

The \$30 Million Neanderthal Man

It would cost \$30 million to bring a Neanderthal back to life, but what are the ethical issues?

Neanderthal is a byword for backwardness, but this relative of ours, who disappeared only 25,000 or 30,000 years ago, was clearly human. The Neanderthals had burial rites, built fires, wore clothes, probably had language, made tools and even had a larger brain than we do.

The mystery is why they disappeared as *Homo sapiens* emerged out of Africa and spread across Europe, where most of the Neanderthal sites are. Did Cro-Magnon man bring strange diseases? Were our ancestors so much smarter, better organised, faster or more agile that they bested the Neanderthals in competition for food and finally exterminated them?

There are many theories, all constructed from very meagre evidence. Neanderthal speech must have been much different from ours because of anatomical differences. Our ancestors may have had a greater capacity for planning, which allowed them to store food for lean seasons and organise themselves into clans and tribes. One theory is that Neanderthals did not have a gender-based division of labour and therefore had a poorer diet.

One way to solve these and other mysteries about Neanderthals is to clone them. George Church, a leading genome researcher at Harvard Medical School, claims that a Neanderthal could be brought to life for about US\$30 million. He believes that Neanderthal cells could be significant in the discovery of treatments for largely human-specific diseases such as HIV or smallpox, as they may have genetic immunity. Also, differences in their biology could lead to new gene therapy or drug treatments.

A first draft of the Neanderthal genome was released a year ago by a team based at the Max Planck Institute for Evolutionary Anthropology in Germany, but it is certain

to contain many errors. Creating an artificial genome is an even greater challenge, but Church – unlike other geneticists – is confident that it is possible.

But would it be ethical?

Anticipating objections, Church plans to blunt or confuse them by injecting the reconstructed Neanderthal genome into chimpanzee eggs. Would arguments against human cloning be relevant to such a creature? There is a range of views among scientists and bioethicists.

Church himself believes that it might be unethical not to clone them because so much useful information could be obtained. Because they had a larger but differently shaped brain they may have thought differently. Perhaps we could learn from their unique problem-solving skills.

Church argues that we need to create “a sibling species” that could give us more genetic diversity. Modern humans are a monoculture, and monocultures are biologically at risk. “Just saying ‘no’ [to cloning] is not necessarily the safest or most moral path,” he told *Archaeology* magazine. “It is a very risky decision to do nothing.”

The argument against cloning Neanderthals are basically the same as those marshalled against cloning us. First of all, despite Church’s optimism, most cloned mammals die and most of those that survive to birth are sick. So far, all attempts to clone human embryos have failed. Cloning a human would be very risky indeed – for the clone.

Lori Andrews, of Chicago-Kent College of Law, says that she doesn’t see any problem with cloning as such. However, she points out that the Neanderthal’s legal rights would include the right not to be experimented on. Since experimentation is the main purpose of cloning them, this makes the whole exercise useless. It’s easy



Svante Pääbo holding a Neanderthal skull.
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to imagine Neanderthal rights groups springing up to protect them against exploitation.

James Noonan, a geneticist at Yale University, takes a dim view of cloning. “If your experiment succeeds and you generate a Neanderthal who talks, you have violated every ethical rule we have, and if your experiment fails... well. It’s a lose-lose,” he says.

The ultimate argument against cloning Neanderthals is that it violates human dignity to create a being outside of the loving circle of a family. The first right of a human being is to be loved for who he or she is, not as a product or scientific experiment.

A cloned Neanderthal would be as close as possible to synthetic humanity as you can imagine. Part of her would be chimpanzee; the rest would be a patchwork quilt of Neanderthal DNA sequenced from the bones of dozens of forebears who may have lived thousands of years apart, scattered across Europe. Everyone involved in her conception and birth would want to exploit her; none of them would cherish her. She would enter the world as a circus freak.

While a Neanderthal cloning project is highly implausible, it’s disturbing that so many scientists and bioethicists see nothing wrong with it. Is it racism, or speciesism? Or is it simply the hubris of guys in white coats playing God?

Michael Cook is editor of the bioethics news site *BioEdge* (www.BioEdge.org).