

„Common Morality“ Approaches for Ethics of Radiological Protection

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1. The imperative for „common morality“

The last century witnessed an unprecedented globalization, and many societal issues now appear in a new light.

Radiological protection is a global issue – it has been from its very beginning, and will certainly continue to be in the future.

We must therefore make sure that the values and principles underlying our system of radiological protection are understandable and acceptable around the world.

1. The imperative for „common morality“

	FIRST USE OF X-RAYS IN DIAGNOSIS
1895	Nov 8 th - Discovery of X-ray
1896	United Kingdom (incl. Ireland), France, Italy, Germany, Portugal, Czech Rep., Rep. of China, Australia, Japan, New Zealand, USA, Hungary, Poland, Russia, Austria
1897	Malaysia, South Africa, Slovakia
1898	Norway, Singapore, Thailand
1900	Belgium, Canada
1901	Finland
1903	Netherlands
1905	Spain
1906	Bulgaria
1910	Hong Kong, Uganda
1913	Korea
1914	Iceland
1923	Egypt
1925	Indonesia
1926	Sri Lanka
1928	Albania
1930	Jamaica
1932	Trinidad & Tobago
1937	Kenya
1938	Peru
1940	Tanzania, Nigeria
1945	Philippines

1. The imperative for „common morality“

Nuclear power reactors in operation:
world-wide 434, Asia, Africa and the Middle East 115

Nuclear power reactors under construction:
world-wide 64, Asia, Africa and the Middle East 43

Nuclear power reactors planned:
world-wide 160, Asia, Africa and the Middle East 102

1. The imperative for „common morality“

(1)

The system of radiological protection must be cross-culturally understandable and acceptable, its values and principles must be based on „common morality“

2. Principles of Biomedical Ethics

One of the most widely used frameworks of biomedical ethics is the one developed by Beauchamp and Childress (1979).

It is based on four principles

- 1) Respect for Autonomy
- 2) Non-Maleficence
- 3) Beneficence
- 4) Justice

This is thought to be part of “common morality”, i.e. “not relative to cultures or individuals, because it transcends both”.

2. Principles of Biomedical Ethics

The four principles have *prima facie* validity,
i.e. they apply as long as there is no conflict between them.
If there is, they need “balancing”.

The principles also need “specification” in order to use them
in different contexts.

All this is the subject of detailed discussion in
Beauchamp and Childress’s book.

2. Principles of Biomedical Ethics

There is some discussion in the literature as to whether these four principles are sufficient, or further principles are needed, especially when it comes to questions of Public Health.

S.S. Coughlin (2008) How Many Principles for Public Health Ethics?
Open Public Health Journal 1, 8-16

P. Schröder-Bäck et al. (2014) Teaching seven principles for public health ethics.
BMC Medical Ethics 15, 73-82

A. Jameton (2010) Environmental Health Ethics.
in: H. Frumkin (Ed.), Environmental Health, Jossey Bass, pp.195-226

2. Principles of Biomedical Ethics

(2)

The approach of Beauchamp and Childress could become a model for the ethics of radiological protection, in that we try and identify relevant principles which constitute “common morality”

3. Cross-cultural validation of principles

Beauchamp and Childress are not interested in the sources of “common morality”. They just claim that “all persons committed to morality” would agree with their four principles.

In my view, fundamental orientation has been provided throughout the ages by the written and oral traditions of the different cultures, and these continue to be of great influence for people not versed in “Western” secular philosophy.

3. Cross-cultural validation of principles

It can be shown that the four Principles of Biomedical Ethics
are endorsed by
the Sacred Scriptures of all the world's great religions,
the works of philosophers such as Confucius or Aristotle,
as well as the oral traditions of indigenous peoples.

F. Zölzer (2013) A Cross-Cultural Approach to Radiation Ethics.
in: D. Oughton and S.O. Hansson (Eds.), Social and Ethical Aspects of Radiation
Risk Management. Elsevier Science, pp. 53-70.

3. Cross-cultural validation of principles

Beyond these four, I would like to argue that another four, which have particular relevance for radiological protection, are as widely accepted:

- 5) Human dignity
- 6) Precaution
- 7) Sustainability
- 8) Solidarity

They may not be completely independent, but rather derived from or related to the ones proposed by Beauchamp and Childress, but I think they should be made explicit.

3. Cross-cultural validation of principles

5) Human Dignity <—> Respect for Autonomy

Human dignity seems to be the broader concept of the two, also encompassing, for instance, non-discrimination.

“I am the same to all beings. In a Brahmin or an outcast, the wise see the same thing.” (Baghavaddgita)

“Do we not have one father? Has not one God created us?”
(Malachi)

“We have conferred dignity on the children of Adam... and favoured them far above most of Our creation.” (Muhammad)

3. Cross-cultural validation of principles

6) Precaution <—> Non-maleficence

“When an activity raises threats of harm to human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.”*

“The cautious seldom err.” (Confucius)

“Act like a person in fear before the cause of fear actually presents itself”
(Mahabharata)

“Tie up your camel first then put your trust in God.” (Muhammad)

*Wingspread Statement on the Precautionary Principle, 1998

3. Cross-cultural validation of principles

7) Sustainability <—> Beneficence

„To meet the needs of the present without compromising the ability of future generations to meet their own needs.“*

„I'm establishing my covenant between me and you, and with your descendants who come after you, generation after generation.“ (Genesis)

“Now that we are aware of the dangerous factors, it is very important that ... we think of the kind of world we are to bequeath to future generations.” (Dalai Lama)

“I conceive that land belongs to a vast family of whom many are dead, a few are living, and countless hosts are still unborn.” (Nigerian chief)

* Report of the Brundtland Commission, Our Common Future, 1987

3. Cross-cultural validation of principles

8) Solidarity <—> Justice

Solidarity refers to social cohesion in general and the concern for the least-advantaged members of society in particular.

“Exemplary people help the needy and do not add to the wealth of the rich.”
(Confucius)

“When you refused to help the least of these my brothers and sisters,
you were refusing to help me.” (Jesus Christ)

„If ye fail to safeguard the rights of the downtrodden, what right have ye then to
vaunt yourselves among men.“ (Bahá‘u‘lláh)

3. Cross-cultural validation of principles

(3)

A „common morality“ can be established
by studying the written and oral traditions
which have guided people of
different cultures over the ages.

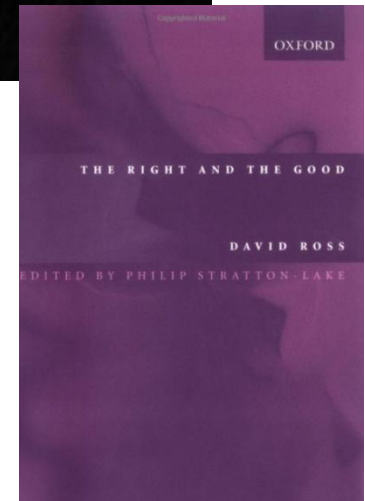
4. Alternative approaches

From C. Clement's presentation
at the Milan Workshop

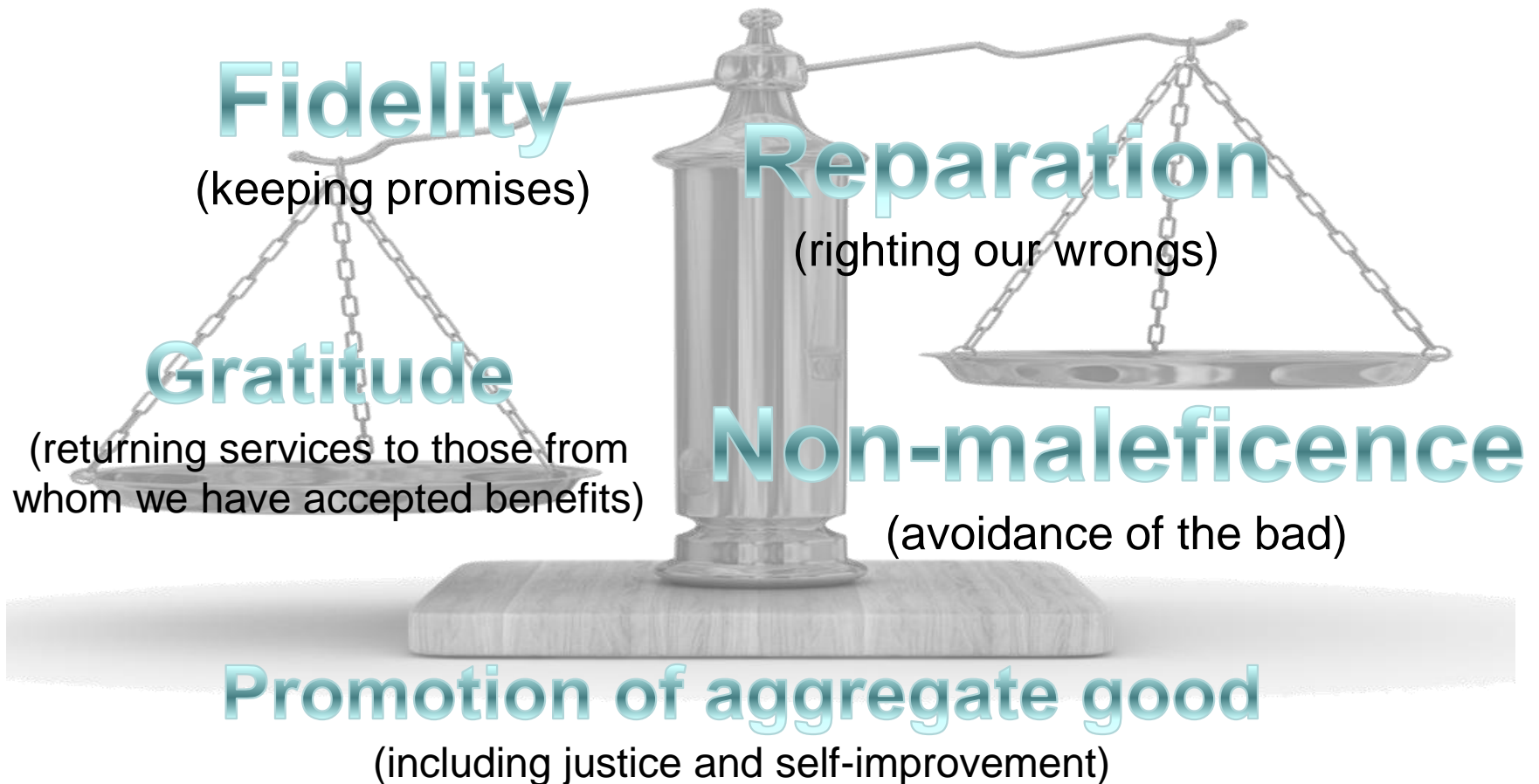
W.D. Ross (1877-1971):
“The Right and the Good” (1930)

Ethical intuitionism


Emphasises the complexity of
ethical decisions



4. Alternative approaches



4. Alternative approaches



**What is right is a matter of
balancing potentially
conflicting responsibilities
(values)**

4. Alternative approaches

Is moral intuitionism cross-culturally convincing?
Do people perceive their morality as a matter of intuition?

Are moral intuitions similar around the world?
If so, is it because these intuitions are part of human nature,
or rather because people have been educated according to
the same principles everywhere?

Then where do these principles come from?
What are the sources that have provided orientation in
moral questions over the centuries?

4. Alternative approaches

From Toohey's abstract for the 2nd Budweis Symposium:

Zölzer has suggested a „common morality“ exhibited by the world's religions could be one basis of a globally accepted ethical system.

This paper proposes a more fundamental basis from evolutionary psychology, the concept of mutual altruism, introduced by Trivers (1971) and further developed by Wilkinson (1982, 1984) and Stephens (1996).

4. Alternative approaches

R. L. Trivers (1971) The evolution of reciprocal altruism.
Quarterly Review of Biology 46:35-57

Altruism, defined as an act of helping someone else although incurring some cost for this act, could have evolved since it might be beneficial to incur this cost if there is a chance of being in a reverse situation where the person whom I helped before perform an altruistic act towards me.

4. Alternative approaches

From Toohey's abstract for the Budweis Symposium:

The principle of reciprocal altruism forms the basis for much of religious common ethics, being codified as the „golden rule“. Because reciprocal altruism is a product of human evolution, it is common to all human societies, and therefore can serve as a global basis for ethical systems.

4. Alternative approaches

How is it that in spite of a long history, anthropological approaches to ethics (tracing back moral principles to the „human condition“) have not led to undisputed results?

Even if we agree that reciprocal altruism is an „evolutionary stable trait“ and therefore universal, does that mean it is understood and practiced in the same way everywhere?

Therefore, if we wanted to establish „common morality“, would we not still have to see to what extent and in what sense people from different cultural backgrounds agree about the concept of „reciprocal altruism“?

4. Alternative approaches

(4)

Moral intuitionism and evolutionary ethics may come to similar conclusions about “common morality” as the cross-cultural approach, but do not make it redundant.

5. Ethics of radiological protection

PRINCIPLES OF BIOMEDICAL ETHICS	RELATED GENERAL PRINCIPLES
Respect for autonomy	Human dignity
Non-maleficence	Precaution
Beneficence	Sustainability
Justice	Solidarity

5. Ethics of radiological protection

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Note: In the original image, a red bracket groups 'Non-maleficence' and 'Beneficence' on the left, and 'Precaution' and 'Sustainability' on the right, with the word 'Prudence' placed to the right of the right-hand bracket.

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5. Ethics of radiological protection

How are the three principles of radiological protection related to these four (or five) ethical principles?

Justification - Any decision that alters the radiation exposure situation should do more good than harm.

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Non-maleficence and Beneficence

5. Ethics of radiological protection

How are the three principles of radiological protection related to these four (or five) ethical principles?

Optimization - The likelihood of exposure, the number of people exposed and the magnitude of their individual doses shall be kept as low as reasonably achievable, taking into account economic and societal factors.

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Prudence and Justice

5. Ethics of radiological protection

How are the three principles of radiological protection related to these four (or five) ethical principles?

Application of dose limits - The total dose to any individual from regulated sources in planned exposure situations other than medical exposure of patients should not exceed the limits specified

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Dignity and Justice

6. Behavioural and procedural ethics

For questions of risk communication,
principles of behavioural and procedural ethics
are of importance:

- 9) Honesty
- 10) Accountability
- 11) Empathy
- 12) Participation

They, too, can be cross-culturally validated.

6. Behavioural and procedural ethics

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Respect for autonomy	Human dignity	Honesty
Non-maleficence	Precaution	Accountability
Beneficence	Sustainability	Empathy
Justice	Solidarity	Participation

6. Behavioural and procedural ethics

PRINCIPLES FOR RADIOLOGICAL PROTECTION	PRINCIPLES FOR RISK COMMUNICATION
Human dignity	Honesty
Non-maleficence / Beneficence	Empathy
Prudence	Accountability
Justice	Participation