## Ethics and Biotechnology: Realities and Uncertainties

Introduction *Kamla Chowdhry* 

In this session on ethics and biotechnology we have three very distinguished speakers. But this has also been a conference on partnerships. We have been talking about partnerships a great deal, so I would like to quote this little poem from *Alice's Adventures in Wonderland* (Carroll 1865):

I passed by his garden and marked, with one eye, How the Owl and the Panther were sharing a pie. The Panther took the pie-crust, and gravy, and meat, While the Owl had the dish for his share of the treat. When the pie was all finished, the Owl, as a boon Was kindly permitted to pocket the spoon: But the Panther obtained both the fork and the knife, So when he lost his temper, the Owl lost his life.

(Presenter's version)

If we are involved in fostering partnerships, we should see to it that we do not have these kinds of partnerships—in which one stronger partner eats the other partner. This session is about partnerships between biotechnology and ethics. Hopefully, we will think of the panther and the owl as we go along.

It seems to me that the whole problem of science and technology—the way they have developed in the past 100 to 200 years—is that they have given human beings almost unlimited power and control over nature. But this has not taught humankind how to control itself. This lopsided development threatens the future of humanity; the battle for the survival of the human race must involve ethics and a concern for values of equity.

The early history of science and technology is steeped in violence. Scientists and technologists have used science for the domination of nature, and the domination of nature for people's use. The underlying social and cultural values sanctioned the exploitation of nature in any form, including the exploitation of women, for the benefit of humanity.

To illustrate my point, let me give you some quotations from Francis Bacon, one of the fathers of the scientific movement. "Nature has to be hounded in her wanderings," "bound into service," "made a slave," "put into constraint." The aim of science, Bacon said, is to "torture nature's secrets from her." Nature was female, and could therefore be exploited and violently dealt with. One can see the violence with which nature was to be dealt with by the way it was utilized for the benefit of humans. Science and technology also developed specialization to an extent that it is difficult to see people in society as a holistic part of nature anymore. This is what the ecological sciences are bringing us back to, what Captain

Cousteau was able to bring to us, a holistic vision of nature and its relations with living beings.

The yearning of mortals for prolonging life by biochemical processes and gene manipulation is creating moral and ethical questions. Death is no longer considered as a necessity belonging to the nature of life, but as an avoidable end, or at least one which can be postponed. How desirable is this for the individual and for the species? These questions involve the very meaning of our finiteness, the attitude toward death, and the balance of death and procreation.

The promised gifts of technology have raised questions of choice never raised before. These questions have to be dealt with ethically, not merely by greater scientific endeavors or by market benefits, but by greater partnerships between technology and ethics. With the growth of science and technology we are constantly confronted with issues and choices which require supreme wisdom. The length and reach of our actions in space and time put people's responsibility and their ethics in center stage.

Let us hear what wisdom our panel members have to suggest on this topic.

## **Editor's Note**

1. In many cases in which Francis Bacon refers to "nature," his meaning is "human nature."

## Reference

Carroll, L. 1865. Alice's Adventures in Wonderland.