

ISSUES IN PERSPECTIVE

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In Vitro Gametogenesis: A New Revolution in Reproductive Technology?

The newest development in reproductive technology promises to be far more controversial than in vitro fertilization (IVF), which accounts for about 70,000, or almost 2%, of the babies born in the US each year. [Indeed, more than 6.5 million babies have been born worldwide through IVF and related procedures.] According to Tamar Lewin reporting on this new development, “Within a decade or two, researchers say, scientists will likely be able to create a baby from human skin cells that have been coaxed to grow into eggs and sperm and used to create embryos to implant in a womb. The process, in vitro gametogenesis, or IVG, so far has been used only in mice. But stem cell biologists say it is only a matter of time before it could be used in human reproduction—opening up mind-boggling possibilities.” What are some of these possibilities?

- With IVG, two men could have a baby that was biologically related to both of them, by using skin cells that would be fertilized by sperm from the other.
- Women with fertility problems could have eggs made from their skin cells, rather than go through the lengthy and expensive process of stimulating their ovaries to retrieve their eggs.
- A fantastic possibility of IVG could be someone retrieving skin cells from a hotel bed or bathtub and using IVG to “reproduce” that person (e.g., a famous politician, movie star or musician).
- IVG raises the specter of “embryo farming” on a scale currently unimaginable. This would certainly be the ultimate in the devaluation of human life.

Without question, IVG demonstrates that reproductive technologies are progressing faster than the legal and ethical questions they raise. Indeed, Dr. Eli Y. Adashi, medical science professor at Brown University, correctly observes that “We have come to realize that scientific developments are outpacing our ability to thinking them through. It’s a challenge for which we are not fully prepared. It would be good to be having the conversation before we are actually confronting the challenges.” Furthermore, David Lemberg, a bioethicist at National University in California, contends that “Attempting to apply what we’ve learned to create a human zygote is dangerous, because we have no idea what we’re doing; we have no idea what the outcomes are going to be.”

So, ethically speaking, does the end always justify the means? Does a seemingly good end (having healthy babies) justify the means (e.g., IVG, IVF)? Reproductive and Genetic Technologies have empowered humans to a degree unimaginable only a few years ago. These

technologies are also empowering parents (of all possible types) to decide how, when and even what kinds of children they want. Therefore, these technologies raise profound ethical questions, including ethical questions about the human embryo. Such increasing control (via IVG and IVF) enables women and parents in general to indulge their personal hubris and assume that they truly are in charge. They are not! God in His common grace has enabled humanity to understand the science and implement the techniques that produce IVG and IVF. But the fallen nature of humanity means that increasingly such technologies will be used for selfish, self-indulgent reasons that have little to do with the miracle of procreation and the privilege of rearing children. We seek to do all of this on our terms for our self-centered reasons. When we think we are in total control, then we can make wrong ethical choices resulting in horrific consequences. History is littered with such examples. Why do we believe we will be different?

Because of the crisis of moral authority in western civilization, there is no absolute ethical framework to help address these issues. There is a desperate need for some guidelines, rooted in God's revelation. Therefore, what follows is a list of guiding principles to deal with reproductive and genetic technologies such as IVG and IVF. Arguably not exhaustive, they offer some guidance, rooted in or inferred from God's Word. These guiding principles do not provide definitive answers to all the legal and ethical challenges; rather, they offer a starting point for discerning Christians as they seek to make wise decisions.

- Human beings are created in God's image—the fundamental basis for human value and worth. We can then stipulate that humans are always more valuable (intrinsically so) than all other created things. Hence, technology must always seek to preserve the worth, dignity and value of all human beings, regardless of age or stage of development.
- Issues and practices associated with reproductive and genetic technologies fall under the stewardship responsibility of humanity. In Genesis 1:26ff, God created humans—male and female—in His image and then gave them the responsibility to “be fruitful and multiply, and fill the earth and subdue it; and rule over the fish of the sea and over the birds of the sky, and over every living thing that moves on the earth (1:28).” Verse 29 extends this dominion to plants, trees and seeds. God affirms this dominion status, although affected by human sin and rebellion, to Noah in Genesis 9:1-2. Because God is sovereign and humans have dominion status, human accountability is a necessary corollary. This matter of accountability has powerful implications when it comes to reproductive and genetic technologies. These technologies give humans power never realized before in history. But because of human depravity, it is difficult to be optimistic about the ultimate use of some of these technologies. In His common grace, God has permitted the human race to develop these technologies—but we must always remember that we are accountable to Him as to how we use them.
- Human life itself is of higher value than the quality of human life. With the eternal perspective that Scripture gives, the quality of life ethic is faulty but seems to drive the current use of many of these technologies. Ethicist Michael Sandel writes that “In a

world without givens, a world controlled by bioengineering, we would dictate our nature as well as our practices and norms. We would gain unprecedented power to redefine the good. . . The more successfully we engineered IQ and muscle-to-fat ratio, the more central these measures would become to our idea of perfection. . . But it w[ill] never be a perfect world.” [*The Case Against Perfection: Ethics in the Age of Genetic Engineering*, p. 5.] Because of sin, we live in an imperfect world, and, until the new heaven and new earth, our fallen world will be characterized by disease, tragedies, accidents and old age. The quality of life ethic, therefore, must never trump the infinite value of life ethic detailed in the Bible.

- From God’s perspective, concern for the improvement of the “inner man” is always more important than concern for improvement of the “outer man.” No procedure or practice will prevent the inevitability of death. Perhaps that is why the Scripture gives focus to such issues as the fruit of the Spirit (Galatians 5:22-23) and the eight quality traits called the Beatitudes (Matthew 5:1-16). From God’s perspective, these character traits are more paramount than using certain technologies to strive toward the goal of human perfectibility.
- Carl Henry, years ago in his book, *Christian Personal Ethics* (1957), provided an important guideline for wise decision-making when it comes to reproductive and genetic technologies: “Whatever tends to overcome what would be a deterioration in the created order and seeks to restore what God purposed in Creation is on far safer grounds than all kinds of novel and experimental enterprise.” In other words, he argued that there is clear biblical warrant for technologies that restore; there is no clear biblical warrant for manipulation toward perfection—an insightful guideline in approaching a procedure such as IVG.
- Finally, human civilization must critically examine the scientific (technological) imperative. Simply because society can pursue a particular medical, reproductive or genetic procedure does not mandate that it must! Especially in the area of genetics, “can” does not mandate “ought.” The potential for power and control of IVG and its obvious abuse mandates an examination of this imperative. Perhaps with some of these procedures, such as IVG, it would be wise to not do them at all.

The message of genuine biblical Christianity is that God is in control. He is our creator, our Redeemer and our Lord! May our dependence on Him and our recognition of His Lordship guide our decisions in genetic and reproductive technologies such as IVG.

See Tamar Lewin, “Making Skin Cells Into Babies?” in the *New York Times* (17 May 2017) and James P. Eckman, *Christian Ethics*, pp. 43-53.