

A history of climate change: Inughuit responses to changing ice conditions in North-West Greenland

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Abstract This article presents a small community of High Arctic hunters (the Inughuit in North West Greenland) who have always had to negotiate climatic changes with great impact on their living conditions. This points us toward the natural-social entanglements implied in the notion of the Anthropocene, and to the new intellectual challenges that both natural and social scientists are facing in relation to the current climatic changes. These challenges are discussed through the case of the Inughuit with whom the author has worked over many years. Departing from their dire situation in the 19th century, when they were first described and became known to outsiders, it is shown how flexibility and mobility were always preconditions for survival in this environment. Then, they were trapped in too much ice, while now they have to negotiate a rapidly melting environment. In both cases their response is deeply implicated in their sense of who they were and are, also in relation to a larger world.

1 Introduction: situating the argument

To speak of the history of climate change is to ground it in a particular social context. This is what I shall do here, but first we need to know from where we speak. Now is the *anthropocene moment*; it is a moment when it is no longer possible to conceive of the Earth as a natural, self-reproducing system, fundamentally unaffected by human whims and social forms (Crutzen 2002). The term Anthropocene has been coined for the epoch succeeding the Holocene, the latter naming the epoch after the last glacial period and until recently. The post-glacial period saw humanity spread over the entire globe, invent agriculture and gradually become modern. Such is the short version of a long and complex story, which has gradually transformed the Earth to the point where nature cannot be conceived of as independent of human impact.

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Population pressure, industrialization and urbanization have all of them added to and in many ways displaced the direct human engagement with the Earth through herding and farming practices known since the early Holocene. Even so, societies all over the globe still rest on resources that are as ‘natural’ (or unnatural) as anything, whether captured in deep seas, oilfields or coalmines. Although the concept of the Anthropocene is still subject to debate in the natural sciences – mainly in geology from where the notion springs – it seems appropriate to co-opt it to anthropology, where nature and social life have been recognized as deeply intertwined (Hastrup 2014).

Concepts are not simple reflections of given situations; they are ways of dealing with them. This also goes for the concept of the Anthropocene, enabling us to take a fresh view upon the challenges of the present and pointing to the fact that human agency itself is a major historical driver when seen in the perspective of the Earth. The development of earth shattering technologies and extractive industries has disturbed the planet to a degree where it is no longer possible to speak of a self-generating *natural* world, beyond human impact. Whether we subscribe to the term or not is actually less important than to learn from it; the moment is marked by an awareness of the future of the Earth as deeply intertwined with human history and with the human capacity for reflection and remaking and/or destroying the world. This is the contemporary point of departure. As suggested by Sörlin and Warde, we have reached ‘nature’s end’, and arrived at a new beginning of the environment – a moment in time where humans have entered into a self-conscious relationship with their surroundings (Sörlin and Warde 2009: 2–3). The environment is always historical, because it is relative to human interest and perception. This implies that even climate change is immediately historicized, once we begin to discuss its impacts upon our common future – if such is still thinkable 30 years after the so-called Brundtland Report (United Nations 1987).

For anthropologists, the human perspective upon the world and the environment is self-evident. Since its beginnings, anthropology has worked towards an understanding of what it means to live in particular places, and how the environment is constituted as a resource space in relation to a particular social community. The high-profiled discussion of climate change also in anthropology has made this even more inevitable (Crate and Nuttall 2009; Greschke and Tischler 2015). In my earlier work, I have shown this for Iceland in a long-term historical perspective (Hastrup 1985, 1990, 1998), but more recently I have worked in a community of hunters in High Arctic Greenland, living in some degree of isolation from the rest of Greenland. They were earlier known as Polar Eskimos; now they are Inughuit to themselves.

Today, the community comprises some 700 souls, half of whom would probably see themselves as Inughuit, but also as Greenlanders along with rest. Among them, c. 600 live in the town of Qaanaaq, while the rest live in three remaining settlements. While appearing very traditional in their bearskin trousers, and with their dog-sledges, kayaks and harpoons, they are of course part of the modern world and as affected by global processes of climate change and knowledge distribution as anybody. The well-known gear is simply still the best for a silent hunt of seals on the sea-ice under freezing temperatures, or narwhals in the open summer waters. In the thinly populated High Arctic, where people (so far) depend entirely on living resources, the lesson of entanglement between natural and social processes is immanent in every step taken and in every action considered. This implies that people live in a world of many agents – animal, material, climatic, political, economic – all of which contribute to local historical trajectories, if not always equally.

The melting ice in the Arctic has become an icon of global climate change, and the region has often been seen as the canary in the coal-mine. For people living there, however, climate

change is but one of the predilections they have to cope with, and it is vital to keep in mind that environmental conditions continually induced people to move about in the Arctic, both seasonally and more permanently. Mobility and flexibility of social organization were always cornerstones in the resilience of the Inuit in general and also of the Inughuit more particularly (Hastrup 2009). Already Mauss (1906) saw that when he identified the seasonal morphology of Eskimo society, expanding during summer and contracting during winter. Now, movement is becoming increasingly constrained, and ancient livelihoods are under threat. Evidently, there are also new openings and potentially accessible resources – but when and where? I shall approach these questions on the basis of a short presentation of the entry of these people into history, as we have come to know it, followed by a discussion of their current plights.

2 Past experiences: breaking free from the isolation of the Little Ice Age

Now is a time of global warming and a melt-down of polar ice, on the sea as well as on land. This radically changes the environment of the Inughuit, being the people of Avanersuaq, meaning the ‘Big North’, in North-West Greenland. The region stretches roughly between 76° and 78° N; it is inhabitable only along the coastline, marked by fjords, headlands, and glaciers, and amounting to some thousand kilometres between the outer settlements in north and south. This has been the range of social life in the region in historical time; the settlements and hunting camps were small, but they remained connected by the sea ice for most of the year, allowing for long trips on dog-sledge all along the coast. When, in early 19th century the Inughuit first became known to outsiders, they were still in the grip of the tail end of the Little Ice Age. While this sealed them off from long distance travellers from south of the Melville Bay, internally they were still highly mobile and communicative.

The Inughuit are generally seen as descendants of the last (major) wave of immigrants from the Americas to Greenland, crossing the narrow strait between Ellesmere Land and North West Greenland around 1100 CE and repopulating all of Greenland, having been left empty for some 700 years since the disappearance of the Dorset Culture, so named in archaeology. This immigration into Greenland took place in the warm Medieval Period; at the time the waters were more open and allowed for whaling locally by means of big communal skin-boats. This also made it possible for the Thule Culture, as it was later named, to move south and settle on the entire coastal fringe of West-Greenland. The new culture was named by archaeologists, finding the first evidence of a distinct whaling community close to the Thule Trading Station (established in 1910).

With the cooling of the Little Ice Age (roughly 1400–1800), the northernmost group became cut off from their southern relatives sometime in the 16th or early 17th century. While they needed sea-ice for passage, too much ice – as in the Melville Bay where glaciers reigned supreme on the coast – prevented people from finding game along the way. Thus the remaining Thule people were stuck. Archaeologists have even suggested that by 1600 the entire region might have been abandoned and thus empty of people (Gulløv 2004: 339). While debatable, such emptiness would fit with the fact that when William Baffin had been as far North as 79° in 1616, he had returned south without seeing any human soul in this icy region. There may actually have been some in the vast region, somewhere in the deep fjords and behind headlands that he never visited. Certainly, there were people up there a couple of centuries later, and whether they had been gone for some time, and new ones had re-entered, clearly there remained connections to America, given that from a hunting perspective, it was

one integrated region of resources. Whether one or many waves of immigration into the Thule region in late medieval and early modern times (terms that make little sense locally), the inhabitants of the Big North fell out of view, and it is sensible to suggest that the Inughuit were stuck mainly due to the impenetrable pack ice in the vast Melville Bay, where there was no access to habitable headlands or coastal areas with game where one could stop over and make temporary settlements or just find food.

After Baffin, no European vessel traversed the Melville Bay until 1818, when Captain John Ross reached the shores; he was the one who ‘discovered’ the people. Ross was searching for the North West Passage on behalf of the British Admiralty; in that he did not succeed but he encountered a little group of fur-clad hunters on the sea-ice along the edge of which the ship travelled. He could talk to them through a Greenlandic interpreter on board his ship. In his report, Ross gives a vivid impression of this merry and interesting little people, the Arctic Highlanders, as he named them, and whose origin seemed shrouded in obscurity.

They exist in a corner of the world by far the most secluded which has yet been discovered, and have no knowledge of any thing but what originates, or is found, in their own country; nor have they any tradition how they came to this spot, or from whence they came; having, until the moment of our arrival, believed themselves to be the only inhabitants of the universe, and that all the rest of the world was a mass of ice. (Ross 1819: 123–24)

It is debatable how far this observation on absolute isolation is correct (see Bravo 1998), but it has a counterpart in an Inughuit tale, written down by Knud Rasmussen in 1903, relating the astonishing arrival of the first ship (Rasmussen 1925). It also remains true that with this meeting, the *de facto* separation from the South was broken; the ice gradually loosened the tight grip that was owed to the Little Ice Age (as we now know it), lingering longer in the far North than in other North Atlantic communities, such as Iceland for instance. Ross did not visit any habitations, nor did he see any women or families apart from the hunters he had met on the ice, so we know very little of their social life. Yet he related a rather vivid picture of their lively disposition, as well as their total dependence on local resources.

In the wake of Ross’s successful crossing of the Melville Bay (thus named by him in honour of the chief of the Admiralty), other explorers and whalers followed in search of new passages or catches. The Arctic Highlanders soon learnt to expect their annual arrival, when the sea opened for a couple of summer months. They gathered at Cape York north of the Melville Bay, hoping to barter with the sailors, who made wood and utensils available. The prize was often high, not so much in terms of the fox-fur that was part of the local trade-goods, as in terms of epidemics, against which they had no resistance. Elisha Kent Kane, who spent 2 years in the region (1853–55), made a census comprising c. 140 souls, along the 600 miles of coastland where they were scattered and moving about in pursuit of game (Kane 1856, II: 211). Kane adds that “throughout this extent of country every man knows every man. There is not a marriage or a birth or a death that is not talked over and mentally registered by all” (*ibid.*). This sense of community was noted also by later explorers, as were the precarious life conditions. Ten years after Kane, Isaac I. Hayes reported that the population was now down to about one hundred people, and still dwindling; he cites a man for saying to him, when he was about to leave, that he should come back soon, “or there will be none here to welcome you” (Hayes 1866: 386). The point of referring to these early historical sources on the Inughuit is to

show how this extremely exposed people had a clear sense of themselves and of their tenuous existence in an environment of changing affordances, and in dire need of external resources.

Gradually, with the new possibilities of acquiring rifles and ammunition from whalers and explorers, and not least the influx of some 15 or 16 Inuit from America in the late 1860s, the population once again began to increase. Robert Peary, arriving in 1891 and remaining for long periods at a time over the next 18 years, noted – and named – a total population of c. 250 persons (Peary 1898). His presence meant a relatively steady supply of goods that facilitated the hunt, and famine was gradually curbed. In 1910, the privately owned Danish Thule Trading Station took over; the accession of foreign goods became regular, health gradually improved with the advent of healthcare, and community life became more stable – if still sometimes hit by severe epidemics (Gilberg 1976: 29).

This historical backdrop to the current situation shows that climate change has been a fact of life forever, enabling or preventing movement and communication within or without the region. It also demonstrates that however remote, the people of Avanersuaq always took every opportunity to improve their lot, wherever it derived from. In that sense, the Inughuit were always part of a wider world, even when all but forgotten. There was no drive towards a strict adherence to a particular practice, if other ways became possible and proved better. In the Little Ice Age, the region was not only socially cut off from the rest of Greenland, it was also depleted of an important resource that deeply affected social life. During the coldest centuries, the trickle of driftwood that had reached these far northern regions, borne by the West-Greenlandic Current, had come to a complete stop. In the original immigrant Thule Culture, wood had been used for skin-boats, sledges, kayaks, bows and arrows, but when Ross first met them only sledges were still in evidence, now entirely made of whale and walrus bone, sealskin and sinew strings (Ross 1819: 102–3).

With the advent of outsiders, and with the loosening grip of the Little Ice Age, wood again became available (now also from sailors), and the new Inuit immigrants from America in the 1860s taught their rediscovered neighbours to build kayaks, and to make bows and arrows. This has been recorded by Knud Rasmussen, who met the last of the living immigrants in 1903, when he first came to the place, where he was to found his trading station a few years later (Rasmussen 1908: 32). As the entire life of the community depended on the ability to move on the sea-ice, and to hunt for living resources, this was vital. New social relations were actively cultivated under these circumstances, because they proved a partial solution to the huge local challenges, once the ice allowed for passage.

The emplacement of the Inughuit hunters in this particular environment, where they were dependent on moving resources for their survival, meant that climate always was an integral part of their perception of self and society. Human and social life itself hinged on the ability to follow the resources, wherever they were, whether living in the deep sea or showing up with the ships at the meeting point at Cape York. In that sense, climate variability was incorporated into the vision of social life, which again became projected into action. In the High Arctic there was a strong predisposition for taking everything on offer at any given moment, and at any given place.

3 Present predicaments: the thinning of the ice and the loss of resources

The present environmental changes are in many ways in contrast to those with which the 19th century Inughuit had to struggle. It is no longer a question of being walled in by too much ice,

but having to negotiate a dwindling sea-ice. This affects self-perceptions deeply all over the Arctic (Bravo 2010), and is amplified by the fact that the hunters are now irrevocably part of a global communicative space where climate change figures prominently, as such. The melting ice is no longer simply attributed to weather variability but to global climate change; this is a token of the massive attention to the region from outside.

The changing climate conditions greatly affect the hunting in Avanersuaq, because movement has (again) become restricted. The early break-up of the ice seriously hampers communication by sledge between the settlements within the district and endangers travel. Still, ice floes and rapidly calving glaciers as well as drift ice from the Polar Sea prevent sailing in the available small motorboats. Even the large provision vessel that deliver goods and necessities to the far North, can only pass the Melville Bay and the more northerly waters in July and August, when they come twice to stock up the necessities for the coming year. While the sea-ice has become unstable and unpredictable for half the year, ice still prevents other means of transport.

The whole orientation system by which people have known their place in the world is breaking down; this includes forecasting techniques that are no longer reliable and which therefore add to the risk of travelling by land, sea and ice (Henshaw 2009: 156; Hastrup 2013). The well-known weather variability has developed out of bounds. I have had ample opportunity to discuss this with people living in this ever more circumscribed life-world.

The changes in the icescape have another major implication for local orientation, as here suggested by Uusaqqak Qujaukitsoq, a hunter from Qaanaaq: “Glaciers are very notably receding and the place names are no longer consistent with the appearance of the land. For example, Sermiarssusuaq (‘the smaller large glacier’), which previously stretched out to the sea, no longer exists” (in Huntington and Fox 2005: 84). This is a very important observation pointing to a deep-seated sense of change in the perception of emplacement. Place names have for a long time served as points of orientation in the Arctic environment of infinite extension. In Greenlandic, most place names refer to physical features of the landscape, to particular hunting grounds, or to activities of some kind, thus testifying to what Basso has called the people’s participation in the landscape (Basso 1996: 44ff). Among Inuit more generally, place names increasingly serve as historical markers of *past* possibilities and activities, given the current changes (Henshaw 2009: 161).

For the Inughuit in Avanersuaq, the destabilization of the sea-ice undermines their basic means of subsistence, namely the hunting of marine mammals from the sea-ice. When the sea freezes over later and breaks up earlier than before, and when it seems far less stable in between, the hunting opportunities are diminished. Some hunting grounds, notably for walrus, can no longer be reached on sledge within the permissible hunting period, because the ice-edge has retracted and is increasingly thin. While occasionally, the small open motorboats may replace the sledges, it poses a formidable challenge to negotiate the drift ice, and to transport sufficient meat back for it to be worth the voyage. Another matter is that the remaining tiny settlements in the region outside of the central town of Qaanaaq are also cut off. Effectively, communication between them is severed for months – in the protracted interim between the solid sea-ice and the truly open, or at least passable water. Depopulation of the smaller settlements is a likely outcome; in fact the process is already in full swing.

Apart from the climate that envelops the far North in global concerns, and however small and remote some of the Arctic communities are, they are also tightly linked to the national (Greenlandic and Danish), and to the international political order, as well as to the global economy (Nuttall et al. 2005). Changing political interests in Greenland and international

conservation efforts affect the capacity for action in the Avanersuaq, even if still on the margins of the state in many ways. To act meaningfully people must acknowledge the complexity of the situation, and be able to juggle the many scales and interests at play. The Inughuit do just that, investing their thoughts in possible futures. Given their capacity for imagination and reorientation, documented over the past 200 years, having seen almost unimaginable historical changes, technological advancements, political upheavals, and climate changes, social resilience clearly depends on a formidable sense of assessing nature's affordances and social constraints. As Mark Nuttall has it (for Greenlandic Inuit in general):

Inuit have not just adapted to the Arctic environment; they have anticipated the possibilities and conditions for successful engagement with it. In Greenlandic traditional communities, e.g. hunting and fishing involve not merely procurement, but also anticipating, waiting, hoping, pondering, and imagining the movements of seals, narwhals, fish and other animals to be caught, as well as anticipation and apprehension of the return home. (Nuttall 2010: 25).

Action is never simply a *reaction* to what has already happened; it is also a mode of acting upon anticipation in the sense suggested above. Agency is thus a profound matter of *responding*, being different from mere reaction. Responses are made within a moral horizon and within a social context that we interpret and project forward as we go along. In other words, the hunters in Avanersuaq *make* a world as they imagine it. When the environment changes rapidly, the imagination is strained, and we must re-visit the ways in which people seek to anticipate their world in view of the comprehensive uncertainties. Anticipation is a precondition for responsible action, as opposed to random behaviour, and to decide whether to continue hunting or to seek other means of income, possibly in other parts of Greenland. Thus the shrinking of the local space for manoeuvring demands renewed attention to far away regions.

Given their habitual exposure to extremely varied weather conditions, the Inuit have always been astute observers of their environment; through hunting and other activities, they assemble massive information on the weather and process it in detailed descriptions of changing ice-conditions for instance (Krupnik et al. 2010). For the Inughuit, responding to the present situation implies an acute awareness of possible new openings and emerging resources. Thus, over the past few years, the Arctic sea has warmed to a point where fishable halibut has now arrived from more southerly waters, and enabled some families to earn a proper income at least part of the year. The opening of the sea also means a revival of the global dream of a reliable North West Passage that would cut down transport time between East and West considerably; an open sea potentially forges new connections – once again. While people in Northwest Greenland may eventually profit from the increasing intensity of passage and possibly find new avenues for making a living, they will also have to live with an ocean of disappearing game. The intensifying ship traffic in the region already severely affects the animal resources and, concomitantly, the age-old exchange between the deep sea, ice, animals, and people in the High Arctic world.

Amidst all the conspicuous changes, the natural and the social worlds remain deeply entangled, even if the nodal points are shifting, and responding to the increasingly uncertain environment implies a decision about how long to stick it out as hunters. By their every act, the hunters work towards this decision, just as they once decided to meet the European explorers at Cape York, even at the risk of contracting unknown diseases. Meaningful action rests upon a capacity to decide, which again is deeply affected by ethical standards. Decisions cut out

particular courses of action as ‘right’ and discard others as wrong – under the circumstances. Neutrality in decision-making is an illusion; facts, including actions, are imbued with value (Putnam 1990: 127ff). With the massive changes in Northwest Greenland, decisions about future action – about whether to stay or to move south, to train the young to become hunters or to send them away for alternative education not on offer in the high North – is premised by a complex set of values that are not immediately reconcilable, but all of which must be taken into account. A valuable general insight produced by anthropologists studying the impacts of climate change on particular societies is that people rarely see themselves as without some kind of the future, which guides their present actions. There are of course differences between richer and poorer places when it comes to actual choices of action, but the future is implicated in any act.

An illustrative case is provided by the often very difficult decisions that the hunters have to make with respect to their dogs. Since times immemorial, the relationship between a hunter and his dogs has been a key to social life in Avanersuaq. Obviously, the dogs are needed for transport, for dragging the rather heavy sledges to the hunting grounds and for transporting the bulk of meat back to the settlement. The sledges are also the most important means of communication between the settlements, and after a summer of open waters or unstable ice, people always longed for the early winter, when the sea ice again allowed for long journeys within the entire region. The month of November was earlier known as the ‘month of news’ because people began roaming and visiting all over the region – and hunting along the way, of course. That was when the knowledge about each everybody, that so impressed Kane in mid 19th century, was systematically transmitted. Now, with the shrinking of the hunting season due to the shrinking of the ice, the dogs – the mark of the hunter’s standing – are increasingly idle. They have to be fed throughout the year, nevertheless, if not on the same scale as when in action.

The Inughuit’s dependence on their dogs has been highlighted throughout their short (written) history. Hayes noted how “their dogs are to them invaluable treasures, without which they have no security against want and starvation, to themselves and their wives and children” (Hayes 1866: 414). Later, the archaeologist Erik Holtved, working in the region in the late 1930s, wrote “[a] good dog team is necessary in order to keep up what, according to Polar Eskimo conditions, is considered a high standard of living; and loosing one’s dog team is a very serious matter, which among other things entails greater dependency on others” (Holtved 1967: 69–70). A good dog-team was generally between seven and fifteen dogs at the time, which reflects the fact that their travels extended over hundreds of kilometres.

Today the trips are shorter, because it is no longer possible to navigate around headlands where the ice no longer fixes. Also, with the increasing inaccessibility of walrus and bear, formerly the major dog feed, but now mostly beyond reach in the permitted hunting season, it is difficult to maintain really big teams. During the long months of immobility, hard decisions have to be made about whether to keep the dogs or not and how many. Sometimes, even, the treasured dogs die from starvation in their braces (free roaming no longer being allowed for reasons of safety, notably for young children) as I experienced a couple of years ago when I visited the place during winter. In the darkness of the Arctic night, yet still without solid ice even in January that would have allowed at least for some seal hunting by seal nets, people had to turn the blind eye, all too aware of the challenges for the spring hunt that this entailed.

The hunters’ association appealed to the Greenlandic authorities, and eventually some industrial dog feed was flown in. It was too late for some, but the consequences for the community were more profound than any dog-count would reveal. Industrial dog feed, bought

for scarcely available money, hit the heart of their self-perception as hunters. Some hunters resigned and went south – even to Denmark, where the pensions seem to go longer. Such individual action plays into the local sense of imminent changes, which again format future steps; if dogs are not kept over winter, there can be no spring hunt either, and a downward spiral for hunting takes off. Crucially, the issue of dogs has created a new, social distinction within a basically egalitarian community, where sharing the hunt was a natural thing – everybody knowing that luck was shifty. With older and less agile hunters falling out of hunting and not being replaced by their sons, sharing has become less self-evident, because there are too few active hunters to support all. As we are within a welfare state, there are subsidies and pensions for those who fall out, but they do not go very far in this extremely expensive region. No less important, it affects self-perception deeply.

This goes to show that the social community in Avanersuaq is implicated not only in global climate change but also in an economic and political system that is unbounded. It stretches beyond the immediate horizon and it is an invisible agent in the challenges people have to negotiate – if they can. For some, the development is a social disaster and they become stuck on the border of bare existence, their network having dissolved with outmigration of family and their own loss of hunting capacity. Isolation, today, is not a matter of not knowing alternative possibilities, but never being able to pay the fare out, let alone to resettle somewhere else.

Facing a global problem with stark local implications, anthropology may contribute vitally to an understanding of truly global predicaments by offering theoretical suggestions, not only, and not even principally, about how global warming affects local communities differently (threatening their ‘culture’), but about how actions even at the smallest scale influence the macroscopic history, and vice versa. In the case of Greenland, the current reshaping of the topography, as the sea-ice dwindles, coincides with the emergence of a new Greenlandic nation that contributes to a redefinition of people’s relationships to place and to their natural and social environment (Nuttall 2009: 297).

It has been suggested that climate change constitutes a ‘perfect moral storm’, implying “the convergence of a number of factors that threaten our ability to behave ethically” (Gardiner 2008). 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 an intergenerational responsibility that distributes subjects (agents) and objects (victims) of actions in time. All of this converges in a need for rethinking ethics, and for embedding it in actual situations from where people have to make their decisions for the future – and not only their own.

Ethics cannot be referred to a point of view outside of the social, because ethics invariably belongs to the realm of intersubjectivity or sociality, as does any assessment of meanings and values. With Putnam, I do not “understand ‘ethics’ as the name of a system of principles. ... but rather as a system of interrelated concerns, concerns which I see as mutually supporting but also in partial tension” (Putnam 2004: 22). What we are faced with in the present time of unknown environmental futures is such a set of interrelated concerns that are in partial tension, because they belong to incompatible scales and affect people in varying ways, because they are differently emplaced – geographically, economically, and politically.

As always, the social sciences have to move along with history itself, defining and redefining its concepts as realities shift, and transcending the empirical instances by identifying their unknown connections. Global climate change constitutes a major empirical shift in the world, or at least in thinking about the world; it has impinged upon a global moral order that has been emerging since the period of decolonization. No moral order can be fixed from an

external position; the new ethics is not a matter of universal principles but of practical concerns and solutions.

4 Conclusion: rethinking climate change

In the process of rethinking the implications of climate change, I go along with Mike Hulme (2009) who is wary of signposting it solely as the ‘greatest problem facing humanity’ and instead want to consider it as an element in our collective thinking about the future. There are many social and scientific meanings attached to climate, and no less to climate change, and we are well advised to see it (also) as “an imaginative resource” shaping “collective and personal projects” (Hulme 2009: xxxviii) – instead of treating it as the direct expression of a physical fact, acting as the prime mover of people across strained landscapes. As imaginative resource it may be put to productive work in the Anthropocene, where humans must take on a new responsibility for the globe – having so deeply affected it in the first place. I would like to cite Werner Krauss, who says:

There is more at stake in the Anthropocene than a simple addition of natural sciences and those concerned with *anthropos*. It is also not sufficient to identify planetary boundaries, tipping points and limits of growth from a scientific perspective in order to successfully implement sustainable development or effective climate politics. We have to take into account the double challenge of global change, which affects our environment *as well as our intellectual dispositions*. The Anthropocene challenges the familiar distinction between nature and culture, which structured the order of knowledge and disciplines for such a long time. (Krauss 2015: 74; emphasis added)

This is where the notion of the Anthropocene comes forcefully back into the argument. Climate change must be seen in new terms, not simply as a physical transformation that had to be predicted and managed, if not actually mastered, as some enlightenment scholars saw it (Hulme 2009: 355). Today we have to work with its *history*, that is the ways in which it is integrated in and co-shaped by social processes.

However robust, climate knowledge appears these days, there is never a straight line towards decision-making. Any decision rests on larger visions of responsibility and historical justice that makes it less easy to make. Rather than “placing ourselves in a ‘fight against climate change’, we need a more constructive and imaginative engagement with the idea of climate change” (Hulme 2009: 361). This is where the historicizing of climate change takes on a new and vital meaning. It will allow us also to see ‘facts’ as derivative of historically embedded ‘concerns’ rather than the other way round (cf. Latour 2004). Today’s enlightenment has become pragmatic, coupling knowledge and ethics in new ways (Putnam 2004).

What I have wanted to suggest is that in historicizing climate, we are deeply embedded in the present. This goes for hunters in the High Arctic and for scholars alike; our world is changing, and the main lesson from our common past is that we cannot disentangle our responses from the actual concerns to which they ‘speak’ at any point of time. It is also by our current actions that we perform the future of the Earth into being.

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