

A „Common Morality“ Approach for Ethics of Radiation Protection in Medicine

Friedo Zölzer

Department of Radiologie, Toxicology, and Civil Protection
Faculty of Health and Social Studies
University of South Bohemia in České Budějovice

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1. The imperative for „common morality“

The moral philosophy underlying the recommendations of the International Commission of Radiological Protection (ICRP) is not always made explicit.

Elements of utilitarian and deontological ethics, sometimes of virtue ethics have been identified.

Question: Is it appropriate in a more and more globalized world to base the recommendations of an international advisory body such as ICRP on particular theories of “Western” ethics?

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1. The imperative for „common morality“

World Region	Population (2006, estimated)	Population % of total
Africa	915 million	14.1 %
Asia	3,668 million	56.4 %
Europe	807 million	12.4 %
Middle East	190 million	2.9 %
North America	331 million	5.1 %
Latin America / Caribbean	554 million	8.5 %
Australia / Oceania	34 million	0.5 %
WORLD TOTAL	6,500 million	100.0 %

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1. The imperative for „common morality“

Number of examinations with computer tomography (CT)
in selected countries as of 2011 (per 1,000 inhabitants)

Greece	320
US	274
Luxemburg	199
France	154
Canada	127
Israel	127
Korea	119
Germany	117
Turkey	112
Australia	91

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1. The imperative for „common morality“

(1)

Ethics in the world today cannot be exclusively “Western” ethics

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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) Autonomy
- 2) Non-Maleficence
- 3) Beneficence
- 4) Justice

These are thought to be rooted in “common morality”, i.e. “not relative to cultures or individuals, because it transcends both”.

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2. Principles of Biomedical Ethics

The four principles have *prima facie* validity, which means that 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 apply them in different contexts.

How to do all this is the matter of long discussions in Beauchamp and Childress’ book.

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2. Principles of Biomedical Ethics

Assuming that the principles of biomedical ethics proposed by Beauchamp and Childress are indeed part of “common morality”, can they be of use in the context of radiation protection?

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2. Principles of Biomedical Ethics

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

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.

seem to be related to Non-Maleficence and Beneficence

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2. Principles of Biomedical Ethics

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 by the Commission

seems to be related to Autonomy and Justice

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2. Principles of Biomedical Ethics

(2)

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

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3. Cross-cultural validation of principles

What are the sources of „common morality“?

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.

Fundamental for our purpose are therefore the Sacred Scriptures of the world's great religions, time-honoured philosophical works such as those of Confucius or Aristotle, as well as oral traditions of indigenous peoples.

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3. Cross-cultural validation of principles

It can be shown that the four Principles of Biomedical Ethics

1) Autonomy – Human Dignity

2) Beneficence

3) Non-maleficence

4) Justice

are indeed highly respected in virtually all cultural contexts.

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3. Cross-cultural validation of principles

Beyond these four, I have argued that at least the following three are also widely accepted:

5) Concern for the underprivileged

6) Intergenerational Equity

7) Precaution

These may be of less importance for medical radiation protection.

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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.

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4. Further „common morality“ principles?

For questions of risk communication, not to be neglected in medical radiation protection either, I suggest the following four are of particular importance:

- 8) Honesty
- 9) Empathy
- 10) Participation

They, too, can be cross-culturally validated.

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4. Further „common morality“ principles?

8) Honesty

also: truthfulness, trustworthiness, frankness and openness

„It is unethical to not communicate the uncertainty in knowledge.” (Lambert, 1999)

„If in doubt, lean toward sharing more information, not less.“
(Covello, 2003)

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4. Further „common morality“ principles?

“It is always proper to speak the truth.” (Hinduism)

“Be a straightforward person... open and honest.” (Buddhism)

„Every day I examine myself... have I always been true to my word?” (Confucius)

“My lips will not speak falsehood, and my tongue will not utter deceit.” (Judaism)

„Let your communication be, Yea, yea; Nay, nay.” (Christianity)

„Have fear of God, and be among the truthful.” (Islam)

“Truthfulness is the foundation of all human virtues.” (Bahá'í Faith)

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4. Further „common morality“ principles?

9) Empathy

„Avoid using distant, abstract, unfeeling language when discussing harm, deaths, injuries, and illnesses.“

(Covello, 2003)

„Information being seen as true is not enough; it must be framed in a manner that bears an acceptable social meaning.“

(Kahan et al., 2007)

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4. Further „common morality“ principles?

“Who is incapable of hatred toward any being, who is kind and compassionate, free of selfishness... he is My beloved.” (Hinduism)

“It would not be true to say that the cultivation of loving kindness and compassion is part of our practice. It... is all of our practice.” (Buddhism)

“Loving kindness is greater than laws; and the charities of life are more than all ceremonies.” (Judaism)

“Be of one mind, sympathetic, loving toward one another, compassionate, humble.” (Christianity)

„You won't be true believers unless you have... mercy or compassion to all.” (Islam)

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4. Further „common morality“ principles?

10) Participation

„Before taking action, find out what people know, think, and want done about risks.“ (Covello, 2003)

„Create and maintain partnerships with all stakeholders.“
(Heath, 2006)

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4. Further „common morality“ principles?

“Meet together, speak together, let your minds be of one accord...
May your counsel be common, your assembly common, common the mind,
and the thoughts of these united.” (Hinduism)

“When big things are at stake, the danger of the error is great.
Therefore, many should discuss and clarify the matter together,
so the correct way may be found.”
(Shotoku Taishi, first Buddhist ruler of Japan)

Variations of participatory decision-making were known
in the Greek polis, in similarly structured city states in Asia,
in the primitive Christian community, and in the early Muslim state.

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4. Further „common morality“ principles?

My current list of principles relevant for radiation protection is therefore:

- 1) Human Dignity
- 2) Beneficence
- 3) Non-Maleficence
- 4) Justice

- 5) Concern for the underprivileged
- 6) Intergenerational equity
- 7) Precaution

- 8) Honesty
- 9) Empathy
- 10) Participation

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5. Possible applications

J. Malone and F. Zölzer,
Pragmatic Ethical Basis for Radiation Protection in Diagnostic Radiology,
in preparation

The scenarios and discussion which follow are informed by the „common morality“ approach. It is not envisaged, however, that the well-established system of radiation protection should be superseded. Rather, we assume that practitioners and health professionals employing radiology will generally be more familiar with an approach grounded in medical ethics, more easily and fluently relate to it, and apply it with greater ease and conviction to decision making during their daily work. This applies even where the professionals involved are not expert in ethics, as the language involved is more familiar, whereas the language from radiation protection often seems arcane and mysterious to those not directly involved in its development.

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Scenario 1: Orthopaedic Clinic

- Orthopaedic surgeon Mr B., weekly public clinic in large hospital. New and follow up. Injuries and elective.
- He insists every patient be sent to radiology by the nurse, and will not see a patient without a film folder or DVD from radiology.
- Proud of efficient patient centred service

Dignity Autonomy	Non Maleficence Beneficence	Justice	Precautionary Principle	Openness, Transparency
(Y)	-	(Y)	-	-
N	N	N	N	N

Scenario 5: Non-Medical Exposure

- Woman (28) at Airport. Sniffer finds small amount of drugs in hand luggage. Suspicion she may be mule. Refuses permission and potentially pregnant. Customs officer insists and hospital does the scan. She is pregnant and no drugs.
- New EC Basic Safety Standards reclassifies; note some expediency.
- Issues around justification, benefit to individual, confidentiality, consent, and governance arrangements.

Dignity Autonomy	Non Maleficence Beneficence	Justice	Precautionary Principle	Openness, Transparency
(Y)	-	(Y)	-	(Y)
N	N	N	N	N