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# Our responsibility towards future generations

Lars Löfquist, PhD  
Theology Department





# Outline of the lecture

1. The concept and sphere of moral responsibility
2. Theories about how future generations (FG) can be included in the sphere of responsibility
3. Principles that capture what the responsibility require from us
4. Nuclear waste management





# What does it mean to be responsible?



1. Causal: "I helped my son to climb the tree that he later fell down from"
2. Legal: "I am guilty of treating my son neglectfully according to the Swedish law"
3. Moral (after fact): "I should be blamed by other people for helping my son to climb a tree"
4. Moral (before fact): "I should protect and help my son but avoid putting him in tree where he can get hurt if he falls down"



# The sphere of responsibility

- Exactly who are we responsible for?
- Who should count as a object for responsibility, i.e. who has moral status?
- Current issues
  - How to include people living in other countries?
  - How to include animals?
  - How to include eco-systems?
- What about future generations? Can they be included in the sphere of responsibility?



# Who are Future Generations anyway?



## **Morlocks! Ugly ape-like-people who eat other people**

Inhabitants of earth in the year A.D. 802,701 according to science-fiction writer H.G. Wells, from the book *The Time Machine* (1895)



# Characteristics of Future Generations

- We will never meet or know them (If not Wells turns out to be right...)
- They might be a very large group (If we do not end human life by nuclear war...)
- We can hurt them but they cannot hurt us (But they might talk bad about us...)
- We do not know much about their preferences, values or needs (What did people 500 years ago know about us?)



- Two basic ethical problems:
  - Why are we suppose to care for FG?
  - What are we suppose to do for FG?
- Ethical theories provides answers to these questions
- Important: It is not certain that we agree about the answers to these questions. Plus: Why should caring about other people be a matter of democratic decisions...



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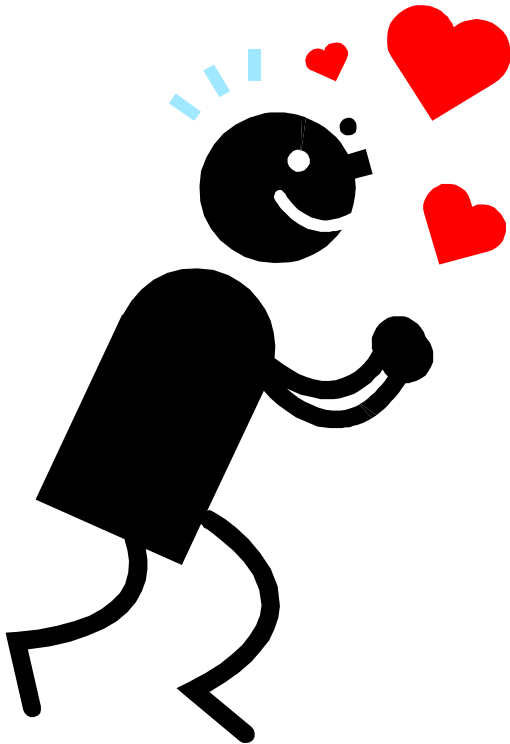
The motivational issue:  
Why care about  
future generations?







# Jonathan Passmore – Love



- Generations are bound by chains of love
- I love my children – they will love their children → I should love my grandchildren
- We have indirect a responsibility to care for FG because we care about our own children
- Pro: Captures the importance of parent feelings
- Con: Love is not a transitive feeling! I do not love someone just because somebody I love love that person.



# John Rawls – Contractualism



- Society is governed by a hypothetical contract between the citizens
- Everybody's interests should effect the rules governing society and everybody should benefit
- The contractual parties should be seen as without knowledge of their own specific life and interests
- Pro: Captures the idea of treating people equally and that we should not let our biases shape the rules of society.
- Con: Can we even imagine a contact between the generations? And what rules would different generations agree to?



# Avner De-Shalit – Community



- We are all part of a trans-generational community – stretches over the generations into the past and the future
- Our own identity is formed by being part of this group which provides meaning for our lives
- Pro: Fits with our understand of humans as social beings – the community is important for the individual
- Con: What about caring for FG that will not be part of my community? How long time does the community extend into the future?



# How far into the future?

## **Sphere of responsibility:**

Passmore – 3 generations...

Rawls - how many generations can be part of the contractual parties...?

De-Shalit – 10 generations...

## **Problems:**

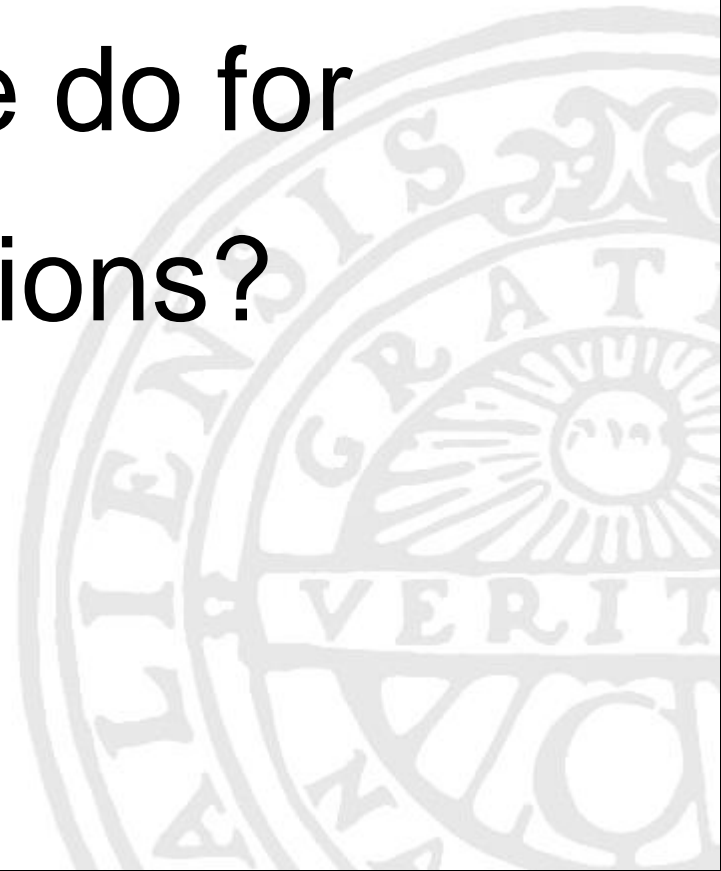
Nuclear waste – hazardous for 3000+ generations

Climate change – permanent change affect all generations



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The normative issue:  
What should we do for  
future generations?





# Two normative principles

1. Just savings principle (what to achieve)
  - Each generation should save (capital, resources, nature...) for the generations coming after it
2. Precautionary principle (what to avoid)
  - Each generation should avoid doing anything that might harm future generations



# Case study: Nuclear waste

## The waste right now



Source: SKB

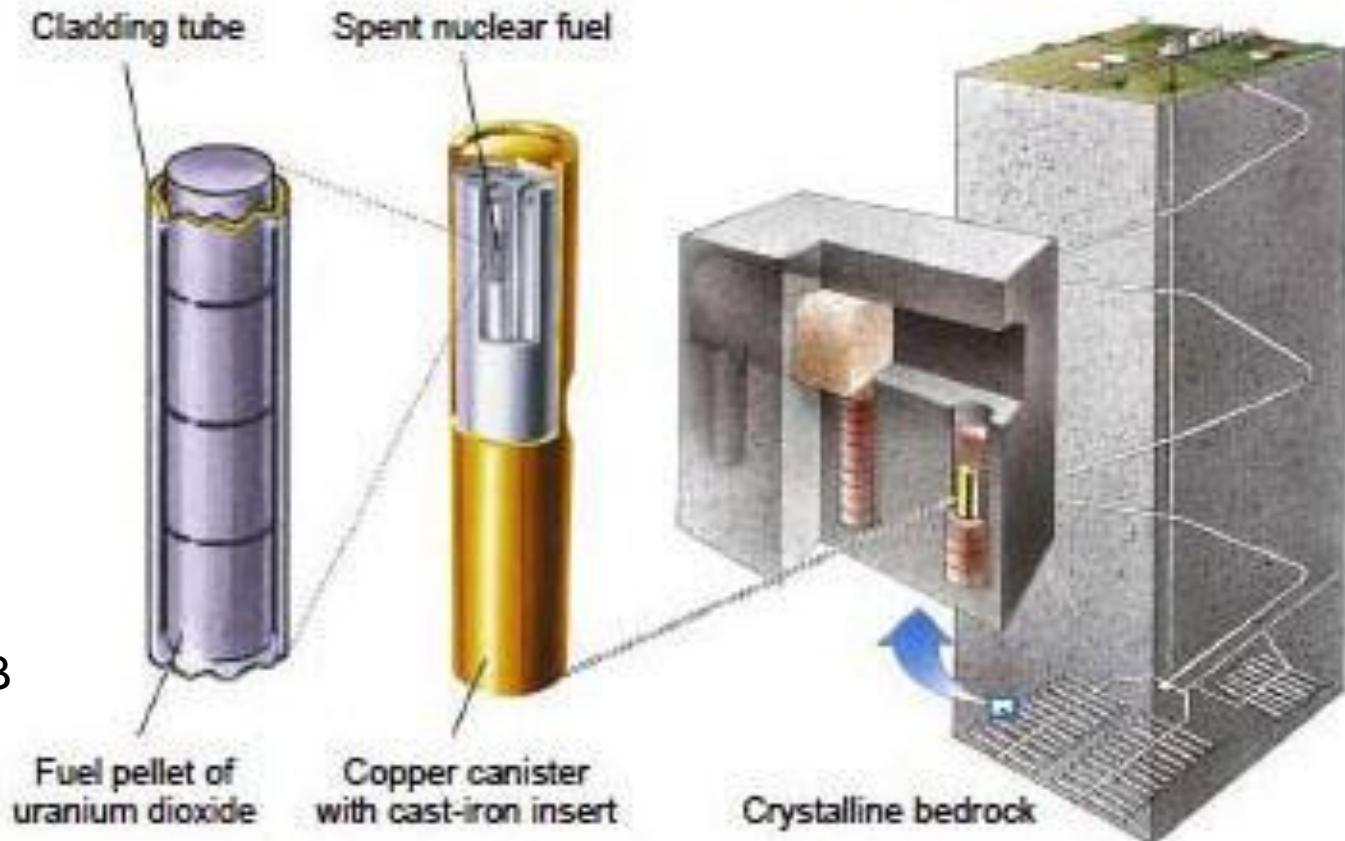
## The problem

- Dangerous for at least 100 000 years
- Sweden alone has several thousand tons of Spent Nuclear Fuel = High Level Waste
- Stored and cooled in the CLAB facility 30 meters underground



# Nuclear waste deposit method: KBS-3

## The KBS-concept



Source: SKB





# What to do with the nuclear waste?

## The Challenges:

1. Epistemological: Do we *know enough* to build a storage facility that will function 100 000 years?
2. Moral: Can we *guarantee* that future generations will face no accidental nuclear contamination?

## The Answers:

1. We know that deep rock formations are *very stable* and that several independent barriers *can make* the facility more robust.
2. We can achieve a *very low level* of risk that future generations will face accidental nuclear contamination.



# What is acceptable risk?

## Transportation



Source: US Department of Transportation

## Nuclear Power

- Acceptable risk for nuclear core damage in a design (US Nuclear Regulatory Commission): 1/10 000 per reactor year
- Actual core damage accidents: 1/4 833 reactor years (Three Mile Island, Chernobyl, Fukushima)

Source: World Nuclear Organization



# Summing up

- Ethical theories provide ways of explaining our responsibility to *close* future generations.
- Still difficult to imagine the foundation and implication of responsibility to *remote* future generations.
- Even if we all agree that we should care for future generations – we can still disagree about what to do.
- Nuclear waste illustrates this disagreement – What level of risk would you say is adequate for following the precautionary principle?



# Discussion questions

1. According to you, why is it morally correct or morally incorrect for present people to generate high level nuclear waste?
2. Who should decide how we should manage the nuclear waste and the level of risk that is acceptable?
3. Besides climate change and nuclear waste, what other actions by present people are deeply problematic for future generations and why?