

Hanse-Wissenschaftskolleg
Institute for Advanced Study

Fiction ∫ *Science*
MEETS

THE WORLD OF SCIENCE
UNDER THE LITERARY MICROSCOPE

BETWEEN FACT AND FICTION:
CLIMATE CHANGE FICTION
APRIL 22 – 23, 2016

Organizers:

Sina Farzin (University of Hamburg)

Emanuel Herold (University of Bremen)



Program

Venue:

Hanse-Wissenschaftskolleg
Institute for Advanced Study
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INFORMATION

BACKGROUND

Since global warming seems, almost by definition, hard to imagine (after all, it's never happened before) it gets short shrift. (...) And here science can take us only so far. The scientists have done their job – they've issued every possible warning, flashed every red light. Now it's time for the (...) artists, whose role is to help us understand what things feel like.

-- Bill McKibben, Introduction to *I'm with the Bears*, p.3

Novels and short stories that depict research on climate change and/or its ecological and social ramifications have been gaining in prominence. In the U.S. in recent years, fiction that deals with climate change is being discussed in the media under the label “cli-fi” (climate fiction) and billed as a new genre.

From an interdisciplinary perspective, we are interested not so much in the question of literary classification as in the (self-)positioning of cli-fi as a boundary genre that picks up literary, scientific, political, and general societal discourses and articulates them in a new way. The self-representations of authors as well as the comments by reviewers in scientific and literary media reveal a literature that actually aims to elucidate scientific knowledge and even attempts to inspire readers to political action. Thus cli-fi serves as a cultural focal point for re-imagining the future socio-ecological consequences of global warming. What sort of crossover is there between “scientific” and “artistic” fictions, and what similarities and differences do we see, both in the texts themselves and in their effects on readers? In this workshop, we will discuss the implications and potential social effects of climate change fiction from various disciplinary perspectives.

ABOUT FICTION MEETS SCIENCE

FMS is a research and writers' fellowship program that brings together sociologists, literary scholars, novelists, and scientists to examine the literary and social ramifications of a recent trend: an overall increase in the quantity of mainstream and literary fiction about science, and a shift in the ways that science is addressed in fiction.

For more information see www.fictionmeetsscience.org

Friday, April 22

- 10:00 Welcome, Announcements and Introduction
- 10:45 – 11:35 **Sascha Dickel**
Speculative Futures
- 11:35 – 12:25 **Adeline Johns-Putra**
Fiction of the Future: The Climate Change Novel and the Figure of the Child
- 12:25 – 14:00 *Lunch*
- 14:00 – 14:50 **Anna Barcz / Thorsten Heimann**
Cultural Constructions of Floods and Climate Change in Poland and Germany. Literary, Media and Agents Knowledge in Odra River Regions
- 14:50 – 15:40 **Alexandra Nikoleris / Johannes Stripple / Paul Tenngart**
Narrating Climate Futures
- 15:40 – 16:10 *Coffee break*
- 16:10 – 17:00 **Sonja Fücker / Uwe Schimank**
Fictional Facts: Communicating Climate Science in the Mirror of Literary Reception
- 17:00 – 17:50 **Simone Rödder**
The Climate of Science-Art and the Art-Science of the Climate: Meeting Points, Boundary Objects and Boundary Work
- 17:50 – 19:30 *Dinner*
- 19:30 **Saci Lloyd: “The Carbon Diaries 2015/2017”**
Reading & Panel Discussion

Saturday, April 23

- 09:30 – 10:20 **Sina Farzin / Emanuel Herold**
Framing Fiction with Fact: Science and Literature in the Peritexts of Climate Change Novels
- 10:20 – 11:10 **Jules Buchholtz**
How Al Gore Set the Future on Fire. We Are in this Together. Truth, Knowledge and Conviction in Scenarios of Climate Change
- 11:10 – 12:10 **Panel Discussion:** P. Weingart, A. Johns-Putra, M. Brüggemann
- 12:10 – 13:30 *Lunch – Departures*

ABSTRACTS

Speculative Futures

Sascha Dickel

The future is the realm of the unknown. Due to the “immanence of the present” (Grunwald), knowledge about the future as such is fundamentally impossible. While past experiences (in everyday life) and causal knowledge (in science) conceal this inaccessibility and trivialize the future, the complexity of our contemporary world makes it increasingly necessary to deal with non-trivial, contingent futures. Climate change is a paradigmatic example of a non-trivial future, confronting society with uncertainties on a global level. My talk will focus on the function of speculative fiction in approaching non-trivial futures. I will suggest that speculative fiction can be used as a “joker” in communicating non-trivial futures like climate change by enabling a suspension of disbelief.

Fiction of the Future: The Climate Change Novel and the Figure of the Child

Adeline Johns-Putra

From Brundtland's *Our Common Future* to the climate change novels of today, the idea that we have an obligation to the generations of the future dominates the environmentalist imaginary. Most notably, the figure of the child has come to haunt our conversations about ecological crisis, in, for example, the reception of Cormac McCarthy's *The Road* as 'the first great masterpiece for the globally warmed generation' and in ecofeminist investments in a maternalist ethic of care. My presentation speculates on the challenge, taken up by climate change fiction, of imagining our obligations to the future. I consider, among other things, the delicate balance of present nonhuman needs against future human ones, the dangers of taking environmentalist ethics of care for granted (when care dynamics often conceal power dynamics), and the fraught identity politics behind our invocations of the child.

Cultural Constructions of Floods and Climate Change in Poland and Germany. Literary, Media and Agents Knowledge in Odra River Regions

Anna Barcz / Thorsten Heimann

Ways of dealing with flood and climate change risks differ worldwide. Even similar climate scenarios from the natural sciences are treated differently. Thus to address suitable coping strategies for cities and regions, cultural characteristics need to be taken into account. What is required is empirical and conceptual work on cultural “orders of knowledge” in the social construction of floods and climate change.

The aim of our project is to investigate in how far local perceiving and coping with potential vulnerabilities and resiliencies – related to floods and climate change – is tied to and influenced by complex socio-cultural knowledge constructions of literature and public media discourse. Consequently, we ask: How are vulnerability and resilience constructions structured empirically in specific socio-cultural contexts and how are they rooted in cultural knowledge orders of societies?

To answer these questions, we use three different modules bound by a triangulative research design:

A literary discourse analysis (module 1) explores the historical genesis of core conceptions of flood and climate change related knowledge. A media discourse analysis focuses on knowledge constituted by public media (module 2). Finally, we explore how knowledge constructions of literature and public media discourse are shared and influence perceptions and action of local agents. Therefore we use qualitative interviews and a standardized quantitative questionnaire (module 3).

The research focus will be on selected Odra regions in Germany and Poland, where floods have become a hot topic at the very latest since the severe floodings of the last decades. The German-Polish research team comprises scholars from literary studies, cultural science and sociology. It is funded by the joint DFG and NCN “Beethoven” program.

Narrating Climate Futures

Alexandra Nikoleris / Johannes Stripple / Paul Tenngart

There are many similarities between how climate science and climate fiction have come to represent future possible worlds. While the SRES scenarios of the 2000s explored a range of possible futures, the recent turn to RCPs (Representative Concentration Pathways) in the last five years settled on four different worlds, with none of them being more likely than the other. Thus the modelling work that informs IPCC fifth assessment report follows the logic ‘what if the world followed this pathway’ and uses Integrated Assessment Modelling to provide projections of atmospheric greenhouse gas concentrations that reach particular levels of radiative forcing. We could thus read the RCPs as ‘world-making’ (Goodman 1978) drawing attention to the similarities between arts and the sciences in how they are ‘making the world’. In this paper we look across a large set of contemporary climate fiction and ask two broad questions:

How is a warming world being narrated? What are the stories told about nature, technologies, cultures and societies?

What are the political and affective considerations of the ways in which such narrations are made and told?

The paper examines, in particular, four dimensions in climate fiction. The first is about the temporal and spatial location of the narrated future (near/far, proximity/distance). The second is the extent to which ‘the climate logic’ provide the overarching narrative, if it’s a background complex or a more subtle staging (foreground/background; major/minor theme). The third is about how the story told relates to climate change as ‘event’ in a temporal sense (pre/post), for example if the book is pre/post an ‘apocalypse’ or a particular political intervention. The fourth is about the ‘contract’ with the reader, to what extent the story is credible and trustworthy, and how the authors use various techniques to establish the credibility of the story.

Fictional facts: Communicating climate science in the mirror of literary reception

Sonja Fücker / Uwe Schimank

Modern “knowledge societies” are characterized by the increasing importance of science-related knowledge, the interdependence between science and the societal public, and an emphasis on better public understanding of science. As a consequence, scientific information is effectively communicated in the mass media and other non-scientific formats, including novels. In “climate fiction” or “Cli-fi,” scientific information about man-made global warming and predicted socio-ecological consequences is embedded in fictional narratives. The interaction between ‘fact’ and ‘fiction’ is a basic element of this kind of literature and creates a specific tension: Along with translating scientific facts on climate change for a non-scientific readership, the fictional story-telling is likely to stray from scientific realities. These texts thus have the potential to enhance readers’ understandings of science, at the same time they run the risk of distorting those understandings, depending on how they are read.

Focusing on these conflicting features, we seek to understand how the interaction between science-related information and its fictionalisation is understood by readers of such climate fiction. Taking Ian McEwan’s *Solar* and Barbara Kingsolver’s *Flight Behavior* as examples, we examine if and how readers identify and interpret fictionalized facts in the texts. The analysis of reception studies in English-speaking reading groups show that »cli-fi« influences readers’ understandings of (climate) science when the texts comply with their conditions for plausible story-telling. Our results indicate that the narration of scientific knowledge, practice, and logics must not only affect readers’ imagination that the novels offer realistic representations of science, but also provide stories which are adequately embedded in existing societal discourses on ecological problems.

As a result of our analysis, we argue that cli-fi serves as a tool to *link* science-related information with readers’ existing understanding of climate change and *reinforce*, *elaborate*, or *change* it through discussion and group interaction. Readers assimilate science-related information through the novels, and “cli-fi” can thus be understood as a vehicle for the formation of public understandings on global warming and a potentially important form of (climate) science communication.

The Climate of Science-Art and the Art-Science of the Climate: Meeting Points, Boundary Objects and Boundary Work

Simone Rödder

This paper reports experiences from a recent “science-art” project set up in an educational context as well as in the tradition of placing artists in labs. It documents and analyses scientists’ and artists’ perceptions of their encounters, drawing on the concepts of “boundary object” and “boundary work”. The project’s in-depth ethnographic description provides a resource for future practice. In conclusion, the encounter included meeting points as well as multiple levels of boundary work that encouraged reflexivity on both sides and through which the artists created space to produce a piece of art according to their own criteria of quality and relevance.

Framing Fiction with Fact: Science and Literature in the Peritexts of Climate Change Novels

Sina Farzin / Emanuel Herold

In the last couple of years, a new genre label has gained popularity among the literary public: climate fiction or „cli-fi“. Diverse works of literary and genre fiction are subsumed under this label, as long as they somehow engage with climate change. Our presentation raises the question of how these works relate to scientific discourses about climate change and how they may negotiate or renegotiate the boundaries between scientific fact and literary invention. In order to approach these questions, we offer an analysis of the novels' peritextual elements: According to Gerald Genette's paratextual theory, forewords, afterwords or acknowledgments generally address aspects of a work of fiction that appear to be crucial to our question. They may provide information about its genesis, contain claims of truthfulness or offer contracts of fiction. Such poetological reflections provide a space where fictional and factual discourses intersect, and may even suggest their mutual modification.

How Al Gore set the future on fire. We are in this together. Truth, Knowledge and Conviction in Scenarios of Climate Change

Jules Buchholtz

Scenarios are instruments to project the development of a present state into the future. As tools to “rehearse the future” (Peter Schwartz), scenarios extrapolate current driving forces and round them out to a theatre of what is likely to happen. In the attempt to tame contingency and insecurity, scenarios serve as instruments for narrating, contextualizing and even producing future realities. In this sense, scenarios are the means by which diffuse expectations, vague hopes and unspecific angst become veritable fears of what's to come. When disseminated through mass media, a scenario of crisis addresses its audience as a group of potential participants with an identical horizon of collective future experiences, sharing the same fate.

In this respect, the film „Inconvenient Truth“ by Al Gore (2006) can be considered one of the most discourse-impacting, if not the leading scenario on climate-change. Using the film as an outstanding example, I would like to contribute to answering two of the major workshop questions: *Which narrative and aesthetic strategies are pursued in the literary depiction of climate change? How do such strategies affect non-literary discourses on the future of society?*

Providing, configuring and proliferating information inside one means of representation, scenarios cannot only be regarded as media of transferring information from one discourse to another - Due to their specific operating mode, scenarios impact several separate discourses by demanding probability of occurrence and at the same time deploying aesthetic strategies like theatricality, narration and the merge of scientifically generated data with artistic display. Lacking the capacity of actually proving its future occurrence, the question whether a scenario of climate crisis is considered plausible or not would seem to be dependent on its messenger's credibility. In that sense scenarios have to be seen as powerful, action-guiding, but not in every case unsuspecting tools to induce or prevent future states of reality.

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