

## ERGEBNISSE VON TA-PROJEKTEN – NEUE TA-PROJEKTE

### “Safety is the only issue” Reproductive Cloning of Humans: a fictional lawsuit

by Gert van Dijk, Rathenau Institute

**Successful reproductive cloning of human beings is far away. Or is it? If we are to believe the claims of the Raelian sect and its sister company Clonaid, the first cloned babies are already with us. It may be a hoax, but the fact is that scientists are working on the project. So then, what would happen if the first human clones had indeed been born? To delve deeper into the questions this event might raise, the Dutch Rathenau Institute initiated a fictional lawsuit in which the first human clone, now aged 20, demanded punitive damages of his parents and the scientists that created him. His case: “I was born of ambition, not of love”.**

#### 1 The claims

Pretty much every week now, and especially in the dark days around Christmas, a claim of reproductive cloning of human beings is aired in the press. The Canadian-based Raelians were the first with their claim of a cloned baby. The only proof they were willing to show though, was a rather unconvincing picture of a Japanese baby in an incubator. A genetic test – the only way of proving that the baby is indeed a genetic copy of its mom or dad – was denied. This led many people to believe the sect’s claim was a hoax, intended for publicity purposes only.

Two other scientists seemed more serious. American researcher Panos Zavos recently announced the first human clone would be born somewhere in 2003. An article in *Reproductive BioMedicineOnline* backed his statement; complete with pictures of what he claims was a cloned, four-day-old embryo, specifically created for reproductive purposes. Italian fertility expert Antinori, well known for facilitating pregnancy in a 62-year-old woman, recently

also announced the birth of a cloned baby. But again, without proof. Whether these claims are true or not, it is clear the race for the first human clone is on.

#### 2 The technique

Since the sheep Dolly was born in 1996, other mammals have also been cloned: cows, pigs, cats, mice and goats. Despite this progress however, evidence suggests it remains a very unsafe technique, with modest chance of success and a great risk for the cloned offspring. There are a number of problems: stillbirths, miscarriages, heightened birth weights and malformations. Whether this is due to the technique of cloning itself or because the DNA from the “original” somatic cell is damaged remains unclear. Another uncertainty is the long-term risk. Dolly for instance, developed arthritis at an early age and died when she was only six years old. Was that because Dolly’s genetic material was as old as the DNA from the somatic cell used in the cloning?

The fact that dogs and primates have proved impossible to clone so far, might indicate that humans might also be very difficult to clone, due to certain molecular obstacles. Because of these risks, and uncertainties as to the current state of the technique, most scientists consider it highly irresponsible to experiment with the reproductive cloning of humans. But not all scientists are as conscientious and experiments are being done.

#### 3 The debate

The debate on reproductive cloning is following predictable patterns with its content very much comparable to that on in vitro fertilisation (IVF). According to opponents there are too many medical risks for the clone and there are worries about the psychological wellbeing of the clone. Cloning is also often denounced on more principled grounds, because it is “unnatural” or because it is a “violation of human dignity”. Why this is so and why the argument of unnaturalness is given so much weight generally remains unclear. Most opponents consider an intuitive rejection convincing enough. The United Nations recently suggested forbidding reproductive cloning in all 190 member states. A remarkable

step, as this was the first time in the history of the UN that a biomedical issue was taken up in this fashion. But again, apart from an appeal to human dignity, hardly any substantive argument was presented. Equally remarkable is the fact that the United States are stonewalling this UN initiative. Not because they are in favour of reproductive cloning, but because they want to halt *all* kinds of human cloning, including the so-called therapeutic cloning. In this – so far theoretical – technique the cloned embryo is not replaced into the womb, but is used as a source for embryonic stem cells, which might one day be used for transplantation purposes.

Scientists like Zavos and Antinori are supported in their efforts by groups of potential clients, such as wealthy infertile couples, for whom cloning may be the only option of having a fully genetically related child. These proponents of cloning usually appeal to the right of reproduction in a manner they see fit. Governments should not interfere with this “right to reproductive freedom”, they claim.

There are several possible applications for the cloning technique, the most likely of which is in case of male infertility. Scenarios as in *Boys from Brazil*, where evil dictators reproduce themselves in infinite numbers, are unlikely. Humans are much more than the sum of their genes. People who aspire to bring back Elvis Presley by using a somatic cell from a deep frozen wart are going to be disappointed also. Chances are the cloned Elvis will not have any musical talent and that he’ll refuse to sing Jailhouse Rock.

Quite remarkable – and certainly in the discussion-loving Netherlands - is the fact that there is hardly any debate on reproductive cloning. The law forbids it – again, hardly any argument given – and that seems to be it. That infertile Dutch citizens might travel abroad and come back with a ‘clone pregnancy’ is hardly given thought. Though there has been one debate - between a famous scientist and a follower of the Raelian sect who claims we are all descendants from aliens from outer space. Not very inspiring indeed. So the question remains: what will happen if the technique proves safe enough and a human clone is born?

#### 4 The trial

In order to kick-start the debate, Dutch Technology Assessment specialists, the Rathenau Institute, decided to organise a fictional lawsuit, in which the first human clone (now 20 years old) demands punitive damages of his parents and the scientists who created him. This form was chosen partly because it could create a chance to move the debate beyond the traditional – and rather predictable – “pros and cons of reproductive cloning”.

To avoid abstract discussion, a very concrete case was chosen: the first human clone, Chris van den Heuvel filed a lawsuit against his parents and the scientists who had helped to create him. The claim was based on Chris’s medical problems. He, like Dolly the sheep, had developed juvenile rheumatoid arthritis. Chris also had medical problems directly inherited from his father, who of course is genetically identical to him. Because his father was infertile due to a genetic disorder, Chris knew what was in store for him if he ever wanted children. Becoming bald at fifty also awaited. His right “not to know” his genetic predisposition had been breached, so he claimed.

More serious were Chris’s psychological problems. Because he was genetically identical to his father – a successful banker – he felt his parents had pushed him into his father’s footsteps. After all, he had the same genes, so why should he not be as successful? “My future is no longer open” he dramatically pointed out. Or, as his lawyer put it, his fundamental right to an authentic, undetermined life had been breached.

At the start of the trial, Chris made an impressive video statement to elucidate his claim. “I was born of ambition, not of love”. His parents – also on video – denied this. “We just wanted a son, not a banker.”

#### 5 The experts

The questions were clear: were Chris’ problems due to the cloning technique or not? Would it be possible for a clone to have an “authentic” life? And if so, what other arguments besides safety could there be against cloning? To delve deeper into these questions, five experts were asked to elaborate on the case. To give both clone and parents even

treatment, the experts were both questioned by Chris's lawyer, and the parent's lawyer.

The general opinion amongst the five experts was that cloning should be rejected at this time because of the high medical risks surrounding the technique. But if these risks can be shown to be within certain limits, there don't seem to be many arguments left against it. Safety really is the only issue. The geneticist explained that it was very difficult to link Chris's problems to the cloning technique: any child could develop these problems. In fact, he stated, Chris was lucky to have come out with so few problems. A biologist stated that asexual reproduction is more the rule than the exception in nature. He also doubted whether Chris's unhappiness was caused by the technique.

A psychologist thought that Chris's problems were "post-adolescent depression" and did not belong in court. He did not think lightly of such a depression, but did not see how the cloning technique itself could have such a devastating psychological effect. An expert on the psychology of people with fertility problems – the main reason why people would want to consider cloning – could imagine people would choose for such a technique – if it were safe. Unwanted childlessness is among the most traumatising factors in human life, he reckoned. The only person who supported Chris was an expert in twins. Generally, twins have more problems in developing their own individuality, and this would be even more so if the twin was thirty years older – as was the case with Chris. A "normal" twin grows up with a twin brother or sister who is the same age. This is rather different from a situation where the twin is 30 years older, as is the case with Chris and his father. Knowing what you will look like in 30 years is probably quite distressing, the expert thought.

## 6 The verdict

When all the experts were heard, it was time for the lawyers – all reputable Dutch lawyers – to make their point. According to Chris's lawyer, the case was evident: it was clear that the use of the cloning technique had breached Chris's right to an open, undetermined future. But the opposing lawyer thought otherwise. In choosing another future than his father, Chris was living proof of the fact that genes do not fully determine someone's future. And the problems Chris

was facing were not typical of clones. Arthritis and depression could be seen in other persons, with a more accepted genetic history, as well.

The judges decided in their verdict that the scientists had indeed taken too much risk in experimenting with the cloning technique: they were found guilty. The parents were acquitted, because being born is not a reason for compensation and a ruling for wrongful life does not belong in court.

Not everyone agreed with the judges. The fact that Chris was still alive after twenty years, in relatively good health, should be proof enough that the technique was safe enough to be used. But this raised two questions: when is a technique safe enough to be implemented? And if scientists can be punished for taking excessive risks, even twenty years after doing so, what room is left for clinical research? It was therefore no surprise that an appeal to a higher court was filed immediately ...

## 7 The epilogue

The Rathenau Institute is always on the lookout for new forms of debate. Not only because traditional forms can be rather predictable and unattractive, but also because new forms of debate can lead to new insights and shifts in position by otherwise staunch opponents. A "stuck" debate might be kicked into life by an interesting form of interaction that goes beyond traditional pros and cons. Furthermore, the form of a trial gave the possibility to move from the black/white "for or against?" to the grey shaded "what would happen if ...", which gave a lot of room for 'new' arguments and a critical look at 'old' arguments. The method of a lawsuit therefore, turned out to be a very successful one. It raised an unusually large crowd and drew attention from both media and parliament.

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