

Public Lectures

Announcement



Public Lectures on Seminar I/II

Location: Konan University, Building 9, Meeting Room No. 6

Date & Time: 14:40-18:00, Friday, November 27,

Topic: “*Science, Religions & Bioethics: A Traditional Response to Modern Science (Biotechnology)*”

Speaker: Prof. Dr. Azizan BAHARUDDIN

Centre for Civilisational Dialogue, University of Malaya, Malaysia

Topic: “*A Bridge between Practical Philosophy and Public Science: Through a Dialogue with Common Language*”

Speaker: Prof. Fumiaki Taniguchi, Department of Human Sciences, Konan University

Invited Panelists/Speakers:

★**Prof. Yoshihisa Shimizu, Kyoto University**

★**Prof. Nik Meriam Nik Sulaiman, University of Malaya**

★**Prof. Fatimah Kari, University of Malaya**

Azizan BAHARUDDIN is currently a professor at the department for Science and Technology Studies, as well as the Director at the Centre for Civilisational Dialogue, University of Malaya. She has published about 10 books and 90 articles in the areas mentioned.

In the field of environmental education and ethics, her most recent publications include: (i) Richard Foltz, Azim Nanji, Azizan Baharuddin eds. (2003). *Islam and Ecology: A Bestowed Trust*. University of Harvard Press. (ii) Azizan Baharuddin ed. (2002).

Proceedings of the Japanese Society for the Promotion of Science Workshop on Environmental Ethics, Regulation and Education. 7-8 January 2002. Universiti Malaya, Kuala Lumpur. (iii) Azizan Baharuddin (2001). *The Role of Dialogue of Civilizations in Peace*

Education. Proceedings of First SEACSN Malaysian National Workshop. 7-9 November 2001. pp. 41-42. She is also actively involved as a consultant for various government, ministries and NGO's in projects/areas related to her field of interest.



**“Science, Religions & Bioethics”
A Traditional Response to
Modern Science
(Biotechnology)**

JSPS-VCC
Visit to Konan University,
Japan

27th November 2009

by

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Inevitability of Biotechnology

• Today development in the field of biotechnology is so rapid and of far reaching consequences. Through genetic manipulation, changes can be made at the level of species as well as life as a whole. This means that the ability of humankind to design and alter the original genetic make-up of organisms and even life itself has increased.



- Biotechnology in Malaysia:
 - R&D funding, international network, biovalley, tax incentives

Some Preliminary Observations

- Biotechnology is a fact of life (those who hope to dissuade governments, corporations, scientists, to stop research, have to come out of their state of denial).
- Scientists need not feel that they are under attack.
- Science is a part of culture.
- But why the negative image?

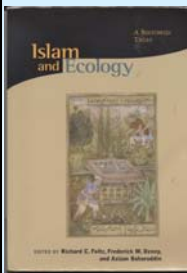


Implications

1. The issue of man playing God.
2. The relationship between man and nature.
3. Ethical guidelines (ethics, legal, religious) being sought.

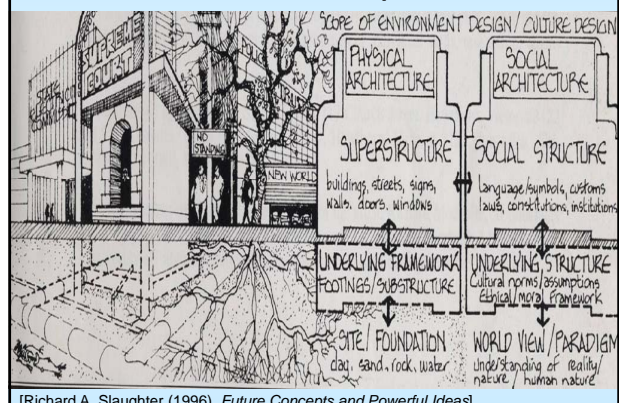


Biotechnology and Ethics



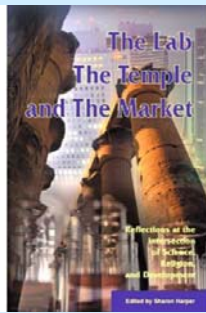
- It is also a fact that everyone accepts that ethics and values are necessary (including atheists/ secularists).
- Values: beliefs coming from worldviews which are comprehensive pictures of reality.
- Source of worldview is religion.
- Scientists and societies are affected by values arising out of religion

Holistic Development



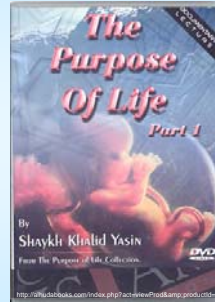
[Richard A. Slaughter (1996). *Future Concepts and Powerful Ideas*]

- Ethics : are based on values code of conduct
- Decisions, actions, behavior(legal, cultural, practices)
- Values → ethics → decisions/policies
- Need for religion to give inputs in the solving of problems
- Environmental ethics and bioethics as examples



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Critical need to focus on values and worldviews



- Two predominant ones :life-centered vs. man-centered.
- Man-nature dualism to be transcended, role of religion.
- Religion provides the content of worldview as well as meaning and purpose of values.

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DISCOURSING SCIENCE AND RELIGION

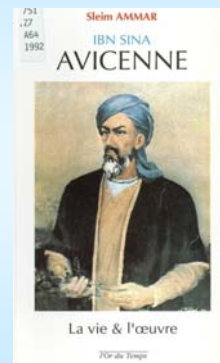
- WHY IS IT IMPORTANT ?
- ISSUES OF DEVELOPMENT (especially via science & technology)
 - ❖ Not holistic
 - ❖ “Modern” models
 - ❖ Paradigms of progress
 - ❖ Dichotomy between spirit and matter
 - ❖ Biotechnology a possible case in point



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DEFINING SCIENCE AND RELIGION

- Demystifying the terms
- Science, *scientia*, knowledge, *ilm*
- Knowledge obtained in an orderly manner
- Study of nature “natural” laws
- God as the law maker
- Close relationship between science and spirituality
- Potential has to be exploited



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RELIGION: MEANING AND SIGNIFICANCE

- An organized system of beliefs, ceremonies, practises & worship that centre on one supreme God
- Reasons for practicing religion : because it is a part of one's heritage/culture tribe/family
- Belief that a divine power watches over us-request of help from God
- Promise of salvation/happiness especially in life after death
- It gives meaning to life

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THE PROBLEMS PERCEIVED TO BE “ASSOCIATED” WITH RELIGION

- The job of religion is to transform behavior. Is religion doing this or is it successful at doing this?
- Need for religion or religious education to be deep (e.g. *Tasawwuf* or the purification of the heart in the religion of Islam) Need to stress upon the providentiality and immanence of the transcendent
- Need for religious adherents to manage their differences and highlight their similarities. Role of dialogue.

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THE PROBLEMS OF SCIENCE

- Lack of public understanding
- Lack of interest among the public
- Scientists left on their own
- Problem of run-away technology
- Not enough attention paid to the worldview of science and scientist
- Not enough attention paid to the influence of science and technology on societies/ individuals' worldview



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THE (PERCEIVED) PROBLEMS OF SCIENCE

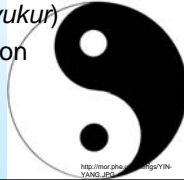
- Science synonymous with materialism, atomism, secularism
- Science married to purely capitalistic economics
- More applications of science impinging upon ethical issues requiring value inputs
- Only religion can offer 'values' and principles that could 'guide' the solving of issues
- Similarly values from religion can help solve issues pertaining economics and development in general



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SCIENCE AND VALUES

- Phenomenon of run-away technology
- The effect of advances in science and technology on our way of life-pace of life, attitudes, relationships, loyalties
- Effects: transience, materialism, impatience, lack of appreciation/gratitude (*syukur*)
- Need to marry science and religion (complementary theory)

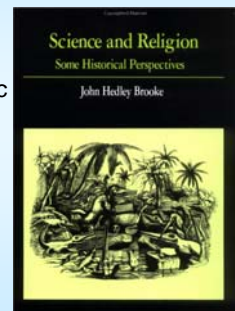


<http://www.globe.com.sg/yinyang>

BRIDGING THE GAP BETWEEN RELIGION AND SCIENCE

Role of theology of nature

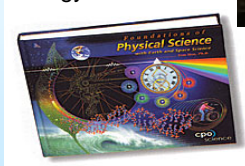
- Many significant similarities/ correlations between scientific facts and revelational (religious) statements/ideals/ preceptions that serve to increase faith.
- Precedence in Islamic and Christian Theology



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LEGITIMATE AREA OF STUDY

- There is a science of discourse
- Academically and philosophically, formally
- Informally, in daily life
- Problems and difficulty
- Language-theology



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THE TASK OF RELIGION



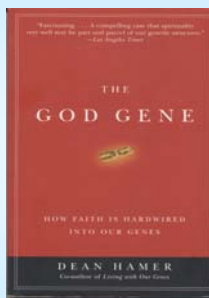
Al-Khwarizmi (780-850)

- Realise that it is the oldest form of human institution
- Understand its source, arguments vis-à-vis reality, nature, environment, current knowledge i.e. Biotechnology)
- Articulate itself as well as possible
- In the context of plurality of opinions See beyond what divides and move to see what is shared.
- Give commitment to solving 'worldly problems (such as posed by biotechnology)

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EXAMPLES OF VIEWS

- Fritjof Capra (American physicist): *The Tao of Physics*
- Sir Frederick Hoyle (British astronomer)
- William James (psychologist): *On the Varieties of Religious Experience*
- James Fowler (psychologist): *Stages of Faith*
- Dean Hamer (Geneticist): *The God Gene*
- A serious need for theologians to express stands and arguments



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ISLAMIC RESPONSE

- Generally to Muslims the field of biotechnology is not new especially in food & agriculture.
- New developments are welcome as long as limitations are observed.
- Islam encourages the search for knowledge and innovation for the enhancement of quality of life



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BASES FOR CONSIDERATION OF RESPONSE

1. **Scriptures and Basic Teachings**
 - *Quran, Hadith*
 - *Ijma* (consensus)
 - New knowledge, *Ijtihad*
2. **Process & mechanism**
 - *Ijtihad & Fatwa*
 - Need for scientists and ulama to work together with
 - Industry, consumers, media, policy-makers
3. **Maqasid al-Shariah (Objectives of Shariah)**
 - Protection of faith, life, lineage, reason, wealth/possession
4. **Ethical Code vis-à-vis use of science and technology (fatwa committee)**

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ISLAMIC PERSPECTIVE RE NATURE

“All creation originates from the creator. All creation form an interlocking grid, and man is part of the grid. Everything in nature are interconnected”

(Concept of Ecology)

- Islam (Quran) explains how we should understand the natural order.
- It defines the responsibility of mankind.
- It explains the limitation that man should observe: *Tauhid, Fitrah, Mizan, Khalifah*
- *Tauhid*= Knowledge and divine guidance
- *Fitrah*= 'Naturalness' and its equivalence to what is and what should be
- *Mizan*= Balance
- *Khalifah*= Trusteeship/ Stewardship

(Fazlun Khalid, Founder Islamic Foundation For Ecology and Environmental Sciences)

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SELECTED SCRIPTURAL VERSES

All creations in the heaven and earth belong to Him alone; each one submits to him laws.

Quran: Chapter 112 (The Purity of Faith) Verse 1- 2

“It is He who hath made You (His) agents, inheritors, of the earth: He hath raised you in ranks, some above others: that He may try you in the gifts He hath given you for thy Lord is quick in punishment: yet He is indeed Off-Forgiving, Most Merciful.”

Quran: Chapter 6 (The Cattle) Verse 165

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SELECTED SCRIPTURAL VERSES (contd)

“For each (person), there are (angels) in succession. Before and behind him. They guard him by the command of Allah. Verily never will Allah change the condition of a people until they change it themselves (with their own souls)...”

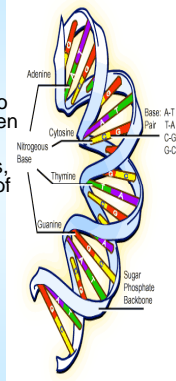
Quran: Chapter (The Thunder) Verse 11

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Issues and Challenges

Lack of knowledge in the field causes worry about:

1. Putting in foreign genes artificially into the original genetic code which have been in stable existence for millions of years.
2. Many serious questions regarding ethics, law and society have arisen as a result of Genetic Engineering.
3. Technology exploitation dangerous to health due to risks being unknown.
4. Possibility of genetic engineering giving rise to materials that can destroy the environment (irreversible changes).



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- Based on the above, in 2001 The Islamic Academy of Sciences have stipulated:
 - Genetic Engineering which even if only in its processes is dangerous will be rejected even if the promised product is commercially viable.
 - Genetically Modified Food (GMF) must not be distributed until knowledge that it is safe is sufficient.



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Recommendations International Conference on Bioethics Values & Culture (2004)

1. National Committee on Bioethics and Values must be established in all countries.
2. Need for universal formula for harmonising bioethics with local condition.
3. Priority use of GE is for overcoming poverty.
4. Legal instruments required to oversee "greed" and "run-away technology".
5. Increase awareness regarding bioethics through education.
6. Understand the difference and similarities between ethics based on religion and ethics based on rationalism.

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Fatwas (Malaysia)

1. Role of Fatwa Council
2. 1990: Ruling on foods, drinks processed using unpermissible DNA/by-products (*HARAM*) (bad)
3. 2002: Ruling on research on cloning. Human cloning is forbidden (*HARAM*)
4. 2002: Use of stem cells. *HARUS* (permissible if...) as long as usage is justifiable
5. Explanations/justifications
6. Challenges: *Halal* (good) & *Haram* has to be linked to principle of *TAYYIB* (good)

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Conclusion

- Goal of bioethically matured society
- A bioethically matured society is one with the ability to **balance** (*mizan*) the benefits and risks of application of biotechnology

(Daryl Macer, 2006)

- For such a society to exist, both science and religion have to work together

'Science without religion is lame,
religion without science is blind'

(Albert Einstein)



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THANK YOU

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