

Freiburg Institute for Advanced Studies

Lunch Lecture winter term 2016/17

Ignorance & its Relevance for Science and Society

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- The only true wisdom is in knowing you know nothing.”
or: “*I know that I know nothing*” (attributed to Plato’s
Socrates (471 BC-399 BC))
- “Real knowledge is to know the extent of one's
ignorance.” Confucius (551 BC-479 BC)
- “To know that we know what we know, and to know that
we do not know what we do not know, that is true
knowledge.” Nicolaus Copernicus (1473-1543)
- “What we know is a drop, what we don't know is an
ocean.” Isaac Newton (1643-1727)

- Knowledge and ignorance -- two sides of the same coin: with every step that increases our knowledge, our awareness is sharpened how much we (still) don't know

Eng. *ignorance* vs Grm. *Ignoranz*

- semantic narrowing, or specialization, in German
- meaning of *ignorieren* in German: both the conscious and unconscious refusal to take notice of/ to acknowledge the existence of sth. or s.o. → more in the direction of „not wanting to know“
- English: passively being ignorant; the more neutral term
- German: actively ignoring (Austro-Bavarian: “*gar ned ignoriern, ned amol ignoriern*”); the more emotionally, politically loaded term
- The neutrality of German *Nichtwissen* is rendered by English *ignorance*

Discourses of public ignorance of science

- ignorance as a deliberate choice, i.e. “a rhetoric of intentional ‘ignorance’ being mobilized to challenge or attack the relevance of a given body of expert knowledge to the ‘real’ issue at stake as perceived by the speaker” (Michael 1996: 120)
- devaluation / ridiculing of experts and facts
- ignorance almost considered a virtue

goes in the direction of:

- rational ignorance (Downs) „the strategic (and often logical) refusal to embrace new knowledge even when it is freely available“
 - often inherent in dogmas and ideologies; negative effects on e.g. voting behaviour

Can we afford to ignore ignorance?

Exploring Ignorance at FRIAS

- pushing forward the frontiers of science by exposing its fellow community to the most challenging questions
- questions forcing all of us to reflect upon our research and research field, including both their foundations AND issues and topics not touched upon, or perhaps better not to be touched upon
- questions with the potential of reconnecting with, possibly calling into question, the fellows' and their relevant discipline's self-understanding
- Ideally, such questions spark off discussions within and across disciplines, discussions within but also beyond the academic world, i.e. in society and the public sphere, in general.

Exploring Ignorance at FRIAS

- From this point of view, the most challenging question of all is ignorance:
- What is it that in any given academic discipline is not known?
- How can one systematize different kinds and dimensions of ignorance?
- Which implications does reflecting on and admitting to ignorance have on the future research (and funding) agendas, on the one hand, and on society, the public, on the other? After all, in the public opinion science and ignorance exclude each other, are almost contradictions in terms.

Ignorance & teaching

- Recall Socrates' dialectic method of teaching: he as a teacher knew nothing, so he would derive knowledge from his students by dialogue
- “planful, deliberate” ignorance in teaching (the simple before the complex, regularities before irregularities, neat ideal before messy reality)
- Ludwik Fleck: Students get introduced to a thought collective or thought style by narrowing down the range of questions they are encouraged to ask

UCF& FRIAS: bringing students in dialogue with fellows

- Course “**Uncertainty, Unknowns and Ignorance in the Sciences**” offered by Veronika Lipphardt, Chair of STS, UCF
- a group of final-year L.A.S. students from the University College Freiburg (UCF), Erasmus students and sociology students will be part of this adventurous exploration of the unknown
- Each student will “follow” one speaker/fellow and write an essay about Unknowns in his/her field
- Another source of inspiration and encouragement: Anne Harrington (Harvard)

2. Recent concepts of ignorance

Evaluation of/attitudes to ignorance in science

- ignorance in science: inherently negative? Not necessarily!
- we saw: planful ignorance in teaching
- as a survival strategy for academics:
“Ignorance can be bliss!”
- ignorance as a means of
 - > self-protection
 - > staying focussed

in light of the flood of new publications and information reaching us via a diverse set of channels

Positive evaluations of ignorance in the sciences

- Gross (2010): Surprises make you aware of unknowns, and this is a major driving force of science
- Firestein (2012): science is not „an unbroken record of advances and insights“, or a „brotherhood tied together by its golden rule, the Scientific Method“; not „facts and rules“
- But rather: searching „black cats in dark rooms“: *„It’s groping and probing and poking, and some bunking and bumbling, and then a switch is discovered, often by accident, and the light is lit, and everyone says ,Oh, wow, so that’s how it looks‘, and then it’s off into the next dark room, looking for the next mysterious black feline.“* (p. 2)

Ignorance Studies (Gross/McGoey 2015)

- Since about 2000 emergence of a new dynamic field of research
- „In the widest sense a field exploring the social life and political issues involved in the distribution and strategic uses of not knowing“ (Gross/McGoey 2015: 1)
- „Ignorance needs to be understood and theorized as a regular feature of decision-making, in general, in social interaction and in every day communication.“ (ibidem)
- **Basic approach: ignorance is „regular“ rather than deviant**

Agnotology

- agnotology: concerned with the production of ignorance, and thus operates at the boundary of ignorance to secrecy
- Is science possibly keeping the public and political decision-makers ignorant of potential risks of, e.g., new technologies, laws, or reforms?
- Who are the drivers behind this? Cui bono?
- Important questions concerning the sociology of science, the politics of science, and the relationship between science and society
- **Basic approach: ignorance is deviant**

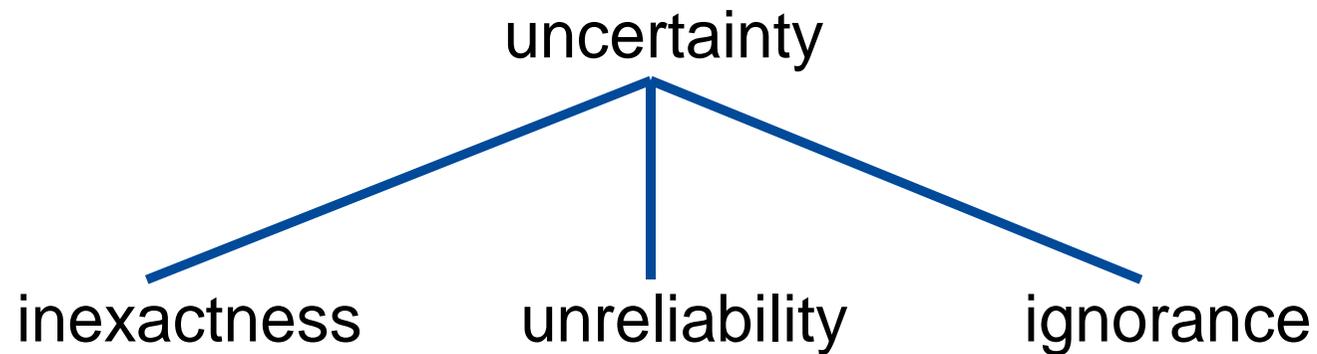
Ignorance Studies:

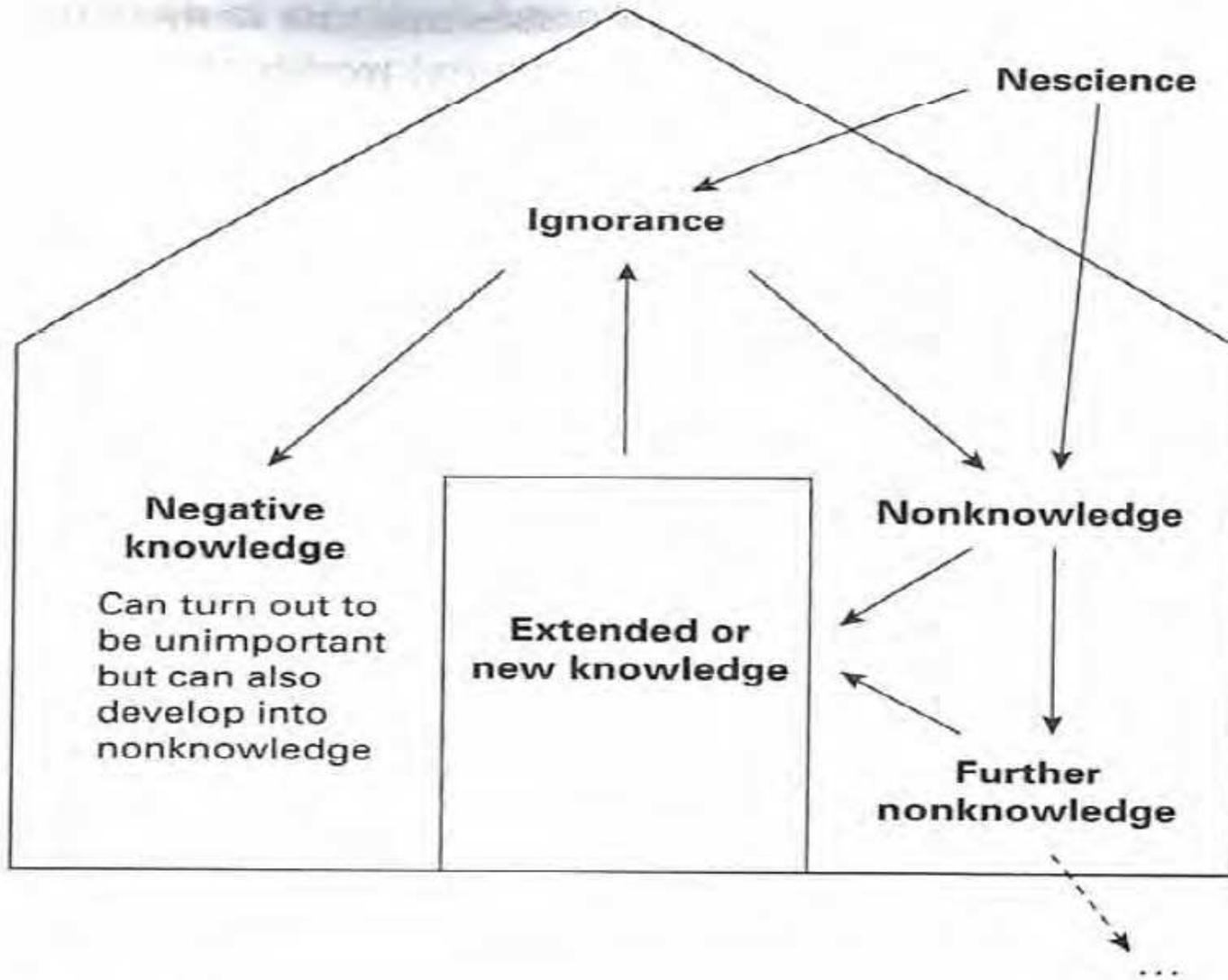
- focus on epistemology and sociology of science
- ignorance can be positive
- developing strategies for dealing with ignorance

Agnotology:

- focus on power structures
- ignorance is bad
- working against the production of ignorance

- **Ignorance** as the most far-reaching (or: deepest) type of uncertainty (Funtovicz & Ravetz 1990)





ex: Zika virus

Figure 3.1
The house of the unknown

4 types of instantiations of the ‘persistency tendency’ of established knowledge systems (Ludwik Fleck, 1930s)

1. Contradicting the system appears unthinkable / imponderable
2. What does not fit into the system remains unnoticed
3. What does not fit into the system will not be spelt out even if it is known
4. What does not fit into the system will, with great effort, be explained in a way that does not contradict the system

Result:

- system–internal harmony
- a harmony of deceptions out of which there is no way of escaping

Possible way out:

- inter-/transdisciplinarity may make an important contribution to revealing/uncovering theory- and discipline-specific ignorance
- Kuhn: at some point a paradigm shift

3. Ignorance, decision making and the public

Science and society (risk evaluation & risk prevention strategies)

European Environment Agency (EEA, 2010):

- “Acknowledge and respond to ignorance, as well as uncertainty and risk, in technology appraisal and public policy-making.”
- What in the long run undermines the public authority of science/scientific expertise/experts most is
 - a) the marginalization of ignorance
 - b) displaying the air of false scientific certainty

- „Perhaps the most fundamental general insight to emerge is that scientific uncertainty, like scientific knowledge itself when deployed to provide authority to policy, is emphatically not just a private matter for scientific bodies to autonomously resolve, define, or otherwise interpret on behalf of the public policy domain, before it is rendered visible to the public.“
(EEA-Editorial Team 2010: 185f.)
- „At first sight, responding to ignorance may seem to ask the impossible. How can strategies be devised to prevent outcomes which, by definition, are not known?“

Ignorance and research/funding agendas: science politics and the politics of science (Proctor 1995)

- “how priorities and practices are shaped by power formations, ideological gaps, interests and apathies, government and industrial support (or lack thereof), disciplinary dogmas, and professional or institutional parochialisms”
 1. Why do we know what we know, and why don't we know what we don't know?
 2. Who gains from knowledge (or ignorance!) of a particular sort and who loses?
 3. How might knowledge be different, and how *should* it be different?

Sociology of scientific ignorance

- 4 areas of research:
 1. Generating ignorance
 2. Communicating ignorance
 3. Discovering scientific ignorance
 4. Dealing with the problem of scientific ignorance

Three dimensions of ignorance

knowing about ignorance

totally unknown ignorance ← explicitly known ignorance

intentionality of ignorance

totally unintended, inevitable ignorance ← consciously intended ignorance

stability and duration of ignorance

temporary ignorance (we don't know yet) ← permanent ignorance (we cannot/possibly will never know)

4. Lunch lecture programme

So, in sum:

- Ignorance is nothing to be ignored!
- It has many fascinating dimensions, and is of great relevance in science as much as in society.

Shedding light on ignorance

including its

- epistemology (conditions, types, facets)
 - ethics (including self-censorship)
 - politics (including agenda setting, censorship),
 - economics (including campaigning power of large companies or sectors of industry),
 - sociology (including the (lacking) impact of science on society and the question what kind of knowledge society wants to share, or see produced, and which rather not)
- crucial: outreach activities

The Lunch Lecture Programme

Thursdays, 12:15 – 1 p.m., Lecture Hall 1015, KG I, University of Freiburg

<p>November 24, 2016</p>		<p>A. Ganesan (University of East Anglia, Chemistry) <i>“Epigenetics = Ubergenetics“</i></p>
<p>December 8, 2016</p>		<p>Lorenzo Kamel (Harvard University, History and Islamic Studies) <i>“Ignorance and the Middle East. Deconstructing the present through its past“</i></p>
<p>December 15, 2016</p>		<p>Olaf Rank (University of Freiburg, Business Administration) <i>“Ignorance in (Social) Networks“</i></p>

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January 12, 2017



Dustin Breitenwischer (University of Freiburg, American Studies)
“Knowing, not Knowing and the Quest for Understanding: Ignorance and Literary Hermeneutics”

January 26, 2017



Diego Vazquez (Argentine Institute for Dryland Research, CONICET; and National University of Cuyo; Biology)
“Poking our ecological ignorance”

February 9, 2017



Bernhard Spielberg (University of Freiburg, Catholic Theology – Pastoral Theology/Practical Theology)
“God”

Ignorance – what we don't know



FRIAS Lunch Lectures
Every second **Thursday**
Lecture Hall **HS 1015**
12:15 - 1 p.m.

Starting November 10, 2016

China → Japan: 'to wisely ignore bad/evil things'

Western reinterpretation: 'to refuse to acknowledge what is bad/evil'