



# The Science and Value Aspects: an ICRP Committee 4 viewpoint

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**3<sup>rd</sup> Workshop on Science and Values in  
Radiological Protection Decision Making**

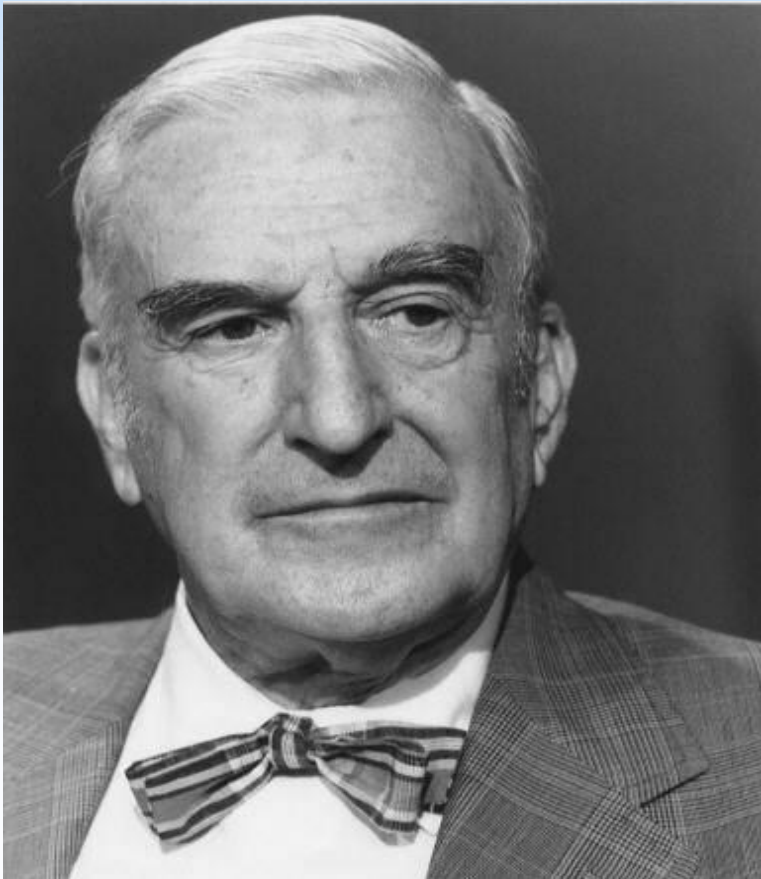
**6<sup>th</sup> Asian Regional Conference on the  
Evolution of the System of Radiological Protection**

**Tokyo University (Hongo Campus)  
6-8 November 2012**

# Content of the presentation

- Some considerations about the ethical foundation of the system of radiological protection
- An insight on the ethical and social values in Publication 111 (2009) : “Application of the Commission’s Recommendations to the Protection of People Living in Long-term Contaminated Areas after a Nuclear Accident or a Radiation Emergency”

# Science and values in radiological protection - A tradition -



"Radiation protection is not only a matter for science. It is a problem of philosophy, and morality, and the utmost wisdom."

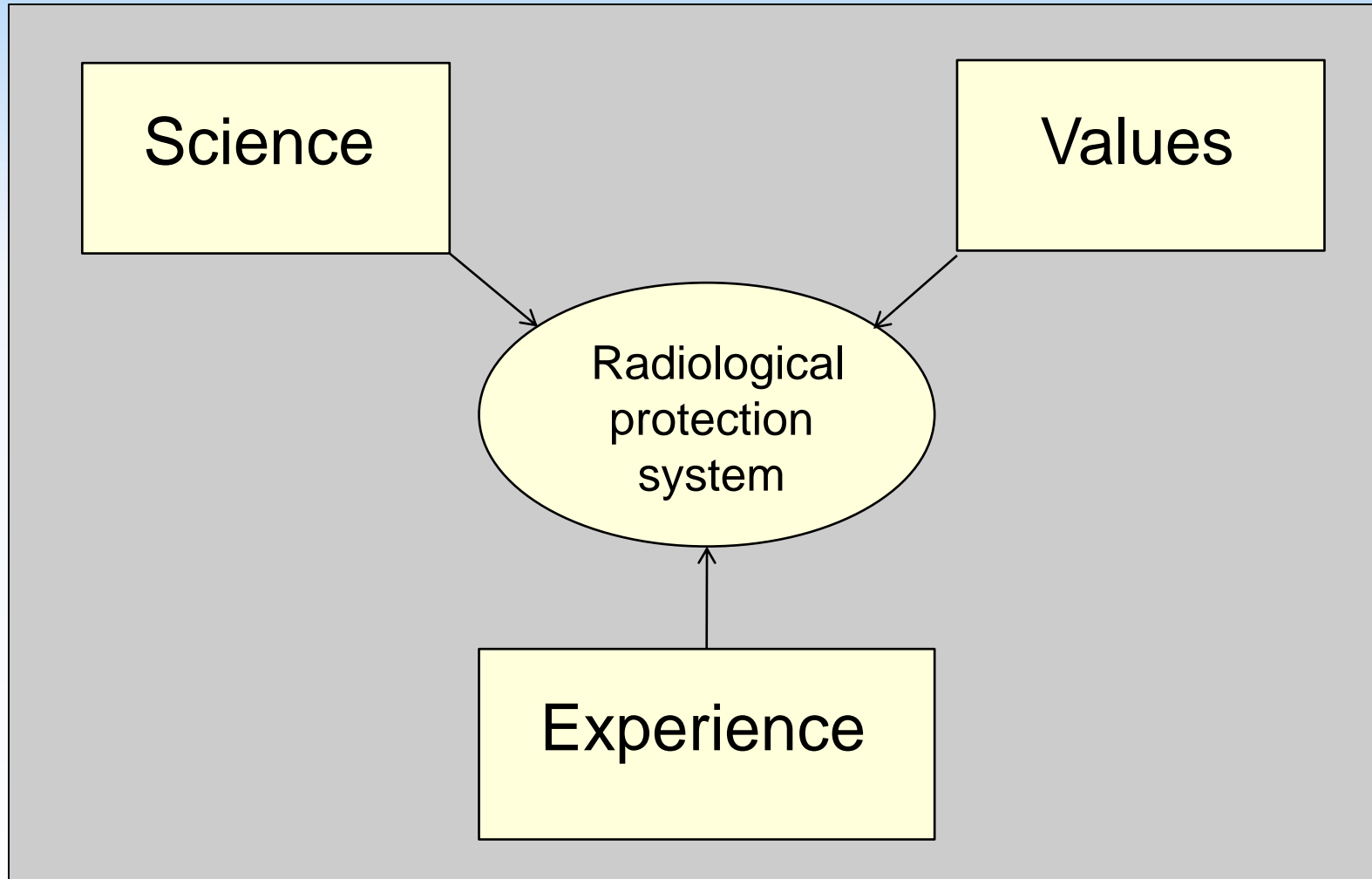
**Lauriston S. Taylor** (1902 – 2004)

The Philosophy Underlying  
Radiation Protection

Am. J. Roent. Vol. 77, N° 5,  
914-919, 1957

From address on 7 Nov. 1956

# The three pillars of the radiological protection system



# The ethical basis of the system of protection

- A synthesis of reflections conducted so far by Committee 4 -

- The basic principles of radiological protection (justification, optimisation and limitation ) are rooted in the three theories of normative ethics (i.e. how humans ought to behave) : **virtue ethics, utilitarian ethics, deontological ethics**
- The ICRP Recommendations aim to respect **individual rights** (deontological ethics), to promote **collective interest** (utilitarian ethics) and to favour **vigilance and fairness** (virtue ethics)
- The system of protection is based on values that can be found in different cultures around the world (cross cultural ethics). For example **autonomy, non-maleficence, beneficence, and justice** are largely shared values in medicine
- **Prudence, justice and dignity** have been identified as important underlying values of the system of radiation protection

## Ethical values, procedural and behavioural ethics

- **Ethical values** define the norms according which it is appropriate to act
- **Procedural ethics** refers to the processes that enable to implement ethical values in decisions and practices
- **Behavioural ethics** refers to how individuals make their decisions and act
- The distinction between values, processes and behaviour allows to more effectively analyse the ethical and social dimensions of the practical advice embodied in the system of radiation protection

# Chernobyl (1986) – Fukushima (2011)



- The same interrogations: “Is it safe?”, “Should we stay or leave?”, “Should we return or not return?”
- The same fear: to be progressively abandoned
- **The same words to express the same concerns**

*« After the nuclear accident, raging voices over Fukushima left behind those of us who live in Fukushima. Everybody wanted to have their say disregarding what we think and feel. I could not accept that. I even felt angry. The reason why I started ETHOS in Fukushima comes from the conviction that it is we who should narrate our life. In the midst of the turmoil, ICRP111 was the only support for our mind ».*

Ryoko Ando, Iwaki city

Leader of the Ethos in Fukushima NPO

**[ethos-fukushima.blogspot.com/](http://ethos-fukushima.blogspot.com/)**



# Values, processes and behaviours in ICRP Publication 111

## 1. Values

- **Dignity (implicit)**
- Vigilance
- Solidarity (implicit)

## 2. Processes

- **Right-to-know (implicit)**
- **Stakeholder engagement**

## 3. Behaviours

- **Self-help protection**
- **Radiation protection culture**

# 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 individuals**: idea that individuals have the capacity to act freely and morally

# The right to know principle

- **Right to know** refers to the type of information that affected persons should receive to make **informed and effective** decisions
- The right to know principle in the field of radiation protection is closely related to the access to **radiation protection culture**

# Stakeholders engagement

- To take into account more effectively the **concerns and expectations** of the affected people and the specificity of the contexts in which they are exposed
- To adopt more **effective** protection actions
- To maintain **vigilance**
- To favour the **accountability** and **autonomy** of affected people
- To improve the quality of the processes that contribute to **social trust** and **public confidence**
- To inform **controversies** and to facilitate the emergence of **compromise**

# Radiation protection culture

- 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 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-help protection (1)

- Self-help protection is the capacity of individuals facing a risk to protect themselves without relying on anyone else
- This include activities that improve **awareness**, develop **competence** and **interpersonal relationships**, and enhance **quality of life**
- Self-help protection 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 (2)

- To gain control on the situation and to become actors of their own protection, exposed people in contaminated territories 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 and the ways to reduce doses
  - Conditions and means for individuals to have direct access to their individual exposures
- **Self-help protection actions are complementing the protective actions implemented by authorities**





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