FLARE Summerschool 2012

The project „Discourse: Biogerontology“

A course to stimulate the discussion on biogerontology
- Concepts and experiences -

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The project:

**Discourse ELSA*: Biogerontology**
Ethical, legal & social implications of biological ageing research and its potential medical applications

*ELSA = Ethical, Legal, Social Aspects

- **Funding**: German Federal Ministry of Education & Research (BMBF)
- **Duration**: February 2012 – January 2013
- **A cooperation of**:  
  - **Julia Dietrich**, International Centre for Ethics in the Sciences and Humanities (IZEW), University of Tübingen  
  - **Hans-Jörg Ehni**, Institute for Ethics and History of Medicine, University of Tübingen
...the project:

Project partners:

- **Biogerontology**: David Gems (London), Wilfried Briest (Jena)
- **Geriatrics**: Gerhard Eschweiler (Tübingen)
- **Medical ethics**: Maartje Schermer (Rotterdam)
- **Ethics**: Uta Müller (Tübingen)
- **Philosophy**: Thomas Rentsch & Morris Vollmann (Dresden), Michael Fuchs (Bonn)
- **Law**: Sebastian Graf von Kielmansegg (Mannheim)
- **Social gerontology**: Hans-Joachim von Kondratowitz (Berlin), Wolfgang Schlicht (Stuttgart)
- **Theology & psychology**: Ralf Lutz (Tübingen)
• Aim of the project:

Stimulating public discourse & research on ethical, legal & social aspects of biogerontology & its potential medical applications

• How to stimulate the discourse?

Instead of a big event (e.g. parliament of stakeholders):

→ 8 smaller courses for potential multipliers
  (~12 sessions of 90 min)
The development of the course

1. **Defining the curriculum**: Interdisciplinary research workshop

2. **Testing, evaluating and developing the course**:  
   - **1st wave**: 1 course with students of teacher training (Tübingen)  
   - **2nd wave**: 7 more courses:  
     - 6 with (PhD) students of Medicine (Tübingen)  
     - Biogerontology (Jena)  
     - Philosophy (Dresden, Bonn)  
     - 1 with seniors (Tübingen)  
     - Teacher training (Tübingen)  
     - Gerontology (Stuttgart)

3. **Dissemination**: Guide book with course material, publications, PR

→ **A project at the interface between**:  
   - Research  
   - Didactics & teaching  
   - Public relations
Overview

• Why stimulate a discourse on biogerontology?
• What should the participants learn – and why and how?
  - What? Defining learning contents
  - Why? Giving reasons for the definition of learning contents
  - How? Didactic implementation
• Experiences from our 1st course
Why stimulate the discourse on biogerontology?
Why stimulating the discourse?

- **Echo from an old debate?**
  - US, UK: Debate started in 2003
  - Germany: Calls for debate in 2009

- **Why is it better to have a discourse?**
  - Ageing as a normative question
  - Science as part of society
  - Discourse as part of democracy

- **What can we achieve?** „Our discussions won't change anything.“
  - But 1st course changed:
    → Sensibility for perceiving ethical questions of ageing
    → Attitudes towards ageing and biotechnology
    → Political interests

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**Examples from:**

**Angloamerican literature:**
- Jungst/Binstock 2003
- President’s concil on bioethics 2003
- Vincent 2003

**German literature:**
- Ehni/Marckmann 2008
- Knell/Weber 2009
- Fraunhofer ISO/IAO 2009
What should the participants learn – and why and how?
Fundamental question of didactics:

What should be learned – and why and how?

- **What?** Learning contents: Knowledge & competences
- **Why?** Explicating normative assumptions in the definition of learning contents
- **How?** Didactic methods, learning material

What? Why? How? in the four fields our topic touches...

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<tr>
<th></th>
<th>what</th>
<th>why</th>
<th>how</th>
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<tbody>
<tr>
<td>Biogerontology</td>
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<td>Ethical aspects</td>
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<td>Legal aspects</td>
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<td>Social aspects</td>
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...in order to participate competently in a discourse on biogerontology?
General learning objectives:

- Not a specific opinion on biogerontology
- But: Knowledge & competences for substantiated opinion:
  - Critical basic understanding of biogerontology
  - Basic understanding of the multidimensionality & heterogeneity of ageing
  - Basic ethical competences
- Why? → What is a good discourse?
  - Informed, non reductionist understanding of biogerontology and ageing
  - Normative premises should be explicated, substantiated & put in relation to differing normative premises
Focus:
A critical basic understanding of biogerontology
What should the participants learn – and why and how?
1st step: Which aspects of biogerontology are relevant to learn?

Result of our kick-off workshop:

1. The biogerontological phenomenology of ageing
   → What is ageing?

2. Goals of biogerontology
   → How should ageing be?

3. Potential medical applications of biogerontology
   → What to do about ageing?
Which aspects of biogerontology are relevant to learn?

1. The biogerontological phenomenology of ageing:

- **Focus**: biological aspects of ageing
  → there are also other aspects & gerontological disciplines

- **Mechanisms**: Ageing = accumulation of cellular & molecular damage
  → Important progress, but still far from “decoded”
  → Molecularization, damage, mutability

- **Evolutionary theory**: Ageing is not of evolutionary advantage
  → antropological importance (meaning of ageing)

- **Relation between ageing & disease**: Causal? Identical?
Which aspects of biogerontology are relevant to learn?

2. The goals of biogerontology:

• Intra-disciplinary discussion
• Reformulation of the goal:
  – Not “only” understanding,
  – but also intervening.
• Goal of intervention:
  – Not abolishing ageing!
  – But compression of morbidity, extension of healthy lifespan
  – Side effect: extension of average & maximum lifespan
Which aspects of biogerontology are relevant to learn?

3. Potential medical applications of biogerontology:

- No applications yet, but research strategies to identify promising paths of intervention
- **Three general approaches:**
  - Geriatric innovations
  - A new strategy of intervention: Slowing biological ageing
    → a long, uncertain way from research to practices
  - Measuring ageing → risk profiles → personalized prevention
2nd step: Why are exactly these aspects of biogerontology relevant to learn?

Not mere description of the state of research.

→ Also: relevant for ethical, legal, social implications.
**Why are exactly these aspects of biogerontology relevant to learn?**

<table>
<thead>
<tr>
<th>Phänomenology</th>
<th>Why?</th>
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<tr>
<td><strong>What is ageing? Which value has ageing?</strong></td>
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<td>- <strong>E + S</strong>: Ageing is not only biological decline &amp; also good. → A medical solution is not sufficient or bad</td>
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<td>- <strong>E</strong>: Ageing is no disease. (disease = normative concept) → Treating ageing is beyond traditional goals of medicine</td>
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<td>- <strong>L</strong>: Is ageing a disease? → Disease is criterion for a) insurance coverage, b) clinical trials</td>
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<td>- <strong>S</strong>: Reproduction of reductionistic, images of ageing (discrimination?)</td>
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E: ethical aspects, L: legal aspects, S: social scientific aspects
**Why are exactly these aspects of biogerontology relevant to learn?**

<table>
<thead>
<tr>
<th>What?</th>
<th>Why?</th>
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<tr>
<td>Goals</td>
<td>- <strong>E + S</strong>: What is good ageing? / What is quality of life in old age?</td>
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<td>- <strong>E + S</strong>: Would positive or negative consequences for individual and society prevail? (Suffering, resources, costs etc.)</td>
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<td>- <strong>S + E + L</strong>: Are the goals just? (unequal access, health inequalities in old age)</td>
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E: ethical aspects, L: legal aspects, S: social scientific aspects
### Why are exactly these aspects of biogerontology relevant to learn?

<table>
<thead>
<tr>
<th>What?</th>
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<tr>
<td><strong>Potential applications</strong></td>
<td><strong>What shall we do about ageing?</strong></td>
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<td></td>
<td>- E + S: Interventions into ageing: In accordance with what ageing is and should be?</td>
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<td></td>
<td>- E + L: Research ethics: animal trials, clinical trials</td>
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<td></td>
<td>- S: Individualized prevention: Shift of responsibility?</td>
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E: ethical aspects, L: legal aspects, S: social scientific aspects
3rd step:
How to teach a
critical basic understanding of biogerontology?
Didactic framework

- **Scope**: 4 of 12 sessions (90min) primarily on biogerontology
  - Also other learning contents
  - Compatible with usual scope of courses

- **Interdisciplinarity**: Also for participants with no prior knowledge on biogerontology
  - Also teaching competences in acquiring an overview on an unfamiliar scientific field
  - Four different methods….
Session 1:
Reflecting on a newspaper article on biogerontology

Learning material:
Newspaper article by David Gems (NZZ, 11 March 2012)

Learning objectives:
- Interdisciplinary literacy:
  - Science journalism as source of information
  - Critical reflection on media coverage
- Understanding biogerontology:
  - Preliminary understanding of the case
  - Preliminary ethical questions
- Ethical reflection:
  - Ethical theories (virtue ethics, utilitarianism, deontological ethics)
  - Which questions arise from the different perspectives?

Learning activities:
- Writing an essay
- Group work with presentation
- Plenary discussion
Session 4: Analysing a biogerontological article written for a lay audience

Learning material:
- Dietrich 2004: Ethical judgement: Descriptive premises + prescriptive premises = Judgement

Learning activities:
- Presentations on the texts
- Group work: “Finding syllogisms“
- Plenary discussion

Learning objectives:
- Interdisciplinary literacy:
  - Popular articles by experts as a source
- Understanding biogerontology:
  - Deeper understanding of Gems’ concept
  - History, differenterent strands, discussion on aims
- Ethical reflection:
  - (Ethical) Judgements: practical syllogism (Description + prescription = judgement)
  - Formulation of aims is not only descriptive but normative. Explicating normative assumptions
Session 5:
Asking an expert on evolutionary theory of ageing

Learning material:
Texts on evolutionary theory by
• Gems (2009) “What is ageing good for?” (29-31)
• Kirkwood (2005): “Why ageing occurs” (p 72-74)

Learning activities:
• Expert’s lecture
• Plenary discussion with expert

Learning objectives:
• Interdisciplinary literacy:
  – Asking experts as a source of information
• Understanding biogerontology:
  – Going into detail with one aspect, showing the complexity of the phenomenology
  – Relativating Gems’ position
• Ethical reflection:
  – The question “What is ageing good for?” goes beyond biological description.
Session 7: Group research: Analysing primary literature on goals of biogerontology

Learning material:
- 6 primary sources
  - 3 German, 3 UK/US
  - 4 texts, 2 websites
  - 1 political, 5 scientific

Learning activities:
- Group research on
  - Goals of biogerontology
  - Medical interventions
- Plenary discussion

Learning objectives:
- Interdisciplinary literacy:
  - Primary literature as a source of information
- Understanding biogerontology:
  - Diversity of goals & interventions
  - Political, economic influences
  - German sources more moderate
  - Applications in very early stage of development
- Ethical reflection:
  - Critique of utilitaristic arguments: Consequences are uncertain
Reflection on the first course
Reflection on the first course

- **Not easy to develop critical perspective on biology,** much more critical regarding social science & philosophy
  - → Didactic revision: Students’ activities AND teachers’ input
- **Evaluation of learning progress on biogerontology:**
  - The students’ impressions:
    - Acquired sufficient knowledge and want to know more
    - Many felt able to follow the discussion or even teach it
  - The teachers’ impressions:
    - Good descriptions in final writing task (Caution e. g. with goals, other disciplines, ageing & disease)
    - For the scope of the course: Sufficient basic understanding of biogerontology
References


References


Thank you!
What do you think?