



**23<sup>rd</sup> WIN Global Annual Conference**  
**Woman in Nuclear meet Atoms for Peace**  
**Vienna/Austria 24<sup>th</sup> – 28<sup>th</sup> August 2015**

## **Safety and Reliability – challenges for change and progress**

***IRPA's engagement in the system of protection***



***Renate Czarwinski, IRPA President***



## IRPA's Key Challenge

### IRPA Vision

IRPA is recognized by its members, stakeholders and the public as the *international voice of the radiation protection profession* in the enhancement of radiation protection culture and practice worldwide.

**Making this Vision a reality**





# IRPA Values and Strength



## Recognized non-governmental organization

- 50 Associate Societies
- Representing 63 countries
- Almost 18,000 individual members

*Enormous resources of **practical knowledge and experience** in radiation protection :  
**scientists, operators, regulators, medical practitioners, government advisers***



*Accompanied by multicultural background*



# Radiation Protection in a changing society

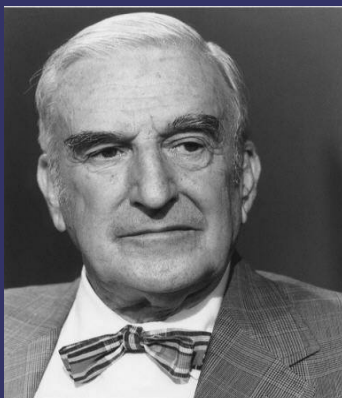
## Social, Political and Ethical Issues

### Practicability of RP system

*scientific stringency*

*in accordance with accepted ethical values*

*political and social values*



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

The Philosophy Underlying Radiation Protection

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

From address on 7 Nov. 1956

Lauriston S. Taylor (1902 – 2004)



# Radiation Protection in a changing society

## ***Increasing globalization***

*Importance of economic cross linking*

*global transmission of new and complex technologies*

*Innovations e.g. in transport*

*Revolution in communication*

*Emerging diseases*

*Factors related to terrorism*

CHANGING  
PLACE  
CHANGING  
TIME  
CHANGING  
THOUGHTS  
CHANGING  
FUTURE®

- ✓ **Society is changing and this also poses new challenges for the implementation of an effective protection system.**
- ✓ **Clear understanding of radiation risks is an increasingly emerging concern – people are more concerned on the same level of risk!**
- ✓ **Towards a knowledgable society**



**ENERGY**

**ENVIRONMENT**

**CLIMATE**

**Safe, affordable, socially accepted future**

*beneficial  
safe  
effective  
reliable*

**Nuclear Technologies**

*new, complex ...*

**Risk Assessment**

**Public risk awareness and understanding**

**Acceptance**

*technical  
(radiological)  
economic  
environmental  
political  
social  
ethical*

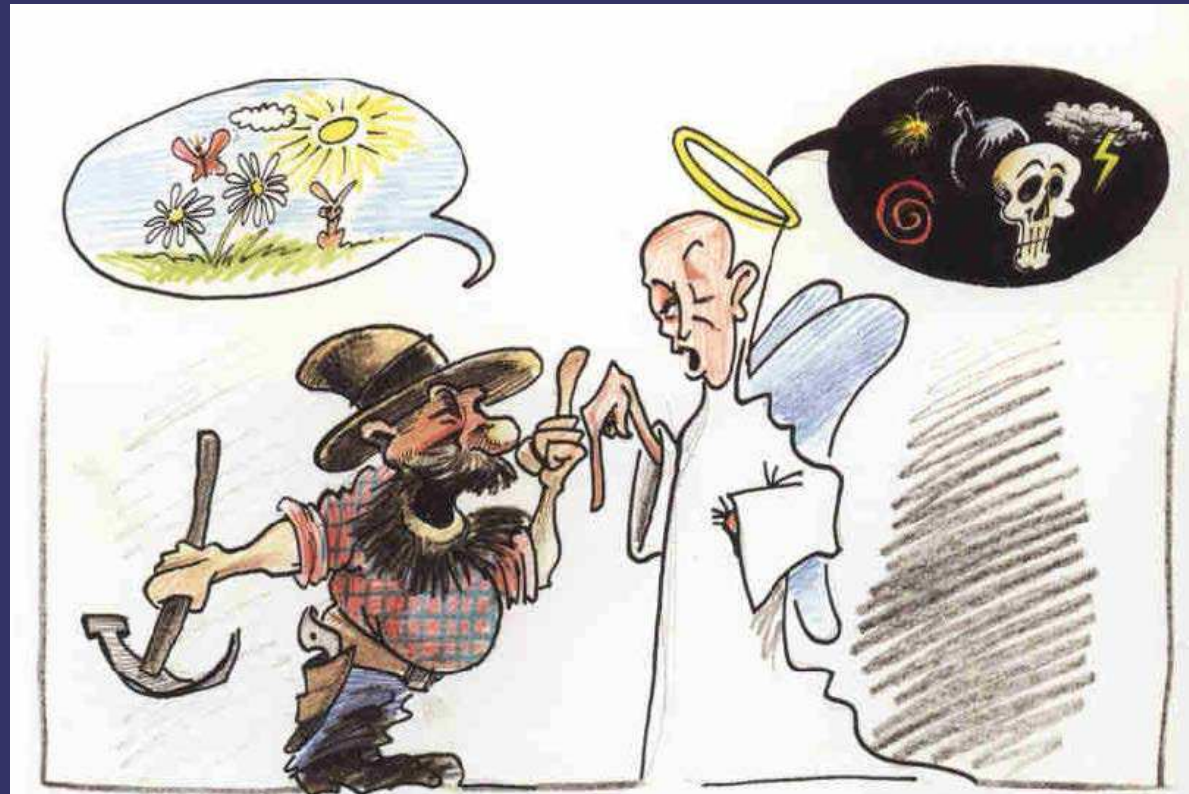




## „The dialogue of the hard hearing persons“

Facts are full of nuances and shadings and not only black and white.

Where is the loophole?




Es muss ein Ausweg aus diesem "Dialog der Schwerhörigen" (den Pionieren, welche die "weisse" Symbolik verkaufen, und den Sektierern, welche die "schwarze" Symbolik verkaufen) gefunden werden. Denn Tatsachen sind voller Nuancen und Schattierungen und nicht einfach nur schwarz/ weiss.

Ref.: StrahlenschutzPRAXIS Issue 4/2014 page 11



## Selected views from professionals

### *Workshop Baltimore*

- The issue of **justification** was identified as a crucial point for which ethical considerations have to play a role. 
- Ethics in relation to the RP system is also about considering and recognizing the **boundaries** of the system when it comes to providing a rationale for societal justification of a radiation risk.



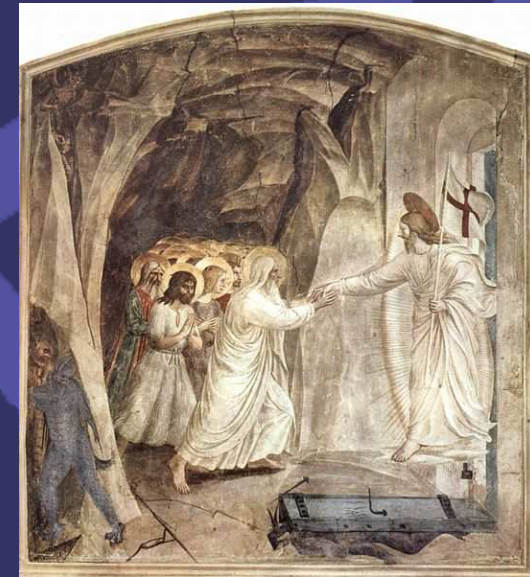




## Problems with Justification

- Major knowledge issues
- Evidence Issues
- Accountability Issues
- Probably Legal Issues
  
- How it would be viewed by society.

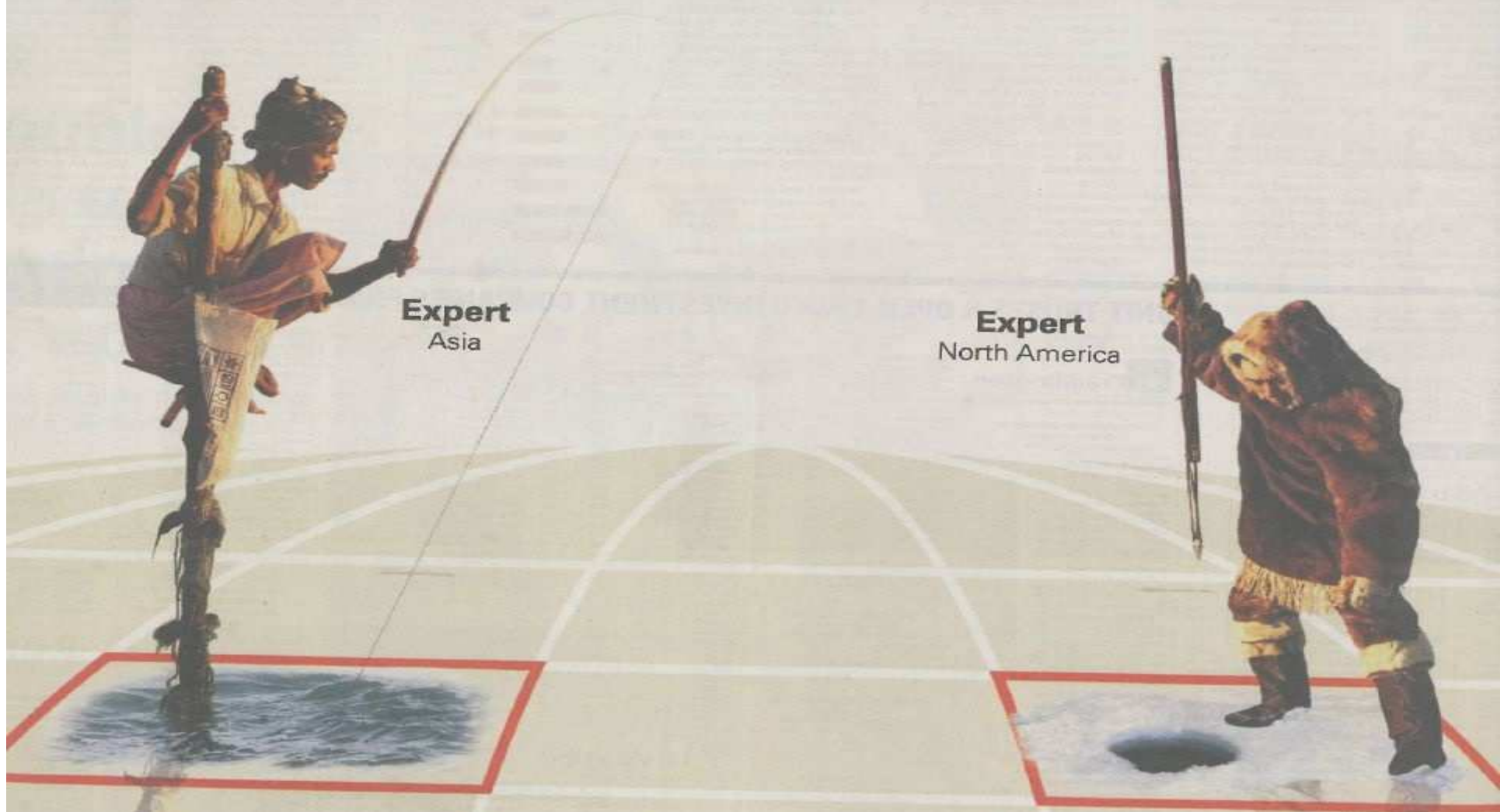
*(The fact that everybody is doing it is not a good defence if the position is not defensible)*



The Harrowing of Hell as depicted by Fra Angelico



# ---- and how to justify will differ ----



Picture borrowed from Jim Malone





# Selected views from professionals

## *Workshop Madrid*

- Workers dose
  - *The right to know rather than informed consent*
  - *Efforts proportionate to the level of dose*
- RP culture
  - *Absolute alignment with ethical principles of dignity, transparency, autonomy*
- Stakeholder involvement
  - *Effective engagement and dialogue*
  - *Particularly difficult: What is the risk?*
- Low dose and prudence
  - *Controlling doses at extremely low levels (regulatory pressure?)*



## Risk communication and public understanding

**How could the system for protection be improved to meet the challenges and ensure the system is fit for purpose?**

- *How should we present the uncertainty in risk estimation at low doses?*
- *Should we give more prominent context to natural background exposure?*
- *Whilst accepting the principle of dose limitation, should we have more flexibility in how this is emphasized and presented?*
- *Should we make ALARA even more central to our control hierarchy? If so, how do we ensure proportionality of efforts?*
- *Should we make efforts to present radiation risk in the wider context of public health?*

***Reflection by Associate Societies, professionals and individuals***



# IRPA and the International RP Community

**IRPA invites you to work with us!**

IRPA provides a platform for wider discussion and enhancing awareness through our International and Regional Congresses:

**14<sup>th</sup> IRPA International Congress**

**Cape Town, 9 – 13 May 2016**

**IRPA's 50<sup>th</sup> Anniversary!**

