Asploro Journal of Biomedical and Clinical Case Reports
(ISSN: 2582-0370)

Original Article

DOI: https://doi.org/10.36502/2019/ASJBCCR.6168

Ethical Debates about Cloning

Franjić S[1*]

[1]Faculty of Law, International University of Brcko District, Brcko, Bosnia and Herzegovina

Corresponding Author: **Siniša Franjić**
Address: Faculty of Law, International University of Brcko District, Brcko, Bosnia and Herzegovina, Europe, Tel: +387-49-49-04-60. E-mail: sinisa.franjic@gmail.com
Received date: 08 October 2019; **Accepted date**: 04 November 2019; **Published date**: 09 November 2019

Citation: Franjić S. Ethical Debates about Cloning. Asp Biomed Clin Case Rep. 2019 Nov 9;2(3):93-98.

Abstract

Human cloning is a big step for humankind, a great scientific achievement, but it is also risky and dangerous. Will this tremendous advancement in biomedicine and genetic engineering threaten the whole of mankind and whether in the future man will become the ordinary object of experiment. There are many doubts about cloning, and of which are most important is where it actually leads, and will we be able to stop it in time.

Keywords

Cloning; Science; Ethics; Society

Introduction

In the last years of the twentieth century and the early years of the twentyfirst century, human cloning captured global media attention [1]. Hailed as the source of potential cures for a wide range of human ills and feared as a violation of nature and an abuse of human beings – cloning has been the subject of news reporting in the UK, the USA, and South Korea, as well as in many other parts of the world. It has also featured in Hollywood films, in television drama documentaries and in notable best-selling novels. There is nothing surprising about this. After all, this decade has also seen celebrated, but also controversial, staged public media events pertaining to cloning: the 1997 announcement of the cloning of Dolly the sheep and the first declaration of the 'completion' of the Human Genome Project in 2000. Due in no small part to these announcements, this has also been a period in which expectations about cloning have grown exponentially and dramatically.

Despite the benefits cloning technology offers society – both through animal cloning today and perhaps cloning for medical research in the future – the debate over the technology has been dominated by the possibility that a cloned human being may one day be born [2]. No such person has yet been born; at least, no such birth has been acknowledged and confirmed. However, there is little doubt that continuing advances in cloning technology make future attempts to clone humans increasingly likely to succeed.

There is an almost universal consensus among mainstream scientists that cloning humans for reproductive purposes are too dangerous to attempt at the current time. Thus, there is little ethical debate over human reproductive cloning today. Less agreement exists, however, on the question of whether human reproductive cloning would be ethically acceptable, assuming the technology was refined to the point where it was as safe as or safer than traditional reproduction. Nor is there a consensus on the ethical acceptability of cloning to create embryos for medical research.

Support Cloning

Personal liberty refers to the general preference of many democratic societies that few restrictions should be imposed by the government or other authorities [2]. Since different people have different preferences, maintaining as wide a sphere as possible in which individuals are free to select their own actions is seen as serving the greatest good. Such an argument has limits. Few societies condone murder, even if an individual deems it serves his or her personal interest. However, human reproductive cloning is not murder and some supporters argue that, in the absence of evidence of significant harm, decisions regarding its use should be left to individuals, not the government.

Some supporters of human reproductive cloning argue that because it is a form of human reproduction, it falls in a special range of activities that must be actively protected from government interference. This idea of "reproductive freedom" is particularly entrenched in the United States, where the Supreme Court has written: "If the right of privacy means anything, it is the right of the individual, married or single, to be free from unwarranted governmental intrusion into matters so affecting a person as a decision whether to bear or beget a child." This ruling suggests to some legal scholars that a ban on human reproductive cloning in the United States, as has been proposed and debated from time to time, would not be constitutional. For some couples, cloning may provide the only means for them to have a genetically related child. Banning human cloning could be construed as an unwarranted intrusion into their personal decision-making process. The court decision defining this right to reproductive freedom, written before in Vitro fertilization existed, understandably omitted any mention of the specific method a person used to bear or beget a child, but it can be plausibly argued that a right to reproductive freedom should cover not just traditional sexual reproduction but any means a person might choose.

Scientific inquiry is viewed as a public good and some have suggested that unrestricted scientific inquiry should be permitted and encouraged to the greatest possible extent. If research related to human reproductive cloning represents a legitimate field of scientific inquiry, this principle suggests it should be allowed to proceed. This idea derives from the observation that relatively unfettered scientific investigation has had tremendous, and largely positive, impacts on society over the last few centuries. Given this history, and in the absence of compelling reasons to limit a line of research, allowing the scientific inquiry to proceed without restrictions best serves the public's interest. However, while scientific inquiry proceeds with relatively few limits in many societies, it is rarely completely unrestricted.

The defenders of cloning, of course, are not wittingly friends of despotism [3]. Indeed, they regard themselves mainly as friends of freedom: the freedom of individuals to reproduce, the freedom of scientists and inventors to discover and devise and to foster "progress" in genetic knowledge and technique. They want large-scale cloning only for animals, but they wish to preserve cloning as a human option for exercising our "right to reproduce"—our right to have children, and children with "desirable genes."

We have here a perfect example of the logic of the slippery slope, and the slippery way in which it already works in that area. Only a few years ago, slippery-slope arguments were advanced to oppose artificial insemination and in vitro fertilization using unrelated sperm donors. Principles used to justify those practices, it was said, will be used to justify more artificial and more eugenic practices, including cloning. Not so, the defenders retorted, since we can make the necessary distinctions. And now, without even a gesture at making the necessary distinctions, the continuity of practice is held by itself to be justificatory.

Given this rather extensive list of arguments against the cloning of humans, one might presume that it is chiefly a dead issue—few would want to clone a person if these arguments are valid [4]. Yet cloning is very much a live issue, both figuratively and literally. There are several reasons certain people would wish to have a child through the intervention of cloning technology.

Initially, of course, some people are interested in becoming the first successfully to clone a human being or the first person to be cloned. Whether driven by scientific zeal, a desire for fame and a place in history, the yearning for riches, or some combination thereof, there is a special allure associated with being the first to cross a chasm of this magnitude. But this impetus would quickly dissipate once the chasm is conquered. Few remember the second or third person to master any significant scientific or technological challenge. So let us consider what other reasons might persist beyond the pioneering phase of human clonal research.

Unsupported Cloning

A number of arguments against the use of cloning technology are lined up against the would-be parents and the general principles supporting human cloning, but because humans have not yet been cloned and because cloned animals can't tell us how they feel, they are largely hypothetical [2]. That is, they are based on bioethicists' guesses of how cloned human beings would feel or the impact cloning might have. These arguments address a number of issues, including concerns about the individuality of cloned humans, the impact of cloning on families, and the potential for cloning to encourage the objectification of people and lead toward a new era of eugenics.

Some suggest that cloned human beings would suffer from the lack of a unique genetic identity. These critics worry that cloned humans would be constantly compared to their genetic progenitors and suffer from unrealistic expectations created by these comparisons. In essence, these cloned human beings might feel as if their lives had already been lived. Cloning could violate what some ethicists have called a "right to an open future". Such concerns do not apply to identical twins because, while they share a genetic identity, their lives unfold at the same time, giving each the freedom to escape from the other's shadow and live their own life. In cloning, the older twin's life would have already unfolded, and the latter-born twin could never escape this shadow. Critics of this argument point out that it relies on a rather crude genetic determinism. Genes are important but they do not define our existence. Studies of identical twins consistently find that while they share many characteristics, they also differ in important ways. If this is the case for identical twins who shared the same womb and grew up in the same household, it seems only fair to guess that a latter-born twin, who developed in a different uterine environment and grew up years later, would differ significantly from his or her genetic donor.

Critics of human reproductive cloning also worry about the impact of cloning on family structure. If an infertile couple chose to have a son by cloning the father, the family would be, in genetic terms, quite unusual. Genetically, father and son would be twin brothers and the father's parents – ostensibly the cloned child's grandparents – would truly be his genetic parents. The mother, though she gave birth to her son, would have few genetic links with him. Just what impact these atypical circumstances might have is not clear but some have suggested that the cloned child's close genetic ties to only one parent might complicate family dynamics and perhaps reduce the stability of the family. In other cases, the impact on the family might be less pronounced. Cloning an existing child, to replace a lost child or create a compatible tissue donor, is less problematic for family structure; the cloned child is a younger sibling of the donor and the standard parent-child relationship remains intact.

Because children born through cloning would have their entire genome selected for them by their parents, some critics believe the technology opens the door to the objectification of human beings. Rather than loving their children as gifts and discovering their potential as they grow and develop, parents may begin to view them as products that can essentially be made to order. These critics fear that human cloning moves society toward a situation where children are manufactured rather than begotten. Like other manufactured products, these humans, produced through the transfer of a somatic cell nucleus into an enucleated egg, might be treated with less respect than humans produced through the fusion of a sperm and egg. Even if this tendency toward objectification is not strong at first, cloning might worsen it. Human reproductive cloning could open the door to the genetic engineering of humans (remember that the

scientists who cloned Dolly were looking for an efficient way to produce genetically engineered cows) and genetic engineering could greatly exacerbate this objectification. Parents who chose specific genes for a child might well have high expectations and express disappointment with the manufacturing process – or even the child – if results weren't as expected.

Ethical Questions

The ethical debate over therapeutic cloning, and human embryonic stem cell research more generally, is less complex but no less contentious than the debate over reproductive cloning [2]. Scientists studying human embryonic stem cells and therapeutic cloning have a noble goal, the alleviation of human suffering. It is not the ends of human embryonic stem cell research but the means that generate disagreement and debate. As we have seen, to move toward this noble goal scientists use pre-implantation human embryos in their research. Although the embryos are donated explicitly for this purpose, if (against the donor's wishes) these embryos were transferred to a uterus, they might survive and develop into healthy children. This possibility, however remote, leads to the ethical question that frames the field: should embryos with some chance of life be used as a means to try to reduce the suffering of others?

This, as in most ethical debates, is a question about which reasonable people can disagree. At its heart, this debate is about differing views of what it means to be a person and whether human embryos deserve the full moral status. We grant moral status to an individual or a class of individuals when we acknowledge that their wishes, desires, and rights should be considered in our decision-making. Almost everyone grants full moral status to a healthy child: nobody argues that it is appropriate to harm such a child for our own gain but few grant any moral status to a single human skin cell or an unfertilized egg. There is a large gray area in between, particularly in the time between fertilization and birth. Some believe a fertilized egg, which in the correct environment has the potential for independent life, should be granted full moral status equivalent to that of an independently living and breathing human being. Others disagree, believing an embryo should not be granted this status until it reaches later stages of development.

Benefits

As far as we know, we can expect very marginal benefits from human reproductive cloning [5]. It could be used as an alternative fertility treatment, and the method of nuclear transfer could be used to avoid some mitochondrial diseases, but with no generally acknowledged positive right to reproduce and with the rarity of mitochondrial diseases, it is far from clear that we should use cloning to tackle these issues. The arguments presented against human reproductive cloning do not, at least philosophically speaking, unequivocally justify an absolute condemnation of human reproductive cloning, but the cumulative effect of the contingent wrongs related to the practice should make us wary, to say the least.

Human reproductive cloning is a high-risk, expensive enterprise with, even in the best-case scenario, only minor benefits. It is not an absolute wrong, and should not be condemned as such. However, because, as it now seems, the safety issues cannot be resolved, and research into human cloning would cause suffering and place the study subjects under unacceptable risk, it should not, as things now stand, be attempted. And even if the safety issues could, sometime in the future, be properly addressed, it would be wrong to invest public money into research with so few benefits to human welfare (provided that the money could be used for more worthy causes elsewhere).

Science and Society

The relationship between science and society is at times an uneasy one [6]. On one hand, although the application of the modern scientific method is a relatively recent development, humans since the beginning of history have always sought to understand the world around us and to use that understanding to improve the human condition. Some might even argue that our curiosity and our desire to satisfy it through scientific inquiry are defining characteristics of what it means to be human. Certainly, science and its applications have provided tremendous benefits to humankind – for example, in terms of improvements to health and

welfare. At the same time, however, science presents us with challenging social and ethical difficulties as the progress of technology opens up greater possibilities for changing and controlling our environment and even ourselves.

Keeping pace with fast-moving science and the ethical controversies to which such research may give rise has often presented a challenge to regulators. Public concerns over science must be allayed, whilst also ensuring scientists submit to standards of social acceptability or at least ethical oversight. Yet the government must also consider the ideal of scientific freedom, which holds that the pure pursuit of knowledge if it is to achieve its full potential, cannot be unduly influenced by social norms, nor fettered by constraints imposed by society. This dualistic, adversarial view of science and society as competing entities is not entirely apposite, given the mutuality of their natures: public trust, communication, and engagement also play a vital role. In this complex environment, therefore, the question of how science is regulated has assumed increasing importance as society seeks to realize the benefits of research, whilst keeping the goals and means of science aligned with ethically acceptable norms.

Scientific Evidence

As far as reprogramming technologies of human cells and of human cloning are concerned, scientific evidence and additional uncertainties will not allow using either one of these technologies in producing embryonic constructs [7]. Embryonic constructs are not embryos in the traditional sense as they are not derived from the merging of two nuclei of haploid genetic property. No medical oversight or regulatory body would approve experimenting with embryonic constructs for reproductive purposes; no quality standards can yet be written; even topics and requirements for such quality features can not be formulated today. However, the actual situation of scientific ignorance in cell programming and nuclear transfer should not exclude ethical and religious discourse on using these technologies in the future for reproductive purposes; such a discourse would be useful, even warranted for self-understanding and self-evaluation of individuals, communities, cultures and for eventually preparing for future national and international legislation and regulation. It has been argued that some people, particularly in traditional Asian culture favoring male offsprings, would somatic cell nuclear transfer techniques to produce babies if originally developed for therapeutic purposes. However, such a suggestion underestimates cultural family quality standards of potential users of re-programming technology, expecting a “dream child” or at least “any normal child” and not a product resulting from an embryonic construct of unknown and questionable genetic mix-up and disorder.

The potential use of cell reprogramming and somatic nuclear cell transfer for therapeutic purposes and medical research represents a different set of technical and moral risk. Saving of life, the curing of diseases or at least the alleviation or reduction of pain and suffering has been one of the prime and undisputed moral goods in all cultures and in demand by individuals, communities, and societies; experts in these fields have been gratefully honored and praised. Medical research and medical treatment find religious and humanist support everywhere and is asked for and demanded by citizens as being vulnerable and mortal beings. It is out of question that medical research and treatment need to be “safe” and need to involve “informed consent or contract” of probands or patients, as probands or patients might decline participation in some or all research or refuse certain forms treatment based on their individual understanding of moral or medical risk.

Human Dignity

The concept of “human dignity” as such is a rather new concept embodied expressly in international treaties or resolutions [8]. The Charter of the United Nations was one of the first documents in international law referring to this concept. The second preambular paragraph of the UN Charter states that the Peoples of the United Nations are determined “to reaffirm faith in fundamental human rights, in the dignity and worth of human person”. This reaffirmation of the faith in human dignity in the Preamble follows just behind the confirmation of the purpose to save succeeding generations from the scourge of war. Thus, human dignity is one of the

primary ends of the United Nations, and it is – at the same time – its fundamental basis and accordingly that of the present international legal order.

Similar formulations as in the United Nations Charter are to be found in the Universal Declaration of Human Rights of 1948. Its Preamble even starts with an emphasis on human dignity. It reads: "Whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation for freedom, justice, and peace in the world".

The question remains whether they provide for the prohibition of cloning of human beings. It has been argued that cloning would result in an infringement of the right to privacy, namely that the privacy of the cloning recipient would be violated on the basis of the knowledge of the genetic life of the donor. Further, it has been argued that cloning may undermine the conditions of autonomy of the child given the child's knowledge that it has only one genetic parent. It has also been argued that cloning may give the recipient a sense of non-individualisation. Finally, the argument has been made that cloning would be a step in the direction of the commodification of life or, in other words, that life would be reduced to production, rendering it similar to objects. This touches upon Kant's definition of human dignity, according to which individuals are not to be perceived or treated as instruments or objects of the will of others.

Conclusion

After the successful cloning of sheep Dolly, scientific discussions began in almost all areas of science about the benefits and deficiencies of cloning. Although the term cloning by then was known from science fiction films, cloning has become part of our everyday life. The morality of cloning is complex because cloning, on the one hand, brings potential benefits, and on the other hand, has infinite negative consequences. The difference to keep in mind when it comes to cloning is the difference between reproductive cloning or creation of a new human being, and therapeutic cloning, which creates embryos for research for therapeutic purposes.

References

[1] Haran J, Kitzinger J, McNeil M, O'Riordan K. Human cloning in the media. Routledge; 2007 Oct 15.

[2] Levine A. Cloning: A Beginner's Guide. Oneworld Publications; 2012 Dec 1.

[3] Kass L, Wilson JQ, Wilson JK. The ethics of human cloning. American Enterprise Institute; 1998.

[4] Kunic JC. The Naked Clone: How Cloning Bans Threaten Our Personal Rights. ", Praeger, Westport; 2003.

[5] Takala T. The many wrongs of human reproductive cloning; 2005.

[6] Alghrani A, Chan S. Scientists in the dock: regulating science. Bioethics, Medicine and the Criminal Law - Volume 1. The Criminal Law and Bioethical Conflict Walking the Tightrope", Cambridge University Press, Cambridge; 2013: 121-22.

[7] Sass HM. Let probands and patients decide about moral risk: stem cell research and medical treatment. Cross-Cultural Issues in Bioethics - The Example of Human Cloning, Rodopi, Amsterdam; 2006:426-27.

[8] Wolfrum R, Vöneky S. Who is protected by Human Rights Conventions? Protection of the Embryo vs. Scientific Freedom and Public Health. InHuman dignity and human cloning 2004 (pp. 133-143). Springer, Dordrecht.