

The Importance of Gender Diversity to Develop Ethics and Science

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Gender diversity is essential for the balanced application of science and technology, and may aid in the development of more ethical balance in the development of science.



Reasons for low proportion of woman scientists

- **Difficult working environment for women scientists (discrimination in recruitment, promotion etc.)**
- **Science has a masculine image.**
- **Many women are told not to dream to be a scientist**
- **Even if successful women are given junior tasks.**
- **Vicious circle means few women students in science majors, e.g. in Japan:**

Women: 70% humanities, social sciences, education

Men: 70% engineering and natural sciences

Does gender diversity have a significant impact on the approaches and solutions that are used and proposed in science?

- **Ethical science needs a foundation for scientific thought not based on discrimination**
- **Give equal incentives for hard work**
- **Diversity creates more ideas**
- **Feminine approaches to team play may be more relationship centred, and give a longer-term perspective?**
- **Ideas for projects, approaches and solutions**



Trends in different cultures see a wide range in the degree of incorporation of women in science, and teaching professions, but variations in trends in different specialties.

Indigenous traditions need to be described and included

- **We should not only import Western ideas, traditions, theories and methods.**
- **Need to conduct research on Asian values and gender studies in each locality.**
- **Respect for individual diversity among cultural, ethnic or gender groups.**
- **Therefore a solid foundation for gender studies needs to be laid in all places and recognition that it is an important field of study.**



Freedom of expression could be given more emphasis as a principle of science

- **Article 19 of the 1948 Universal Declaration of Human Rights, upholds the “freedom to hold opinions without interference.”**
- **Article 21 of Universal Declaration on the Human Genome And Human Rights 1997 “States should ... also undertake to facilitate on this subject an open international discussion, ensuring the free expression of various socio-cultural, religious and philosophical opinions.”**
- **Freedom to be a scientist from any group of persons with no discrimination.**



Challenges to implement UN Declarations

- **Overcoming interests of the status quo**
- **Diversity of situations**
- **Lack of awareness**
- **Gap between theory and practice**
- **Participatory process may challenge existing governance system**
- **Mainstreaming takes the commitment of all**



Universal challenges for gender equality in science

Women's/Gender Studies Network in Asia Pacific Website Project

Recommendation of the 2003 Workshop on Women's/ Gender Studies (WS/GS) in Asia Pacific, organized by RUSHSAP, UNESCO Bangkok, was the creation of a Women's/Gender Studies Network in Asia Pacific for the advancement of the following objectives.

<http://www.unescobkk.org/index.php?id=2610>

Objectives

- **Serve as a forum for the discussion of pressing issues that recognizes diversity and similarities of WS/GS throughout the Asia Pacific region;**
- **Be a mutually-reinforcing support network where teachers could share and pool course and other relevant resource materials for the advancement of WS/GS and consequently be a springboard to plan out activities such as future consortia and conferences that address specific themes and concerns in WS/GS;**

Objectives

- **Explore possibilities for collaborative research that would pose challenges and open new tracks for national policy and program construction in national education;**
- **Open opportunities for discussions on introducing and mainstreaming WS/GS into secondary and primary education levels;**

Objectives

- **Serve as a forum where WS/GS scholars and practitioners exchange ideas and plan on the ways with which their programs and activities could be assisted or support existing UN instruments such as the Convention to the Elimination of All Forms of Discrimination Against Women (CEDAW), UNESCO's Education for All (EFA) and the Millennium Development Goals (MDGs).**

Many issues in social science to discuss...

- **Gender aspects of globalization**
- **The expansion of respect for human rights.**
- **The shift towards individualism away from communitarian ways of approaching ethics**
- **Forms of discrimination within the range of science and technology based careers (e.g. compare the bias in the opportunities for factory chip makers and chip designers)**



**Indian academia gender balance is significantly better than in Japan
- We need studies why it is.**



Students of both genders want to study and be able to make choices about their career and future



United Nations Educational,
Scientific and Cultural Organization

Social and Human
Sciences

RUSHSAP

Relationships inside society are undergoing a dramatic change

The challenges for current and future practice in all human endeavours also need to be examined in terms of the relationships between scientists, technology professionals and consumers through various cases.

Level of Participants in Relationships

e.g. Visit to a doctor to seek treatment

Doctor



Patient

Paternalism

Doctor ↔ Patient

Informed Consent

Patient



Doctor

Informed Choice

e.g. Visit to a supermarket to buy food

Shop



Consumer

Paternalism

Shop ↔ Consumer

Informed Consent

Consumer

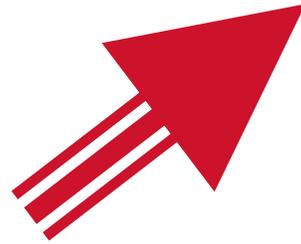


Shop

Informed Choice

In all societies there is a transition

Informed choice

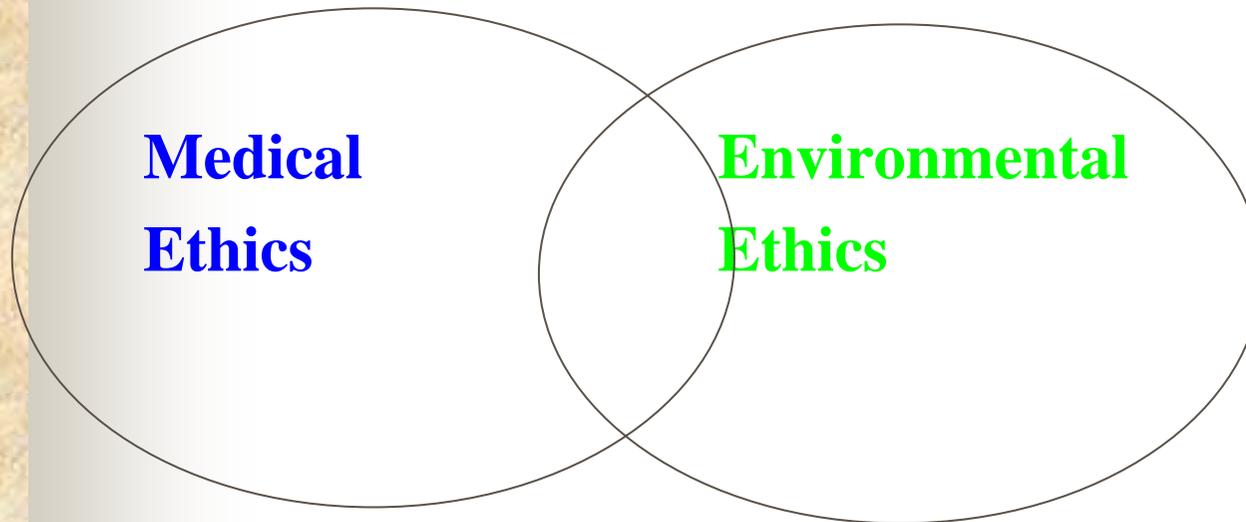


Informed consent



Paternalism

■ Bioethics includes...



- **Balancing ideals of:**
- **Doing good / doing harm**
- **Individual autonomy / justice to all**
- **Long heritage seen in ...**
- **biology,medicine,society,religion..**
- **Anthropocentric, biocentric, ecocentric views**



Principles or ideals for bioethics

- | ■ Conventional language | <i>Alternative language*</i> |
|--------------------------------|-------------------------------------|
| ■ Autonomy | self-love |
| ■ Justice | love of others |
| ■ Do no harm | loving life |
| ■ Beneficence | loving good |

“While ethical principles may be pre-human in biological, social and spiritual heritage, and thus almost universal, the balancing of them varies between individuals.”

***Darryl Macer, *Bioethics is Love of Life*, Eubios Ethics Institute 1998.**



Ways to view bioethics

- 1. Descriptive bioethics is the way people view life, their moral interactions and responsibilities with living organisms in their life.**
- 2. Prescriptive bioethics is to tell others what is ethically good or bad, or what principles are most important in making such decisions. It may also be to say something or someone has rights, and others have duties to them.**

Essential approaches to bioethics

Eubios Declaration on Bioethics (2002)

Interactive bioethics is discussion and debate between people, groups within society, and communities about descriptive and prescriptive bioethics.

Practical bioethics is action to make the world more bioethical, for example, health projects for medically deprived populations, and environmental activism.



Bioethical maturity

How do we form a mature society full of well informed and balanced persons? Bioethically mature means a person, or a society that can balance the benefits and risks of alternative options, and make well-considered decisions, and talk about it.





How to measure success of bioethics education?

Some goals of bioethics identified from surveys include:

- 1) Increasing respect for life**
- 2) Balancing benefits and risks of Science and Technology**
- 3) Understanding better the diversity of views of different persons**



**Bioethics classes
in a laboratory room**



**Need for transformation
at all levels of education**

- **Global application of ethics standards and local variation**
- **Professional associations do have a responsibility in the promulgation and implementation of ethical standards for their members, and UNESCO will work with any willing partners in a wide range of possible activities to raise the consciousness of scientists and policy makers to those ends.**
- **There are wide gaps between countries, and within countries, in health, environmental and social conditions. The standards of scientific research and access to technology also widely range. The gaps are growing, and the efforts of all scientists are needed to develop partnerships of collaboration in all activities between the haves and the have nots.**

Global consensus on bioethics...

**UNESCO General Conference 1997 and the
UN General Assembly 1998**

**Universal Declaration on the Human Genome and
Human Rights**

UNESCO General Conference 2003

International Declaration on Human Genetic Data

UNESCO General Conference 2005?

Draft Universal Declaration on Bioethics is under
consultation so it may be accepted at the end of 2005.



Need for national guidelines and local implementation

- **The existence of international standards does not mean that a country does not need to develop its own guidelines and standards. Rather the international standards can be considered as models upon which countries can design their own laws and guidelines with the necessary modifications related to indigenous culture and beliefs. There may also be particular economic and environmental conditions that should be considered when developing appropriate responses to genomic technology, that will modify the appropriate activities in education, ethics committees, professional guidelines, access to healthcare and technology, for example.**



Some global priority areas for ethics of science that have been recognised by member countries...

- **Codes of Conduct for scientists and engineers**
- **Teaching ethics**
 - **Generate sustainable ethics teaching and promotion programmes. On-line and copyright free resources.**
 - **Networking partners for the development of ethics teaching.**
 - **Establishment of documentation centres.**
- **Global Ethics Observatory and Databases**
 - **Comprehensive databases of experts, existing professional networks, international legal instruments, national legislation, codes of ethics, institutions, and current teaching curriculum and research activities in bioethics.**

Why Encourage the Participation of Women in Science

- Equality of opportunity based upon interest
- Promotion of women's rights
- Shortage of scientists
- Provide role models for female students
- Diversity of ideas is essential for innovation and creativity
- **The Scientific enterprise will become better!**



Implementation of standards on gender equality at the appropriate level for each cultures but not using excuses

First UNESCO Bangkok International Bioethics Roundtable

**11-15 September, 2005,
Tara Imperial Hotel, Bangkok, Thailand.**

**For general information on new events in RUSHSAP, UNESCO
Bangkok <http://www.unescobkk.org/index.php?id=24>**

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