

World History and Culture  
Kailua High School  
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## Changes in Human Reproduction

One of the challenges in modern society is understanding changes in human reproduction. These changes are called assisted reproductive technology, or ART. From a historical perspective, these changes are a “second sexual revolution”. The first “sexual revolution” occurred during the Neolithic transformation of human culture. Accompanying agriculture and writing, human fertility increased six-fold as females developed menses cycles that replaced estrus. This first sexual revolution allowed Homo sapiens to populate earth. Today, the second sexual revolution allows all lifestyle couples biological opportunities to reproduce. However, ART and its main techniques of In-Vitro Fertilization (IVF), egg extraction, storage and donation, sperm donation and storage, embryo freezing and implantation, commercial surrogacy, “three-person babies,” and genetic altered embryos—are redefining how we understand both reproduction and the body itself. No longer is reproduction an intimate act between two people. Instead, reproduction is now a series of objectified laboratory actions that lead to another human being. The entire process, from egg and sperm donation to commercial surrogacy seems to be

unregulated beyond the demands of the marketplace. Although ethical issues are difficult to legislate, the health and safety of women, men, and children who either participate or are the result of these changes can be legislated. Therefore, nations need to legislate requirements and agreements concerning IVF, egg donation, commercial surrogacy, and procedures such as three-person babies and genetic manipulation. Not only is legislation needed within national boundaries, but also international agreements are needed to protect families and especially women and children.

In-Vitro Fertilization (IVF) is causing ethical issues<sup>1</sup> (Stein, 2009) that concern the status of unused embryos, as well as stem-cell research. The process of IVF begins with egg donation, which itself is a process of hormone injections that lead to extraction of the eggs. This raises both ethical and health issues. Since the extraction of eggs includes not a single egg, but instead many eggs, the ethical issue of unused embryos emerges. At the same time, the health of the woman donor is at risk because the hormone injections cause overstimulation of the ovaries. At present, there are no studies to determine the long-term effects of these injections on the health of women. Furthermore, there are no regulations that

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<sup>1</sup> Rob Stein. "New York to pay for eggs for stem cell research." The Washington Post. June 26, 2009. Stein quotes Lorie Zoloth who asks whether or not everything is for sale.

address the process of egg donation. In order for IVF to remain a vital option for couples seeking to have children, state and national governments need to regulate the process of egg extraction for the health of women. In addition to the lack of oversight of egg donation, there is also the issue of multiple eggs and their eventual disposal as embryos.

Multiple eggs are extracted to assure pregnancy because extracting and fertilizing only a single egg minimizes the chances of producing a viable embryo. Therefore, multiple eggs are extracted and fertilized. Couples must decide how many embryos will be implanted into the womb. Since all of the embryos cannot be implanted into the womb—due to safety for the mother--the remaining embryos are of ethical concern. For some institutions multiple embryos are used for stem-cell research. In the U.S., federal funds from the “nation’s largest funding agency, the National Institutes of Health (NIH)”, have been restricted by the Dickey-Wicker Amendment because of the belief that destruction of a human embryo is the same as killing a human being. Although federal funds still restrict the destruction of a human embryo, research is allowed that uses human embryonic stem cells.<sup>2</sup> So,

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<sup>2</sup> Stephanie Watson & Craig Freudenrich, PH.D. “How Stem Cells Work.” [howstuffworks. https://science.howstuffworks.com/life/cellular-microscopic/stem-cell.htm](https://science.howstuffworks.com/life/cellular-microscopic/stem-cell.htm) <accessed August 24, 2018>

whether an unused embryo is used for stem-cell research or disposed of, the ethical issue of destroying a human life remains. Perhaps legislation can be passed to allow federal funds to be used for stem cell research as the benefits of stem cell research outweigh the ethical outrage associated with destroying embryos.

Another ethical issue concerning the life of embryos is commercial surrogacy. Since commercial surrogacy relies on IVF, some nations have laws against commercial surrogacy. This restriction forces some couples to seek other countries where commercial surrogacy is legal. However, even in countries where commercial surrogacy is legal, there are no consistent regulations concerning the rights of the surrogate mother, the child, and the commissioning parents. An example of the lack of regulated commercial surrogacy is the case of "Baby Gammy, born with Down syndrome and left in Thailand with his surrogate mother by commissioning parents." In addition to thoughtless parents, there is also the issue of stateless infants. Due to the lack of international agreements, surrogate children are sometimes victimized by governments. In one case, "Australian commissioning parents" left a "twin-child in India" due to the fact that commercial surrogacy is not regulated with international agreements. Therefore, the parents could abandon one of the twins as there were no laws forbidding such an act. These acts of

abandonment that lead to stateless surrogate children can be resolved by national and international agreements.

**Write a conclusion**