

HUMAN CLONING PROS AND CONS: SHOULD PEOPLE INTERFERE WITH NATURE?

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Introduction

When Joshua Lederberg in 1966 published the article on the eugenic advantages of cloning, he sparked the flame of the human cloning debate and that flame increased its ascent towards the heavens when exactly 31 years after, on the 23rd of February 1997 to be precise, Ian Wilmut announced the successful cloning of a sheep from an adult sheep's somatic cell. Though previous successes have been recorded, Wilmut's experiment was different as he used an adult sheep's somatic cell as the starting material and thus lit the torch for the possibility of an era of human clones. The sheep which was born on the 5th of July 1996 was named Dolly and her birth inspired hopes on the prospects of human cloning.

Essentially, the human cloning debate continues to rock academic circles to the extent that polar answers in favour or against it would not suffice without proper constructive arguments and understanding of what it is. Human cloning is the creation of almost genetically identical copies of humans. This can be achieved by replacing the nucleus of an unfertilized human egg, activating cell division and then placing the new embryo in a woman's uterus to be developed to term or grown outside the uterus with the purpose of harvesting stem cells. If the clone is to be carried to term with the intention of birth then it is termed *human reproductive cloning* but if the reason for the cloning is to harvest stem cells from the embryo to cure the human host then it is called *human therapeutic cloning*. The methods of human cloning includes both Somatic Cell Nuclear Transfer (SCNT) and Induced Pluripotent stem cell methods (iPSC). The former is the theoretically preferred one for reproductive cloning while the later has the tendencies of boosting therapeutic cloning especially in the area of regenerating and repairing damaged body organs.

The Pros

While arguing in favour of human cloning, U.S Scientist, Panayiotis Zavos, pointed out that the need to help couples with fertility problems should be a sound enough reason to legalize human cloning. Basically, human cloning, as other Assisted Reproductive Technologies (ARTs), has the solution to the infertility problems of couples who want children they are genetically related to as 15% of couples of reproductive age have infertility problems and 65% of them get help from ARTs. Thus, in cases where other ARTs do not suffice, human cloning becomes the obvious solution (Zavos, 2002).

The LGBT (Lesbian, gay, bisexual and transgender) law in the United States of America (USA), and other nations holds relevance for human cloning as gay couples can, through human cloning, have their own babies who are genetically related to them and all they would need is a surrogate mother to carry the embryo to term.

Human cloning has also advanced the frontiers of knowledge in the aspect of developmental biology which has potentials for research into the causes of diseases and drug discovery. Human cloning leads to stem cell therapy which holds the promise for treating or preventing a disease condition. Embryonic stem cells can be grown to produce tissues or organs to repair or replace damaged ones. Hence, quadriplegics and paraplegics could be cured. Moreso, hearts, kidneys, lungs and other organs could be replaced in victims without fear of rejection by the body's immune system. Even bone marrow transplant have been made possible by stem cell therapy.

Human cloning holds the promise for the cure of several illnesses that were before now incurable. Diseases such as Parkinson, Alzheimer's and Cancer have prospects of being cured due to the enhancement of research in the disease cycle that human cloning can greatly assist in. The understanding of genetic diseases and their eventual correction could be made possible by the human cloning technology. The practice of amniocentesis and the eventual abortion of diseased children could be an era in the past when scientists through human cloning understand the genetic processes. Less children would be aborted and more children would be cured which concurs with Zavos' statement that "human cloning believes in creating families, not preventing them".

The economic implications of the subject of human cloning increases the knowledge stock and in turn empowers people to become specialists hence creating employment opportunities for the populace. Despite the scepticism on moral and ethical grounds, human cloning offers economic opportunities to the large mass of unemployed and uneducated women of developing worlds in form of surrogacy for infertile couples just as sperm donation, oocyte donation and others have provided a means of livelihood for these poor masses. Joshua Lederberg (1966) commented on the advantages of human cloning in eliminating unpredictability in reproduction and perpetuating "superior" genes despite the serious ethical concerns it poses.

To crown it all, Dr. Seed suggested that it may someday be possible to reverse the aging process through human cloning whilst some commentators feel this is a step too far, I wonder if the temptation in pursuing immortality isn't worthwhile.

The Cons

The opponents of human cloning have blasted the proponents of the subject matter labelling them as trying to play God and forgetting the dangers of human cloning. The process of human cloning is far from perfect and poses certain significant risks. When Dolly the sheep was cloned, it took 276 failures to produce her and that would be against the ethical principles of the modern societies. The risk to the embryo is a major disadvantage of human cloning.

Moreso, if its legalization succeeds eventually, the previously infertile couple would prefer to have babies that are genetically theirs; an obvious disincentive to pursue adoption. Consequently, the numbers of adopted children in the society would be drastically reduced, leaving us with a society with more babies that would probably lack adopters.

It is also been argued that therapeutic cloning has issues of demeaning the embryo to the level of objects for the benefit of parent host. This means that they are bred for the sole aim of treating the parent host of any condition he is suffering from. This has strong ethical implications related to the abortion case.

In addition, human cloning has tendencies of abuse as has been scripted in some movies. Because it is possible, in principle, to *manufacture* human clones with special characteristics, many speculate that the lid would be open (if human cloning is legalized) to a generation of humans manufactured for selfish purposes like crime, war and so forth. These humans with *superior* characteristics might prove to be the world's doom however, this viewpoint is purely hypothetical.

Legality

In 2015, a report had it that seventy countries banned human cloning (Cohen, 2015). According to Kathryn Wheat and Kirstin Matthews (2014), Thirty-one countries have banned human cloning altogether whilst many other countries leave the window open for only therapeutic cloning. For others, it is difficult to draw the line as the debate regarding cloning laws is still on-going.

Should People Interfere with Nature?

Nature has not been perfect for man and it is the duty of man to try and control her to suit his needs. It was man's ingenuity that led to the creation of houses when nature placed him in the open, clothes when he was born naked and the creation of Assisted Reproductive Technologies to aid natural reproductive techniques. One of nature's gift to man is the ability to reproduce and if any circumstance comes up that man could not reproduce, then it is

in the interest of fulfilling this *natural* responsibility that man should interfere with *nature* if such action holds the solution to the problem. Human cloning holds the promise of giving children to otherwise infertile couples and this is in line with assisting man fulfil *the* assignment conferred on him by nature- reproduction. It can therefore be pointed out that it is *nature's will that man should interfere with her if it was in the interest of perpetuating his existence.*

The interference of man with nature is even more justified if it does not jeopardise nature in any way. Permitting human cloning would be in line with allowing man exercise his liberty to research and knowledge acquisition as he has always strived for. The right to reproductive freedom and the choice of a method of reproduction even his decision not to reproduce is man's prerogative, thus, it is simply logical that man should interfere with nature especially on the *human cloning grounds* because by doing so, he is exercising his adventurous, yet moral right in the betterment of humanities.

If man does not interfere with nature, quadriplegics and paraplegics and other deformed victims, who would otherwise be in the labour force, would remain dependent and possibly irrelevant thus consuming from the rest- an economic waste! With nature interference, they could be cured and isn't knowledge supposed to advance humanity? It is quite easy to engage in this argument as an observer, but imagine being a victim of some of these ailments and the only thing keeping you from being cured is the argument that man is not supposed to interfere with nature or some ethical/ moral viewpoint. Given one's right to perpetuate his existence, the question that puzzles me here is: who is actually playing God in this case? The moralist or the proponents of human cloning?

Borrowing a leaf from physics, interference could be constructive or destructive therefore, it is only the constructive interference with nature that I strongly advocate. The disadvantages of human cloning just like every other subject are quite evident, but the potentials that it promises the cure to many diseases, holds the possibility of controlling the aging factor and the answer to organ transplantation, is not only amazing but quite overwhelming. If interfering with nature would mean that all these lifelong problems facing humanity would be solved or at least promised a glint of hope, then maybe even God, wants us to play god.