Tekst 4

The costly appliance of science

Genetic selection has some alarming implications - and could widen the wealth gap beyond repair.

Peter Singer

1 The advance of knowledge is often a mixed blessing. Over the past 60 years, nuclear physics has been one obvious example of this truth. Over the next 60 years, genetics may be another.

2 Today, enterprising firms offer, for a fee, to tell you about your genes. They claim that this knowledge will help you live longer and better. You might, for example, have extra checkups to detect early signs of the diseases that you are most at risk of contracting, or you could alter your diet to reduce that risk. If your chances of a long lifespan are not good, you might buy more life insurance, or even retire early to have enough time to do what you always wanted to do.

3 Defenders of privacy have worked, with some success, to prevent insurance companies from requiring genetic testing before issuing life insurance. But if individuals can do tests from which insurance companies are barred, and if those who receive adverse genetic information then buy additional life insurance without disclosing the tests that they have taken, they are cheating other holders of life insurance. Premiums will have to increase to cover the losses, and those with a good genetic prognosis may opt out of life insurance to avoid subsidising the cheats, driving premiums higher still.

4 **5**. The United States government accountability office sent identical genetic samples to several of the testing companies, and got widely varying, and mostly useless, advice. But as the science improves, the insurance problem will have to be faced.

5 Selecting our children raises more profound ethical problems. This is not new. In developed countries, the routine testing of older pregnant women, combined with the availability of abortion, has significantly reduced the incidence of conditions such as Down's syndrome. In some regions of India and China where couples are anxious to have a son, selective abortion has been the ultimate form of sexism, and has been practised to such an extent that a generation is coming of age in which males face a shortage of female partners.

6 Selection of children need not involve abortion. For several years, some couples at risk of passing a genetic disease on to their children have used in vitro fertilisation, producing several embryos that can be tested for the faulty gene and implanting in the woman's uterus only those without it. Now couples are using this technique to avoid passing on genes that imply a significantly elevated risk of developing certain forms of cancer.

7 Since everyone carries some adverse genes, there is no clear line between selecting against a child with above-average risks of contracting a disease and selecting for a child with unusually rosy health prospects. **7**, genetic selection will inevitably move towards genetic enhancement.

8 For many parents, nothing is more important than giving their child the best possible start in life. They buy expensive toys to maximise their child's learning potential and

spend much more on private schools or after-school tutoring in the hope that he or she will excel in the tests that determine entry to elite universities. It may not be long before we can identify genes that improve the odds of success in this quest.

9 Many will condemn this as a resurgence of “eugenics”, the view, especially popular in the early 20th century, that hereditary traits should be improved through active intervention. So it is, in a way, and in the hands of authoritarian regimes, genetic selection could resemble earlier forms of eugenics, with their advocacy of odious, pseudoscientific official policies, particularly concerning “racial hygiene”.

10 In liberal, market-driven societies, however, eugenics will not be coercively imposed by the state for the collective good. Instead, it will be the outcome of parental choice and the workings of the free market. If it leads to healthier, smarter people with better problem-solving abilities, that will be a good thing. But even if parents make choices that are good for their children, there could be perils as well as blessings.

11 In the case of sex selection, it is easy to see that couples who independently choose the best for their own child can produce an outcome that makes all their children worse off than they would have been if no one could select the sex of their child. Something similar could happen with other forms of genetic selection. Since above-average height correlates with above-average income, and there is clearly a genetic component to height, it is not fanciful to imagine couples choosing to have taller children. The outcome could be a genetic “arms race” that leads to taller and taller children, with significant environmental costs in the additional consumption required to fuel larger human beings.

12 The most alarming implication of this mode of genetic selection, however, is that only the rich will be able to afford it. The gap between rich and poor, already a challenge to our ideas of social justice, will become a chasm that mere equality of opportunity will be powerless to bridge. That is not a future that any of us should approve.

The Guardian

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2p **4** Geef van elk van de volgende beweringen aan of deze wel of niet in overeenstemming is met de inhoud van de alinea's 1-3.

1 If your genes reveal that you are prone to an illness, there is nothing you can do in the way of prevention.
2 The decision to undergo genetic tests should not be taken without considering the consequences.
3 The knowledge that you are unlikely to live long can be used unfairly when taking out insurance.
4 Insurance companies may have taken undue advantage of people whose genetic test results contain bad news.

Noteer het nummer van elke bewering, gevolgd door "wel" of "niet".

1p **5** Which of the following sentences fits the gap at the beginning of paragraph 4?

A The build-up of evidence is impressive
B The problem is worldwide
C This is only the tip of the iceberg
D We need not become too alarmed yet

1p **6** Which of the following can be concluded about the genetic selection of children from paragraph 5?

1 It can be adopted to suit social or cultural views.
2 It has improved the prospects of those with a genetic deficiency.

A Only 1 is true.
B Only 2 is true.
C Both 1 and 2 are true.
D Neither 1 nor 2 is true.

1p **7** Which of the following fits the gap in paragraph 7?

A However
B Moreover
C Similarly
D Thus

1p **8** What is the main point made in paragraph 8?

A Parents who rely on genetics to improve their children's chances in education are falling for a hype.
B Parents with academic ambitions for their children might well turn to what genetics has to offer.
C Parents wrongly believe that an academic career guarantees their children's happiness.

3p **9** Geef voor elk van de volgende beweringen over "eugenics" (eerste zin alinea 9) aan of deze wel of niet in overeenstemming is met de inhoud van de alinea's 9 en 10.

1 It is by definition an immoral practice.
2 It will attract people whose genes already give their offspring good chances in life.
3 The way it was practised in the past has given it a bad reputation.
4 Its impact depends on whether it does indeed improve hereditary traits.
5 Parents will shy away from it because of the risks involved.
6 Parents will ensure their children only experience its benefits.

Noteer het nummer van elke bewering, gevolgd door "wel" of "niet".

"can produce an outcome that … worse off" (paragraph 11)
Eerder in de tekst geeft de schrijver een voorbeeld van deze "outcome".

1p **10** Welk voorbeeld?
Geef antwoord door het betreffende zinsgedeelte te citeren.

1p **11** What does the writer illustrate in paragraph 11?

A An advantage for everyone ceases to be an advantage.
B Every person tends to think of his own case as special.
C Individual gain may lead to collective loss.
D Unrestrained individual freedom invariably leads to the need for regulation.

1p **12** Which of the following quotations contains a moral judgement on the part of the author?

A "Today, … your genes." (paragraph 2)
B "It may … this quest." (paragraph 8)
C "The gap … to bridge." (paragraph 12)

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