

Tekst 7

SCIENCE AND RELIGION

A new moral order

Brave New Worlds
Genetics and the Human Experience
by Bryan Appleyard

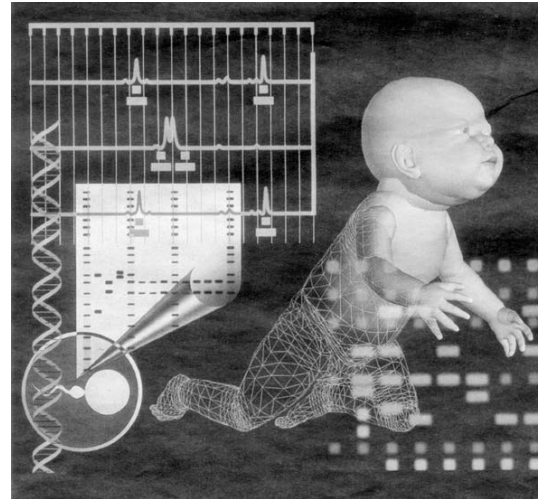
Karen Armstrong

1 Perhaps because we live in an increasingly pluralistic world, we have repeatedly witnessed a clash of orthodoxies during our troubled century. Today, in all leading faiths, religious fundamentalists believe that only their interpretation of tradition is correct. They are derided and even reviled by the more liberal establishment, which has, however, generated a form of secular fundamentalism (“Religion is absurd and demonstrably untrue: let’s get rid of it!”), which is similarly reductive and intolerant. Finally, there is a widespread scientific orthodoxy that also demands our total and exclusive allegiance.

2 Bryan Appleyard begs the reader to resist this scientific claim to be the sole arbiter of truth. This is a brave book. It will doubtless be vilified and Appleyard will certainly be accused, in some quarters, of wishing to return to the bigotry and irrationality of the Dark Ages. But this is part of the problem, and one of the reasons why this book needed to be written. Appleyard helps the non-specialist to confront and to appreciate the disturbing significance of some of the achievements of science.

3 Dolly the sheep made many of us feel queasy. One of the geneticists interviewed by Appleyard confessed that the possibility of parents being able to select the sex of their child horrified him, “although”, he added, “I cannot say why”. It is certainly frightening to imagine what might happen to a society in which, as a result of genetic research, it might be possible to abort a foetus who might one day be homosexual, violent, or simply too short. Appleyard denies that this is scaremongering. We all want our children to be happy and successful. It would be difficult for some parents to resist the opportunity of bearing only those children who fit the current social ideal.

4 This type of genetic engineering, Appleyard argues, is another form of eugenics, the science



Live issue: one geneticist confessed that selecting the sex of a child horrified him

that was discredited because of its abuse by the Nazis.

5 There is no discovery that cannot be used for an evil end, but is that a reason for halting experimentation? Obviously, if a cancer gene could be isolated, it would be a triumph to eliminate the suffering that the disease brings. In this sense, genetics is part of a noble endeavour.

6 But Appleyard had a niece (“the most extraordinary person I have ever known”), who has died since he wrote the book. She suffered all her life from muscular dystrophy, but despite her disability, she led a rich life and the lives of everybody who knew her would be immeasurably poorer if Fiona had not been born. There are no easy answers. Appleyard simply asks whether such mingled pleasure and pain is not essential to the human experience.

7 One of the main difficulties is that some scientists will not admit that there *is* a problem. They can be as dogmatic as any religious bigot in their claims for an exclusively scientific approach to life. Francis Crick, who pioneered research into the structure of DNA, has argued that all truths and values are simply molecular functions. Love, art, altruism, spirituality, mathematics, and human consciousness itself are, in this approach, mere evolutionary survival stratagems. To attempt to find “meaning” in life is pointless; there is simply scientific fact.

8 Such scientists believe that they have a mission to liberate us from religious delusions. Their language can be aggressive. Daniel Dennett speaks of Darwinism and artificial intelligence striking “a fundamental blow” at the

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“last refuge” of those who cling to a more spiritual view.

9 Yet, in claiming to be the sole bearers of truth, they give themselves Godlike attributes, even though, like every other human venture, science has often been wrong in the past. Why should today’s theories be any more immune to error?

10 Scientific beliefs and values should be submitted to the same rigorous scepticism as the truths of religion and philosophy. When they go wrong, all such orthodoxies can have a devastating effect upon society. Genetic science, swallowed uncritically, could radically undermine the institutions of liberal democracy. It is patently not true that all human beings are genetically equal, and, if we believe that our lives are totally determined

biologically, what becomes of our systems of justice, which hold individuals responsible for their actions?

11 Appleyard himself shows that religion has been affected by modern science. Many now believe that their doctrines are facts (instead of poetic symbols of the ineffable), and their myths history. Instead, perhaps those who are convinced of the need for some form of spiritual quest and who wish to challenge some of the possibly dangerous trends of genetics, should emphasise the basic and universal religious perception that every human is sacred and inviolable – a belief that requires no simplistic or literalistic conception of the supernatural.

‘The Sunday Times’

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- Alinea 1 bevat indirect Karen Armstrongs eigen oordeel over de verschillende soorten fundamentalisme in de wereld.
- 1p 19 \ddot{Y} Uit welke woorden kan haar oordeel opgemaakt worden? Citeer deze woorden.
- 1p 20 \succ Which of the following explains 'But this is part of the problem' (paragraph 2)?
- A Among scientists there is intolerance towards any doctrine not based on science.
 - B Appleyard has failed to do the scientific groundwork for his theory.
 - C It is easy for scientists to criticise Appleyard, for he is not a scientist.
 - D Scientists are willing to accept criticism from like-minded scientists only.
- 1p 21 \succ What is paragraph 3 meant to illustrate?
- A The growing resistance to the findings resulting from scientific research.
 - B The moral dilemmas posed by scientific progress.
 - C The undeniably beneficial influence of science on society.
 - D The widespread abuse of the achievements of scientific research.
- 1p 22 \ddot{Y} Citeer uit alinea 3 een zinsgedeelte dat duidelijk maakt wat Appleyard bedoelt met "another form of eugenics" in alinea 4.
- 1p 23 \succ Why does Appleyard discuss his niece in his book (paragraph 6)?
- A To give an example of a case in which genetic engineering could not have prevented disease.
 - B To make clear that she would have benefited from genetic engineering.
 - C To suggest that genetic engineering might reduce the quality of life.
- 'To attempt ... scientific fact.' (last sentence paragraph 7)
- 1p 24 \succ Whose opinion does this reflect?
- 1 Bryan Appleyard's
 - 2 Karen Armstrong's
 - 3 Francis Crick's
 - 4 Daniel Dennett's
- A Only 1 is correct.
 - B Only 2 is correct.
 - C Only 4 is correct.
 - D 1 and 2 are correct.
 - E 2 and 3 are correct.
 - F 3 and 4 are correct.
- 1p 25 \succ Which of the following could be inserted between 'should' and 'be submitted' in the first sentence of paragraph 10?
- A , for instance,
 - B , moreover,
 - C , nevertheless,
 - D , therefore,
- 1p 26 \succ Which of the following is in line with the writer's point in paragraph 10?
- A Explaining life in terms of genes denies the existence of the free will.
 - B Genetic engineering will lead to a loss of individual characteristics in people.
 - C Science unchecked by religion threatens the survival of mankind.
- 1p 27 \ddot{Y} Citeer uit alinea 11 het zinsgedeelte dat de kern vormt van Karen Armstrongs morele overtuiging met betrekking tot de genetische wetenschap.