# Ethics: What should we teach and how should we teach it?

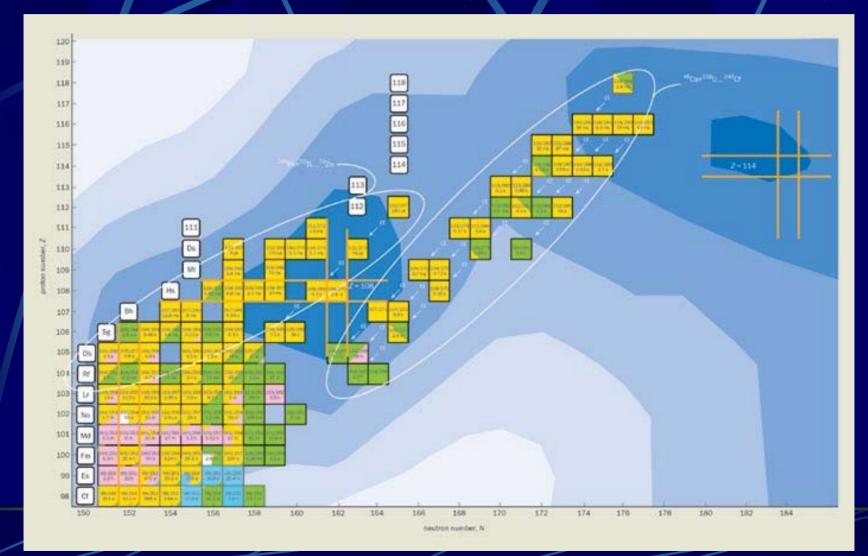
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#### Element 118 (Schwarzschild 2002)





## JRM® The Journal of Reproductive Medicine®

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#### Does Prayer Influence the Success of *in Vitro* Fertilization—Embryo Transfer?

Report of a Masked, Randomized Trial

Kwang Y. Cha, M.D., Daniel P. Wirth, J.D., M.S., and Rogerio A. Lobo, M.D.

- US Department of Health & Human Services investigated – no ethics committee involved
- Kwang Yul Cha, MD, Director of the Cha Columbia Infertility Medical Center – unavailable
- Rogerio Lobo, MD, Chairman of the Dept of Obstetrics & Gynecology at Columbia –learned of study 12 months after completed; on journal Editorial Advisory Board
- Daniel P. Wirth, degrees in law and parapsychology, Healing Sciences Research International
- May 2004 Pled guilty to fraud

"But worse than flaws, in light of all of the shocking information presented above, one must consider the sad possibility that the Columbia prayer study may never have been conducted at all." (Flamm, 2004) "This epidemic of cheating in the latter part of the 20th century meant, clearly enough, that an increasing number of scientists were seeking to serve their personal interests instead of the public good of universal knowledge.... conflicts of interest became so pervasive, so extreme, as to cast doubt on the integrity of every aspect of science—peer review, publishing, funding." (Bauer, 2004)

Do you think unethical practices occur often in scientific publishing?

#### Why the Problems?

- Fame and fortune
- Pressure to publish

"The researcher... will be judged [by] the number of articles, and the corresponding journal names, appearing on the CV. He or she will not be judged [by] the work spent on each paper, how many backup checks were performed to confirm the results, and so on. High number of papers, in highly ranked journals, is what builds a career. . . . The recent sad events [show] that it is for many people more important to publish spectacular results than to publish true results." (Kirby, 2004)

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- Not my job multiple authors

## Publishing Controversial Findings: MMR Vaccines

- 1998: study suggesting a link between MMR vaccine and a bowel syndrome with autism:
- "did not prove an association"
- "further investigations are needed to examine this syndrome and its possible relation to this vaccine" (Horton, 2004).
- Use of the vaccine dropped off (92% to 82% coverage within 7 years).

- Study involved 12 children with no comparison group
- Subsequent studies did not confirm findings
- Conflict of interest revealed: lead author was hired as expert witness in law suit against vaccine manufacturers re autism
- The alleged link persists.

#### Scientific norms

- Robert K. Merton (1942)
- I. Universalism
- II. Communalism
- III. Disinterestedness
- IV. Organized Scepticism

"It used to be taken for granted that the purpose of science was to seek the truth about all aspects of the natural world.... Science disinterestedly and with appropriate skepticism coupled with originality seeks universally valid knowledge as a public good." (Bauer, 2004)

- Universalism > post-modern denial of truth
- Communalism > proprietary knowledge and watch-dogs
- Disinterestedness -> conflicts of interest and corporate values
- Organised Scepticism -> commissioned projects and authoritative knowledge

#### In Response

- Ethics codes
- Research ethics committees
- Scientific misconduct statements
- Ethics training
- Ethics benchmarks for biosciences
- Realisation that we are all tempted.
  So...

- Element 118 investigation at LBNL found "it incredible that no one in the group, other than Ninov, examined the original data to confirm the purported discovery of element 118." (Schwarzschild, 2002)
- Ethics is everyone's responsibility.

#### Teaching ethics

The role of story (Woodward, 2006)



Sir Edmund Hilary: human life is "far more important than just getting to the top of the mountain."

New Zealand prime minister, Helen Clark: "What Sir Ed said is something many people relate to, but he's probably also reflecting the fact that ethics around mountaineering may well change over time."

#### Ethical theory

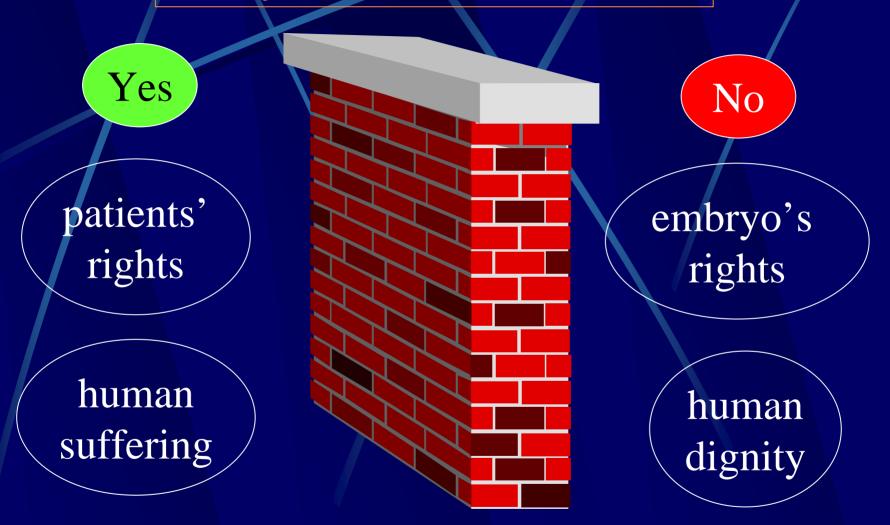
- "Passing people who are dying is not uncommon. Unfortunately, there are those who say, 'It's not my problem. I've spent all this money and I'm going to the summit."
- "He wasn't a member of our expedition."
- "Your responsibility is to save yourself not to try and save anybody else."
- "You know, he's been there X number of hours, been there without oxygen, you know, he's effectively dead."
- "He's a human being, and we would regard it as our duty to get him back to safety."

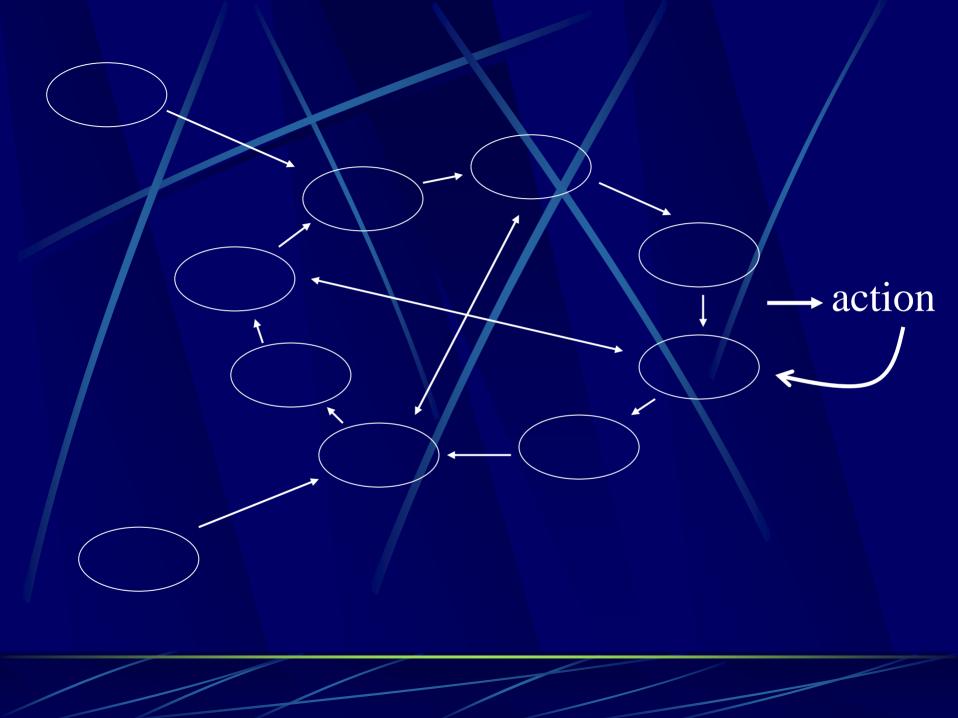
### Songs and teaching bioethics

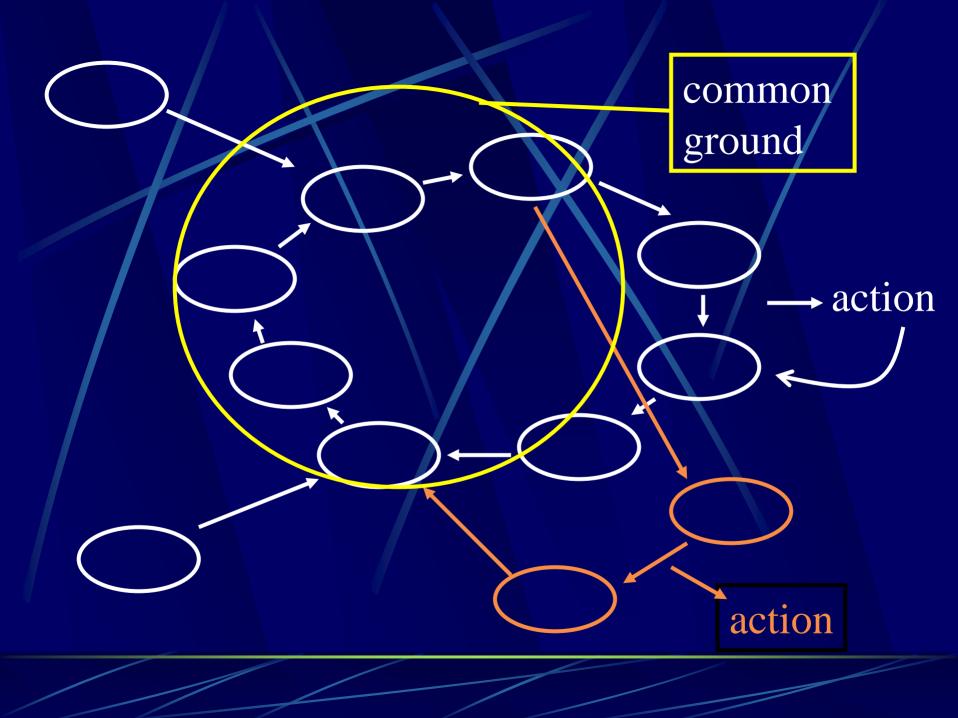
- Engaging students cognitively and emotionally.
- Engaging students with something they enjoy.
- Showing students that ethics is relevant.
- Challenging students to think ethically and critically – but structure is needed.

Embryonic stem cell research law religion Scientific harm freedom suffering patients embryo playing God rights person cures autonomy death philosophy ethics

#### Embryonic Stem Cell Research







#### Delving deeper

What does it mean to be human? ... to be a person?

"From the selfish-gene point of view, we are robots survival machines, and because genes themselves can't poick things up, catch things, eat things, or run around, they have to do that by proxy; they have to build machines to do it for them. That is us. These machines are programmed in advance." (Dawkins, 1996)

"If I think that humans are indeed a little lower. than the angels, and may live on beyond this life, then I shall view myself differently from the person who accepts that the species Homo sapiens is one animal species amongst many, characterized by a particular evolutionary history. The tug between seeing humans as packages of genes, existing without purpose, and as the special creation of God is the modern version of a perennial debate amongst philosophers." (Trigg, 1999)

## Comments? Questions?

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