

We need have no fear of interference with nature Emotion is stopping us embracing the benefits of gene manipulation

<http://www.guardian.co.uk/Archive/Article/0,4273,4186811,00.html>

*Mary Warnock in the Guardian - Tuesday May 15, 2001
(The author is a member of the Lords. Extracted from a lecture at Gresham College).*

When Prince Charles, in his Reith lecture last year, rebuked biologists for drawing society into an area which "belonged to God and God alone", urging them to try, if they wished, to understand nature, but not to change it, he drew a response from many confused and vaguely frightened people. The new biotechnology seems to have opened up possibilities of changing the genes of plants and animals in a way which nature, or God as the creator, never intended.

Prince Charles is no fool. He did not need his father or his sister to point out, as they did, that human beings had been interfering with nature as long as they had sown crops for their own use, or bred cattle for milk or meat. But he contrasted producing genetically modified crops with traditional methods of agriculture which have stood the test of time because "they are working with the grain of nature". Which way does nature's grain lead us?

Human nature is thought to be determined by its genes, genes which may be shared across all species from the lowly fruit fly to plants themselves. So are those who fear that genetic manipulation is a threat to nature simply expressing their outrage at the diminution of the status of man, his now unspecial place in nature, as the Victorians did in the great rows of the 19th century with the church?

I do not think so. After all, many people who probably believe in no gods at all nevertheless accuse biological scientists of seeking to "play God". In this country at least there are not many who would deny the theory of evolution. The argument has moved on; and those who object that genetic manipulation is against nature are not merely re-enacting the passionate disputes of earlier times, for they accept most of the Darwinian premises.

The fear that lies behind the objections seems to be a fear that the laws of nature themselves are no longer to be relied upon. Jonathon Porritt, former director of Friends of the Earth, wrote in his book *Playing Safe* that "the hard lines between different organisms and species are beginning to melt away. We can now pick and choose individual genes from one organism to introduce into a totally different and unrelated organism, crossing all biological boundaries in combinations that nature never could and never would bring together."

In a society which we are constantly reminded is "plural" - no one set of moral principles or even laws being better or more valid than any other - it seems particularly terrible if the certainties of laws of nature itself can be eroded.

It was upon such fears that, Mary Shelley played, as long ago as 1818, in her story *Frankenstein or the New Prometheus*. She deliberately sought to "speak to the mysterious fears of our nature, and awaken thrilling horror".

This was the myth of an unnatural creature being formed in the laboratory whose growth and behaviour could not be controlled. In the 1920s, we had the myth of Aldous Huxley's *Brave New World*, in which races of creatures could be produced who would be all too well controlled, who would be designed indeed to fulfil specific functions. Both myths, not so

much scientific as social and political, certainly inspire terror, and both live on in the kind of language used of biological scientists.

Our attitude towards nature is complex and has a history; the word itself has resonances which are strongly influenced both by the attitude of respectful observation of nature and that of the romantic searching of nature for our own proper dwelling, for where we feel that we most deeply belong.

Both of these attitudes derive from the change in sensibility that came about roughly at the time of the French revolution, the end of the Age of Enlightenment.

It would be impossible for us to free ourselves from such attitudes if only because of the immense influence on us that is exercised by European and American art of the period. Nor do I suppose that many of us would want to be rid of them, since for many they afford the greatest pleasures in life.

But we are also subject to the influence of Darwinian biology, and the new way in which we have been taught to think of nature as one organism, whose "building blocks", as we are frequently told, are genes.

In such a world, we are confronted not only by science which has discovered and will discover more and more about how these genes work, with one another and with their environment, but also by increasingly sophisticated technology, needed both for the discoveries themselves and for any interventions which agriculturists or doctors may decide to undertake.

It is doubtless prudent to be fairly cautious in what interventions there should be. But a modest conservatism does not entail that nothing new should ever be tried. Nor do I believe that the resonance and emotive force contained in the word "nature" should have any power to influence the decisions of society as to what is or is not an acceptable intervention.

If it can be shown, as I believe it can, that the genetic modification of rice to make it more tolerant of adverse weather conditions would make a great difference to the level of nutrition in countries where rice is the most important element of diet, then common humanity demands that such modified rice should be made accessible.

If it can be shown that nuclear cell transplant (and thus the transplant of genes) can effectively restore someone's damaged liver, brain or spinal cord, then the common humanitarian concerns which have always been the concerns of medicine should be permitted to develop the technology necessary for such treatment.

That it is perhaps "against the grain of nature" is no more relevant an argument against it than it would be to claim that a replacement hip joint is against the grain of nature.

There is just one hypothetical case in which I might myself be inclined to use the argument that a development was, in an injurious sense, "against nature". This would be the case where someone decided that if one cell in a human or other animal body could be replaced and regenerated then all the cells could be so treated again and again, so that the person or animal never died.

I would argue that all our attitudes to nature, all our love and respect for it depend on its ephemeral, or at least fragile, essence.

And this fragility of course extends to our notion of ourselves. If prolonging our lives indefinitely were really on the cards, then I for one would wish to legislate against it on the grounds that all men are mortal, and to deny this would be to deny our very understanding of the world.