"It Is Immoral to Be a Pessimist"

Climate Change Adaptation and Mitigation in Norwegian Literary Fiction

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As early as late May, the heat on Fyllingen started to get troublesome. The whole district lay under a heat wave that just went on and on. Experts speculated whether the cause could be chemical emissions and exhaust gases from the industry, heating and traffic that were creating interruptions in the atmosphere which in turn caused meteorological irregularities, locally in the beginning, but which would undoubtedly have consequences that would spread out. The reports indicated that half of the continent was affected by drought.

"Carbon dioxide in the air increases the intensity of solar radiation; that was a well-known fact even back in my days", Doc explained

sullenly. "Now it seems we've managed to change the whole nature of the earth's atmosphere. First we get this heat, then drought, years of scarcity, water shortage, food shortage... Just wait and see..."

This may sound like a description of last year's severe drought in most parts of the US that led to massive crop losses. It is, however, an excerpt from Norwegian writer Knut Faldbakken's two connected novels *Uår: Aftenlandet* and *Uår: Sweetwater*, published in 1974 and 1976. Many fictional texts have taken up environmental questions since the beginnings of the environmental movements in Western countries around 1970. *Uår* is, however, remarkable in the respect

that it addressed the problem of anthropogenic climate change very early. With increased attention towards global warming in recent years, more and more writers are now using literary fiction as a medium for discussing possible implications for humanity and the non-human environment.

The main options for dealing with climate change are different forms of mitigation and adaptation. Climate change mitigation, as understood here, refers to any measures that are taken in order to restrict the process of global warming itself. The term adaptation, on the other hand, refers to all measures taken in anticipation of or in reaction to impacts of climate change.

Unsurprisingly, fictional descriptions of both mitigation and adaptation can be found in works of literature. In the following, I want to examine how the novels of two Norwegian writers are addressing these issues: Faldbakken's aforementioned *Uår*-books from the 1970s and Jostein Gaarder's recent *Anna* (2013). What do these texts tell us about the possibility of mitigating climate change? Which measures of adaptation do they depict? And can we say anything about the effects these narratives might have on the thinking and actions of their readers?

A STUDY OF ADAPTATION

The title of Faldbakken's aforementioned texts already hints at the worst-case scenario they contain. *Uår* (literally, "un-year") is a term used in Old Norse literature to designate years of natural disasters, failed harvests, famine and epidemics. The novels' setting is the (geographically unspecified) formerly prosperous megacity Sweetwater, which suffers from environmental pollution and increasing resource scarcity. The main protagonists, a handful of former inhabitants of Sweetwater, flee to the city's enormous landfill, Fyllingen, in order to escape the looming collapse. However, as the megacity's supply system and with it, public order, break down completely, life becomes unbearably hard even

for the small community on Fyllingen. Their struggle for survival is made even more difficult by a changing and unpredictable climate. The final collapse of Sweetwater, featuring pandemic diseases, famine and violent conflicts, is accompanied by an extraordinarily fierce winter. In the end, the few survivors, malnourished and culturally degraded to the behaviour of animals, leave the ruins of civilisation in order to begin anew.

Uår can be read as a literary study par excellence of what kinds of adaptation might be required in a future characterised by ecological collapse, resource depletion and climate change. The protagonists' adaptation begins with their migration from Sweetwater to Fyllingen, which can be seen as an anticipatory measure in expectation of the city's collapse. In the beginning, the need to adapt to their new environment leads to a surge of creativity: The protagonists build an improvised rainwater harvesting system and start recycling materials that they find on the landfill. Gradually, however, as environmental conditions worsen, they become more and more reactive in their behaviour. While they still rely mostly on the 'traditional' food of city dwellers - cans and convenience products - in the outset, they are soon forced to radically extend their diet, as the supply of supermarket garbage from Sweetwater dwindles. From then on, they effectively eat anything that is available on the landfill, including birds, rats and lizards. Only human flesh remains taboo, at least for most of the protagonists. Psychologically, their decreasing use of spoken language and a general brutalisation of all social intercourse can be viewed as reactions towards the hardships they are suffering. With Sweetwater's complete collapse, the landfill dwellers' limits of adaptive capacity become obvious: With survival on Fyllingen no longer possible, they migrate back to the city, where they are confronted not only with other bestialised humans, but also with an extremely hard winter, which catches them completely

unprepared. They are not equipped for such weather conditions, the likes of which they had never experienced before, and are therefore "uncertain as to how they should cope with this new situation, this new trick that the unpredictable, man-manipulated climate conditions played on them."²

CULTURAL PESSIMISM FACING GLOBAL WARMING

The *Uår* novels were obviously inspired considerably by the Club of Rome's famous report The Limits to Growth. Published in 1972, it warned that if world population growth, environmental pollution and resource exploitation continued their unabated increase, planetary limits would be reached and an uncontrollable collapse of the environment, the economy and thereby human societies would be the consequence. The authors also voiced concern over the increasing concentration of CO, in the atmosphere, caused by the burning of fossil fuels, but hoped – from a present day perspective, naively - that serious ecological and climatic consequences would be avoided rather easily through switching to nuclear power in the near future.3 However, whereas The Limits to Growth was written in an optimistic spirit and with the belief that humanity's course could be changed in time so that a sustainable equilibrium would be reached, catastrophe is portrayed as being unavoidable in *Uår*. The subtitle of the first volume, *Aftenland*et, refers to Oswald Spengler's Der Untergang des Abendlandes ("The Decline of the West", 1918/1922) - a work of comprehensive cultural criticism, according to which human cultures evolve, grow and die like organisms, which argues that Western urban civilization is at the beginning of the final stage of an inevitable decline. Uår shares this deterministic view of human culture and therefore presents efforts to introduce counter-measures against the process of decline as futile. One of the novels' characters, old Doc, actually embodies undeterred idealism, as he continues – against all odds – to hope for a reform of society that would bring it into harmony with nature again. Sweetwater's decline, however, is unstoppable, and in the end, the other dwellers on Fyllingen kill Doc in order to steal his food storage. The only chance of surviving the final breakdown, it seems, is to adapt radically to the changing circumstances – even if this means abandoning basic rules of social coexistence. To be sure, there is a glimpse of a new, more sustainable society in the last chapters of *Uår*. The premise for this new beginning is, however, the complete collapse of the previous system.

APOCALYPTIC EMOTIONS

What might be the effect of such an apocalyptic narrative on readers? There are almost no studies on how environmental literary fiction influences the thoughts and behaviour of its audiences. One advantage of fiction over non-fiction with regard to predictions of environmental change is rather obvious: Fiction can much more vividly depict what could happen if, for example, one of the scenarios in The Limits to Growth should turn out to be true, compared to the complex models and often rather dry descriptions in the study itself. After having read Uår, imagining what the collapse of a modern urban society through the transgressing of the planet's ecological boundaries could be like, is quite easy. A logical assumption would be that apocalyptic fictional scenarios thus encourage action precisely in order to prevent them from becoming true. This is what Lawrence Buell obviously supposes when he writes: "Apocalypse is the single most powerful master metaphor that the contemporary environmental imagination has at its disposal." Thus fictional texts like *Uår*, although implicitly denying the usefulness of mitigating efforts, would somewhat paradoxically encourage their readers nevertheless to commit themselves to mitigation.

The opposite might be equally likely, how-



ever, as a recent study by sociologist Kari Marie Norgaard shows (see her own contribution in this issue). Norgaard interviewed the inhabitants of a medium-sized Norwegian town in order to find an explanation for their inaction concerning global warming. Despite a high level of education, general political engagement and material wealth, and despite the community being itself economically affected by the changing climate, people failed to address the issue of global warming both on a political and on a personal level. Nothing was done in favour of mitigation efforts by the community members, while on the other hand - as a reaction to changed weather conditions - some adaptation measures were initiated, such as the use of snow making machines in order to allow the continued use of the local ski slopes. In the interviews, people expressed feelings of fear, guilt and helplessness when climate change was mentioned. As Norgaard shows, most of those interviewed had developed a whole set of strategies to avoid these unpleasant emotions, which consequently led them to avoiding the topic of climate change in general - and thus to failing to take any action on behalf of climate change mitigation.⁵

Faldbakken's *Uår*-novels obviously have a potential to evoke the same negative emotions that Norgaard observed. The extremely undesirable future scenario itself is likely to cause fear. The consciousness of being oneself part of the society and culture responsible for the depicted problematic development certainly can lead to feelings of guilt, and the implied inevitability of decline may easily generate a feeling of helplessness. Environmental apocalypticism in fictional texts might thus lead to passivity and pessimism instead of encouraging commitment and mitigating action. Dystopian future scenarios could in this way become self-fulfilling prophecies.

A FABLE FOR TOMORROW

Almost 40 years after the publication of *Uår*, another Norwegian writer is now confronting this

predicament. In February 2013, Jostein Gaarder published a book with the title *Anna*. *En fabel om klodens klima og miljø* ("Anna. A Fable about the Planet's Climate and Environment"). Gaarder is world-renowned for his novel about the history of philosophy, *Sofies verden* ("Sofie's World", 1991), which by now has been translated into about 60 languages.

The new book's setting is Norway as of 2012. 16-year-old Anna frequently has dreams in which she is incarnated as her own greatgrandchild, the likewise 16-year-old Nova, in the year 2082. The world in Nova's time dramatically differs from Anna's. Catastrophic climate change has taken place and global warming still continues, as several tipping points have been passed. Large parts of the world are uninhabitable because of drought and desertification. Hundreds of millions have died from famine, climate change induced weather catastrophes and in desperate resource wars. Biodiversity is extremely reduced through the devastation of the earth's ecosystems. In a key scene, Nova furiously accuses her own great grandmother - who is nobody else than 86-year-old Anna herself for having been part of the generation responsible for this catastrophe and not having done enough to prevent it. Old Anna holds, however, that there might be a chance of changing the course of history. When young Anna wakes from this dream, she feels that it is now herself who has both the responsibility and the chance for creating a different future. She consequently gathers all kinds of information on what has to be done and starts an environmental group at her school.

Anna provides rather little information about processes of adaptation that must have taken place between 2012 and 2082. The mentioned catastrophes indicate, however, that most ecosystems and large parts of the world population soon reached limits of adaptability and subsequently perished. In any case, the novel mentions large numbers of climate refugees

from regions that have become uninhabitable (40, 182). Compared to this, the adaptation measures which Norwegians in Nova's time are forced to conduct seem rather harmless: They have to pollinate fruit trees by hand, as the bees have become extinct and the ecosystem services they provided are thus lost (101). Nova always

the next generation the way you had wished that the previous generation had acted towards yourself" (57). The conclusion from this ethical attitude is:

We are therefore not permitted to hand over a planet which is worth less than the one we

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carries around a large umbrella, as precipitation has markedly increased (124). Trees are felled with axes, as there is no fuel for chainsaws any longer (108-110), and pack animals are used for the transport of goods (70-71). Ecosystems in Norway have not collapsed, but adapted to the warmer and wetter climate: Hardangervidda is now completely grown over by birch woods (116).

Unlike Faldbakken, however, Gaarder does not limit himself to drawing a future scenario of decline and adaptation. This becomes clear as early as one of the first chapters, when he lets a psychiatrist state that it would be necessary to cure people "from *the lack* of worry about global warming. We should surely not gradually get accustomed to this threat. On the contrary! We have to try to eradicate it" (22). This can be read as a statement against adaptation and in favour of mitigating measures.

Environmental Ethics versus Pessimism *Anna* certainly does not deny the need to help those who are already hit by climate change consequences today to adapt. The text's main focus, however, is on the need for an ethical attitude, not only towards other people living now, but also towards future generations. In a newspaper article that Anna reads, it is stated that the principle of mutuality – to treat others in the way oneself would wish to be treated – has to be extended into the future: "You shall act towards

were allowed to live on ourselves. Fewer fish in the sea. Less drinking water. Less food. Less rainforest. Less mountain nature. Fewer coral reefs. Fewer glaciers and ski trails. Fewer species of plants and animals... Less beauty! Less wonder! Less splendour and joy! (58)

Here, Gaarder clearly draws upon elements from what has been called *strong sustainability* and the *constant natural capital rule*: Natural resources should not be diminished, so their availability is ensured not only for the present, but for the long-term future as well. This rule refers, just as Gaarder's quote above, not only to the material values and ecosystem services available in nature, but also to aesthetical and recreational values.⁷ The practical implementation of such an ethical stance would make considerable efforts of mitigation necessary today.

Consistently, Anna – unlike Faldbakken's protagonists – does not regard the present status quo of the economy, of politics and of culture in general as being unalterable. Knowledge of potentially catastrophic changes of climate and environment in the future does not lead her to passivity or to the idea of adaptation. On the contrary: After waking up from the dream about Nova, she realises that what in the dream had been the great grandmother's responsibility, is now her own: "Suddenly it is me who has to do something to fight climate damages" (135). She is of course aware that global warming has



already begun and that millions of species are in danger of extinction. "But it was still not too late to save the Earth's biological diversity. The world had got one more chance!" (55)

Instead of the deterministic view of the inescapable decline and the consequent fatalism of Sweetwater's inhabitants, Anna is characterised by hope and a belief in the possibility of changing the future. She calls herself an optimist and holds that "it is immoral to be a pessimist" (208). In her opinion, "pessimism is just another word for laziness. I can be worried, that is something entirely different, but the pessimists have given up" (208).

Admittedly, an apocalyptic rhetoric similar to that of *Uår* can also be found in the future chapters of *Anna*. The 2082-scenario also has a potential to evoke unpleasant emotions such as

fear, guilt and helplessness. However, the use of the two time-levels allows Gaarder to reveal the catastrophic decline as being preventable. Unlike Uår, Anna also invokes positive emotions such as hope and commitment. Consequently, while adaptation to a changing environment is not precluded, the main emphasis in Anna lies on both the necessity and the possibility of mitigation. Whether this optimistic narrative will be as appealing to readers as Uår's fatalistic worst-case scenario was in the 1970s remains to be seen. In any case, there can be no doubt concerning what Gaarder would like his audience to do: A list of websites about climate change and biodiversity as well as internet addresses of several environmental NGOs at the end of the book is clearly intended to prod the readers to start taking action themselves.

Notes

- 1 Faldbakken, Knut (1974): Uår: Aftenlandet. Oslo: Gyldendal, p. 85. My translation.
- 2 Faldbakken, Knut (1976): Uår: Sweetwater. Oslo: Gyldendal, p. 172. My translation.
- 3 Meadows, Donella, et al. (1972): Hvor går grensen? MITs forskningsrapport om verdens fortsatte vekst. Transl. by E. A. Kristoffersen. Oslo: Cappelen, p. 65.
- 4 Buell, Lawrence (1995): The Environmental Imagination. Thoreau, Nature Writing, and the Formation of American Culture. Cambridge, Mass.: Belknap Press of Harvard Univ. Press, p. 285.
- 5 Norgaard, Kari Marie (2011): Living in Denial. Climate Change, Emotions, and Everyday Life. Cambridge, Mass.: MIT Press.
- 6 Gaarder, Jostein (2013): Anna. En fabel om klodens klima og miljø. Oslo: Aschehoug. All translations of quotes from this book in the following are my own.
- 7 Compare Ott, Konrad (2010): Umweltethik zur Einführung. Hamburg: Junius, pp. 170-178.

