Between Madness and Reason: Comparison, Climate Change and Intergenerational Negotiations of Guilt

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Abstract

Climate change has become one of the most pressing issues of our time. It is firmly anchored in the Anthropocene, and it can be defined as an environmental, cultural, and political phenomenon that is reshaping the global world. This paper analyses how comparisons are used in the climate change debate as a way to negotiate norms and values, to regulate responsibilities, and clarify questions of certain forms of contested agency as a narrative attribution of guilt and blame; especially with regard to the moral discourse on options for action, as well as to draw up possible courses of action for a climate-friendly future. An ethnographic example of an exaggerated depiction of generational conflict is used to show the extent to which opposites but also similarities are created through the process of comparison. In addition to the extent to which plausibility and credibility and guilt, blame and justice are negotiated, it is emphasized that the dichotomous use of generational comparison refers less to a binary understanding of generational justice and capacity to act, but must rather be evaluated as a narrative code in the communication and meeting process.

Keywords: climate change, comparison as cultural practice, comparative values, plausibility, credibility, morality, justice, (in)equality, adaption, anticipation, agency

⁄⁄ Introduction

"From model pupil to sinner" was one of the headlines that covered Germany and German (climate) politics in 2018.[1] Compared to other countries, Germany has been perceived as a pioneer in the field of climate protection for several years. Germany's commitment to reduce greenhouse gas emissions sounds impressive at first glance. These objectives were set in 2007 and supplemented in 2010, and they intended the following: "Germany aims to reduce greenhouse gas emissions by 40 % by 2020 and by at least 55 % by 2030 compared to 1990 emission levels. Greenhouse gas neutrality is to be achieved to a high degree by 2050."[2] Furthermore, the objectives say that the Federal Government of Germany "intends to reach the climate protection targets with the help of the Climate Action Programme 2020 and the Climate Action Plan 2050" and that "without massive and rapid efforts the set targets will not be achieved."[3]

In the second half of 2018 and during spring and summer of 2019, however, it became apparent that Germany would resoundingly fail to meet these self-declared

climate targets, at least those that planned to reduce emissions by 2020. Unfortunately for such a seemingly radical transformation to succeed, both energy production and consumption must be rethought and replanned. In addition, there are concrete but contested options for action that affect the individual lifestyle of the population's lifestyle, for example, cars need to emit less, heating systems need to be climate-friendly, the electricity sector needs to be powered by wind, sun, and biomass instead of coal and gas.

The politics of the government coalition between Conservatives and Social Democrats in Germany, especially the third and current fourth Merkel Cabinets from 2013/2014 until now, and the public debates of the issue have shown that the goals definitely cannot be achieved by 2020. Even the achievement of the goals for 2030 is uncertain. For this reason, the impressive targets of 2007/2010 have currently been revised by the grand coalition in the so-called *Klimapaket* (Climate Package) negotiations and were disclosed to the public in mid-October 2019.[4] The result of the negotiations —the Federal Climate Change Act—is currently under intense discussion. Especially the wording of the climate package and some resolutions caused a stir in the discussion. Based on the commitments under the Paris Agreement[5], Germany aims to reduce greenhouse gas emissions by 55 to 56 percent by 2030 compared with 1990's levels. The 2020 target is now obsolete.

Furthermore, rather than "*implementing*" the targets, it is now a matter of "*pursuing*" the goal of reducing greenhouse gas emissions. Additionally, the German government is "*committed to implement*" rather than "*intending to reach*" the objective of greenhouse gas neutrality by 2050.[6] In principle, the Federal Climate Change Act is a comprehensive bill that continues to aim to reduce greenhouse gas emissions and promote sustainable energy conversion, especially in those sectors that for various reasons—including political inactivity—have not yet been able to fulfill these tasks, especially the sectors of transport, building, and industry. Proposed measures "*to support*" these reductions—again, the downgraded phrasing of the target—include a carbon price, a tax credit for train tickets and building refurbishment, and tax credits for commuters.[7]

Nongovernmental organizations, think tanks, and global movements such as "School Strike for the Climate"/"Fridays for Future" or "Extinction Rebellion"[8] criticize these aspects for their lack of ambition, the laxity of its instruments, the slow phase-out of coal and the lack of a clear long-term vision to reach the goal of climate neutrality by 2050.[9] As of December 2019, the grand coalition, together with parts of the opposition, has made further adjustments. For example, the price for the emission of the climate-damaging carbon dioxide (CO_2) in traffic and buildings is to be raised from 2021 (25 euros instead of the planned 10 euros per barrel of carbon dioxide). In addition, the price of electricity is to fall as of 2021, the commuter allowance is to be increased, and rail tickets will become cheaper so that consumers can also feel the positive effects.[10]

All in all, it can be summarized that Germany's more or less failed reduction targets are external signs of the multifaceted problems that Germany is facing concerning

the implementation of the climate goals of the Paris Agreement. Especially the difficult negotiations within the grand coalition and the critical discussion of the alleged political inactivity of the grand coalition by environmental organizations show this German political dilemma. A worldwide comparison even shows that Germany is only in the midfield of the energy transition index among the other so-called leading countries and that its position is falling rather than rising.[11]

In the wake of this reporting and other global events—the hot summers of 2018 and 2019, the so-called "dieselgate,"[12] the drought and fire disasters in the United States of America and Australia, climate change as a potential cause of migration in African and Asian countries, and the climate change skepticism of some political figures in global politics—the discussion on global warming, greenhouse gas emissions, and climate change was carried out even more consistently than in previous years. Not a day goes by without another report that indirectly or directly addresses global warming and climate change. Every area of life seems to be affected in some way by this discussion.

Among other things, the climate discussion is about setting comparisons and determining comparative values, especially within the (future) decision-making process. These comparisons and comparative values play a role in a wide variety of areas of the debate and process: Beginning with the historical development of global warming and climate change both in a fundamental global sense and in its geographical specification, the determination and inherent comparison of temperature and weather data and their development over the last decades, the comparison of greenhouse gas emissions at the state level, or even previous specific proposals for solutions regarding the all-encompassing change, and finally the comparison between (future) options for action that affect different states as well as specific groups of people or even generations (sometimes at a different level). In this context, comparisons are used by different actors to exert influence on the more or less imagined "other," both individuals and groups that differ in their actions and narratives, particularly concerning to their judgments, experiences, perceptions, decisions, and behavior.

The social process of comparison requires looking at others to define standards that define one's group via the action of other groups that seem to be opposed. These comparison standards are used to "evaluate ourselves and gain information about how [one's own group] should behave, think, and feel" (Baldwin/Mussweiler 2018, E9067). Furthermore, based on these comparison standards, it is not necessarily the groups' or individual's esteem that defines themselves/itself emotionally, but their/its standing relative to others (Baldwin/Mussweiler 2018, E9067). In this context, norms and values, as well as violations of these norms and values, become equally important: more or less strict social norms and, if necessary, sanctions help to overcome insecurities and, above all, to support groups of individuals in acting and performing cohesively (Baldwin/Mussweiler 2018, E9068).

To establish the connection between climate change narratives, comparisons, and action, this paper is guided by the following questions: In what respect are comparisons used in the field of climate change? What do comparisons say about overarch-

ing categories such as morality, justice, and equality, or inequality? These overarching questions regarding social and cultural comparison automatically refer to further questions regarding comparisons and climate change: When climate change is defined as human-made, who contributes to it, and who does not? Are there communities that contribute more to climate change and global warming than others? Is there anybody or any group that does not contribute to climate change and global warming? Who must act? Who may demand action? These related questions and comparative values are also used by different actors to generate and demand options for action and to clarify questions of guilt and blame.

In this paper, I will first briefly discuss the extent to which comparison is defined as a social format and a socio-cultural practice that permeates society and influences everyday life. I will then discuss current developments in the climate debate to clarify how language and communication are essential for the debate, to explain how credibility and plausibility are established in debating and comparing the subject. In conclusion, I will take up the aspect of comparison once again to explain how comparison is used to make sense of the changing climate and how comparative values used in this interactive process can be applied to a (comparative) relationship between individual practices and interpretations and the wider societal to transnational debate on climate change, and how comparisons are used in climate change debate to regulate responsibilities and clarify questions of guilt and blame, especially with regard to the moral discourse on options for action, as well as to draw up possible courses of action for a climate-friendly future.

Comparison as a Social Practice

Comparison is an intrinsic human practice and a focal human concern. It is used to show others—by using others—how to make sense of ourselves, our main social group, and our social world. It is "a way of working with differences and similarities between people, objects, concepts, feelings, and other sorts of things (Sørensen/Marlin/Niewöhner 2018, 148). Comparisons are "never neutral: they are inevitably tendentious, didactic, competitive, and prescriptive" (Radhakrishnan 2013, 16). They are not only part of everyday life; rather, they are an essential, natural, and central social practice and basic operation of social life (Heintz 2016, 305-306). As a cultural technique, comparisons are used as a way to position oneself, to place oneself in relation to others, and to differentiate oneself and thus to locate oneself in a social-spatial context (Amelang/Beck 2010; cf. Groth 2019, 240). They facilitate thinking in diverse areas such as person perception, emotion, attitudes, and problem-solving (Baldwin/Mussweiler 2018, E9072).

Furthermore, comparisons have become a central element of public communication. No matter if it is about comparisons of states, universities, cities, movements, parties, or people and their popularity, performance, scientific appeal, or even plausibility, the communicative process about these comparisons and their underlying comparative values is an all-encompassing part of human behavior. Stefan Groth, therefore also understands comparisons as an everyday practice with social, cultural,

material, cognitive, and linguistic dimensions and through which everyday life is ordered, but also coped with (Groth 2019, 240). He uses the phrase "doing comparison" to show that comparisons are applied in the most diverse areas of life and dimensions, also as—following Thomas Hengartner's idea of "Doing Transformation" (2016)—a habituated way of dealing with change (Groth 2019, 239).

However, according to Heintz, two conditions must be met in order for meaningful comparisons to be made: first, the subjects to be compared must be classified as comparable, that means assigned to the same categories, and second, there must be criteria and procedures for comparison, based on which differences can be developed (Heintz 2016, 307). Thus, comparisons are based on two aspects that converge empirically, but which must be distinguished analytically according to Heintz: on the one hand, the aspects are comparable through categorizations. On the other hand, they are differentiated from each other by means of the observed and evaluated comparison. In principle, comparisons can result in differences between the two aspects, but equality is also a possible outcome of comparative practice (Heintz 2016, 307).

During the comparison process, aspects are related to each other to create and consolidate order. This ordering function of comparisons as a social and cultural practice is, to a large extent and similar to storytelling, a communicative-performative action, enacted in communication. The climate change debate is one example where this can be observed. In this paper I will discuss how comparisons are used in the communicative process by certain groups to construct categories and criteria of plausibility and credibility. I will do this by using specific empirical examples from two fields, on the one hand, protest and nonviolent resistance by the social movements "Fridays for Future" and "Extinction Rebellion," and on the other hand the so-called leadership training of the "Climate Leadership Program."[13] As part of these categorization efforts, comparisons are used to point out and establish differences between states, organizations, groups, and individuals, while at the same time featuring in highlighting similarities within these specific sets of actors.

The Climate Change Debate

Climate change has become one of the most pressing issues of our time. Increasing air and ocean temperatures, altered weather conditions, and rising sea levels are affecting the globe with profound consequences. These consequences are part of an ongoing and conflicting debate that is conducted by different groups. Some of these groups have differentiating views on the causes of climate change and its consequences but other views are similar, and other groups have views that are completely opposed to these others and their views.

Nevertheless, most of these groups—apart from the skeptics—believe one thing: Climate change has a lasting impact on all social, cultural, economic, and political areas of our society, and—more importantly—climate change is human-made. The Intergovernmental Panel on Climate Change (IPCC), the multilateral body of the United Nations in charge of providing the world with an objective, scientific information of human-induced climate change, reported in 2013[14]:

> [The] [w]arming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentration of greenhouse gases have increased. (IPCC 2014, 4)

The IPCC publishes assessment reports at irregular intervals since 1990. Currently, six reports are available, as well as several special reports on specialized topics (renewable energy, global warming, extreme events, and disasters). The IPCC does not carry out the research itself nor does it monitor climate-related data, but collects and publishes current results compiled by a large number of international scientists. The aforementioned and quoted fifth report, published in 2013, was compiled by 800 authors in three working groups. The report's main findings are that climate-scientists overwhelmingly agree that humans are causing recent global warming. It is established that

> [h]uman influence on the climate system is clear. […] [It] has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes. This evidence for human influence has grown since AR4 [Assessment Report 4, VF]. It is *extremely likely* that the dominant cause of the observed warming since the mid-20th century (emphasis in original). (IPCC 2014, 15, 17)

Furthermore, the report concludes that "continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system" (IPCC 2014, 19). This result implies the call for urgent and timely action to minimize global warming, even if "[m]ost aspects of climate change will persist for many centuries even if emissions of CO_2 are stopped" (IPCC 2014, 27). The report reflects the conviction of 97.1 percent of climate scientists who represent a consensus on anthropogenic global warming (Cook et al. 2013; Cook et al. 2016; Hulme 2009a; Hulme 2009b; Norgaard 2011).

However, paradoxically the world lives in a sharp and growing separation between climate science, climatology, and everyday life. Even as the scientific consensus grows, it appears as if part of the public is losing interest in the subject. Furthermore, the conflict between the prospect of a fundamentally changed climate—not only in the near future but also in the current climate—and almost constant references to everyday priorities is increasingly becoming the defining feature of our time. Bridging this conflict and overcoming division has become the key and growing priority for the 21st century. The task requires a comprehensive transformation of the structures of meaning, and this is primarily a cultural task in which comparison is used frequently, both by scholars and by actors in the field. In this respect, comparisons are also brought into the discussion in a conflictual manner. What I mean with conflictual discussion or discourse and furthermore with social comparison as a defining category in this field is that above all, the question of the causes, the anticipated courses of action for society

and the everyday options for action are in conflict with each other and additionally are compared with each other.

There are several reasons for this: for one thing, global warming and climate change are abstracted from everyday experience. Global warming and climate change are happening now, and the phenomena are continually affecting our everyday life and living environments. However, in the end, it is still difficult to link causes, impacts, and effects. Typically, for example, weather conditions change daily, driven by a variety of factors, and just because of that, these changes do not stand out that much. At least they did not use to stand out that much—this aspect is currently undergoing significant changes. Beyond that, another reason is that the social tipping points and elements[15] of climate change are global in nature, historical in their logic, and projected (far) into the future, therefore it appears to be "easy" to compare these drivers with each other.

The causes of climate change are socio-political, but the responsibility is conveyed by irresistible biophysical forces far removed from the realm of experience. As an explanation: The actual change in the climate is caused by a biophysical change. In the 20th and 21st centuries, however, this change cannot be defined as "natural," but is instead a result of socio-political events and decisions of the last 150 years, to put it in an exaggerated form, from industrialization to globalization. Accordingly, climate change is also defined as anthropogenic; and even if the Intergovernmental Panel on Climate Change (IPCC) links anthropogenic emissions "with a high level of confidence" with current and future weather changes, the everyday experience with these changes is mostly intangible.

Even if some aspects seem to be unclear, large parts of the scientific community, the media, and politics argue because global warming and thus climate change must be classified as anthropogenic, both individuals and societies must do something to contain global climatic changes. Large sections of society share this view and believe that measures must be taken to mitigate climate change despite (future) uncertainties about the precise aspects of climate change. Wide-ranging forms of committed climate protection are necessary to implement this plan. Future and future practices play an essential role in this context. The term "future practices" implies that people "implicitly or explicitly engage in the making of future" (Esguerra 2019, 963).

With regard to climate change, it is interesting to note even if science plays a vital role in "predicting" the future of climate change, beyond that, it is the generation and negotiation of (climate) knowledge removed from the centers and practices of formal science that has a decisive influence on future practices regarding a climate-friendly future (see also Esguerra 2019, 963–964). In addition to governmental and non-governmental organizations, initiatives, associations, and other organizations, such as "Fridays for Future," "Extinction Rebellion" or "Climate Leadership Programs," support the "activation" of climate actors by encouraging locals to share climate knowledge or initiate climate protection projects. During the last years, especially ever since the Paris Agreement was negotiated in 2015, the discourse on climate change has been rekindled on a larger scale.

The Many Sides of the Climate Change Debate

In the climate debate, at least two fronts seem to collide that are more or less contrary to each other. On the one hand, there are the "believers," and on the other, the "deniers," the climate change skeptics. Whenever a scientist or activist talks about the human causes of climate change, someone else is usually there to provide a "counter-argument." The credibility and plausibility of climate change are discussed, argued, and negotiated in conflicting opinions. These conflicting opinions often leaves the public with the mistaken impression that a genuine debate is taking place between those main groups. Why is that? The problem is that a scientific consensus, but not yet a complete social consensus, shapes the climate debate (Hoffman 2011, 195). Social consensus is a view held by society as a whole—or almost whole—that emerges from individual and social values about what is plausible and credible, and what is true and what is not (Hoffman 2011, 195). Scientists mostly characterize the scientific consensus. The social consensus involves a broader array of actors, including the media, educators, and cultural, economic, and political leaders, and the public in general as well (Hoffman 2011, 195). The process by which these actors understand and assess the science of climate change is not always scientific. Instead, deeply held beliefs and values that are influenced by political ideology (Hoffman 2011, 195) are invoked. When individuals analyze issues such as climate change, they employ socio-cultural, political, and ideological filters heavily influenced by the values and belief systems of the groups to which they perceive themselves to belong (Hoffman 2011, 195). So at least for the moment—recognizable, for example, by contemporary and prominent political figures—there is not yet a complete social consensus. Furthermore, during the last years, the divide between those groups has widened.

However, there is also a widening gap inside the first group, for example between scientists and politicians, conservatives and liberals, politicians and the public, or between the young and the old. Inside this group, there are internal and conflicting debates on the consequences of climate change and, above all, on what needs to be done now and not in a distant future. Many of these debates firstly emphasize the plausibility and credibility of the arguments, secondly the comparison between locally based groups and their negotiating practices, and the general global debate, and thirdly the comparative values and perspectives on justice, equality, morality, guilt, blame, and value. In the following subsections, I will discuss these aspects in more detail.

Why Language Matters—Ethnography of Communication and Meetings

Before I start with some notes on the comparison of plausibility and credibility, I will provide a few notes on my methodological approach, which refers, on the one hand, to linguistic anthropology and narrative research and, on the other hand, to meeting ethnography. Linguistic anthropology is the study of "language in context" (Groth 2012, 17). It focuses on the "speakers of a given language or the participants in a speech

community and their communicative interactions," as well as "on the interaction by use of language, and the social functions of language" (Groth 2012, 17). The interconnectedness of the participants, the so-called speech community, is the main focus of research, especially with regards to specific rules like language use, and a shared understanding of communicative interaction and interpretation (Groth 2012, 18). Following Duranti (1997), Groth outlines three central concepts for linguistic anthropology, through which communication but also narration as a performative act of speech can be analyzed, namely performance, indexicality, and participation (Groth 2012, 17). Performance refers to the extent to which language is used as a tool of communication. Indexicality refers to the social functions of language, and the intentions of speakers and participation refer to the interrelationship of language use, communicative events, and membership of a social group (Duranti 1997, 14-20; see Groth 2012, 17-18).

These aspects are important for meeting ethnography as well because meetings are where the action and where the language or communication is (Sandler/Thedvall 2017, 1). In meetings, power is produced and enacted, dynamics of identity and hierarchy are negotiated, and organization is produced, determined, and challenged (Sandler/Thedvall 2017, 1). Therefore, one of my main questions is which role comparison plays at meetings and group events with meeting-character, such as alternative climate schools, workshops, and protest camps, especially regarding the power and dynamics of plausible knowledge production, value production, and negotiation practice.

The specific nature of ethnographic field research offers the possibility of gaining insights into the relationship between climate and culture through a long-term and "multi-sited" approach. My field research for the project "How to Train Climate Active/Conscious Citizens. A Study of Climate Leadership and Agency" took place mainly in Bonn and Berlin[16]. Meetings, and the communication process, were central to all my field visits. The research project examines from a cultural-anthropological perspective how governmental and non-governmental organizations and climate leadership programs produce climate knowledge together with experts and climate activists. Furthermore, the project assesses the ways how these (global) actors transfer the knowledge through initiatives, programs, and protests, and how local actors sustainably shape their everyday lives along with this transferred knowledge.

In 2017, before the official start of my project, I was an accredited participant of the Conference of the Parties (COP23) in Bonn. In 2018 I trained as a climate leader in Berlin, and since 2019, I have been participating in the actions of the Bonn local groups of "Fridays for Future" as well as "Extinction Rebellion." On the next few pages I will show an example from my ethnography which centers on the global social movement "Fridays for Future" that shows the use of comparisons from different perspectives and clarify to what extent comparisons, on the one hand, refer to dichotomies like young vs. old, global South vs. global North, etc., which produce differences. On the other hand, comparing creates not only differences but also similarities, especially when the common ground is highlighted and reduced to a consensus through the communicative process and the process of knowledge generation and acquisition in

meetings or events with meeting character.

Credibility, Plausibility and Comparative Values

The question of credibility and plausibility plays a role in climate change communication and beyond that in terms of comparisons as social and cultural practices. Every time a particular aspect or argument within the debate is compared or even contested, the following questions must be asked: when is a report, statement, or story on climate change considered credible or not? In other words, what criteria must be met for a report, a story to be considered credible? Who decides? Can the same story, the same report be classified as credible by specific recipients and untrustworthy by others? Moreover, how can credibility be achieved in media reports, statements, and stories or within the whole debate?

The narrative researcher Gary Alan Fine, in cooperation with other colleagues, has dealt with this question with regard to narration (Fine 1995; Fine/Khawaja 2005; Fine/Difonzo 2011). For him, the dynamics and structure of credibility depend on the interplay of several factors that overlap in several ways in the practice of narration: the narrator, the narrative content, the narrative context, and the audience (Fine 1995). Depending on how these factors relate to each other, the same narrative can be considered or described as a true event or fact, a credible and plausible narrative, wild speculation, and finally, a deliberate invention (Fine 1995). However, Fine not only asks for the credibility of a story or report but he also asks, how plausible is the content? Fine introduces a second term here, which is important. While credibility depends on the person or the source, plausibility refers to the content of what is communicated (Fine 1995). According to Fine and Difonzo, the evaluation of plausibility and credibility is socially produced and evaluated (Fine/Difonzo 2011, 17): "We judge plausibility by the responses of friends and acquaintances, filtering our own belief through trust in their local knowledge. We activate social networks and participate in collective sense-making" (Fine/Difonzo 2011, 18). Furthermore, they state that "[p]lausibility is not only personal but is tied to our common experiences; credibility is not only cognitive but depends on our social capital. Both depend upon the communities in which we participate" (Fine/Difonzo 2011, 18).

This view on narrative research defined by Fine and others can be applied to climate change communication and the debate, which happens both in digital space and in physical space, here especially in meetings or even protest actions. Here, too, it clarifies who is taking part in the debate, what content is being contributed, what the context is, and who the audience is. Furthermore, the importance of communicative interaction and interpretation in meetings, as well as the negotiation of plausibility and credibility, can be seen in the production of comparative values and politics or comparisons in general in the climate change debate. For example, in the sciences the theoretical comparison of climate policies happens on four levels: positions taken in international negotiations; ratification or non-ratification of international treaties; adoption of domestic programs to abate climate change (whether or not in response to international treaties); and "street-level" implementation of those programs (Harris-

son/Sundstorm 2007, 3).

In this context, comparison is often based on different value systems with regard to the question of who—which state, which community, which (local) group—must do what to tackle climate change or to take action (with regards to the public) as well as on the credibility and plausibility of the specific arguments. A short example: at the moment, there is something like a (post)colonial North and South debate about whose task it is to do more to combat climate change: industrialized nations, emerging economies, and developing countries? This debate is primarily about the different degrees of being affected by and responsible for anthropogenic climate change, and questions of guilt and assignment of blame are being discussed: Is it simply a question of who exactly is responsible for the current and drastic changes in the climate and who is primarily responsible for organized action and implementation as well as financial backing.

In this context, the historically high emissions of greenhouse gases in the industrialized countries and the associated increase in prosperity and growth are linked to the current situation of emerging economies and developing countries. Furthermore, global power structures, in particular, play a role, making international meetings, negotiations, and communication in general on this issue so difficult, as has been seen at every climate conference in recent years. Especially concepts like justice, (in)equality, guilt, blame, temporalities, and moral values and the comparative perspectives on these concepts are of interest in this specific debate. In short, climate change as a global problem with varied local implication generates a moral and ethical debate.

What does that mean in detail? Hulme states that "[c]limate change is used as a battleground between different philosophies and practices of science and between different ways of knowing" (Hulme 2009b, 42). I would add to this, not only science and knowledge regimes matter in this context, but also the process of interpretation of scientific findings on the causes of climate change, the measurable effects of change, and the options for action that follow. Climate change is an area that generates levels of uncertainty, especially in public opinion. The problem is that the scientific consensus on the anthropogenic causes of climate change translates into numbers, equations, or models that are only partially understood by the majority of the population, if at all. Hulme argues that the arguments of the scientific consensus revolve around the "accuracy of data, the validity of models, and the integrity of scientists" (Hulme 2009b, 42). This means that speaking from a western point of view, the way the consensus is presented, it seems to be objective and politically neutral.

However, it only appears impartial and neutral. Rather, it is the case that scientific results also reproduce certain patterns that point to differences in interpretation, modes of meaning, and possibly also miscommunication between certain groups. For example, Heather M. Yocum (2016) analyzed that "contemporary efforts to account for climate change often preference [sic!] the perspectives of the Western-educated, urban, and affluent technocrats that contribute to their creation" (cf. Isenhour/O'Reilly/Yocum 2016, 649). An example: if in the climate debate CO2-emissions are contextualized historically, and historical emissions (of industrialized countries) are compared

with current emissions (of the developing countries), and this is done from a Western perspective, the climate debate gets into an imbalance. This currently unbalanced and uneven method of comparing the accounting for climate responsibility results in the reproduction of global inequality and injustice, but also asks about responsibility in the moral sense (cf. Isenhour/O'Reilly/Yocum 2016, 649).

The process of assessing credibility and plausibility is important when responsibility in the moral sense is interpreted from a variety of perspectives, not only from the Western perspective. In general, one can say that climate is thought of in moral categories which are used to clarify further the meanings of credibility and plausibility of certain arguments—and narrative codes—to gain the upper hand in the debate: starting with the question regarding responsibilities (i.e., developed against developing countries), up to the stigmatizing of people who inhabit certain regions and zones (i.e., poverty and marginalized groups in affected regions), and the moralistic deployment of climatic imaginings (i.e., the dying polar bear on the melting ice floe).

This aspect makes the climate debate, and also the negotiation of climate knowledge, even more complicated. Kirsten Hastrup states that the

> modern (largely national) moral order is inadequate for dealing with the implications of climate change, including the dispersal of cause and effect in both time and space, the increasingly skewed vulnerabilities, and not least the intergenerational responsibility that distributes subjects (agents) and objects (victims) of actions in time. (2015, n.p.)

Ethical considerations and attributions and also decisions based on them must be reconsidered and renewed in the course of the climate debate, especially concerning the concrete connection with current global situations from which people must develop options for action for the future.

Climate Knowledge and Professional Climate Training

How can the aforementioned aspects of the production of credibility and plausibility be applied to the comparative relationship between (local) individual practices and interpretations regarding climate change and the broader social debates on climate protection and change? To what extent does the negotiation of credibility and plausibility contribute to supporting rather than initiating changes in social practices? Furthermore, using the example of a current climate activism issue, how are social comparisons in the climate debate used to regulate responsibilities and clarify questions of guilt and blame in a generational sense? Especially regarding the moral discourse on options for action, and to develop options for action for a climate-friendly future.

The first example from my field research takes us to the "Climate Reality Project." The project is a non-governmental organization founded in 2011 by former U.S. Vice President Al Gore. It is committed to build a global climate protection movement. In addition to using modern communication tools, it focuses on the training of so-called "Climate Leaders". Since 2006, Gore has been training spokespersons for the project

worldwide. These "Climate Leaders" learn to pass on the multimedia presentation Gore has developed on human-made global warming. In addition, the leaders are taught to take on leading roles in climate protection in their communities with so-called "Acts of Leadership." To date, a total of 20.967 climate leaders from over 154 countries have been trained to advise groups and persons, such as managers, school-children, religious communities, and political decision-makers at all levels, about climate change, and encourage them to take action.

With regard to the negotiation of climate knowledge, as well as the plausibility and credibility of climate change arguments, participation, community spirit, professionalization, and a certain elite building play a role in this context. I myself trained as a climate leader in 2018 as part of my field research. I had to apply for a place in advance. Participation was free of charge, only travel and accommodation costs had to be paid by the participants themselves. Here is a short excerpt from my observation protocol:

> The first thing I see when I enter the Maritim Hotel is a large crowd of people. Nearly all of them followed the desired dress code. I see hardly no jeans, only skirts, pants, blouses and shirts. The business casual look has definitely prevailed. Directly to the right of the entrance is the registration, there are a lot of people standing there; but—I notice quickly—the start is well organized, and I get my Climate Reality Leadership Corps manual handed out after only a few minutes. A little bit lost, I follow the crowd into the big hall, where I quickly find my round table via the number on my name plate. Proudly I was told during the registration that the table numbers will change every day. This way everyone will have the chance to be very close to the makers, among others Al Gore. The atmosphere is almost euphoric. Everybody is looking for their table neighbors, talking to each other, talking and getting to know each other. At my table there are mainly people from the Cologne-Bonn region, but we speak mainly English with each other, since not only people with German language skills are sitting at the table. Everything seems very "American" to me. I can't explain it exactly, but everyone seems very cheerful, communicative, and exuberant. We play a game to get to know each other: the goal is to find out similarities and differences in origin, profession, and knowledge. I quickly realize that the main goal is to define a common feeling, to talk about one own's plausible views on climate change, and to support the development of common ideas. I am curious to see how the training will develop. (Observation protocol, Climate Reality Corps Training, Maritim Hotel, Berlin, 26.07.2018)

The "Climate Leadership Training" is characterized on the one hand by the climate knowledge of those interested in climate change and checking their arguments for plausibility and credibility. According to the idea of the training, this negotiation of knowledge and the verification of the arguments must be followed by specific action. Accordingly, knowledge generation and negotiation and active participation during and after the training run parallel to each other, but are also dependent on and follow each other. Participation is a knowledge-based activity controlled by the acquisition of competencies, a practical skill in which knowledge and understanding are central. Climate-interested people and activists can therefore contribute to existing knowledge

in the training, in discussions, but also generate new knowledge. They anticipate a future in which it is important to convey plausibility and credibility. The aim is always to be able to pass on the collected knowledge after the training, and indeed to have to do so in order to bring about change.

On the other hand, in addition to the use of climate knowledge concerning the professional organization of the training, the sometimes-complicated application process in the lead up to the training and the non-public framework of the event, a certain elite formation is implied. This is further reinforced by the symbolic end of the event: At the end of the training, all trainees are ceremonially presented with a certificate and a pin. This is very formally organized: The responsible table mentors hands out the official certificate and pin. The group celebrates each graduate with loud clapping and cheering. At the same time, a photo is taken as soon as the pin is attached. The final note of the day is identical to the inscription on the pin: "Wear this pin as a symbol of our commitment to help spread the reality of the climate crisis. Wear it, and you are taking a stand for action. Wear it, and together we can change the world." (Observation protocol, Climate Reality Corps Training, Maritim Hotel, Berlin, 28.07.2018) Here, too, it is clear that the community of climate leaders is set at the center. As is the common identifying mark, the pin, through which all leaders can recognize each other and in turn enable joint action with a common identification and the same plausible and credible arguments.

The Question of Generational Justice

The second example from my field work shows a slightly different aspect. Almost two decades ago a significant hurdle to climate research was identified: a disparity between the global standpoint, typically based on a descriptive reliance on objectivity and distance to gain knowledge, and the local standpoint, characteristically based on an interpretive understanding founded on immersion in place and the insider need to know (Malone/Rayner 2001, 175-176). This disparity continues to exist. Above all, similar to the global (policy) level, the question "who has to do what and who is allowed to speak when and where" (again regarding the comparative perspectives on justice, (in)equality, morality, guilt, blame, and value) is of interest here.

To clarify and to show the connecting lines, I give you an example from my fieldwork. In a series of studies in different fields, I investigated the production and negotiation of climate knowledge. In the fields, comparisons were used to emphasize the importance of mitigating climate change and thinking of the future especially, concerning generational justice.

The example brings us to the global social movement "Fridays for Futures." One person who must be named in this regard is Greta Thunberg. Greta Thunberg is a Swedish representative of the international climate protection movement, in particular, the international movement "School Strike for the Climate" or "Fridays for Future," as the movement is called in Germany, among others, and an internationally recognized climate activist.[17] In mid-2018, Thunberg began actively campaigning for climate protection in public. On August 20th, 2018, the first school day after the holi-

days, Thunberg placed a sign with the inscription "Skolstrejk för klimatet" in front of the Swedish Parliament in Stockholm. At first, she acted alone. On the very first day, there were already media reports on Thunberg's campaign. At the same time, Thunberg published photos of her action on her Twitter account, which were also used in the media. In Germany, the newspaper *taz* published its first report on August 27th. According to the reports, both her parents and her teachers criticized her strike but did not stop it. She carried out this school strike daily until the election of the Swedish Parliament on September 9th, and after the election, she carried on with her strike once a week on Friday, and this strike is still going on (both analog and digital). Later she found imitators, first in Sweden, where pupils soon joined her protest in front of the town halls of other Swedish municipalities, and later in other countries, including Belgium, France, Finland, and Denmark. Currently, she is probably one of the best known and most influential—as well as criticized—teenagers in the world.

The global coordination group of the "School strike for climate" announced the following agenda:

> We, the young, are deeply concerned about our future. […] We are the voiceless future of humanity. We will no longer accept this injustice. […] We finally need to treat the climate crisis as a crisis. It is the biggest threat in human history and we will not accept the world's decision-makers' inaction that threatens our entire civilization. […] Climate change is already happening. People did die, are dying and will die because of it, but we can and will stop this madness. […] United we will rise until we see climate justice. We demand the world's decision-makers take responsibility and solve this crisis. You have failed us in the past. If you continue failing us in the future, we, the young people, will make change happen by ourselves. The youth of this world has started to move and we will not rest again. (Global coordination group 2019)

The German subgroup followed with the following statements and demands:

> Fridays For Future calls for the implementation of the Paris Accord targets and the 1.5°C target. All decisions made so far are taken at the expense of poorer regions and future generations and these decisions are unacceptable […]. They call for immediate action on all levels, for climate justice and the responsibility towards the environment and future generations. (Fridays for Future 2019)

Overall, both groups demand immediate action at all levels for climate justice, equality, and responsibility towards the environment and future generations. In all these statements, we find explicit and implicit comparisons to the inactivity of older generations. The young students compare themselves and their actions with the ineffective action or inaction of the generations before them. These generations are called out by the students. Furthermore, they are judged, often quite harshly judged. The concept of the enemy "number one" that is repeatedly compared to is the politicians and, to a certain extent, the climate lobby—in general, the older generation. In this comparison with the so-called older, inactive generation the first issue is the missing productivity and agency itself—"you have failed us in the past". This is immediately followed

by a call for action for the creation of a long-term and climate-friendly future—"We finally need to treat the climate crisis as a crisis"—, shaped by the activists as well as by the older generation. The second issue is that the students examine the arguments of the older generation in order to point out grievances: the communicative process, storytelling about climate change and the limitations that the younger generation, the activists, will experience sooner rather than later, and negotiating the plausibility and credibility of the older generation's arguments all play a role here.

Intergenerational Comparison as a Seemingly Dichotomization of Guilt and Blame

However, this dichotomy of young and old described here cannot be generalized in its entirety. In the course of the global climate protests, support groups were quickly formed in solidarity, including the Parents for Future, Scientists for Future, and Entrepreneurs for Future. These groups join in the intergenerational comparison and thus show their support and solidarity with the youth of "Fridays for Future." This aspect emphasizes that the dichotomous use of intergenerational comparison refers less to a binary understanding of generational justice and agency, but must instead be evaluated in the communication process as a narrative code. Using the code "generational comparison," the debate, which appears undifferentiated, is brought down to a more differentiated level.

Therefore, the demands of "Fridays for Future" and the support groups as well imply ethical-moral questions, the very aspect described by Hastrup as intergenerational responsibility, which is also discussed by "Fridays for Future" activists. After all, it is argued, the time of their lives will be affected by the changes. However, these ethical-moral questions are not to be understood as normative ethics, but rather as descriptive ethics, through which, firstly, credibility and plausibility are produced. Secondly, the question of guilt and blame is defined and, thirdly, actions proposed as a result are legitimized.

In this context, a further comparison comes to mind: In 1992, during the first COP in Rio de Janeiro, 12-year-old Severn Suzuki delivered a speech that garnered worldwide attention and gained her the moniker "the girl who silenced the world for six minutes." In her speech, Suzuki appealed to the attending politicians, lobbyists, activists and so on that the adults have no idea how to fix things, in fact, cannot fix them, and that the old must change their ways: "If you don't know how to fix it, stop breaking it." (Suzuki 1992) In retrospect, more than twenty years later, nothing seems to have changed, and again there are children and teenagers who ask adults to finally change something. This time, however, not (only) in the negotiation room, but on the street and in the collective as well.

In both cases—Thunberg or "Fridays for Future" and Suzuki—questions of guilt and possibly shame or blame are implied. If not by the activists, at least by the figureheads, but it can definitely be deduced from sentences like these:

They say, go to school, learn something, then you can save the world in ten years. They

went to school twenty years ago. And their innovations, ideas and non-actions haven't achieved anything yet. We have to strike now and they have to act now. Something they haven't done before. […] Don't stop demanding! We demand that they act for climate justice NOW. (Observation protocol, Fridays for Future, Alternative Climate School, Bonn, Münsterplatz, 12.4.2019)

Or:

Physical presence and mental presence. Everyone knows that. Both are possible. Which is worse? You can also say that about politicians. Politicians are physically present, mentally not. (Observation protocol, Fridays for Future, Alternative Climate School, Bonn, Münsterplatz, 12.4.2019)

The speeches aim to show the older generations relatively clearly that it is no longer "five to twelve" but rather already "twelve o'clock" and that action must be taken now, by those who can actually implement policies at the present level and not in the future. The criticism of the striking students voiced by individual politicians is regarded as neither plausible nor credible and is accordingly denied. In this context, the presented arguments fit into the ethical-moral discourse on justice, (in)equality and guilt, here with a strong generational perspective. In this context, narrative-comparative categories are set up here, which are linked to the concept of guilt and shame and which appear and are reproduced in the corresponding narratives, which appear and are reproduced in protest actions, but also meetings, workshops, and basically in all forms of communication.

By now the pupils are supported by university students, and other adults also organized in groups, for example, the "Parents for Future," "Scientists for Future," "Grandparents for Future" and others. During the strike in Bonn on April 12th, 2019 a professor spoke to the students and especially to the adults and adopted the previously mentioned descriptive ethics of dichotomous generational comparison as a narrative strategy in the communication process:

Why do we let the children do this alone? We are the ones who screwed this up. In the media I hear two opinions 1) yes, that's nice that they do strike and 2) you should go to school. Why? Don't just talk, we have to support them! Why don't the trade unions call for a strike? Why is it said that I have to work? That is a strike. Young people can do it, we adults cannot. (Observation protocol, Fridays for Future, Alternative Climate School, Bonn, Münsterplatz, 12.04.2019)

This solidarity, which also draws on the arguments and ethical-moral discourse already mentioned, shows that the generational conflict is not only fought out between young and old. As mentioned at the beginning, it can be seen that within the group that generally supports the statement that climate change is human-made, a widening gap is developing.

To end the paper with a slightly more uplifting statement, as was said before, comparisons are not only used to point out the differences between groups—for example, the young and the old, or north and south. Similarities can also be pointed out, especially if the comparison can be seen as supporting certain arguments. Thus, the majority of the young girls and women at the Bonn demonstration not only verbally represented the arguments of Greta Thunberg, but they also adapted her style. Numerous participants protested with Greta's pigtails, so they did not only copy her arguments they also copied her style, to underline Greta Thunberg's point of view again. This aspect—the appropriation of specific attributes to strengthen an argument—should not be interpreted as a discrepancy. Instead, it is more of a reinforcing argument that this categorization—the highlighting of similarities as a visualized representation of the argument—as cultural practices is a sign of the overarching strength of the argument.

Conclusion

In the process of rethinking and restructuring the climate change debate, my arguments have shown that comparative values and perspectives on justice, (in)equality and value, as well as a comparative view on the credibility and plausibility of climate change arguments, are keys to the global debates on climate change and the following local action. In the debate, language and narrative power is the power to act. The question "Who has the right of interpretation and to challenge the status quo" is characterized by comparisons—who did what when, especially what was not done, how far is progress, and how far should it be?—to negotiate current levels of power. This paper has shown how comparisons are used in the climate change debate as a way to negotiate norms and values, to regulate responsibilities and clarify questions of certain forms of contested agency as a narrative attribution of guilt and blame, especially with regard to the moral discourse on options for action, as well as to draw up possible courses of action for a climate-friendly future. Communication or communicative-performative actions, such as narration or the use of narrative codes, are decisive for negotiating the arguments of the climate change debates. Meetings and group events with meeting-character, such as alternative climate schools, workshops, and protest camps, are the main venues where these negotiations take place. In meetings, power and the right to interpret is produced and enacted, dynamics of identity and hierarchy are negotiated, and differences and similarities are produced, determined, and challenged. The negotiation of plausibility and credibility is essential throughout, among other things, by comparing positions and arguments, by which the binarity of apparently emerging dichotomies, for example a seemingly existing generational question, is broken down and thus differentiated.

Notes

1   Deutsche Welle, accessed October 20, 2019, https://www.dw.com/de/klima-vom-mu-

sterschüler-zum-sünder/a-44195899.

2   Bundesumweltamt, accessed October 20, 2019, https://www.umweltbundesamt.de/en/indicator-greenhouse-gas-emissions#textpart-1.

3   Bundesumweltamt, accessed October 20, 2019, https://www.umweltbundesamt.de/en/indicator-greenhouse-gas-emissions#textpart-1.

4   Federal climate Change Act, accessed December 23, 2019, https://www.bmu.de/gesetz/entwurf-eines-gesetzes-zur-einfuehrung-eines-bundes-klimaschutzgesetzes-und-zur-aenderung-weiterer-vor/

5   The Paris Agreement is an agreement within the United Nations Framework Convention on Climate Change (UNFCCC), dealing with greenhouse-gas-emissions mitigation, adaptation, finance, further issues. It was negotiated by representatives of 196 state parties at the 21st Conference of the Parties (COP21) of the UNFCCC in 2015.

6   Klimapaket der deutschen Bundesregierung 2019, accessed October 20, 2019, https://www.bundesregierung.de/resource/blob/975232/1673502/768b67ba939c098c994b71c0b7d6e636/2019-09-20-klimaschutzprogramm-data.pdf?download=1.

7   Klimapaket der deutschen Bundesregierung 2019, accessed October 20, 2019, https://www.bundesregierung.de/resource/blob/975232/1673502/768b67ba939c098c994b71c0b7d6e636/2019-09-20-klimaschutzprogramm-data.pdf?download=1.

8   "Fridays for Future" (FFF) is a global social movement based on pupils and students who are committed to fast and efficient climate protection measures in order to meet the 1,5 degree target of the United Nations agreed upon at the World Climate Conference in Paris 2015 (COP 21). "Extinction Rebellion" (XR) is an environmental protection movement with the declared goal of enforcing measures by governments against the mass extinction of animals, plants and habitats, as well as the possible extinction of humanity as a result of the climate crisis, by means of civil disobedience I define FFF and XR as social movement according to Charles Tilly (2004). A movement is a social movement when there is a continuous and persistent articulation of protest, a certain level of interaction of the protesters, as well as the expression of the aims and reasons of the protest in a public campaign, and various forms of practices of staging and ritualized presentation of the issues.

9   Thielges, Sonja: Germany's New "Climate Package": Too little, too late. economics, October 29, 2019.

10 Renegotiating the Climate Package, accessed December 23, 2019, https://www.tagesschau.de/inland/bundestag-klima-klimapaket-101.html.

11 Energy Transition Index, accessed December 23, 2019, http://reports.weforum.org/fostering-effective-energy-transition-2019/energy-transition-index/energy-transition-index-ranking/.

12 The diesel scandal (also known as dieselgate or the German „Dieselaffäre") is the combination of a series of predominantly illegal manipulations by various car manufacturers to circumvent legally prescribed limits for car exhaust gases and—in return—political influence to secure them.

13 The Climate Reality Project is an NGO founded in 2011 by former US Vice President Al Gore.

14 The fifth assessment report (AR5) was published as a summary for policy makers on 27 September 2013. On 31 March 2014 followed a second and on 14 April 2014 a third report. The synthesis report was published on 2 November 2014.

15 The term social tipping points is derived from the description of tipping points in biophysical systems: "a critical threshold at which a tiny perturbation can qualitatively alter the state or development of a system" (Lenton et al. 2008, 1786). A tipping point can be defined

as a relatively sudden social change where the cumulative effect of a set of immediate events and changes results in large-scale, global consequences (Castellani/Hafferty 2009, 196). Tipping elements or social tipping dynamics are "interventions that can activate contagious processes of rapidly spreading technologies, behaviors, social norms, and structural re-organization within their functional domains" (Otto et al. 2020, 2354).

16 It is planned to expand the field research, including research visits to Durham, UK, and New York, USA.

17 The following notes on Greta Thunberg are taken from various media reports, among others: https://www.newyorker.com/news/our-columnists/the-fifteen-year-old-climate-activist-who-is-demanding-a-new-kind-of-politics; https://www.theguardian.com/environment/2018/dec/04/leaders-like-children-school-strike-founder-greta-thunberg-tells-un-climate-summit; https://www.faz.net/aktuell/politik/ausland/klimaaktivistin-greta-thunberg-mit-16-jahren-schon-ein-phaenomen-16036155.html, January 30, 2020.

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