehensive compared to Ameland, Churchill and Cape Verde. For Churchillians, newspapers have in fact not represented a convenient source for getting the latest news. The only newspaper available in town, the *Winnipeg Free Press*, tends to be delivered irregularly and with a delay of some days. Today, most people keep themselves up-to-date via online versions of the *Winnipeg Free Press* and the Canadian news portal *CBC*. Indeed, the most important news source has proved to be the social network site *Facebook*. Several "Churchill groups" have been launched by participants actually living in Churchill or in some way belonging to the town in order to exchange news and information. The group members gather pieces of political, economic, social or cultural news from different sources and share them via *Facebook*. However, most of this information circles around the town's fate. Despite the potentially global distribution of the participants

and sources of information, this media system has a rather local focus. In a similar vein, the media's focal points in Ameland and Cape Verde also tend to prioritise local issues over international affairs or global concerns. This general tendency was also confirmed by the team members' observations regarding media attention on two climate summits (Cancun and Durban). In respect of both events, news coverage was distinctively more comprehensive in the metropolitan field sites. The apparent lack of interest of the Cape Verdean media agencies even prompted the *United Nations Development Programme* (*UNDP*) to arrange a workshop on climate change issues, aiming to sensitise Cape Verdean journalists regarding climate change concerns.

7.3   How Do We Know Whether or What *Others* (Should) Know about Climate Change?

So far, we have identified a strong relationship between people's local environment (and its socio-cultural framing) and their concerns for global environmental problems, which is partly reflected in regional asymmetries regarding media and news coverage on climate change. What does this mean for the study of social and cultural implications of climate change? It is an ageing truth in social sciences that any situation is defined by its participants and that they act upon this very perception of reality.[4] Alfred Schütz ([1953](#)) argues in a similar vein, pointing to a fundamental distinction between physical and social facts, which entails highly different research subjects for the natural and the social sciences. According to Schütz, the natural sciences' objects of study are constructs of the first degree, because "the facts, data, and events with which the natural scientist has to deal are just facts, data, and events within his observational field, but this field does not mean anything to the molecules, atoms, and electrons therein" (see p. 5 in Schütz [1953](#)). By contrast, the research world of social science is a world that has already been interpreted,

> thus, the constructs used by the social scientist are, so to speak, constructs of the second degree, namely constructs of the constructs made by the actors on the social scene, whose behaviour the scientist observes and tries to explain in accordance with the procedural rules of his science. (see p. 6 in Schütz [1953](#))

Despite working in the same field of research, social and natural climate researchers technically depart from very different layers of reality, with natural sciences being dedicated to the *physical* and social sciences to the *social* facts of global warming.

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[4] The so-called "Thomas theorem" was first formulated by W.I. Thomas and D.S. Thomas in 1928 in the realm of childs' behaviour studies. The authors point out that "the subject's view of the situation, how he regards it, may be the most important element for interpretation. For his immediate behaviour is closely related to his definition of the situation, which may be in terms of objective reality or in terms of a subjective appreciation—'as if' it were so. […] If men define situations as real, they are real in their consequences" (see p. 572 in Thomas and Thomas [1928](#)).

However, social climate change research, insofar as being primarily concerned with societies' resources and strategies for mitigating and adapting to the effects of global warming, does not even differentiate conceptually between the physical and social facts of climate change. As a result, it proves very difficult to handle empirical situations where local perceptions do not coincide with our expectations, which we mostly base on natural scientific knowledge about global warming. What is even worse, this lack of reflexive distance to the object of study suggests linking up with a problematic tradition of social research. Joachim Matthes (1992) criticised common modes of social scientific comparison within the modernisation paradigm, which, according to the author, were better defined as "nostrification," meaning the appropriation of the others' perspective by means of one's own set of cultural references (see p. 84 in Matthes 1992). The author argues

> that many social scientific research initiatives while investigating social phenomena in different places (or in different times) in a comparative manner, apply a benchmark, be it explicit or not, to distinguish whole societies or smaller social figurations according to their 'stage of development'. (see p. 82 in Matthes 1992; *own translation*)

According to Matthes, the social-scientific practice of comparison within the modernisation paradigm is oriented on a hierarchy of development, wherein western European societies occupy the top position. Thus, one's own society is taken to be the abstract model of "modern society" with which other forms of societies are compared, the characteristics of which are, notwithstanding, at the same time taken to form the very criteria of the comparison. Put differently, there is no *third*, in terms of an abstract entity of comparison, in relation to which one unit could be compared on an equal footing with another; rather, one of the two is declared the *tertium comparationis*.

Yet, there is one significant difference between comparative studies in social and cultural climate change research and the modes of comparison within the modernisation paradigm. The theory of modernisation is a sociological abstraction that attempts to universalise western European's own social-historical experience and constructs its own measure of comparison. By contrast, by adopting the concept of climate change, social and cultural climate change researchers take on a natural-scientific construction of the first order. Rather than seeking to perceive the world from 'natives'[5] (multiple) points of view, *we*, by distributing knowledge about global climate change, try to make us and our research subjects comprehend the

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[5] I entirely agree with Kirsten Hastrup (Chap. 8, in this volume) that "native" is a highly problematic notion, because it adheres to the imagination of culture in terms of territorial bounded and homogeneous units, which are treated as being rather immutable, that is to say fixed in time and space (Abu-Lughod 1991). I suggest the ethnomethodological reading of the term "member" and its underlying notion of culture to be a more suitable tool for approaching the subjects in contemporary ethnographies. Put in Paul Ten Have's words: "The notion of 'member' refers to capacities or competencies that people have as members of society; capacities to speak, to know, to understand, to act in ways that are sensible in that society and in the situations in which they find themselves" (see p. 17 in Ten Have 2002). This fits very well with ethnography's interest in studying culture as an assemblage of practices, signs, things and values, and help to question clear-cut boundaries between *we* and *others*, including the ethnographer.

world in natural-scientific terms, which, notwithstanding, are based on a particular culturally framed concept of human-environment-relations. In the shape of adaption or action research, which solely concentrates on the question of how people in particular affected places deal with the impacts of global warming or seek to disseminate scientific knowledge about the matter, social and cultural climate change research above all contributes to the universalisation of one particular mode of conceiving the world and humans' place in it.

Gabriele Cappai points out that "cross-cultural comparison remains a naïve social science method, as long as the authority over the *tertium comparationis* is not put in question" (see p. 23 in Cappai 2010; *own translation*). Therefore, how can a suitable 'third' of comparison be found that does not confuse physical with social facts of climate change and hence avoid "nostrifying" (Matthes 1992) the 'other' by explaining socio-environmental processes per se within the 'climate change paradigm'? Moreover, how can we shift the authority of defining the *tertium comparationis* from the researcher towards the research field, following Matthes' advice that "in establishing cultural alterity the act of comparing is a reciprocal matter and therefore it's [scientific] reflection has to adhere to this reciprocity" (see p. 95 in Matthes 1992; *own translation*)? Taking the example of *Climate Worlds*, the remainder of this chapter explores the potentials of ethnography for cross-cultural comparative research concerning global phenomena such as climate change. Prior to discussing the problems faced during the research process and how we responded to them, I briefly introduce the methodological framework of the junior research group.

7.4 Refracting the Global: Multi-Siting and Cross-Linking 'Climate Cultures'

Since June 2010, the *Climate Worlds* research team has been studying coastal communities with respect to their modes of perceiving current environmental changes, how they interpret and cope with such changes and whether 'global climate change' has taken root as a frame of interpretation in these communities. *Climate Worlds* aims at understanding culture-specific bodies of practical (not only cognitive) knowledge of interpreting and dealing with the social implications of climate change. Hence, the methodological concept provides for long-term ethnographic fieldwork (approximately 20 months) in combination with a strong focus on video recording. An electronic network, including regular audio conferences and a shared video blog, supported communication between the geographically dispersed fellows during their fieldwork. The group was assembled during a 6-month qualifying workshop, while a 6-week interim analysis workshop intermitted the field research, forming the transition between the explorative and focused stages of fieldwork. In accordance with the "unique adequacy requirement" (Garfinkel and Wieder 1992) formulated by ethnomethodology's founder Harold Garfinkel, the project's methodological concept was developed alongside the

research process. The team members' studies are located at different sites around the globe, all of which are assumingly threatened or have already been affected by rising sea levels and/or global warming. In Tokyo and San Francisco, two of the young researchers projected exploring the ways in which societies with different cultural backgrounds perceive and cope with rising sea levels in metropolitan environments. By contrast, the researchers working in Ameland, Cape Verde and Churchill/Hudson Bay sought to investigate culturally specific ways in which small and remote communities that are economically and culturally close to the sea perceive and handle the consequences of climate change.[6] The entire research team agreed to jointly follow climate change-related local discourses in order to identify how and by which social actors and institutions knowledge about global climate change is constructed and disseminated. Spread over the continents, we suggested these studies to form a 'global ethnography' in the shape of a 'teleidoskop,' in which a central topos of climate change discourse is refracted in a number of local interpretations. In this respect, our point of departure was, as a matter of course, the *physical facticity* of climate change.

7.4.1 Going Native: From Climate Change Perceptions to Weather-Talk and Human-Environment Relations

This is how we started in June 2010. Subsequently, the team members stayed in their sites of research for quite a long time, establishing themselves in the fields and attempting to find adequate, i.e. socially recognised positions (carefully observing and documenting their interactions with the field[7]) that would enable them to engage with the local population, participate in their everyday life, learn their language, practices and rituals and little-by-little assume the emic cultural patterns of interpretation of climate change-related issues. Along the way, they wrote down and video recorded whatever they experienced in great detail. These observations and recordings formed the empirical basis of our regular virtual discussions during fieldwork. Therefore, we maintained a video blog, which was used as a kind of joint field diary. In this electronic platform, the fellows regularly posted a synopsis of their current impressions, findings or problems they wanted to discuss with the group. In addition, we met once a week for synchronous communication. We used these meetings for discussing current concerns of the team members, as well as joint analyses of data and discussions of relevant literature. By doing so, we attempted

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[6] Since August 2012, all fellows are back from fieldwork and have been writing their individual PhD-thesis, apart from one (the San Francisco-study) who abandoned the project at an early stage due to a lack of funds.

[7] The *Climate Worlds* methodology includes methods for analysing the process of becoming a member. This ethnomethodological principle is discussed and exemplified in Greschke (2012).

to support the proceeding of the members' individual PhD-theses, as well as identifying common issues for cross-cultural comparison as an essential part of the overall framework of the *Climate Worlds* research programme.

Yet, during our virtual discussions, we soon realised that things were turning out quite differently from what we initially thought. In most of the research fields, problems other than climate change loomed much larger in people's everyday lives. Apart from Churchill, a town economically dependent on the endangered polar bear—the icon of global warming that attracts thousands of tourists each year—climate change turned out not to be the most prominent topic of public interest in most areas. Moreover, even in Churchill, the issue of climate change seemed much less pronounced the more deeply the researcher became involved with the field. Behind the scenes, a profound scepticism prevailed concerning the insights and the presence of natural scientists, who worry too much about melting ice and vanishing polar bears. The fellow in Cape Verde was fairly surprised when she realised that climate change was not a public issue at all. By contrast, the concept "climate change" seems to be well known on the Dutch island of Ameland, although locals mainly associate the term with external actors trying to implement—as the islanders tend to think—questionable political changes in spatial planning or defining parts of the island as a laboratory for climate change-related simulations (see also Krauss, Chap. 4, this volume). We learned from more than one site that climate change issues were quite prominent in expert discourses, whereas lay people relying on their own perceptions of their local environments tend to display certain distance (if not even distrust) to such official discourses. On the contrary, a high consciousness of climatic changes and how to prevent these through altering one's habits has been growing in Tokyo in recent years. However, social values have drastically changed after the earthquake on 11th March 2011 and the subsequent nuclear meltdown in Fukushima. Explicit discourse about climate change retreated into the background, while questions of energy saving and alternative sources of energy came to dominate environmental debates.

Not that these findings would have worried us. So much all of us already knew about ethnography that we assumed ourselves to be on the right track into the fields, leaving behind our culturally framed assumptions and taken-for-granted interpretations about climate change. Nevertheless, without the help of our own modes of understanding the matter, the researchers in the fields had to tackle the difficulty of observing perceptions and interpretations of a phenomenon, which is not directly sensible. We were faced with the challenge of distancing ourselves from our own internalised interpretation frame, whilst attempting to be open to local frames of interpretation. In addition, we had to find a 'third' comparative entity, one that would help us to avoid 'nostrifying' the 'other' and instead enable a cultural comparison in the sense that these different places examined and the themes that are socially relevant there could be related in a meaningful way.

7.4.2   Searching for the 'Third.' Cross-Cultural Comparison Through Visualising and Cross-Linking Local Perspectives

More recent ethnographers such as Niewöhner and Scheffer (2010) have ascertained that comparability in ethnographic fields is not a given or self-evident matter; rather, it has to be established during the research process. These authors emphasise that a meaningful comparison is only possible if the entities involved in the comparison are related to one another in their local context. Hence, we began to search for more basic concepts that would possibly serve as vehicles for climate change-related issues. We started most fundamentally with weather talk and weather-related actions, attempting to explore how people relate to weather in the respective fields and whether there was any connection with observations of environmental changes. Inspired by the work of Coupland and Ylänne-McEwen (2000), we examined if weather figured in small talk at all and what other meanings were attributed to weather in specific cultural settings. We further examined situated practices of forecasting weather. It turned out that people in every field site gather information from all available sources, including their own senses, experiences of interpreting weather signs, and weather forecasts from different media (radio, TV, internet), thereby integrating different levels and types of knowledge; thus reinforcing the assumption that situated knowledge practices in everyday life are not merely local, but rather inherently hybrid (see also Hastrup, Chap. 8, this volume).

Strauss and Orlove (2003) emphasise that the ways in which weather and climate are experienced very much depends on culture-specific time frames. As the authors point out, the natural scientific distinction between short-term weather events and long-term climate patterns, although counting for the dominant mode of structuring meteorological phenomena, does not encompass the multitude of

> social and cultural forms [which] also shape the ways that these phenomena are perceived, recalled, and anticipated. In concrete settings around the world, people experience, discuss, and interpret meteorological phenomena in ways that are dependent not only on the physical characteristics of the events, but also on the cultural frameworks that divide time into current, recent, and distant periods. (see p. 6 in Strauss and Orlove 2003)

Inspired by their work, we compared meanings of seasonality in the different field sites, learning that seasonality has become a double meaning in tourism-intensive sites such as Ameland and Churchill. Rather than simply denoting changes of weather, ecology and hours of daylight, the seasonal circle of the year is determined by the presence and absence of tourists, having a strong impact on social life and senses of belonging in these sites.

The close and intensive image-based teamwork has also proved helpful for the development of a cross-linked mode of cultural comparison. The use of video cameras considerably supported our teamwork as a source of visual context information, which compensates for the constraints of computer supported collaboration; moreover, and most notably, video data from several field sites created a shared frame for interpretation for the whole *Climate Worlds* team. Each

researcher could later analyse this material and crosscheck on his or her previous interpretations. Furthermore, the team as a whole was able to discover some unexpected common ground or dissimilarities among their respective video data collections, which might have been lost in the narrative structure of a written account. Finally, we based a film project on the video data from the different field sites, in order to exemplify our methodological approach with audio-visual means (Greschke and Diaz 2012[8]).

7.5   Who Are the *We's* in Times of Global Climate Change? Notions of Belonging from a Cross-Linked Ethnographic Perspective

In my last move, I return to the initial question of this chapter, which now has to be extended in order to embrace different and possibly conflicting notions of *we*. I will now illustrate some findings of our cross-linked comparative analysis, seeking to answer the question of in which ways climate change stimulates the emergence of new and the altering of existing patterns of belonging.

By means of comparative analysis of the data gathered in the respective sites, we learned in the first place that the differences and similarities we identified did not necessarily coincide with 'nationally' or 'ethnically' territorially bounded units. Whereas comparing along the lines of what is generally called ethnic-national culture proved to be of little value, we found striking differences between urban and rural life-worlds, as well as quite distinct notions and practices (e.g. of environment/environmental change, practices of forecasting weather, the social meaning of certain species) existing in parallel at one site. The differences are rather related to specific professional cultures or social positions. On the other hand, those notions and practices that are specific to some groups of actors seem to be alike in most of the studied fields. For instance, occupational groups with a close relation to the sea figure in most of the field sites, conceiving the sea in terms of economic resources (i.e. fishing, tourism services) or as a space of recreation and/or adventure (i.e. tourists). Furthermore, ecologist groups who bring forward notions of nature, environment or animal protection against human ways of life play a major role in all research fields. Looking carefully across different field sites, we were able to identify very similar conflicts in Ameland, the Cape Verdean island of Boa Vista and Churchill. In Ameland, the very notion of coast is at stake. While scientists treat parts of the coast as a natural laboratory for research on the rising sea level,[9] a coalition of climate change-related political and science actors aims to implement novel forms of dynamic coast protection. In turn, this has been met with resistance

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[9] Due to offshore gas production near the island, the grounds in some parts of Ameland sink faster, which is appreciated by scientists to be treated as a natural simulation of the rising sea level.

by the inhabitants, who expect negative impacts for the local economy, which is mainly based on bathing tourism. At the same time, local tourism agents are at odds with environmentalist groups about the appropriate concept of beach. Whereas the former hold fast to the traditional concept of a bathing beach, the latter campaign for a transformation into a bird sanctuary. In the Cape Verdean Island of Boa Vista, bathing tourism has recently been primarily developed by transnationally operating tourism agencies. However, in one of the beaches, they encountered members of a transnational organisation of animal rights activists, who have been establishing themselves with the help of the Cape Verdean army in order to protect hatcheries of the endangered sea turtle against local hunting practices. In other words, it is not only access to and the appropriate treatment of certain coastal areas that has to be re-negotiated between different groups of actors in Cape Verde, but also the value of a certain species. As we see in Claudia Grill's Chap. 6 in this volume, the conflict in Churchill also concentrates on a symbolically charged animal, upon which very different needs, experiences and worldviews are juxtaposed.

In these conflicts, it is primarily groups of actors operating on a global scale, such as environmentalists, scientists, politicians, tourists and tourism agencies, representatives of global governmental or news organisations, who bring global climate change concerns into play. They share an interaction with the environment as well as a conception of human-environment relations, both of which are not tied to a particular place or locality. Quite the contrary, they refer to a particular object, such as an 'endangered species' or a 'paradisiacal beach,' which is symbolically charged and globalised, that is to say, detached from local contexts. In this way, they contribute to the emergence of highly mobile contexts of belonging, which may arise now, here and elsewhere, but seem to be rooted in a virtual nowhere.

In terms of studying contexts of belonging, Mecheril suggests the differentiation between three dimensions for analytical purposes. He defines contexts of belonging as

> empirical approaches to ideal typical interrelations, in which each individual can experience him or herself as an equal among equals (dimension: membership), wherein they develop and apply the power to act (dimension: agency) and, finally, with which they can be affiliated (dimension: solidarity). (see p. 234 in Mecheril and Hoffarth 2004; *own translation*)

While stimulating the emergence of global contexts of belonging for some groups of actors, from locals' perspective global climate change turns into an imported product by means of which locally valid practices and norms are questioned. As a result, in particular places where tourists, scientists and/or environmentalists appropriate (moral) entitlements for interpreting meteorological phenomena, human-animal relations or the 'right' treatment of the environment, the permanent (locally attached) inhabitants might rather associate exclusion, domination and rivalry with climate change than the experience of membership, agency and solidarity. Travelling in this way, the social facts of global warming, in brief, are more likely to be perceived as a threat to one's own context of cultural and social belonging than to the future of the planet and human civilisation at large.

7.6 Summary

In this chapter, I have queried the prospects of climate change for becoming a globally shared issue of concern, paying particular attention to the role of social and cultural sciences. I have illuminated the socio-cultural prerequisites and limits of being or not being included in a climate change-related global notion of *we*. I have argued against an equation of physical and social facts of climate change and the disciplinary self-limitation to the study of mitigation and adaption strategies. In this regard, I have highlighted the parallels between the current shape of climate change-related social and cultural studies and the research tradition within the modernisation paradigm. Similar to modernisation theory, climate change comprises a worldview that embraces the entire globe not only in spatial, but also temporal, terms. The notion of 'Anthropocene' quite clearly reflects how climate change re-arranges the role of humankind in the socio-ecological world history. Humans are not only considered responsible for current environmental changes but also capable of controlling the environment. This worldview connects to particular generations, lifestyles and experiences of self-efficacy, which are assumed to be not restricted to, but mainly represented in, metropolitan, industrialised and technologised contexts. Drawing on the collaborative work of *Climate Worlds*, I have highlighted the potentials of contemporary ethnography for contributing to an understanding of how and why a natural-scientific concept such as 'climate change' is compatible with locally grounded interpretation patterns or not. Ethnography provides valuable tools for exploring a diversity of knowledge, everyday perspectives and experiences and relating them to one another. Rather than assisting the universalisation of one particular worldview that privileges some groups of actors while continuing experiences of exclusion and domination for others, the virtue of ethnography for studying climate change lies in its capacity to uncover the many facets and asymmetries, the contradictoriness as well as the potential for conflicts—all of which are connected to the social facts of global climate change.

The story of social and cultural scientists and their relationship to climate change research may be seen in joining an anthropocentric adventure built upon shrouded conflicts or in exploring the mysteries of humankind's contradicting relationships to the earth. The choice is ours.

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