



Summer School for Doctoral Students

“Climate Change – Uncertainties, Thresholds and Coping Strategies. Normative Perspectives”

Scientific Report

1) Summary

With the onset of industrialization, humans began adding significantly to the atmospheric concentration of greenhouse gases, in particular through carbon dioxide emissions resulting from burning fossil fuels. Anthropogenic climate change is now one of the main problems of the 21st century. It is a global political priority as it poses a real and potentially catastrophic threat to human and other life on this planet. Without exaggeration, one can describe the situation as the most serious global environmental problem that humanity has ever faced.

In the summer school we aim to reach a better understanding of climate change uncertainties, of relevant thresholds, defined as critical points, where different systems on different levels face important threats to their continual existence, and of possible strategies to cope with climate change from an interdisciplinary perspective. By doing so we will focus on the normative relevance of these aspects and use the contribution of other disciplines as a valuable input for the development of normative theories. Such an approach is not only relevant for practical philosophy but also for doctoral students from economics, social and system sciences, where scholars have to deal with normative questions as well. For this we will engage in the asking the following questions:

1. How to understand and deal with climate change uncertainties in normative theories compared or in relation to the natural and social sciences?
2. What are the critical thresholds of environmental, social and economic systems considering their vulnerability and resilience and how are these thresholds related to the normative threshold of sufficiency, that is, the threshold of well-being below which persons' basic rights are infringed or violated?
3. What are scientifically sound, technologically and institutionally feasible, economically efficient, and ethically defensible and sustainable strategies for responding to climate change,

particularly taking into account the systematic problems of implementation in an environment characterized by uncertainties and thresholds?

These questions are challenging because they bridge multiple disciplines and entities, and different time scales. Interdisciplinary dialogue and understanding is necessary for addressing the meaning and significance of the implications of climate change and the development of strategies to cope with them.

2) Description of the scientific content of and discussion at the event

The Summer School was divided into a total of five days with an average of two teachers covering one day. (This was the main schedule with the exception of Thursday which included an afternoon off for cultural activities.) Teachers were paired off to form thematically coherent days. The talks and discussions of the main sessions were carried on, normally the following day, as parallel seminars for half the group which were, however, mostly conducted jointly by the teachers to deepen the discussion of the previous day. A third session of the day was used to give space to student presentations, of which there were five, attended normally by all the teachers of the Summer School. Finally, for individual students who wanted to make use of this particular offer, there was room for individual tutorials with teachers, with each tutorial taking place as the result of a personal agreement between the student and her teacher.

The first day was given over to discussing uncertainty on a broad scale. Headed by Klaus Steigleder (Bochum) and Dominic Roser (Oxford), the students were introduced, on the one hand, to an overview over types of uncertainty (Roser) pertaining to the complexities of policies regarding climate issues. A particular focus was placed on the consequences that the choice of risk conceptions itself has for practical and political decision-making. On the other hand, an application of the normative foundations of risk assessment was offered by looking specifically at the case of a rights-based risk ethics (Steigleder).

The second day focused not so much on the risk contained in decision-making under uncertainty pertaining to complex developments but on the field of practical solutions to this epistemic conundrum. Starting off with “a perfect moral storm”, Stephen Gardiner (Seattle) sketched a triple dilemma leading to the particular difficulty of solving climate change issues politically. Hinting at the impossibility to solve these problems on the basis of individual national action, Gardiner argued for institutional reform on the international level as the only way to overcome the dilemmatic structure of individual incentives to defect from collective solutions to climate issues. Tackling the practical side of the mitigation of climate change, Harald Stelzer (Potsdam) took on the concept of geo-engineering, i.e. the active intervention into the processes of climate

change through technological means. Covering the main approaches to geo-engineering, and focusing mainly on the solution of the introduction of climate-affecting chemicals into the atmosphere (solar radiation management), Stelzer pointed to both the immense effort required to make an impact as well as the fact that the negative side-effects of solar radiation management would again affect those areas of the world that have been impacted negatively already by climate change itself. In other words, the bulk of these side-effects would again have to be shouldered by the poorer societies of the Southern hemisphere.

The third day featured a thematic stand-alone session in Richard Sturn's (Graz) game-theoretical approach to solving climate issues under the realistic circumstances of non-ideal decision situations. Highlighting the fact that the very complexity of interests, actors, and issues involved in climate change (on a multitude of levels political, economic, and social) implies that there are no unique solutions to the problems it engenders. Due to the fact that frictions will continue to exist between actors not only between differing interests but also due to their institutional purposes, Sturn argues not for an acceptance of a trade-off between the efficiency and the justice of climate change solutions but for accepting that what has to be sought after are actual just solutions, albeit under the circumstances of continuing and normatively justified friction (justice in a second-best world).

The following thematic pairing included both the second talk on Wednesday and the sole talk on Thursday. Rahul Kumar (Kingston) and David Heyd (Jerusalem) both concentrated on a prevalent issue in normative and philosophical discussions on climate change, namely Derek Parfit's non-identity problem. The question is whether harms and risks imposed on future generations are permissible and whether it is permissible to actually compare the different states of future generations with and without these harms and risks imposed. Do we impact future generations by altering the circumstances of their existence through our action or do we actually cause different generations to be born, i.e. generations who cannot be said to be the same people that would have existed but harmed, but different people? Both Kumar and Heyd tackled these questions from different perspectives, with Kumar concentrating on non-consequentialist approaches to the problem, while Heyd focused on the issue of adaptive preferences based on altered circumstances.

The last day finally concentrated on the fundamental normative issue of climate justice, i.e. the normative foundations of justified responses to climate change. Starting with Lukas Meyer (Graz), the day started out by tackling the question of the legitimacy of the expectations of actors pertaining to climate change. What expectations can inhabitants, especially of highly industrialized nations, legitimately hold as to their impact on climate change through emissions, and what can be said to be a justified reaction to their expectations being illegitimate? The

Summer School was wrapped up by Andrew Williams (Barcelona), whose talk concentrated on the demographic issues of climate change. Population increase and emissions of green-house gases go hand in hand which raises the question as to what impact demographic change in developing and in developed nations has on the normative questions regarding the interplay between individual and collective responsibility concerning climate change. Do questions of responsibility start already with procreation issues? And if they do, what are the rights and obligations pertaining to these issues with respect to how their procreation affects the collective that produces emissions?

3) Assessment of the results and impact of the event on the future direction of the field

As a Summer School, the main intended impact was, of course, not so much intended to be groundbreaking frontier research but rather disseminating the broadest knowledge possible to the students, ideally to the deepest degree possible. Given that the field of teachers was comprised of some of the leading experts in the field – Gardiner on institutional approaches to climate change, Heyd on the non-identity problem, to name but two – the teaching was, as was to be expected, on the highest level. Given the teaching environment in a small group with most of the teachers having known each other personally for quite some time, the ensuing personal atmosphere between the teachers assured that the students, as well, felt welcome to participate in discussions. Indeed, one of the most striking aspects of the proceedings was how quickly and how easily a large number of the participating students – most of them meeting for the first time – became part of the discussion, thus helping the other students to follow suit more easily. This, in turned, assured that the communication between teachers and students took place in a non-hierarchic way, resulting in a very pleasant atmosphere of discussion which furthered enabled the dissemination of knowledge on the normative and political aspects of climate change that was the purpose of this event.

This atmosphere was key to the success of the Summer School in light of yet another feature. The multitude of disciplines represented by the teachers – philosophy, political science, economics, depending on the focus with an inclusion of aspects both of the physics of climate change and the technological approaches to mitigating its impacts – was countered by an even broader range of subjects of study by the participating students. Covering not only humanities and social sciences, but also geography, complex decision-making, environmental, sustainability and systems studies and geospatial technologies, in a different discussion environment it would have been likely that the students would not find common ground to discuss issues of climate change. Given the early stages of mutually curious and respectful communication, methodological breaches would

become an issue of discussion, promoting it instead of stopping it, and an overall climate of curiosity would prevail between disciplines.

Not the least important aspect of the event leading to this result were the five student presentations given from a range of interest from normative foundations of climate ethics and climate justice to the geospatial assessment of climate change and its impact on population and migration in sub-saharan Africa. With basically everyone being at some point a mere interested spectator to an issue, looking at the same thing from very different methodological and disciplinary angles, the Summer School thus achieved an understanding of the complexities of the issues involved not only from the talks of the teachers but also through the very process of a serious and passionate attempt at communication from the perspective of a multitude of scientific disciplines.

4) Final programme of the meeting

Organizers: Univ.Prof. Dr. Lukas Meyer (Graz) and Dr. Dirk Brantl (Graz/Tübingen)

Venue: Schloss Retzhof, Leitring (near Graz, Austria)

Time: September 8 – September 12 2014

Monday, September 8

Before 13.00	Arrival
14.00	Welcome Address Dirk Brantl & Lukas Meyer (University of Graz)
14.30-16.00	Session 1: Klaus Steigleder (Ruhr University, Bochum) Climate change uncertainties – The perspective of a rights-based risk ethics
16.30-18.00	Session 2: Dominic Roser (Oxford Martin School, Oxford) Types of Uncertainty
18.30-20.00	Dinner
20.00-21.15	Work in progress group Student presentation: Hakim Abdi

Tuesday, September 9

8.00-9.00	Breakfast
9.00-10.30	Session 3: Stephen Gardiner (University of Washington, Seattle) Connecting the perfect moral storm to the need for institutional reform
11.00-12.30	Session 4: Harald Stelzer (Institute for Advanced Sustainability Studies, Potsdam) Geo-engineering
12.30	Lunch
14.00-15.30	Parallel Seminars for half the group Dominic Roser/Klaus Steigleder
16.00-18.30	Work in progress group Student presentations: Jasmina Nedevska & Daniel Callies

18.30-20.00 Dinner
20.00-21.30 **Tutorials**

Wednesday, September 10

8.00-9.00 Breakfast
9.00-10.30 **Session 5:**
Richard Sturn (University of Graz)
Games of nature and multi-level institutions in a second best-world: a framework for implementation and locating responsibility
11.00-12.30 **Session 6:**
Rahul Kumar (Queen's University, Kingston)
Risking the interests of future generations: non-consequentialist approaches
12.30 Lunch
14.00-15.30 **Parallel Seminars for half the group**
Stephen Gardiner/Harald Stelzer
16.00-18.30 **Work in progress group**
Student presentations: Michel Bourban & Sebastian Kistler
18.30-20.00 Dinner
20.00-21.30 **Tutorials**

Thursday, September 11

8.00-9.00 Breakfast
9.00-10.30 **Session 7:**
David Heyd (The Hebrew University, Jerusalem)
The Non-identity problem and adaptive preferences
11.00-12.30 **Parallel Seminars for half the group**
Rahul Kumar/David Heyd
12.30 Lunch

Free afternoon and evening: Cultural activities in Graz or Southern Styria

Friday, September 12

8.00-9.00 Breakfast
9.00-10.30 **Session 8:**
Lukas Meyer (University of Graz)
Legitimate expectations, climate justice, and uncertainty
11.00-12.30 **Session 9:**
Andrew Williams (ICREA/Pompeu Fabra University, Barcelona)
Climate, justice, and demographic change
12.30-13.00 Evaluation
13.00 Lunch

5) List of participants

Teachers:

Stephen Gardiner (University of Washington, Seattle)

David Heyd (Hebrew University, Jerusalem)

Rahul Kumar (Queen's University, Kingston)

Lukas Meyer (KFU Graz)

Dominic Roser (Oxford Martin School, Oxford)
Klaus Steigleder (Ruhr-Universität Bochum)
Harald Stelzer (Institute for Advanced Sustainability Studies Potsdam)
Richard Sturn (KFU Graz)
Andrew Williams (ICREA/Pompeu Fabra University, Barcelona)

Students:

Abdi, Hakim (Lund University)
Aggestam, Vivianne (ISIS, KFU Graz)
Bennett, Christopher (University of Warwick)
Berto, Valentina (Business Studies, KFU Graz)
Bourban, Michel (University of Lausanne)
Callies, Daniel Edward (Goethe-Universität Frankfurt/Main)
Gibson, Kristopher (University of Göteborg)
Habjan, Teresa (KFU Graz)
Hrach, Marcus (University of Bremen)
Kistler, Sebastian (University of Augsburg)
Kudlek, Karolina (University of Zagreb)
Lissel, Ariane (IZT Berlin)
Myers, Tim Christion (University of Oregon, Eugene)
Nedevska, Jasmina (University of Stockholm)
Ortner, Florian (KFU Graz)
Petz, Daniel (KFU Graz)
Reiche, Klaus (LEUPHANA, Lüneburg)