

## Tekst 6

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### Double trouble

Catherine Bennett

#### **A Clone of Your Own: The Science and Ethics of Cloning**

by Arlene Judith Klotzko

- 1 Considering that hardly anyone is quite sure what it is, we hear an awful lot about cloning. True, many people registered the arrival of Dolly the sheep, in 1996, and may be dimly aware that whatever process produced this arthritic herbivore is now connected with the claims of various braggarts that they have either just created, or are on the verge of creating, the first human clone. However, the respectful hearing accorded to these implausible clinicians, who would be left to yell in the street if they made similarly unfounded assertions about any other area of medical research, confirms only how much we have to learn. Step forward bioethicist and lawyer Arlene Judith Klotzko.
- 2 Her plan, in this handy introduction to the science and ethics of cloning, is to help us distinguish the current state of laborious scientific experiment from the fervid, largely fiction-induced images of doom that distort virtually every debate on the subject in British public life. Cloning means Brave New World, zillions of Hitlers, Frankenstein, Jurassic Park. It is as if we were unable to talk about the landings on Mars without invoking Dr Who, or rising sea levels without mentioning Kevin Costner and his fins in Waterworld.
- 3 Klotzko tells us to calm down, for two main reasons. First, because human cloning probably won't happen for ages, and not only because it's illegal. Most animal clones are still "seriously abnormal". "Cloning has produced lambs that could not catch their breath - unable to propel their blood through enormous blood vessels that were 20 times larger than normal." Scientists have yet to clone a dog or a monkey. Second, cloning is not inherently ethically distasteful. Cloned individuals would be individuals too.
- 4 The first part of her argument is less reassuring than the second, not least because, as she lets slip rather early on, the art of nuclear transfer "is not all that difficult to learn. Indeed a teenage girl, working as a summer intern at an American biotechnology company, was able to clone a pig." What a promising scenario for a Hollywood teen slasher: working alone in her bedroom one long, hot summer, a brilliant young science student decides to prove to her mocking friends that she really can clone a litter of cute piglets. Experimenting, she puts some of her own DNA in the mix. Within weeks, giant killer swine are prowling the American suburbs, each one equipped with manicured trotters and the mind of an Einstein ...
- 5 In reality, Klotzko assures us, cloning science is frightfully well regulated, sometimes overly so, and not remotely lurid. Indeed, in her tranquillising hands it is virtually drained of colour. Although she is a fairly capable interpreter of laboratory language for the scientifically illiterate, Klotzko is deficient in the narrative and descriptive skills that are, as some of her peers have shown, the most effective way to narrow the gulf of

understanding between scientists and the public. Dotted through her imperturbable summary are hints that the history of cloning research is as full of intriguing characters, plot twists and consuming rivalries as any other field of human endeavour. But Klotzko avoids the details, biographies and quotations that might bring it to life, and glosses over disputes and research scandals.

- 6 Her more contained view of scientists may be the result of over-familiarity. For it becomes clear from her language when Klotzko explains the promise of therapeutic cloning - the process that produces stem cells and which may one day offer cures for terrible diseases - that she identifies her own efforts with the enterprise. "We want a metamorphosis with an endpoint: production of stable cells. What we don't want are new heart cells that suddenly veer off and become liver cells; or nerve cells becoming bone; or liver cells becoming nerves." We? How will we - sorry, they - stop this happening? "As stem cell therapy nears the clinic," she soothes, for all the world as if she will be there, policing every lab when the great day approaches, "great care must be taken, and it will be."
- 7 Klotzko is at her most thoughtful and convincing when she applies herself to clearing "the moral fog surrounding human cloning". Why do so many people recoil from this particular branch of assisted reproduction? A marvellously lucid little critique of the "slippery slope" argument so often propounded by pro-lifers is supported by a tribute to human uniqueness. Refreshingly, she illustrates an essay on the impossibility of creating exact human replicas with the example of Mozart, an admirable person, instead of the cast of perverts and demagogues - Hitler, Stalin, Saddam, and so on - who traditionally parade through any cloning debate. Her analysis of the singular family environment and vanished musical world that brought about Mozart should be enough to reassure anyone who has never encountered identical twins that 20 is impossible. Something everyone might bear in mind next time a crazed cloner comes calling.

*<http://books.guardian.co.uk>*

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- 1p 13 What is the main point made in paragraph 1?
- A Some scientists deliberately present a simplistic picture of the process of cloning a human being.
  - B The news of the cloned sheep Dolly has made people aware of a potentially dangerous development.
  - C The public is so ignorant about cloning that anyone boasting of another breakthrough is taken seriously.
  - D The step from cloning an animal to cloning a human being is much greater than was anticipated in 1996.
- 1p 14 Welk zinsgedeelte uit alinea 2 wordt geïllustreerd door de laatste twee zinnen van alinea 2?  
Citeer dit zinsgedeelte.
- 1p 15 “Scientists have yet to clone a dog or a monkey.” (alinea 3)  
Welke mening van Klotzko wordt door deze zin ondersteund?
- 1p 16 “Second, cloning ... individuals too.” (alinea 3)  
Welke alinea gaat hierop verder in?  
Noteer het nummer van deze alinea.
- 1p 17 Which of the following statements is/are in agreement with what is said in paragraph 4?
- 1 In the hands of inexperienced people cloning is bound to lead to bizarre failures.
  - 2 It is a matter of concern that the technique of cloning may essentially be a simple one.
- A Only 1.
  - B Only 2.
  - C Both 1 and 2.
  - D Neither 1 nor 2.
- 2p 18 Geef bij elk van de volgende beweringen aan of deze wel of niet in overeenstemming is met de inhoud van alinea 5.  
Klotzko’s book
- 1 deliberately creates an air of mystery around cloning.
  - 2 denies the reader insight into the possible consequences of cloning.
  - 3 goes some way in making the scientific aspects of cloning accessible to the layman.
  - 4 lacks the information that would have appealed to the general reader.
- Noteer het nummer van elke bewering, gevolgd door “wel” of “niet”.

- 1p **19** What is Klotzko criticised for in paragraph 6?
- A** For being overly concerned about the risks of stem cell therapy.
  - B** For letting her faith in a positive development of stem cell therapy affect her objectivity.
  - C** For presenting herself as a medical expert instead of a bioethicist.
  - D** For raising questions about stem cell therapy without providing answers.
- 1p **20** Which of the following fits the gap in paragraph 7?
- A** cloning historic people
  - B** copying people
  - C** human cloning
  - D** improving on Mozart