

Shopping for humans

Cloning could become a production line. Jeremy Rifkin asks if we should be playing God with our genes

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Our species stands at a great divide. Before us lies the imminent prospect of the cloning of a human being. With this feat, we play God with our evolutionary destiny, and risk ominous consequences for the future of civilisation. Already researchers are readying the first experiments and the world anxiously awaits this "second coming" - except this time the child will have been produced by science and in the image of a specific human being.

This scares many people but, proponents argue, why not? If, for example, an infertile couple desires to pass on their genetic inheritance by producing clones of one or both partners, shouldn't they be able to exercise their right of choice? Moreover, we are told not to be overly concerned because even though the clone will have the exact same genetic makeup as the original, he or she will develop differently because the social and environmental context within which his or her life unfolds will not be the same as the donor.

Some professional ethicists, on the other hand, shake their heads and mutter about the yuck factor - people's initial disgust at the prospect of cloning a human being - but when pressed, can offer few, if any, compelling reasons to oppose what they consider to be inevitable and even worthwhile, under certain circumstances. Their only misgivings appear to be whether or not the procedure is safe and whether the baby would be malformed. Right to life advocates worry, in turn, that embryos used in the procedure will be wasted or discarded in attempts to produce a successful clone. Unfortunately, the deeper issues surrounding the cloning of a human being have received short shrift or no attention at all.

The cloning of a human raises fundamental questions that go to the very nature of what it means to be a human being. No other single event in human history will have had as great an effect on the future of our species. Here are the reasons why. To begin with, our very notion of what life is all about is immersed in sexuality and the biological attraction of male and female. Much of the history of civilisation has played out along sexual lines, from mating rituals to the notions of family, clan, tribe and nation. From time immemorial we have thought of the birth of our progeny as a gift bestowed by God and or a beneficent nature. The coming together of sperm and egg represents a moment of surrender to forces outside of our control. The fusing of maleness and femaleness results in a unique and finite new creation.

The reason most people have an almost instinctual repulsion to cloning is that deep down, they sense that it signals the beginning of a new journey where the "gift of life" is steadily marginalised and eventually abandoned all together. In its place, the new progeny becomes the ultimate shopping experience - designed in advance, produced to specification and purchased in the biological marketplace.

Cloning is, first and foremost, an act of "production", not creation. Using the new biotechnologies, a living being is produced with the same degree of engineering as we have come to expect on an assembly line. When we think of engineering standards, what immediately comes to mind is quality controls and predictable outcomes. That's exactly what cloning a human being is all about. For the first time in the history of our species, we can dictate the final genetic constitution of the offspring. The child is no longer a unique creation - one of a kind - but rather a reproduction. Human cloning opens the door wide to the dawn of a commercial eugenics civilisation, a brave new world where new technologies speed the process of "improving" our offspring, allowing us to create a second genesis. This time, each person can become a private god and make offspring in his or her own image.

In the future - certainly by the time today's babies reach adulthood - it will be possible to make genetic changes in the donor cell or embryo and begin creating customised variations of the original. Ian Wilmut, of the Roslin Institute, near Edinburgh, has already accomplished this feat in his second cloned sheep. Though less celebrated than Dolly, the birth of Polly is far more ominous. With Polly, Wilmut's team customised a human gene into a sheep cell and then cloned the sheep, making it the first truly "designer animal". Using the clone as a "standard model", scientists can now produce endless customised variations suited to the requisites of their clients.

Does anyone doubt for a moment that what Wilmut accomplished with Polly won't be made available by the biotech industry to parents who would like to produce cloned designer babies? Again, proponents argue, why not? If a prospective parent knew they were likely to pass on a genetic predisposition for heart disease, or stroke, or cancer, wouldn't they feel obligated to spare their clone by eliminating those genes in the donor cell or embryo? But where does one draw the line? What if the parent knew he or she was likely to pass on a genetic predisposition for bipolar manic depression, or dyslexia, or growth hormone deficiency, or a cleft palate? Doesn't every parent want the best possible life for their child? In the future, some would argue, parental responsibility and intervention ought to begin at the design stage, in the donor cell or cloned embryo.

Customised human cloning offers the spectre of a new kind of immortality. Each generation of a particular genotype can become the ultimate artist, continually customising and upgrading new genetic traits into the model with the goal of both perfecting and perpetuating the genotype forever. It would be naive to believe that there aren't lots of people who would leap at the opportunity. Researchers at fertility clinics say that they are already besieged by requests to clone.

The real threat that human cloning represents is one that, as far as I know, is never talked about by scientists, ethicists, biotech entrepreneurs, or politicians. In a society where more and more people clone and eventually customise their genotype to design specifications and engineering standards, how are we likely to regard the child who isn't cloned or customised? What about the child who is born with a "disability"? Will the rest of society view that child with tolerance or come to see the child as an error in the genetic code - in short a defective product? Indeed, future generations might become far less tolerant of those who are not engineered and who deviate from the genetic standards and norms adhered to in the "best practices" of the bioindustrial marketplace. If that were to happen, we might lose the most precious gift of all, the human capacity to empathise with each other. When we empathise with another human being, it's because we feel and experience their vulnerability, their frailties and suffering, and their unique struggle to claim their humanity. But, in a world that comes to expect perfection in its offspring, can empathy really survive?

Human cloning represents the ultimate Faustian bargain. In our desire to become the architects of our own evolution, we risk the very real possibility of losing our humanity.

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