

11-1-1999

In Vitro Fertilization: Truth and Consequences

Mark Yavarone

Follow this and additional works at: <http://epublications.marquette.edu/lnq>



Part of the [Ethics and Political Philosophy Commons](#), and the [Medicine and Health Sciences Commons](#)

Recommended Citation

Yavarone, Mark (1999) "*In Vitro* Fertilization: Truth and Consequences," *The Linacre Quarterly*: Vol. 66: No. 4, Article 8.
Available at: <http://epublications.marquette.edu/lnq/vol66/iss4/8>

In Vitro Fertilization: Truth and Consequences

by

Mark Yavarone, OMV

The author received a doctorate in Cell Biology and Anatomy at the University of North Carolina and then began work on a Master's Degree in Moral Theology at St. John's Seminary in Boston.

In 1978 the birth of Louise Brown, the world's first test-tube baby, captured worldwide attention. Over the past 20 years, the use of in vitro fertilization (IVF) has increased rapidly. By 1994, approximately 31,000 babies had been born in the United States after fertilization in vitro.¹

This paper begins with a description of IVF as it is practiced today. The Church's teaching on IVF is then briefly reviewed, followed by an overview of arguments used to support IVF. A final section examines some of the untoward consequences of IVF which are often ignored by its proponents.

The Procedure

IVF normally begins with hyperstimulation of the ovaries of an infertile woman (or an egg donor) by a series of drug and hormone injections to mature multiple eggs within her ovary. At the end of this period, the eggs are harvested, usually by insertion of a hollow needle through the vaginal wall to the ovary. Nationwide, the average number of eggs retrieved is about 12 per cycle.²

The sperm for IVF are usually obtained from the woman's partner or a sperm donor by masturbation and then capacitated for fertilization.

Sperm and eggs are placed together in a culture medium to achieve fertilization, and the resulting embryos are grown for about 40 hours prior to transfer to the woman's uterus.

In cases of male infertility, the sperm may need some help to penetrate the egg. One way of circumventing this difficulty is to modify the zona pellucida or partially dissecting it. A second solution is intracytoplasmic sperm injection (ICSI). In ICSI, penetration of the egg by the sperm is simply bypassed; a single sperm is directly injected into the interior of the egg. As in other in vitro methods, embryos are cultured briefly prior to reinsertion.

After the culture period, embryos are graded based on their shape and how well their cells are dividing. To increase the chances of a successful pregnancy, about four of the healthiest embryos are transferred to the uterus of the biological mother or surrogate. A study of 267 IVF programs in the US and Canada revealed a clinical pregnancy rate of 19.8% per cycle, with a delivery rate of 16.0% per cycle.³ A Belgian group has reported comparable rates of success for ICSI.⁴

Church Teaching on IVF and Related Procedures

Fundamental to any understanding of the Catholic Church's teaching on IVF is that procreation is exactly that: *pro-creation*. The transmission of life is an area in which man cooperates with God in the creation of new life; it is not an area over which God has given man unlimited dominion. The dignity of procreation lies in the fact that man cooperates with God in God's creation of a new human being, for whom God wills eternal life. "Human procreation requires on the part of the spouses responsible collaboration with the fruitful love of God."⁵

Such collaboration involves respect for the nature of the conjugal act as God has authored it. Pope Paul VI's encyclical *Humanae Vitae* remains the key source for understanding the nature of this act. This encyclical points out the "inseparable connection, willed by God and unable to be broken by man on his own initiative, between the two meanings of the conjugal act: the unitive meaning and the procreative meaning."⁶

Of itself, this statement is not quite sufficient to establish the immorality of IVF. For one could argue, as does William Daniel, S.J., that all we learn from *Humanae Vitae* is that when the conjugal union is present, it must be both unitive and ordered to procreation. In the case of IVF, however, there is no act of conjugal union, and thus, it could be argued, no question of separating its two meanings.⁷

To clarify matters, it is necessary to read *Humanae Vitae* together with *Donum Vitae*, the 1988 document from the Sacred Congregation for

the Doctrine of the Faith which addressed IVF directly. In this statement, the Congregation states that not only are the procreative and unitive meanings of the conjugal act inseparable, but procreation is inseparable from the conjugal act. Conception in vitro is immoral because it is "the result of technical action which presides over fertilization. Such fertilization is neither in fact achieved nor positively willed as the expression and fruit of a specific act of conjugal union."⁸ This statement points to the basic reason why IVF is wrong. It *replaces the conjugal act*, the only proper context for procreation, with a technical procedure. Thus, of its nature, IVF differs from other techniques which *assist* fertilization. *Donum Vitae* explicitly makes this distinction: "If the technical means facilitates the conjugal act or helps it to reach its natural objectives, it can be morally acceptable. If, on the other hand, the procedure were to replace the conjugal act, it is morally illicit."⁹

In isolating procreation from conjugal union, IVF transfers the causality of conception to the hands of technicians. This distorts not only the proper role of sexuality but also the proper role of the physician, who is then invested with power over life and death. "The doctor is at the service of persons and of human procreation. He does not have the authority to dispose of them and to decide their fate."¹⁰

Donum Vitae has more strong words for the process of heterologous artificial fertilization, in which embryos are conceived by the use of gametes from at least one person other than the spouses: "The fidelity of the spouses in the unity of marriage involves reciprocal respect of their right to become a father and a mother only through each other."¹¹ The Congregation insists that heterologous artificial fertilization is detrimental to the child, who "can discover his own identity and achieve his own proper human development: only through a "secure and recognized relationship to his own parents."¹²

Cataldo outlines two currents of contemporary thought which dominate cultural views of IVF: personal autonomy and emotivism. He lists several ethical think tanks which appeal primarily to the principle of autonomy in making moral determinations about reproductive technologies, including the Canadian Royal Commission on New Reproductive Technologies, The Danish Council on Ethics, the U.S. Congress Office of Technology Assessment, and the American Fertility Society. According to the personal autonomy mindset, one is free to make his or her own ethical determination of these procedures and to use whatever seems appropriate. Any norms that would discount reproductive technologies place a limit on personal freedom.

The other strain of contemporary thought highlighted by Cataldo is emotivism. A good example of an emotivist presentation of IVF is a major

periodical's recent account of the birth of quadruplets to a 48 year-old woman using her 28 year-old sister's donated egg cells. The overjoyed mother views the future of the quads optimistically: "They're going to grow up in a caring environment with two parents who love them, not to mention one wonderful aunt."¹³ Not surprisingly, no mention is made of any arguments against IVF, nor the ambiguity of which woman is the loving mother and which is the wonderful aunt.

More serious argumentation in favor of IVF from within the field of moral theology goes beyond personal autonomy and emotivism. Any case made in favor of IVF must accomplish two things: 1) it must disavow the necessary connection between procreation and the conjugal act; and 2) it must provide a rationale for creating and destroying the "spare" embryos that IVF requires for success.

Some theologians attempt to accomplish the first of these aims by reference to the principle of totality. They admit that there must be some connection between procreation and marital union, but deny that each and every instance of procreation must take place within the context of a conjugal act. For example, Lisa Cahill remarks, "In homologous techniques, the physical relationship of sexual intimacy, and the biological relationship of parenthood are both preserved within the marital relation of the couple."¹⁴ Cahill shares the mistake of some defenders of the "fundamental option" theory by assuming that an association between the conjugal act and procreation can exist on a transcendental level, i.e., on the level of "relationship" rather than particular acts. On the contrary, actions speak louder than words. Any recognition by the couple of the link between conjugal union and procreation must be spoken with actions that do not separate the two.

Objective #2 above is usually accomplished by questioning the personhood of the early embryo. Currently, such arguments use certain facts of developmental biology in an effort to show that a newly conceived human zygote is not, or is probably not, suitable material for a principle of personhood, i.e., a soul. Among theologians who hold this position are Norman Ford,¹⁵ Thomas Shannon,¹⁶ and Richard McCormick.¹⁷

How do these theologians assail the personhood of the early embryo? One way is by questioning the early embryo's individuality. According to these authors, the early embryo is in some ways more like a collection of cells than an individual human being. This is evidenced by the fact that each of the cells of the early embryo is totipotent, or able to develop into a new embryo if it becomes separated from the rest of the cell mass. Such separation occurs naturally in at least one-fourth of one percent of pregnancies, resulting in multiple births.¹⁸

Because of the questionable stability of the early embryo, Ford, Shannon, and McCormick draw a distinction between the kind of individuality that the early embryo possesses and the sort possessed by the later embryo or adult. According to McCormick, the zygote possesses "genetic individuality" from fertilization. In other words, it contains a unique genetic code different from each parent and from anyone else who has ever existed. However, as long as the embryo's cells are totipotent, it has not yet attained "developmental individuality," i.e., it is not yet determined to produce one and only one human being.¹⁹

Is developmental individuality necessary for personhood? McCormick answers affirmatively, because incommunicability is a defining note of personhood. If a single embryo is capable of developing into twins, how can the original embryo be held to possess an incommunicable principle of personhood, i.e., a soul?

Such arguments against the personhood of the embryo are far from unassailable. The movement from the premise that the early embryo can twin to the conclusion that the embryo cannot be a person is rather swift. Ashley suggests an alternative scenario by which an embryo that gives rise to twins could nonetheless be a person: the newly-formed twin receives a soul upon separation from the embryo.²⁰ Moraczewski suggests as less likely another hypothesis: the original zygote effectively dies, giving rise to two new individuals.²¹

The position of McCormick, Shannon, and others can also be critiqued on the level of biology. There are many cases in nature in which one individual of a species divides to form two individuals, yet no one seriously denies that the original individual was fully an individual. Also, if the embryo is really a collection of cells lacking stability, what accounts for the fact that twinning does *not* occur 99% of the time?

In the end, scientific data are necessary but not sufficient to answer the question of the early embryo's personhood. Certainty regarding the personal dignity of the early embryo can be derived only from the awareness that "the gift of truth" has been entrusted to the teaching Church. However, the foregoing should be sufficient to illustrate that the personhood of the early embryo is rationally defensible despite current claims to the contrary.

Some Odd Consequences

Part of the difficulty involved in driving home the immorality of IVF involves the consequentialist climate in which moral decisions are often made. As a previously cited example illustrates, the popular media often depicts happy outcomes of IVF without reference to its bad consequences,

leaving many wondering what harm there could possibly be in the procedure. Without capitulating to consequentialism, it is worthwhile to examine some of these harmful effects, since bad effects are always the fruit of bad actions. What are some consequences of IVF other than those usually mentioned?

The first to be considered is the killing and miscarriage of "spare" embryos. Typically, technicians attempt to fertilize 12 eggs and implant four of them. Other viable embryos are then frozen, killed, or used for research. As an example, M.M. Bodin relates that after hyperstimulation of her ovaries, an infertility clinic harvested 15 eggs. Upon fertilization in vitro with her husband's sperm, doctors informed her that they had produced 11 viable embryos. They transferred six of the embryos to Bodin's uterus and froze the other five, but all six of the transferred embryos died. The five frozen embryos were then thawed for a second attempt, but only two of these survived the thawing process and these also failed to implant.

Two years later Bodin made another attempt at IVF. This try was "successful" and she gave birth nine months later. Technicians also froze 18 spare embryos from this attempt. Approximately one year later she felt ready for another pregnancy, so she had 12 of these 18 embryos thawed. Six were killed during the thawing process, and doctors transferred the other six to her womb, resulting in the birth of twins.²²

Thus, in giving birth to her three children, the "side effect" was 21 dead embryos, not counting the six that are still frozen, and any others that never made it out of the petri dish.

As *Donum Vitae* remarks, "From the moment of conception the life of every human being is to be respected in an absolute way." Descriptions such as Bodin's make it clear that far from being respected absolutely, the embryos produced by IVF are valued only as a pool from which desirable candidates for reinsertion will be selected. And the phenomenon of spare embryos is not likely to go away, since each attempt at IVF is physically and emotionally trying for the woman, as well as expensive.

As might be expected, the killing of spare embryos is not taken seriously in descriptions of IVF. A recent *Time* magazine photo caption is typical: "Doctors have countered a virtual epidemic of infertility with new treatments, including the injection of sperm into eggs...The result: healthy fetuses like the four-month old one at left - and thousands of proud parents."²³

That all of this has resulted in a general cheapening of human life is not surprising either. Those who use IVF seem unable to recognize any inherent values in their embryos outside of the trouble they have gone through to have them created. As one IVF client ponders the fate of her six

frozen frozen embryos, she remarks, "After all we've gone through, the concept of destroying the embryos is hard to imagine. So we pay our \$50 a month storage fee, raise our boys and wonder what we are going to do."²⁴

With heterologous artificial fertilization, additional problems can appear. A good example is Jaycee Buzzanca, a California two-year old who was legally parentless, despite the fact that six different people could reasonably claim to be her parents. In 1994, John and Luanne Buzzanca arranged for IVF with anonymous sperm and egg donors. The embryo was implanted in the womb of a married surrogate mother. Shortly before Jaycee was born, John Buzzanca filed for divorce. In the meantime, the surrogate mother decided to seek custody of the child, but later withdrew her claim. It is difficult to imagine a clearer example of the ignorance of *Donum Vitae's* warning: "The child is not an object to which one has a right, nor can he be considered as an object of ownership: rather, a child is a gift."²⁵

In such cases of heterologous artificial fertilization, the eugenic nature of IVF is seen even more clearly. To facilitate egg donation, egg banks provide files on prospective donors, potential recipients can select the one who appears most likely to yield healthy, attractive, and otherwise desirable offspring. Donors with more desirable traits can receive a higher fee for their eggs.

Bad effects on parents are also being noticed. Jean Benward, a psychologist who specializes in infertility counseling, notes that parents are often distressed when they see the features of another woman on their baby's face. Some discover that they think about the egg donor long after the baby arrives. Others, says Benward, are haunted by fantasies about their own biological offspring that will never be born. Gina Grammatico, a 23 year-old egg donor, remarks, "I didn't know what I was getting into. Just wondering what the child looks like is going to bug me for the rest of my life."²⁶ These difficulties may be more common than many realize: in 1994, 1,240 babies were born from donated eggs in the US alone.²⁷ And if the adults who opt for these procedures are encountering untoward consequences, what will the futures of their children hold?

Conclusion

At present, there is little indication that the tide of reproductive manipulation will be stemmed. In a new procedure, eight births have now been reported after fertilization of previously frozen eggs (as opposed to the frozen *embryos* normally used in IVF). If this technology is perfected (perhaps in a decade or so), young women will be able to have their eggs removed and frozen, pursue a career, and then have a child at whatever age

they decide to fit it into their schedule. Menopause will no longer mean the end of childbearing. In fact, with standard egg donation, approximately 100 women over age 50 have already given birth, including a 63 year-old American woman and a 62 year-old Italian.²⁸ As John Paris, S.J., remarks in regard to these post-menopausal births, "We're designing orphans by choice, and we say this is O.K."²⁹

Of course, the immorality of IVF does not derive solely or even primarily from such consequences. IVF usurps God's authority over the creation of human life by removing it from the context of the conjugal act. However, the growing circus of reproductive technologies should serve as a reminder of what human beings find it rather difficult to learn: when we ignore divine wisdom, we do so to our own peril.

References

1. Michael D. Lemonick, "The New Revolution in Making Babies," *Time* Dec 1, 1997:44.
2. Mary Partridge-Brown, *In Vitro Fertilization Clinics: A North American Directory of Programs and Services* (Jefferson, NC: McFarland and Co., 1993) 17.
3. M.Y. Dawood, "IVF, GIFT, and Superovulation with Intra-Uterine Insemination," *American Journal of Obstetrics and Gynecology* 174 (1996): 1208.
4. Peter J. Cataldo, "The Newest Reproductive Technologies: Applying Catholic Teaching," *The Gospel of Life and the Vision of Health Care*, Russell E. Smith, ed. (Braintree, MA: Pope John Center) 63.
5. *Donum Vitae*, Introduction.
6. *Humanae Vitae*, #12.
7. William Daniel, S.J., "In Vitro Fertilization: Two Problem Areas," *Australasian Catholic Record* 63 (1986): 31; quoted in Cataldo, "The Newest Reproductive Technologies," 75.
8. *Donum Vitae*, #5.
9. *Donum Vitae*, #6.
10. *Donum Vitae*, #7.

11. *Donum Vitae*, #1.
12. *Donum Vitae*, #1.
13. Mary Garner Ganske, "God Gave Us Four Miracles," *McCall's* March 1997: 56.
14. Lisa Sowle Cahill, "Moral Traditions, Ethical Language, and Reproductive Technologies," *Journal of Medicine and Philosophy* 14:5 (1989): 516.
15. Norman Ford, *When Did I Begin? Conception of the Human Individual in History, Philosophy and Science* (New York: Cambridge University, 1988).
16. Thomas A. Shannon and Allan B. Wolter, "Reflections on the Moral Status of the Pre-Embryo," *Theological Studies* 51 (1990): 603-26.
17. Richard McCormick, S.J., "Who or What is the Preembryo," *Kennedy Institute of Ethics Journal* 1:1 (Mar. 1991): 1-15.
18. Mark Johnson, "Reflections on Some Recent Catholic Claims for delayed Hominization," *Theological Studies* 56 (1995): 759.
19. McCormick, p. 4.
20. Benedict Ashley, O.P., "A Critique of the Theory of Delayed Hominization," In *An Ethical Evaluation of Fetal Experimentation: An Interdisciplinary Study* (St. Louis: Pope John Center, 1976) 127.
21. Albert S. Moraczkeski, O.P., "Personhood; Entry and Exit," In *The Twenty-Fifth Anniversary of Vatican II: A Look back and a Look Ahead* (Braintree, MA: Pope John Center, 1990) 90-91.
22. Melissa Moore Bodin, "The Eggs, Embryos and I," *Newsweek* July 28, 1997: 14-15.
23. Lemonick, p. 41.
24. Bodin, p. 15.
25. *Donum Vitae*, #8.
26. Traci Watson, "Sister , Can You Spare an Egg?" *U.S. News and World Report* June 23, 1997: 45.
27. Watson, p. 44.

28. Lemonick, p. 41 ff.

29. Lemonick, p. 45.

REPRINTS

**Reprints of articles appearing in *The Linacre Quarterly*
from 1966 (Vol. 33) to the present are available in
either**

a) full-sized copy or b) microfilm

FOR FURTHER INFORMATION, PLEASE CONTACT:

**University Microfilms, Inc.
300 North Zeeb Road
Ann Arbor, MI 48106
(313) 761-4700**
