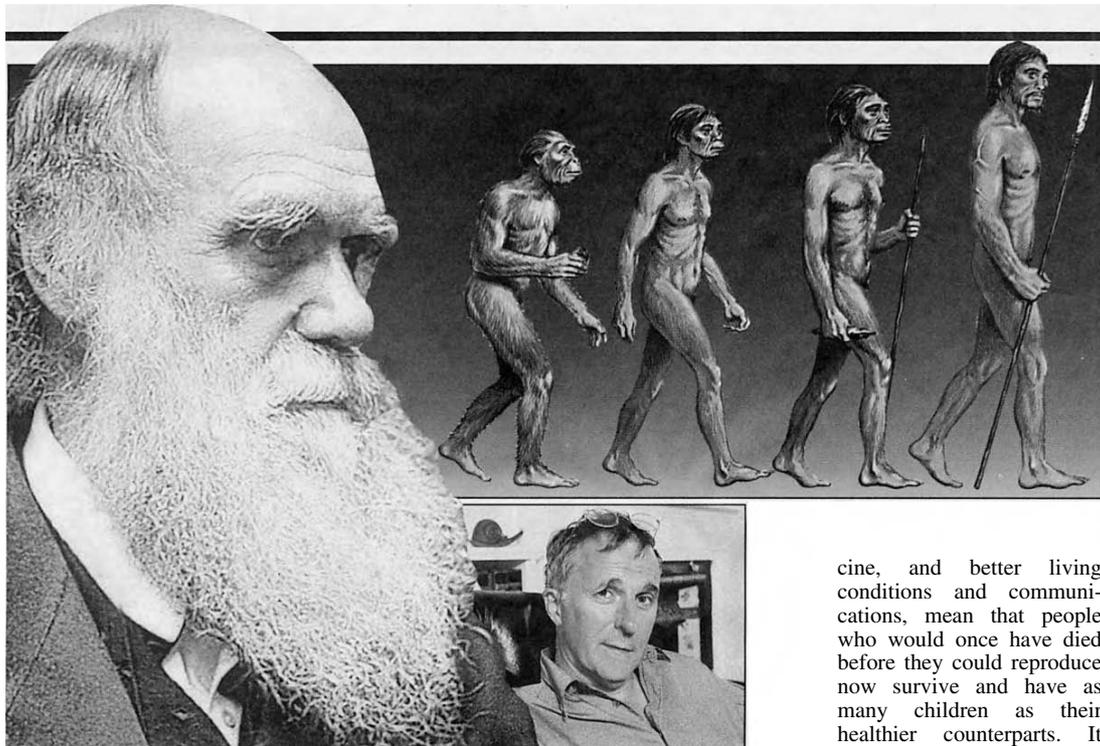


## Tekst 5



Professor Steve Jones, right, says Darwin's theory of mankind's development is now extinct

## Humanity hits the genetic buffers

WE are as good as it gets. The human form has reached evolutionary perfection, according to one of Britain's most respected geneticists, and has nowhere else to go.

Research by Steve Jones, professor of genetics at University College London, suggests that Darwin's theory of evolution no longer works in modern society. Natural selection – the process described by Darwin where nature favours society's fittest and weeds out the rest – 22, he says, because the weak reproduce just as efficiently as the strong.

Jones's claim will 23 many biologists. Primates have been seen as one of the fastest evolving species and many scientists expected their evolution to continue.

### Jonathan Leake and Guy Dennis

The first hominids<sup>3)</sup> developed only a million or so years ago – a blink of an eye in cosmic terms – and underwent huge changes in body shape and brain power. Why should human development stop now?

Jones has analysed the three factors that allow Darwinian evolution to take place: mutation, natural selection and random change in populations. He believes modern man's lifestyle and his ability to reshape the world have made those forces almost obsolete.

Mutation, 24, is caused by factors such as radiation, some foods and mistakes made by our DNA, the molecules that hold the

blueprint for life, as it divides. The overriding factor in mutation is, however, age – the older the parents of a child, the more mutations that child will inherit.

Amazingly, Jones has found the average age of parents in the western world is 25 and so are the number of mutations carried by their children. Fewer mutations means there is less variety among people for natural selection to work on.

When Darwin devised his theory of evolution 150 years ago, cars were unknown and antibiotics were more than half a century away. Now, modern medi-

cine, and better living conditions and communications, mean that people who would once have died before they could reproduce now survive and have as many children as their healthier counterparts. It means that 26 no longer necessarily predominate.

Other scientists, however, argue that evolution has evolved into a new form. One of Jones's most powerful 27 is Christopher Wills, a Briton who is professor of evolutionary biology at the University of California in San Diego. He believes evolution among modern man is accelerating, but is invisible. Where once muscle power was the driving force, now it is ideas, with natural selection dependent on 28. Wills believes the process is at work in an accelerated form in countries such as Russia where people are under intense stress. "It means there is a premium on sharpness of mind," he said.

However, Jones has support from other biologists. Richard Dawkins, author of *The Selfish Gene* and former professor of zoology at Sussex University, said: "There has been pretty much a stop to ordinary natural selection in the sense of who lives and who dies. The result is that 29 are now eternally fixed in shape."

*The Sunday Times*

## ■ Tekst 5 Humanity hits the genetic buffers

*Kies bij iedere open plek in de tekst het juiste antwoord uit de gegeven mogelijkheden.*

1p **22** ■

- A does not apply anymore
- B has made a comeback
- C has never worked
- D is still going on

1p **23** ■

- A convince
- B please
- C shock

1p **24** ■

- A by contrast
- B for example
- C moreover
- D therefore

1p **25** ■

- A dropping
- B rising
- C stable
- D unstable

1p **26** ■

- A diseases
- B mutations
- C the fittest
- D the young

1p **27** ■

- A colleagues
- B critics
- C supporters
- D teachers

1p **28** ■

- A genetic engineering
- B human fertility
- C mental development
- D physical strength

1p **29** ■

- A all known animals
- B evolutionary theories
- C our human bodies
- D social structures