



The full text of items on this page – and further news and background information about the Unesco/ICSU World Conference on Science, to be held in Budapest from 26 June to 1 July – can be found on *Nature's* website at <http://www.nature.com>

## Science told to slow down and let ethics debates catch up

[MONTREAL] If scientific discoveries threaten to outstrip efforts to place their application in an ethical context, “science will need to wait and to help ethics to catch up”, according to a leading Canadian bioethicist.

Margaret A. Somerville, a law professor at McGill University’s Centre for Medicine, Ethics and Law in Montreal, says that “science time, medical time, business time, political time and ethics time” are on different scales, and that “this can be a source of serious difficulty in doing ethics regarding our new science”.

She points out that scientists “have an enormous drive and enthusiasm for discovery”, and that business also wants to proceed as quickly as possible, while politicians are subject to the ‘do something’ pressure of the electorate, especially in relation to threats to health or life, such as the shortage of organs for transplants.

“In contrast, ‘doing ethics’ in relation to the new science may not be able to be speeded up. There may be an irreducible minimum time needed both to obtain the necessary facts on which to base good ethics, and for a ‘sedimentation-of-values’ process to take place.”

She also suggests that a minimum amount of time is needed for the public to become familiar with the meaning of a scientific development in terms of its potential benefits, risks and harm, “not only at the physical level, but also at the level of its potential impact on values, norms, traditions, customs, cultures, beliefs, attitudes, and so on”.

Somerville argues that there is a difference between simply delivering information on ethics to the public, and engaging the public in discussion about a new technology. “The latter takes time. Indeed, how to engage the public adequately and effectively in ‘ethics talk’ is a difficult question.”

The instant worldwide access to scientific developments also raises ethical issues, she argues. For example, countries that lack the research infrastructure needed to develop xenotransplantation can use this technology when it has been developed elsewhere.

“But they might not do so safely for either the research subject/patients involved, or the public, and they may not do so ethically. In short, many new scientific techniques, such as xenotransplantation, need universal ethical regulation.”

Full text: <http://helix.nature.com/wcs/c13.html>

## Africa ‘needs a linguistic and gender revolution’

[HAMMAMET, TUNISIA] An African renaissance is unlikely to happen while English remains the main medium for science education, and without concerted efforts to involve women, according to Ali Mazrui, professor emeritus of Africana Studies at Columbia University, New York.

In a keynote address to the fifth general conference of the African Academy of Science, in Hammamet, Mazrui said that one reason why science had failed in Africa was the “masculine bias” of educational institutions both before and after independence.

Another reason, he suggested, was the failure of both the colonial powers and the continent’s independence leadership not only to acknowledge indigenous African medicine and technology, but also to convey discoveries and ideas in modern science in Africa’s indigenous languages.

“Africa’s educational system is good at transmitting the Western literary heritage, but not the scientific heritage,” said Mazrui. He pointed out that Julius Nyerere, first president of Tanzania, translated Shakespeare’s *The Merchant of Venice* and *Julius Caesar* into Kiswahili. “Why couldn’t anyone do the same for Darwin’s *On The Origin of Species*, or *The Descent of Man*?” he asked.

Similarly Milton Obote, a former president of Uganda, had taken his first name



Mazrui: shake off the imperial legacy.

from the poet John Milton. “Why has there not been an African Newton Obote, out of admiration for the great physicist?”

The provision of science education in indigenous languages must be a priority for any future African development policy, said Mazrui. Countries such as Japan and South Korea had developed using their own languages. “Can Africa take off while it is hostage to the languages of former imperial powers?” he asked.

“When Japanese physicists meet, they can discuss advanced physics in Japanese,” said Mazrui. “But, when two African economists meet, they are unable to use any language but English, even if they come from the same African linguistic group.”

Mazrui added that Africa was unlikely to develop unless the role of women was recognized as being on a par with that of men. “In African societies, women are the trustees of indigenous languages. A linguistic revolution needs to be reinforced by a gender revolution — an androgynization of science.”

Full text: <http://helix.nature.com/wcs/c14.html>

## Unesco pushing for a ‘Decade for Science’

[LONDON] Unesco officials may ask the United Nations (UN) general assembly to declare the first decade of the millennium the ‘Decade for Science’, as a follow-up to the forthcoming World Conference on Science.

The idea has obvious appeal as a way of boosting follow-up to the conference. But support for such a declaration will not be easy to obtain, as the UN has already named that period the international decade for the culture of peace and nonviolence for the children of the world. Similarly, 1997–2006 is the decade for the eradication of poverty, 1995–2004 is the decade for human rights education, and 1995–2004 is the decade of indigenous people.

A second option would be to declare a single year the ‘year of science’. But the UN calendar is full until 2006. Peace and thanksgiving will be observed in 2000, with volunteers, mountains, racism and xenophobia, ecotourism and ‘small loans’

pencilled in for the following years.

David Wardrop, honorary secretary of the UK–Unesco Forum, says that the idea of parallel themes is becoming less popular with governments, as multiple themes make less of a global impact than one. The current decade, for example, has no fewer than five separate themes: eradication of colonialism; development; natural disaster reduction; drug abuse; and international law.

UN annual and decadal themes are designed primarily to raise public and political awareness on social and environmental issues. Wardrop says that decadal themes are more likely to lead to practical policies than single years devoted to issues, as there is more time for governments and non-governmental organizations to mobilize action. The decade for the disabled, for example, is widely considered to have been a success.

Full text: <http://helix.nature.com/wcs/a29.html>