The Pros and Cons of Cloning

Abstract

The highly controversial cloning debate is outlined by synthesizing different studies and past findings. A brief overview of cloning as well as a short history are given. Next, the useful aspects of cloning are touched upon focusing on the great benefits that would arise should cloning become legalized. Lastly, both the logistical and ethical problems associated with cloning are summarized. Ultimately, society as a whole has to make this decision because, in the end, all of the future generations will be effected.

July 5, 1996 was the birth of an organism that would change the science of biology forever. Not only would it affect science, but also the morals and values with which we live by. On July 5, 1996, Dolly the sheep, the first mammal to be cloned, was born (“Cloning Dolly the Sheep”, para. 7). From that point on to present day, there would be an ongoing debate regarding the legalization of cloning and whether scientists should be allowed to clone humans.

There are two forms of cloning: reproductive cloning and therapeutic cloning. Debate revolves around both types; however, there is more controversy regarding reproductive cloning. Reproductive cloning has the intent of reproducing a whole organism using a process called Somatic Cell Nuclear Transfer (SCNT). SCNT is completed by taking the nucleus out of a donor egg and inserting the nucleus of another cell, which is from the organism who is supposed to be cloned. Then using electrical impulses the newly created cell begins to divide. This dividing cell is placed inside the body of the host organism and eventually divides enough to create a clone of the donor organism. On the contrary, with therapeutic, or research, cloning, a completely new
organism is not the goal. Basically, the aim is to produce embryonic stem cells, which could later be used for treatment. Therapeutic cloning is more for human treatment rather than human creation ("Therapeutic Cloning vs. Reproductive Cloning", para. 5).

Cloning opens up a whole new realm of biological science allowing scientists to be able to help people like never before. One of the many uses of reproductive cloning is that it allows infertile couples to have biologically related children ("Arguments for ‘Reproductive Cloning’, para. 6). Reproductive cloning allows reproduction to happen regardless of circumstances; it basically enables same-sex couples along with single parents to have children. Reproductive freedom and choice are expanded and positive characteristics will be more readily passed on from generation to generation. In addition, with reproductive cloning, parents would be able to produce ideal transplant donors who would be able to help out an ill existing family member ("Arguments for ‘Reproductive Cloning’, para. 7).

Research cloning would allow new tissues and perhaps even new organs to grow in a natural way. These new organs and tissues would be able to “serve as backup systems for human beings” ("Arguments for ‘Reproductive Cloning’, para. 4). When organs such as the heart, kidney, or lungs fail, cloning would allow these very same organs to grow with identical DNA. In addition, cloning would allow researchers to gain a better understanding in genetics. “They might be able to understand the composition of genes and the effects of genetic constituents on human traits in a better manner. They will be able to alter genetic constituents in cloned human beings, thus simplifying their analysis of genes. Cloning may also help us combat a wide range of genetic diseases” ("Pros and Cons of Cloning", para. 4).
Now of course, on the other side of this hot debate, there are refuters who argue that cloning is unsafe and unethical. One argument against cloning involves the safety and health of children and mothers. It has never been proven that cloning is safe enough to try on human beings. Damage to both the cloned child as well as the surrogate mother has been found in multiple studies involving mammals, such as rats. “In animal experiments to date, only approximately 5 percent of attempts to clone have resulted in live births, and a substantial portion of those live-born clones have suffered complications that proved fatal fairly quickly” (“Arguments Against ‘Reproductive Cloning’, para. 8). In addition to fatalities, reproductive cloning poses other risks to the cloned child. “Some medium-term consequences, including premature aging, immune system failures, and sudden unexplained deaths, have already become apparent in some cloned mammals” (“Arguments Against ‘Reproductive Cloning’, para. 8). “In 2002 a retrospective look at the health histories of cloned mice showed that most died prematurely, and seemed to be more prone than their normal counterparts to health problems such as liver damage, tumors and pneumonia, suggestive of some impairment of the immune system” (Caplan and McGee 28). The cloned child is subjected to health complications for the rest of his or her life. The surrogate mother is also at risk because at the time of egg donation, her reproductive system deals with strong hormonal treatment, which can inhibit her ability to reproduce in the future.

Now, in the normal medical field, consent on the patient’s part is required for most procedures in order to take responsibility and to agree with what is happening. “[Consent] exists to protect the weak and the vulnerable, and particularly to protect them from the powerful” (“Arguments Against ‘Reproductive Cloning’, para. 17). However, it
is impossible to obtain consent from a human clone itself. There is no one to speak on
the cloned human’s behalf and agree to the great risks and dangers associated with the
cloning process as well as the life effects with which the clone has to live. In addition,
there is no way to acquire approval of the cell donor even for research cloning because
no one is able to say how far scientists can or cannot go in terms of cell development
and how close they are to actually creating new organisms.

One particular use of cloning is to improve and alter “the genetic constitution of
future generations” (“Arguments Against ‘Reproductive Cloning’”, para. 21). It is feared,
however, that “the line between therapy and enhancement” (“Arguments Against
‘Reproductive Cloning’”, para. 24). will eventually be crossed. People do not want
doctors and scientists to be altering the human population according to a concept of an
ideal human being. Genetic variety and natural selection should still take place and it is
formidable to many that scientists will disregard these very principles and instead create
man-made futures. This human cloning debate is very much an ethical debate as well
as logistical one. People see cloning as being unethical because it is feared that
scientists will go beyond the natural realm of science and push barriers set up by
nature. Because a human clone is not created by the union of two parents, there is a
sense of inequality between the clone and its donor. The clone is, in a sense,
manufactured into a specific thing. The human clone will be created with certain
characteristics in mind. This poses a deep ethical issue in many eyes of the public. “The
transformation of human procreation into human manufacture could thus result in a
radical dehumanization of the resulting children, as well as of those who set out to
clone, and by its effect on societal attitudes also a dehumanization of everyone else” (“Arguments Against ‘Reproductive Cloning’”, para. 37).

Perhaps the most controversial aspect of cloning is the idea of identity. What makes a human special is its uniqueness. Each life is a new one, with an unforeseeable future. Possibilities are endless. “Each of us has a unique, never-before-enacted life to live with a unique trajectory from birth to death” (“Arguments Against ‘Reproductive Cloning’”, para. 40). By cloning a human, you automatically deny the cloned-being of individuality and uniqueness. You take away their ability to be whomever they want. Their life has been enacted before; there are expectations set, expectations to be met. The cloned being has a set future for itself without even being able to give input on what he or she wants to do. People argue that every human being has a right to their own identity and by no means should this unique individuality be taken away.

Cloning does not simply affect the few donors and clones in this world; it affects society as a whole and, therefore, society as a whole needs to agree to it before it can happen. Cloning will change the human perspective and greatly affect generations to come. We, the people of the world, need to consider all aspects before deciding what or what not to do with regards to this issue.
Work Cited


