Workshop Altonaer Stiftung für philosophische Grundlagenforschung:

Theme:
„Seeking an agenda: Environmental and technology ethics – Relevant research themes"

Dates: 27 – 29 June 2005
Venue: Altonaer Stiftung für philosophische Grundlagenforschung, Ehrenbergstr. 27,
D - 22767 Hamburg, Germany

Invited participants (provisional):
Nancy Cartwright (LSE)
Jeroen van der Sluijs (Utrecht)
Silvio Funtowicz (ISPRA, EU Italy)
Matti Sintonen (Helsinki)
Jerry Ravetz (London)
Ragnar Fjelland (Bergen)
Roger Strand (Bergen)
Ortwin Renn (Stuttgart)
George Gaskell (LSE)
Thomas Potthast (Tübingen)
Brian Wynne (Lancaster)

The *Altonaer Stiftung für philosophische Grundlagenschung* (www.asfpg.de) is an independent foundation to further basic research on philosophical themes. Its activities are intended to create platforms for academic and inter-disciplinary exchange. This is in part done through workshops with invited participants from various fields. The Stiftung has moved into its house in Altona, where the workshops shall be held. Activities start during the spring of 2005.

It is organised around three "centers", each focusing on one selected area: legal theory, speculative logic, and environmental and technology ethics. All three members of the Board of the Stiftung intend to participate in all workshops, with the pronounced intention to explore possible "cross-overs" within the activities.

The first workshop on environmental and technology ethics aims at setting an agenda for further work in this field. The workshop is planned for 27th (starting after lunch) to 29th (ending at ca 5pm) of June, 2005. Participation is invited on the basis of work done or in progress. The format will be relatively informal. We are experimenting. Participants are asked to contribute with a talk / short paper on where they see important challenges within their field that deserve further attention through basic research and philosophy, and that could become the topic of further workshops of the Stiftung. Background material from earlier or ongoing work is welcome. The Stiftung will support participants financially by paying travel costs

(economy class), accommodation for three nights and a modest per diem. Please let us know, at your earliest convenience, if you wish to participate in this workshop. If you cannot attend but wish to remain informed of the Stiftung's activities please say so.

An indication of what the organisers provisionally see as salient themes of such work is provided below.

Some themes of environmental and technology ethics:

Science and technology is recognised as a major force of social and economic development and change. People have come to realize that there is politics and choices behind science and technological development, and many ask critical questions about the role of science in shaping their and their children's future. Are the technologies that come into the market recognisable as "progress", as development towards a desirable future? This is embedded in a larger change in Western societies towards emancipative values, enriched with calls to dare more deliberative democracy. Even largely "conservative" organisations, like e.g. the EU, ask for more and better governance and seek to improve relationships between science and society. The "knowledge society" that is envisioned by European States still remains an empty shell, lauded though by innovation theorists and industry, but without attempts to probe and clarify the very concepts of knowledge at its root or the social values that this vision seeks to strengthen. Worries of the public in regard the technological development are met by repeated acclamation of precaution as guiding principle to safeguard the highest standard of safety for the populus, but without consensus about standards of proof for the invocation of possible harm. Questions of ethics, raised in the public, are met by institutionalising ethical committees and review boards, yet without efforts to clarify the role of ethics in a modern democracy and the tools to assess ethical acceptability. At the same time, a post-academic, post-normal or mode 2 science enters new areas like nanotechnology, accompanied by grand scale funding, but without reflection on the intricate features of causal relations in the complex systems that scientists are about to create or change. Scientists and engineers promote new productions of food, like intensive aquaculture, for the sake of environmental resources and feeding the world, but are unable to create platforms where critics are met in a constructive manner.

For the critical observer, large parts of these developments raise suspicions of mere window dressing, fashionable phrases that trigger activity and calm down intellectuals, old ideology disguised as new ways out of a permanent conundrum. There are promises and hopes, but possibly also lack of sincerity and willingness to in-depth analysis. Terms like "sustainable development" that not long ago united political action plans and academic research programs, seem already exhausted and gone from the agenda, without ever standing the chance of reaching conceptual or theoretical maturity, not to mention practical implications. Ethics seems the call of the day in some quarters, while the quest for innovation and the race of technological supremacy dominates others.

We believe that academic reflection and understanding, dialogue across disciplines, mutual learning, and exploration of novel frameworks of thought is indeed necessary, if only for our own peace of mind. Unfortunately, academic life as it is institutionalised around us seems to

leave less and less space for such an activity. Philosophy was once thought to be the proper forum to reach deeper understandings of our life and the concepts that surround it. In our days, academic philosophy lives a life of its own and solves problems that very few even recognize as such. The language of philosophy, including the language of philosophy of science, is often incomprehensible even to those scientists that are sympathetic to it and targeted as beneficiaries. Philosophical ethics tends to be caught between the Scylla and Charybdis of either being so purified from real life issues that its concepts can flourish, or – as practical ethics – being so much on the safe side that it only explains social choices after an emerging consensus. But, in principle at least, philosophy is in demand. Compared to the intellectual climate around 30-40 years ago, the public and even the decision makers seem to ask for more rather than less philosophy. And many people seem to believe in the principal social relevance of philosophical thought and reflection. Flattering as it may be for a philosopher, we think there is yet very little to offer from its quarters. Indeed, very few philosophers seem to think it necessary to step out of their disciplinary boundaries in order to enter the world of conceptual challenges that beseeches others and that accompany our scientific and technological development.

We want to pursue such philosophical exploration of concepts and theories at the heart of scientific and technological change, and we want to advance our understanding of values and ethics that may provide direction. Questions of scientific method reflect questions of the ethics of science. Both areas are intertwined. We see the "philosophy" of this activity anchored in the kind of questions, problems and approaches that are put on the agenda, and not in the disciplinary training or professional activity of the participants. Rather than being afraid of "watering down" the philosophical kernel of analysis by multi-disciplinary perspectives, we think this multitude provides for greater richness and robustness in the philosophical analysis itself.

There is certainly a great variety of issues that would deserve detailed analysis and serious exploration in order to advance our understanding of the scientific and technological development and to ensure greater harmony with nature in and around us. We envisage that some of the following topics may be of special interest, and we invite participants to consider to contribute to one or several of the themes indicated here. Each contribution should try to indicate a) how it relates to issues of ethics of science, technology and environment, and b) what would be a worthy topic for a follow-up and why. Providing examples or cases is encouraged but not demanded.

Uncertainty, risk and precaution
Risk analysis has gradually moved from its roots in statistics and decision theory to wider notions of risks and risk management / communication. The European branch of the Society for Risk Analysis recognises participatory elements as tools to assess and manage risks. Renn et al has provided a new classification of risks that purports to exhaust the wide inherent variety of the concept. The work of Funtowicz and Ravetz has spurred activities to develop schemes for the charting of scientific uncertainties, as e.g. most recently by Walker et al. In the Netherlands governmental authorities have invited academics to train personal in the analysis of scientific uncertainty. The Precautionary Principle has slowly captured the attention of academics from various quarters and is currently a hot topic on the political agenda between Europe and the USA, e.g. in the WTO negotiations. The report *Late Lessons*

from Early Warnings is still a matter of academic debate. Already new challenges appear with nanotechnology.

Causality in complex systems

Complex systems became first prominent with the advance of weather models. It was realized that a certain unpredictability may not so much be due to incomplete knowledge but to characteristics of the system as such. Complexity was recognized even in apparently simple mathematical functions. The dominant Newtonian ideal of scientific representation was challenged and eventually recognized as inadequate for a number of natural systems. Ecologists now understand many natural systems as ones that are characterized by complexity and non-linearity. Lakes may have multiple states of equilibria, and the transitions may be sudden and not easily reversible. The concept of resilience has recently been advanced to capture some of the important features of such systems. It seems obvious that traditional concepts of causality fare badly in such systems. Philosophers like Nancy Cartwright, taking a starting point in physics and economics, have suggested new ways to understand causality. Linking causality and complexity may create a new challenge for our understanding. The analysis of complexity has repercussions for the analysis of precaution as well.

Fundamentals of a theory of values

There is a lot of talk about values these days – indeed sometimes from quarters that seem at opposite ends of the political spectrum. Values are endangered, need to be restored or protected, and values need to be charted and explored if action is to succeed. The Dutch Prime Minister Balkenende, heading the EU during the fall of 2004, asks for bringing up and developing the values at the core of European Union if European integration is to make progress. Yet the nature of values seems still elusive. Utilitarian thinkers tended to identify values with peoples preferences and interests. Hans Joas went to great length to explore the genesis of values, and leaves us with the trichotomy of preferences (interests) – values – norms. Those are not to be mixed up. And according to him, values are the result of self-constitution and transcendence. Values are believed to influence our attitudes and actions, but it seems unclear how they can do it. How do they fare within a theory of rationality and rational choice? How do we test for values empirically? And how does value change come about? If the ethics of science is essentially about creating new platforms for broad debates on values, then a theory of values is at the heart of a socially robust scientific and technological development. We do not think that such a theory is worked out yet.

Promises and pitfalls of participation in deliberative democracy

When exporting Western technology and know-how to developing countries one soon realized the shortcomings of our management systems in different cultures. This caused major flaws in investments. The lesson was participation. It became the gospel for all developmental work, especially so since it obviously was so right to do it. Since the governance of science and technology is on the agenda, partially in the guise of a new technology assessment practice, participation is about to become the new gospel in this field as well. Consensus conferences of the Danish brand have made their entry into many countries across the whole globe. Yet, even some insiders now talk about the "Tyranny of participation", warning against what may hide under the surface. Indeed, few efforts are made to assess the pitfalls and strengths of participatory measures. While political realities like e.g. the Aarhus Convention demands of states to engage with the wider public in participatory activities, the academic world does not

provide better tools or even critical analysis that may put participation in better perspective. Empirical social analysis by Gaskell and others indicate widespread scepticism in expert culture, and this may be well deserved. Yet participation may seem weakly founded if its justification remains based on a negative characteristic of experts, rather than a sober and comprehensive assessment of its own potential and pitfalls.

Tools for practical ethics

Debate around biotechnology has brought the ethics of technology and science into focus for public decision makers. Governments have responded by setting up ethical review boards or ethical committees that comment or evaluate questions of research, marketing and production. Reports from such committees are normally advisory only, but tend to create attention. Some research has been done on the European level how such committees operate or how they are institutionalized. Yet, the perhaps most fundamental issue – the question of how they conceptualize ethical issues – is still largely unexplored. How can one assess the quality of the advice generated by such committees? In practical ethics some proposals have been made to introduce tools for ethical advice or decision making, and some EU projects are developing them further (http://www.ethicalbiotatools.wur.nl/). There is still a paucity of such tools available for the quality assessment of ethical committees, and there is little common understanding of how such tools could be brought into practice.

Systems of knowledge – the concept of knowledge

Philosophers have tended to identify knowledge with scientific knowledge, at least ideally. However, experiences in technology transfer, in particular to the developing world, has revealed the need to integrate alternative sources of knowledge, in particular what has been termed indigenous knowledge. This seems to add to some other forms of knowledge that has entered the philosophical literature, and had success within a variety of disciplines. This seems true e.g. with the term "tacit knowledge" (Polyani). Others have discussed levels of competency that equally do not seem to fit easily the paradigm of scientific knowledge (skills, as e.g. in Dreyfus & Dreyfus 1986). Brian Wynne has analysed conflicts between expert knowledge and "folk knowledge". A few philosophical schools have upheld the concept of "common sense". Kaiser in his Norwegian textbook differentiates between four different types of knowledge. There is seemingly still some lack of conceptual clarity in this area that has not been addressed. Given that conflicts between different sources of knowledge often seem at the heart of conflict around technology, this seems a pressing task for further philosophical analysis.

The concept of nature and its normative relevance

People hold different conceptions of nature, and these conceptions seem strongly exposed to historical and cultural influence. Nature triggers associations that span from "good" to "threatening", that include or exclude humans and their artefacts, that call for "conservation" or "adaptation" etc. Cultural theorists as Mary Douglas and others have attempted to trace such variations in society. In the public debate around biotechnology, natural states of affairs have been used to elicit some common normative benchmark, but have also been criticized by others. Yet, it is profoundly unclear how any conception of nature can provide normative

guidance, or how conflicts in different such conceptions could be resolved. The management of risk and precaution seems incomplete without some explicit mention of the social construction of nature, its possible normative implications, and the multiplicity of perspectives on nature that characterizes different social groups. The reflexivity in our constructions of nature and our constructions of society needs to be captured conceptually.

Oslo, 6th December 2004.

Matthias Kaiser