Ethics and Social Values in the Management of Existing Exposure Situations: Early Reflections

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Background

- There is no conceptualization / formalization of the ethical principles that underpin the system of radiation protection in ICRP publications, although these principles are quite present
- There is however an interest for such conceptualization / formalization:
  - Two recent CRPPH Workshops on “Science and Values in Radiological Protection” (Helsinki, 2008, Vaulx de Cernay, 2009) and a forthcoming third one (Tokyo, Nov. 2012)
  - Increasing questioning from some NGOs and the public
- *“The ethics of radiation protection is a new field of applied ethics. It is a highly promising one, both from a theoretical and a practical perspective”.* Hansson, J. Radiol. Prot. 27 (2007)
- Creation of a **Working Party of ICRP Committee 4** on the ethics of radiological protection in October 2011

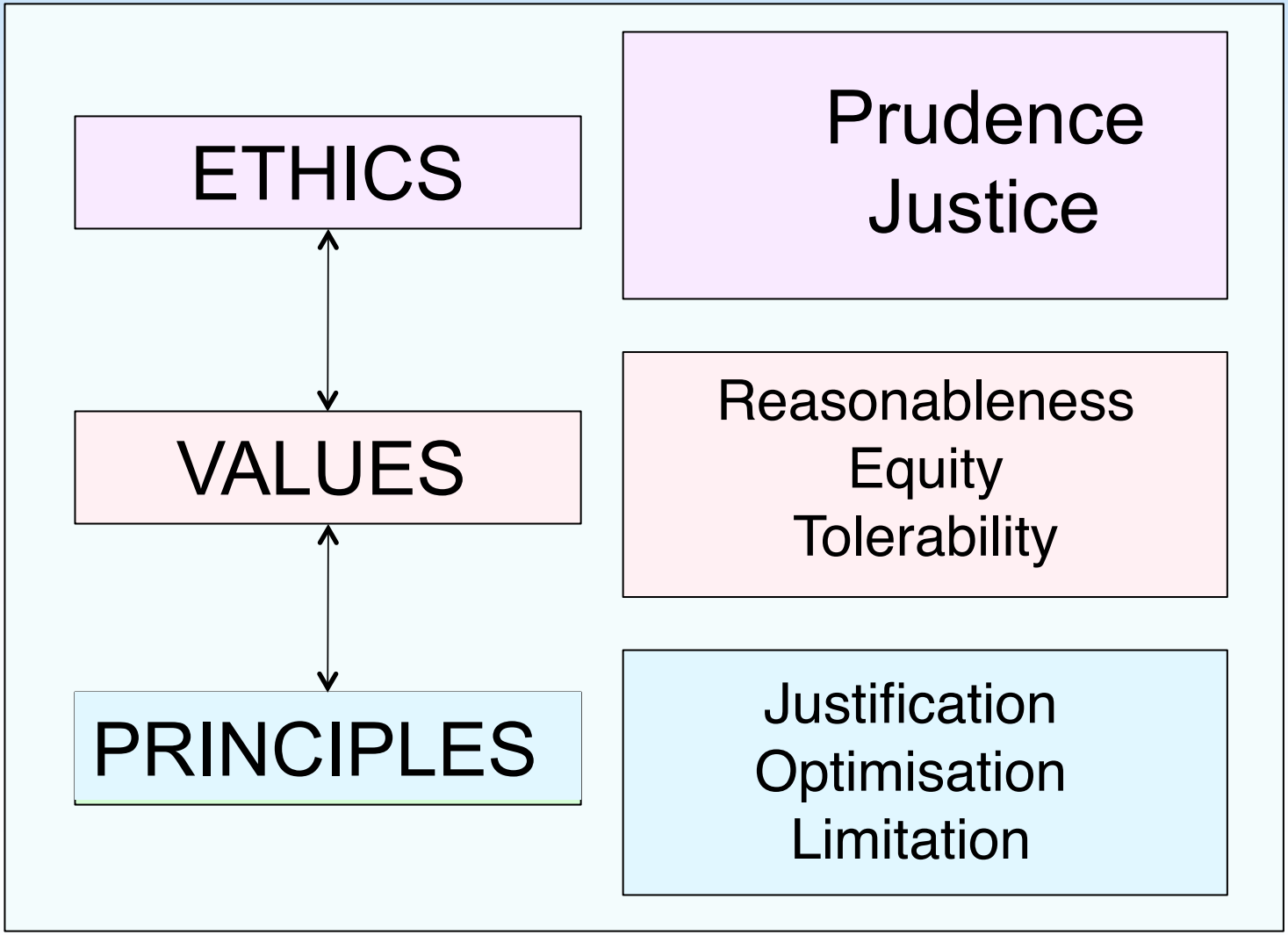
Where is the Committee 4 reflection on ethics? (1)

- The radiation protection system is a construct that combines the state of **knowledge** on the effects of radiation, **ethical and social values** and the feedback **experience** from the field
- The basic principles of radiological protection are rooted in the three theories of normative ethics (how humans ought to behave):
  - Justification: **virtue ethics**
  - Optimisation: **utilitarian ethics**
  - Limitation: **deontological ethics**
- The Recommendations aim to respect **individual rights** (deontological ethics), to promote **collective interest** (utilitarian ethics) and to favour **wisdom and discernment** (virtue ethics)

Where is the Committee 4 reflection on ethics? (2)

- **Prudence and justice** are the two pillars of the edifice:
  - Prudence allows to take into account the inevitable **uncertainties** of radiation science **– Adoption of LNT model**
  - Justice allows to take into account the inevitable **inequities** in managing exposures **– Restrictions on individuals doses**
- There are also **procedural aspects** in the implementation of ethics i.e. procedures that help to make ethical decisions rather than norms that help to behave according ethics
- Finally, ICRP, as an international advisory body, must adopt a **cross-cultural approach** to develop its reflection on ethics

The ethical foundations and the "values" structuring the radiation protection principles



Existing exposure situations

- Exposure to cosmic radiation in aviation and in space flights
- Exposure to radon indoor
- Exposure to naturally occurring radioactive material
- Exposure in contaminated territories after a nuclear accident or a radiation emergency
- Exposure on contaminated sites from past activities

Common features of existing exposure situations

- Exposures affect place of living and day to day activities
- Levels of exposure are highly dependant of individual behaviours
- Situations are generally characterized by a wide spread distribution of individual exposures
- Responsibility for protection falls largely on individuals
- Radiation protection is closely related to environmental health, social, economic, political, ethical, aesthetic,… factors
- Many stakeholders are generally involved to control the situation

Principles of ethics and the management of existing exposure situations

- **Prudence** : ALARA principle
- **Justice** : reference levels
- **Dignity** : two conceptions
  - **Attribute of human condition** : idea that something is due to the human being because she/he is human. This means that every individual deserves unconditional respect, whatever her/his age, sex, health, social condition, ethnic origin and religion.
  - **Autonomy of the individual**: idea that individuals have the capacity to act freely and morally.
  - **Procedural aspects**: self-development/self-help, right to know and stakeholder engagement

The right to know principle

- **Right to know** is related to the hazards an individual is exposed to, the harm they might cause, and the precautions that could prevent these harmful effects in order to allow her/him to act based upon a clear appreciation and understanding of the facts, implications, and future consequences of her/his action

- In other words, right to know refers to the type of information that affected persons should receive to make **informed and effective decisions**

- The right know principle in the field of radiation protection is closely related to the access to **radiation protection culture**

Radiation protection culture

- One possible definition:

  the knowledge and skills enabling citizens to make choices and behave wisely in situations involving potential or actual exposure to ionizing radiation

- Practical radiation protection culture should allow people:
  - To interpret results of measurements
  - To orient themselves in relation to radioactivity in everyday life
  - To bring elements to make decisions and take actions
  - To assess the effectiveness of the protective actions they implement themselves

Self-development/self-help

- The act of improving or helping yourself without relying on anyone else
- Include activities that improve **awareness**, develop **competence** and **interpersonal relationships**, and enhance **quality of life**
- Self-help considers the extent to which the affected persons can implement protection actions and their degree of control or choice over the situation
- Voluntary actions carried out by affected individuals themselves are deemed positive as they respect the fundamental values of **liberty**, **autonomy** and **dignity**

Self-help protection

- To gain control on the situation and to become actors of their own protection, exposed people must understand:
  - **Where, when and how** they are exposed?
  - **What can they do** to protect themselves ?
- It is the **responsibility of public authorities** to provide:
  - General information on the exposure situation
  - Information on ways to reduce doses
  - Conditions and means for direct access to monitoring
- Self-help protection actions are **complementing the protective actions implemented by authorities**

Stakeholders engagement

Why to engage stakeholders?

- To take into account more effectively the **concerns and expectations** of stakeholders and the specificity of the contexts
- To adopt more **effective** protection actions
- To insure adhesion and **maintain vigilance**
- To promote **autonomy and accountability** of stakeholders
- To improve **social trust and public confidence**
- To prevent controversies and facilitate resolution of conflicts

Lessons from past experience with contaminated territories

- The **involvement of all stakeholders** in the implementation of the protection strategy is key to ensure the effectiveness and sustainability of protective strategies
- Radiation monitoring is an **indispensable dimension**
- The **pluralism of sources of measurement** is important for ensuring confidence of exposed people in the results
- Establishment of **places for dialogue** is important for the dissemination of information and the development of **a common language** between all involved stakeholders

Concluding remarks

- The system of protection for existing exposure situations aims at promoting well-being (keep exposures ALARA), treating everybody fairly and respecting dignity of exposed/affected stakeholders
- The above considerations should be considered a starting point and should be consolidated and deepened with the participation of social scientists but also all relevant stakeholders
- The Committee plans to hold in the coming years a series of seminars in cooperation with various organizations, on the mode of this seminar, to develop a shared vision of ethical and social values underpinning the system of protection
- The goal is not to add elements to a system that is already complex, but rather to make it more transparent and accessible

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