

# Ethical issues surrounding designer babies

[Design](#), [Architecture](#)



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## **Introduction**

At a superficial level, the concept of Designer Babies seems like a medical breakthrough that will change the lives of millions of parents for the better and save the healthcare system billions of dollars in the treatment of genetic diseases caused by faulty genes. However, a closer analysis reveals that the issue of Designer Babies presents a myriad of ethical issues in how society utilizes and manages the future technology. The debate on whether it is ethical for humans to manipulate a process of nature is not new; it goes back to the beginning of the in-vitro fertilization technology, which, when first introduced, generated a lot of controversy on ethics (Knoepfler 176). Just like in-vitro technology, the designer baby concept presents an opportunity that explicitly attempts to rid society of a problem, which, in this case, is the prevention of genetic diseases and provision of desired traits to children. This possibility occurs through the screening of DNA to remove any

unwanted genes and retain normal genes for the formation of a healthy and ‘clean’ baby. While the process appears innocent, the means of determining normal genes versus abnormal ones may be ethically problematic due to the fact that normal traits may be subjective and different from one society to another. Additionally, humanity has thrived due to the diversity that persists, and many critics observe that while the technology has a noble foundation, the opportunity to have Designer Babies may rid the world of diversity (Knoepfler 179). Reasonably, this paper will provide an in-depth analysis of Designer Babies and the technology involved, while presenting the ethical challenges that this groundbreaking technology elicits.

## **Definition**

A Designer Baby refers to any baby that undergoes a process that genetically alters their genetic make-up in-vitro to gain some preferable traits while eliminating others. Its application includes lowering the chances of disease, gaining specific traits like athleticism, eye color, and intelligence, and determining gender (Bliss 4). It goes over and above the process of in-vitro fertilization, which is the mixing of genetic material from the parents and then implanting the resultant mixture into the womb. In Designer Babies, the genetic material mixture faces alteration before implantation into the womb can take place. In essence, parents who may wish to have a child that possesses certain traits and characteristics may approach a specialist who would then come up with a baby with such characteristics through a process of genetic manipulation and engineering. Thus, the baby will face customization to the taste of the parents. In the contemporary world, this idea is available for selection of gender but in the future, it may extend to

height, eye color, athleticism, intelligence, hair color, and even personality. For many years, the concept of designer babies was more fiction than reality; however, with the introduction of revolutionary technology such as in-vitro fertilization, the emergence and advancements in the field of genealogy and genetic engineering have made Designer Babies a reality (Agar).

## **Creation of Designer Babies**

The concept of Designer Babies has its roots in the process of in-vitro fertilization treatment. The process of in-vitro fertilization involves the manner in which male sperm and female ovum undergo a technique that fertilizes them outside the womb in a laboratory. The fertilized ovum, known as a zygote, then faces transfer to the mother's womb. Designer Babies come about when a process known as the preimplantation genetic diagnosis (PGD) faces introduction to the in-vitro fertilization treatment before the zygote faces transfer into the mother's womb (Agar). In the preimplantation genetic diagnosis process, the embryo undergoes analysis to categorize its genome. In other words, the human embryos face screening and genetic profiling to determine that the embryos only contain the healthiest and non-mutated genes. In the contemporary world, preimplantation genetic diagnosis process faces utilization in screening for any defects and abnormalities in the genes of human embryos; thus, reducing the probabilities of some diseases such as cancer. Additionally, in today's world, the process faces usage in selecting a specific gender; therefore, parents are able to know beforehand the gender of their child. It is believed that in the near future, it will be possible to apply this technology to get desired traits in a child through the same process of genetic profiling as the technology in

this process enhances. Reasonably, this process will ultimately lead to the creation of the so-called Designer Babies with the name stemming from the fact that the babies would undergo a deliberate process of design by their parents with the help of scientists (Bliss 8).

## **Selection of Genes**

The concept of Designer Babies necessitates the selection of genes and the disregard of others. Reasonably, the idea works around the premise that there will be a selection of some genes that will greatly increase the chances of a baby born with some traits desired by its parents. On the other hand, due to socio-economic, cultural, religious, and medical reasons, some parents may find some traits undesirable and, thus, would campaign for the elimination or alliteration of the genes causing them. Therefore, the genes that may face selection for Designer Babies may be the ones responsible for determining height, eye color, hair color, gender, intelligence, and athleticism. On the contrary, those that can be selected against may be those that are shown to lead to disease and those that may lead to undesirable features like below average intelligence, short height, weak eyesight and even color of skin in terms of intensity of the shade (Suter 935).

## **Ethics**

The first ethical issue that the concept of Designer Babies and the process that it would involve elicits is the concern for the safety of the procedure. In any medical procedure, especially one that attempts to modify or alter the human genetic system, safety is a primary concern. Reasonably, there is concern that the process of making Designer Babies may, in one way or

another, lead to a disruption of other genes that are responsible for vital systems of life (Knoepfler 159). For instance, a gene inserted in an embryo to aid in the eye color of a child may interact with other genes and disrupt its normal functioning. This eventuality may prove problematic for the unborn child. Another angle of safety rests on the fact that human genes are known to play more than one function, and in some cases, take on multiple responsibilities. Therefore, an introduction of a gene for one purpose may result in another effect, which may present itself in the future negatively. The ethical concern is that the creation of Designer Babies may lead to dabbling into genes that the scientific world has not yet fully grasped. Similarly, it has been noticed that some traits that many parents would want their children to possess are under the control and influence of multiple genes. Some of these genes have not yet been fully analyzed and profiled. Therefore, even after going through the risk that a child may gain some genetic disorder, the attempt to gain the trait may not work at all (Agar).

The second ethical issue may arise concerning the cost of the process of gaining Designer Babies. Processes such as in-vitro fertilization and preimplantation genetic diagnosis do not come cheap and usually cost thousands of dollars (Suter 930). The ethical concern resides on the fact that if Designer Babies become a legal and medical reality, the cost of the process, which would, in reality, become expensive, will create a new social division between those who will be able to afford it and those who would not. Consequently, the wealthy and well-connected would be able to have offspring that have the desirable traits that they desire while the lower classes would not be able to have that option. This outcome would

exacerbate the current problem of the widening gap between the rich and the poor and, therefore, create a new social distinction that puts enhanced humans on one side and unenhanced humans on the other side. What this situation will mean, is that the wealthy, who would be genetically more enhanced, would have all the opportunities to themselves in terms of the socio-economic and political sphere.

The third ethical issue raised by Designer Babies would be the right to parents' choice of traits for their children (Suter 898). Many opponents of Designer Babies offer the opinion that it would be not right to treat human beings as animals in that the best and most fits are kept while those that do not show these characteristics face discarding, especially considering that in the process of preimplantation genetic diagnosis, those embryos that are considered possessing genes causing undesirable traits face discarding, while those deemed perfect are made ready for implantation. Consequently, this process results in many human embryos going into waste bins. Additionally, this action may spring up the debate of at what point life is created. If the answer were that life begins at conception, then the parents and scientists involved in the process would be seen as taking away a life.

### **Pros and cons of Designer Babies**

While the concept of Designer Babies is still merely an idea, it provides a number of advantages and disadvantages that add on to the debate of ethics of Designer Babies. Proponents of the concept suggest that the babies will be able to help the medical community combat diseases such as certain type of cancers and genetic malformations. They argue that by helping

parents profile their genetic material, malformation of genes that lead to various disorders will no longer exist. Some genetic diseases have no known cures; therefore, a process that could prevent these diseases would be better than a cure that has not yet been discovered. Furthermore, existing treatments for some genetic disease are detrimental and unsafe to the patients; therefore, Designer Babies would eliminate all the problems associated with genetic diseases. Secondly, the process of getting Designer Babies offers parents the chance of averting the traumatic experience of having a child with genetic diseases like Downs Syndrome. Such diseases are not only emotionally draining but also costly in management; hence, they may be a lifetime endeavor. Thirdly, in the past, couples that had the knowledge that they carried some disease-causing genes, which could be passed to their offspring, would typically make the decision to forego having children of their own. Reasonably, Designer Babies and the process of making them would give such couples an opportunity to have disease-free children (Dayal). On the other hand, opponents of Designer Babies argue that the practice is highly unethical since embryos are living beings; thus, have a right like anybody else to comment on whether they would like to be altered or not (Knoepfler 99).

## **Conclusion**

In conclusion, the debate on ethics of Designer Babies is set to continue as more technology and processes on human genetic modification face enhancement. While there would be a need to evaluate all the ethical challenges that Designer Babies offer and come up with solutions to them, the advantages that this technology offers cannot be ignored. Billions of



dollars are spent on health care to find cures for various genetic diseases; it seems logical that a technology that could be able to eliminate these diseases early on in life would be encouraged. While there seems to be unavailable research on whether there will be long-term effects of undergoing genetic design, it is evident that this issue will continue to elicit debate and controversy in society concerning its ethical considerations and implications.