

# The Moral and Scriptural Principles concerning Test-Tube Babies

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Whoever thought, just a few years ago, that an essay on test-tube babies would be on the agenda for discussion at a circuit pastoral conference? Perhaps, there are some of you here today who are still in doubt as to whether or not this topic is all that important to us as individual Christians, to us as husbands and parents, to us as shepherds of God's flock. Oh yes, it's true, to this date there have been only three successful test-tube births throughout the world. And of even more significance, none of these has occurred within the United States. But let us remember that test-tube birth is something very new, and as techniques are improved, only time will tell how widespread it may become. As a pastor, perhaps you have had the privilege of counseling a married couple which is disappointed because it has not been blessed with any children. And for medical reasons, there is little or no hope that they will ever have any. At least, not until test tube birth was a possibility. Is this the answer to their prayers? What are you going to tell them?

It is with some feelings of guilt and a definite lack of enthusiasm that the writer of this essay undertook the assignment. He, too, did not feel that the topic was a real threat to his ministry, and therefore, of great importance to very many of us. But, you know, the more research he did, the more thinking and meditating he did on the topic, the more he could see that many of the questions surrounding test-tube birth involve some very basic moral and Scriptural principles; principles which are dear to each one of us as individual Christians, husbands, parents, and as pastors; principles which are discussed regularly in our Bible classes, organizational devotions, and with the members of our congregations in pre-marital counseling and marriage seminars.

And so, with this brief introduction, let us begin our study of the Moral and Scriptural Principles Concerning Test-Tube Babies.

## What Is Test-Tube Birth?

The term "test-tube birth" is, at best, a poorly chosen one. It leads people to believe that some doctor kept a fetus alive in a giant test tube and carefully watched it grow for nine months until birth. Nothing could be further from the truth.

The more correct term used by doctors and scientists for this technique is *in vitro* fertilization; "*in vitro*" meaning "in glass". Only the fertilization or conception occurs outside the body in a petri dish or test tube.

The idea of human *in vitro* fertilization, hereafter referred to as IVF, had its inception in 1955 with Landrum B. Shettles, a physician previously associated with Columbia College of Physicians and Surgeons, and now pursuing even more controversial medical research in Randolph, Vermont, - human cloning.

In 1966 a physiologist at Cambridge University in England, Robert G. Edwards, started pursuing human IVF seriously. By 1969 he had found a culture medium that improved the chances of fertilization of an egg in tissue culture. In 1970 he began working with Patrick C. Steptoe, a gynecologist at Oldham General Hospital in England. The two together made further progress so that by 1978, they finally got a human egg, fertilized in a petri dish with the father's sperm, to reimplant in its mother's womb and grow to term. Clifford Grobstein, referring to the great amount of time spent on IVF before the goal was reached, states;

It was the growing understanding, in the past 25 years or so, of the complex processes by which internal fertilization and development are normally accomplished in mammals with specifically in human beings that made external fertilization possible.<sup>1</sup>

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<sup>1</sup> Clifford Grobstein, "External Human Fertilization", *Scientific American*, Vol. 240 No. 6 (June 1979), p.57.

The method for IVF is not as difficult to explain as it was to discover. Needed are ripe eggs ready for fertilization, sperm, a system to bring the two together, and a medium that will support early stages of embryonic development.

To obtain the ripe eggs, the prospective mother is given a precisely regulated dose of a reproductive hormone known as HCG (human chorionic gonadotropin) that stimulates her ovaries to prepare eggs for release. About thirty hours later, the eggs are ready for the harvest. Timing is crucial here because if too much time passes, the eggs will be released from the ovaries by natural means and be unrecoverable.

The woman is given general anesthesia. A small incision is made under her navel and an instrument called a laparoscope, designed by Dr. Steptoe, is inserted. The laparoscope is a long metal tube containing a light and an optical lens. Using it, the physician can view ovaries directly.

Ripened eggs cause the thin walls of the ovary to bulge. The wall is punctured, and the egg is removed by suction. Most women undergoing this treatment have between one and three eggs, all of which are surgically removed. Because the injected hormone causes more eggs to ripen, the procedure is sometimes labeled superovulation. By the way, this is the reason why multiple births occur so frequently with women who have undergone reproductive therapy. To remove one egg takes approximately 8.5 seconds.

Before laparoscopy, the woman's husband provides a quantity of sperm. From all information that the writer has been able to acquire, the husband provides the sperm exclusive of sexual intercourse. The sperm is then washed and diluted. Sterile techniques must be followed to prevent contamination or infection in the culture medium. Dilution of the sperm simulates conditions in the fallopian tubes where fertilization occurs naturally.

The sperm are next placed in a salt-water solution, again to simulate the female reproductive tract, where in a few hours, they undergo a chemical change called capacitation that prepares sperm to fertilize the egg. Droplets of the solution containing the sperm are placed in a dish partially filled with an inert oil. The sperm-droplets sink to the bottom of the dish. One egg is pipetted into one of these droplets; the droplet keeps the sperm and egg confined within a small volume.

If all goes according to schedule, fertilization occurs a few hours later. After twelve hours, the embryo is transferred to a solution that supports its development. In two more days, the fertilized egg has become an 8-celled embryo; after four days, it is an approximately 100-celled embryo called a blastocyst. Sometime between two and four days after fertilization, the developing embryo is inserted into the uterus of the woman. Before insertion, the woman has been treated with additional hormones to prepare her uterus for implantation. The whole process of hormone therapy is regulated by the frequent analysis of maternal blood samples. Because the size of an embryo when it normally enters the uterus and implants on the uterine wall is not known, no one knows the ideal time for inserting the embryo. This has been, and still is, the major hurdle in IVF. "The difficulty is not encountered in fertilizing the eggs and supporting the initial stages of embryonic development. Rather, it is in inducing the embryo to become implanted in the uterus."<sup>2</sup> The numerous failures before 1978 are thought to be due to the fact that only blastocyst embryos were inserted into the uterus. Steptoe and Edwards inserted an 8-celled embryo that did implant. If this is actually what happened, it is contrary to what was formerly believed about the biology of implantation.

In any case, the embryo is inserted by drawing it up into a fine tube which is then placed into the cervix and then is expelled into the prepared uterine cavity. If all goes well, the embryo may implant through natural processes. Approximately nine months later, a baby will be born.

To date, three *in vitro* fertilizations and embryo transplants have been successful. The first, Louise Joy Brown (five pounds 12 ounces), was born July 25, 1978 at Oldham General Hospital, England. Her birth was the most widely publicized. Since her birth, two others have been reported; one in Glasgow, Scotland, and the other in Calcutta, India. All three children, two girls and a boy, are supposedly in perfect health, but each state of their development will be observed closely,

<sup>2</sup> George H. Kiffer, "IVF – *In vitro* Fertilization", *The American Biology Teacher*, Vol. 42 No. 4 (April 1980), p. 212.

Says Dr. Steptoe: “In a reasonable number of years, instead of this being a wonder, it’ll be a reasonably commonplace affair.”<sup>3</sup> Even so says his associate, Dr. Edwards: “We’re at the end of the beginning, not the beginning of the end.”<sup>4</sup>

And in summary concerning the technique, Dr. Steptoe states in a Cleveland newspaper, *The Plain Dealer*: “We are not creating life. We have merely done what many people try to do in all kinds of medicine, to help nature.”<sup>5</sup>

### Who Benefits From IVF?

According to some estimates about 10 million Americans are infertile by the definition that “they have tried for at least a year to achieve pregnancy without conceiving or carrying a pregnancy to a live birth.”<sup>6</sup> In about a third of these infertile couples, the incapacity rests with the women, and for about a third of these women the problem is localized in the fallopian tubes, the organs that propel an egg from the ovary to the uterus. These delicate fallopian tubes may easily be blocked by infection or disease. “Nowadays the most common causes of blocked tubes are inflammations of the uterine lining brought on by IUDs, pelvic inflammatory disease, or gonorrhea.”<sup>7</sup> Once they are blocked, these tubes are extremely difficult to reopen or replace. Doctors claim only a one-in-three success rate in correcting the problem with microsurgery. A ballpark figure of 600,000 women could be helped to pregnancy by IVF in the United States alone. The best candidates for IVF are those who have been previously sterilized through tubal ligation and who desire to reverse their sterilization. The worst candidates are those who have had extensive tubal infections.

Though the writer will not discuss in detail the psychology of infertility, experts who have studied it tell us that infertility is psychologically ravaging (Mazor 1979). At least two of the women studied committed suicide when they were told that they could not have children. Many individuals, men and women, will go to great lengths to have children. Sometimes this process can be extremely expensive; “routine reproductive therapy, an involved, long-term treatment, costs between \$450 and \$800 per month, and treatments may be repeated until the woman becomes pregnant or the family runs out of money.”<sup>8</sup>

Speaking about the pressures of childlessness, Sid Leiman, a Jewish theologian and adviser to the Ethics Advisory Board (a thirteen-member committee set up by Secretary Joseph Califano of the Department of Health, Education, and Welfare to study IVF), states: “involuntary infertility is an extremely serious problem. The rabbis put it this way, some fifteen centuries ago: Four are considered as if they were dead: the poor, the diseased, the blind, and the childless.”<sup>9</sup>

IVF then is chiefly to aid the infertile, however, some people have seen other “benefits” from it:

While the alleviation of infertility among couples is generally regarded as the major potential benefit of clinical *in vitro* fertilization and embryo transfer, some witnesses and some commentators in the literature have identified what they regard as additional benefits. Sid Leiman regards the surrogate motherhood role as closely analogous to that of a wet nurse and therefore sees no ethical objection to extramarital involvement in gestation in cases in which intramarital reproduction is physically impossible. In his writings on the topic, R.G. Edward mentions sex pre-selection as an additional

<sup>3</sup> *The Christian Century*, “Test-Tube Conception: Troubling Issues”, Vol. 95 No. 26 (August 16-23, 1978), p. 758.

<sup>4</sup> *Ibid.*, p. 758.

<sup>5</sup> *The Plain Dealer*, Cleveland, Ohio; July 27, 1978

<sup>6</sup> *Technology Review*, “Test-Tube Babies: Solution or Problem?”, Vol. 82 No. 5 (March/April 1980), p. 10.

<sup>7</sup> *Ibid.*, p. 10.

<sup>8</sup> Kieffer, *op. cit.*, p. 213.

<sup>9</sup> Ethics Advisory Board, “HEW Support of Research Involving Human *In vitro* Fertilization and Embryo Transfer”, *Report and Conclusions*, May 4, 1979), p. 52.

potential benefit. Other potential benefits cited by various authors are pre-transfer screening for abnormalities, re-transfer repair of defects, and extracorporeal gestation.<sup>10</sup>

R.G. Edwards also adds:

We have no doubt about continuing our work to help the infertile. We equally intend to develop our methods for the reversal of sterilization. Tubal occlusion could then be used by women to limit their fertility, relieving them of years of steroidal contraception, in the knowledge that they could conceive another child in the event of remarriage or the death of their family.<sup>11</sup>

### **Fetal Research in the United States**

In August 1975, the Department of Health, Education, and Welfare responded to the National Commission's report and recommendations concerning fetal research. Since the Commission had not specifically addressed the issue of research involving *in vitro* fertilization and/or embryo transfer, HEW chose not to set up any regulations governing such research. But it did clearly reiterate a procedural requirement:

No application or proposal involving human *in vitro* fertilization may be funded by the Department or any component thereof until the application or proposal has been reviewed by the Ethics Advisory Board and the Board has rendered advice as to its acceptability from an ethical standpoint.<sup>12</sup>

In 1978, a request came before the Department of Health, Education, and Welfare from Dr. Pierre Soupart of Vanderbilt University requesting funds totaling \$375,000 to do research with human embryos. Soupart would like to examine chromosomal abnormalities about five or six days after fertilization when the embryos have reached the blastocyst stage. He also intends to try preserving IVF-produced human embryos by freezing them. Hence, embryos could be preserved until conditions were just right for implantation. After studying the embryos, Soupart will not attempt implantation, but will dispose of them. Such studies would be beneficial to IVF. At this time, Secretary Califano of the Department of HEW set up a thirteen member Ethics Advisory Board, to decide whether such study was ethical and could be funded.

In May of 1980 this Ethics Advisory Board, made up of theologians, doctors, scientists, and ethicists, discussed many questions about IVF. Some of the questions they discussed dealt with the risks to the potential offspring, the risks to the mother, legal problems, the benefits of IVF, the bad implications of IVF approval, the status of the early human embryo, and the ethics of IVF.

One of the surprising things about IVF and embryo transfer in humans is that not very much experimentation has been done with animal IVF and embryo transfer first. Luigi Mastroianni, in a paper addressed to the Ethics Advisory Board stated:

Extensive work in the laboratory animal should be a necessary prerequisite before proceeding with clinical trials. Statistically valid proof in animals that present techniques predictably produce normal offspring has not as yet been presented. Successful uterine transfer of *in vitro* fertilized ova has only been accomplished in two laboratory species.<sup>13</sup>

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<sup>10</sup> *Ibid.*, p. 38.

<sup>11</sup> R. G. Edwards, Letter to Ethics Advisory Board, January 5, 1979.

<sup>12</sup> *Ibid.*, p. 15

<sup>13</sup> *Ibid.*, p. 41

This was at the time when the first test-tube birth was recorded. The results of the studies of animal embryonic development and human embryonic development are really quite different and may not prove that valuable:

The safety of this *in vitro* procedure cannot be established in animal experiments because details and requirements of normal embryonic development are different for different kinds of animals. Nor are the criteria of “normally” the same for animals and for people. The guinea pigs of the research and implementation of *in vitro* fertilization will be,

1. The women who donate the eggs.
2. The women who lend their wombs (who, of course, need not be the same as the egg-donors; rent-a-wombs clearly are an option), and
3. The children who are produced.<sup>14</sup>

Since the first test-tube birth, experimentation with animals has been stepped up. Successful transfers have now been completed in mice, rabbits, pigs, sheep, cows, horses, and, most recently, a baboon. These studies provide no evidence that IVF leads to damaged offspring. However, that does not mean that chance of damage to offspring does not exist. Damage to the egg or embryo may occur at several points. And who or what is to blame. Is it the doctor’s fault? Was the egg or sperm abnormal to start with? Is it the result of the technique itself?

It is interesting that the human body has its own ways of disposing of abnormal embryos.

A recent estimate indicates that for every 100 ova exposed to sperm, only 31 babies are born. Of the 100 ova, 16 are never fertilized, 15 disappear within 1 week after conception prior to implantation, 27 disappear by the following week during implantation and another 11 in the next month. Gross chromosomal abnormalities account for over half of this embryonic loss. Thus the human reproductive system under natural conditions is quite inefficient; Soupart’s proposed experiments by comparison are not as drastic a loss of potential life as first impressions may suggest.<sup>15</sup>

However, here it can be readily seen that the natural processes of the human body in IVF are omitted. The burden of selecting which embryos are to survive or be discarded is now in the hands of man.

The Ethics Advisory Board made certain that the egg donor and preferably also the sperm donor, were made aware of possible dangers to the offspring and the woman who donated the egg. Risks to the potential Offspring are:

- a. Superovulation, sometimes employed prior to *in vitro* fertilization, may be correlated with an increase in the incidence of a Chromosomal abnormality (trisomy) in embryos.
- b. The quality of sperm reaching and fertilizing the ovum *in vitro* may differ from the quality of the sperm fertilizing the ovum in the fallopian tube, since the female reproductive tract selects against some types of abnormal sperm.
- c. The quantity of sperm reaching the ovum simultaneously *in vitro* may break down the usual block to fertilization by multiple sperm; a polyploid embryo may result.
- d. The use of freezing techniques to preserve embryos may produce mutations.<sup>16</sup>

Risks to donors include:

<sup>14</sup> *Technology Review, op. cit.*, p. 11

<sup>15</sup> Kieffer, *op. cit.*, p. 214.

<sup>16</sup> Ethics Advisory Board, *op. cit.*, p. 45.

- a. Hormonal treatment of the women, sometimes employed to induce superovulation; this treatment can lead to ovarian hyperstimulation or ovarian cysts.
- b. Laparoscopy, a surgical procedure generally performed under general anesthesia; this procedure may have to be repeated.
- c. Ectopic pregnancy, a potential damager if the embryo fails to implant in the uterus.
- d. Careful monitoring of any resulting pregnancy, often including amniocentesis.
- e. The possibility of a higher-than-average rate of embryo loss or spontaneous abortion.<sup>17</sup>

These potential risks are comparable to the risks of a woman facing microsurgery on her blocked or damaged fallopian tubes.

Since the success rate has not been high, in fact, it has been extremely low to this point, the Ethics Advisory Board felt the egg and sperm donors should be made aware of the following:

- a. The availability of potentially effective alternative therapies, e.g., surgical reconstruction of the fallopian tubes.
- b. The anticipated need for repeated laparoscopies.
- c. The low probability of success.
- d. The likelihood that the primary beneficiaries of the research will be other couples rather than the research participants themselves.
- e. The sources of the gametes to be used in the attempted *in vitro* fertilization (i.e., a guarantee that only the sperm and ova of the couple will be employed.)
- f. The disposition to be made of sperm, ova, and embryos not used in the transfer attempt.<sup>18</sup>

It may be pointed out here that Dr. Steptoe had attempted the implantation of an embryo 200 times before the Brown success. It was reported that the women who had become pregnant, approximately 30, had failed to carry the artificially conceived babies to term. Figures were unavailable to determine the success rate in the other two cases where IVF and embryo transfer were successful. This does not even include all the embryos created for experimentation without the intent of implantation.

Probably the most troublesome question that the Ethics Advisory Board faced concerned the status of the early human embryo. A number of views were expressed. National Ethics Advisory Board member, Richard McCormick, professor of biological ethics at Georgetown University, a Catholic school, says:

I have real serious questions and problems that lend me to take a negative position on the issue at this time. There may be doubts, about whether that mere speck-sized clump of cells is or is not fully a human being. And when there is a doubt, I want to go very slowly and cautiously.<sup>19</sup>

In his view, then, at least there is a chance that life begins at conception.

A second opinion was presented to the Ethics Advisory Board by Charles Curran who argues that:

From my ethical perspective truly human life is present two or three weeks after conception or shortly after the implantation of the embryo. Hence experimentation after that time and attempts to culture embryos *in vitro* beyond this stage raise insurmountable ethical problems. However, even for research

<sup>17</sup> Ethics Advisory Board, *op. cit.*, p. 47.

<sup>18</sup> Ethics Advisory Board, *op. cit.*, p. 48.

<sup>19</sup> *Christianity Today*, "Test-Tube Results", Vol. 22 No. 20 (August 18, 1978), p. 35.

involving the earliest stages of embryonic life, Curran asserts that the nature of the matter involved in the research calls for respect and economy avoiding unnecessary waste.<sup>20</sup>

A third position on embryonic status, represented by Samuel Gorovitz adopts sentience (rather than the potential for sentience) as the primary criterion for determining the moral status of the human embryo or fetus, In Gorovitz's view:

The status of the embryo is not equivalent to that of a person, a child, an infant, or a fetus—at least a fetus from the point of development of the capacity for even primitive sentience. If by “primitive sentience” Gorovitz means the capacity to respond to sensory stimuli, then the transition from embryonic to fetal status (at the eighth week of gestation) or, at the latest the tenth gestational week of fetal development would seem to mark the transition from non-protected to protected status.<sup>21</sup>

In this viewpoint, then, the embryonic loss following embryo transfer, embryonic research, and the discard of untransferred embryos is ethically acceptable.

Still others expressed the ideas that life does not begin until quickening. And still others felt that life begins at birth. Thus, these supporters would also see nothing morally wrong with IVF. After much discussion and analysis regarding both the scientific data and the moral status of the embryo, the Ethics Advisory Board came to this conclusion:

The Board is in agreement that the human embryo is entitled to profound respect; but this respect does not necessarily encompass the full legal and moral rights attributed to persons. In addition, the Board noted the high rate of embryo loss that occurs in the natural process of reproduction. It concluded that some embryo loss associated with attempts to assist otherwise infertile couples to bear children of their own through *in vitro* fertilization may be regarded as acceptable from an ethical standpoint.<sup>22</sup>

The Ethics Advisory Board also investigated the legal areas involved in IVF.

Aside from HEW regulations governing research supported by the Department and a very few broadly written state statutes prohibiting research on the human fetus, no state or federal laws apply to human *in vitro* fertilization. However, Supreme Court decisions recognizing a fundamental right to privacy in marital relations and reproductive activity suggest that married Couples might successfully assert a right of access to *in vitro* fertilization and embryo transfer as a means of bearing their own children. The government would have to demonstrate a compelling state interest (e.g., protecting the health and safety of mothers and offspring) to justify restricting such cases. The government need not, however, provide federal support for such procedures. In the research context the government may regulate the manner in which research is conducted, especially if the research is supported by funds and it involves human subjects.<sup>23</sup>

Barbara F. Katz, a staff attorney with the Massachusetts Department of Public Health says that the legal implications of IVF are complex:

There are three potential uses for the technique, she explains: A woman with blocked fallopian tubes could donate an egg to be fertilized in tissue culture by her husband's sperm, and then the fertilized egg

<sup>20</sup> Ethics Advisory Board, *op. cit.*, p. 28

<sup>21</sup> Ethics Advisory Board, *op. cit.*, p. 29.

<sup>22</sup> Ethics Advisory Board, *op. cit.*, p.101.

<sup>23</sup> Ethics Advisory Board, *op. cit.*, p. 76.

would be transferred back into her womb for development; or a woman who had healthy fallopian tubes, but who did not want to carry her own baby throughout pregnancy, could donate an egg to be fertilized by her husband's sperm in culture, and then the fertilized egg would be transferred into the womb of another woman (surrogate mother) to be carried to term. Each of these uses raises legal questions, says Katz, but especially the last one. For instance, who would the mother of the conceptus be? The egg donor? The surrogate mother? If a surrogate mother were being paid for her services and a payment were missed, would the child she was carrying become hers? What if a defect were found in the fetus through amniocentesis? Would the egg donor or the surrogate mother have the right to decide on an abortion? What if the egg donor died before the birth of the fetus? Would the surrogate mother then become the legal mother?<sup>24</sup>

Such legal investigations are not unnecessary. A battle is currently being fought in a New York courtroom by prospective parents over a case where a doctor did not follow through with the embryo transfer due to pressure from the hospital staff, and the embryo was poured down the sink. The doctor is being charged with malpractice.

And concerning surrogate motherhood, a Colorado woman has offered to bear a child for a California couple for a fee of \$10,000 including expenses.

"A pro-life spokesman said the program (IVF) will be challenged in court because of the uncontrollable laboratory experimentation with human life."<sup>25</sup>

The Ethics Advisory Board also discussed several of the adverse consequences which may arise from IVF research. Some of them are a) the development of commercial ovum and sperm banks, b) the genetic selection or manipulation of early embryos, c) the transfer of nuclei from adult individuals to early embryos, or cloning, d) extracorporeal gestation, or bringing an embryo all the way to viability in the laboratory, e) the effect on the unity of the family, f) the desensitizing or dehumanizing effect on investigators and g) the psychological effect of being a test-tube baby on the child.

After investigating IVF thoroughly the Ethics Advisory Board made these recommendations to the Department of Health, Education, and Welfare:

Conclusion (1) The Department should consider support of carefully designed research involving *in vitro* fertilization and embryo transfer in animals, including nonhuman primates, in order to obtain a better understanding of the process of fertilization, implantation and embryo development, to assess the risks to both mother and offspring associated with such procedures; and to improve the efficacy of the procedure.

Conclusion (2) The Ethics Advisory Board finds that it is acceptable from an ethical standpoint to undertake research involving human *in vitro* fertilization and embryo transfer provided that:

A. If the research involves human *in vitro* fertilization without embryo transfer, the following conditions are satisfied:

1. The research complies with all appropriate provisions of the regulations governing research with human subjects;
2. The research is designed primarily: (A) to establish the safety and efficacy of embryo transfer and (B) to obtain important scientific information toward that end not reasonably attainable by other means;
3. Human gametes used in such research will be obtained exclusively from persons who have been informed of the nature and purpose of the research in which such materials will be used and have specifically consented to such use;

<sup>24</sup> *Science News*, "Test-Tube Babies and the Law", Vol. 115 No. 22 (June 2, 1979) p. 358.

<sup>25</sup> *Tulsa World*, Tulsa, Oklahoma (Jan. 10, 1980)

4. No embryos will be sustained *in vitro* beyond the stage normally associated with the completion of implantation (14 days after fertilization); and
5. All interested parties and the general public will be advised if evidence begins to show that the procedure entails risks of abnormal offspring higher than those associated with natural human reproduction.

B. In addition, if the research involves embryo transfer following human *in vitro* fertilization, embryo transfer will be attempted only with gametes obtained from lawfully married couples.

Conclusion (3) The Board finds it acceptable from an ethical standpoint for the Department to support or conduct research involving human *in vitro* fertilization and embryo transfer, provided that the applicable conditions set forth in conclusion (2) are met. However, the Board has decided not to address the question of the level of funding, if any, which such research might be given.

Conclusion (4) The National Institute of Child Health and Human Development and other appropriate agencies should work with professional societies, foreign governments, and international organizations to collect, analyze, and disseminate information derived from research (in both animals and humans) and clinical experience throughout the world involving *in vitro* fertilization and embryo transfer.

Conclusion (5) The Secretary should encourage the development of a uniform or model law to clarify the legal status of children born as a result of *in vitro* fertilization and embryo transfer. To the extent that funds may be necessary to develop such legislation, the Department should consider providing appropriate support.<sup>26</sup>

In March of 1979 the Ethics Advisory Board concluded that research on IVF and subsequent implantation “would be acceptable from an ethical standpoint.”<sup>27</sup>

In January 1980, America’s first *in vitro* fertilization laboratory was opened at the Eastern Virginia Medical School in Norfolk, Virginia. It has been approved by both state and federal authorities, provided federal guidelines are strictly followed. Some 50 couples out of 2,500 applicants have been selected to undergo IVF and embryo transfer procedures. It costs each couple about \$4,000 for the chance of having their own child. Anti-abortionists in Virginia are trying to hold up procedures and plan to fight IVF in the courts.

### **Moral Principles Concerning Test-Tube Babies**

While a great deal of praise is flowing from the first successful test-tube births, some very valid criticisms are also being voiced. Some theologians object that what the doctors brought about really represents interference with God’s will. Not everyone is destined to bear children, they say. Are those involved with IVF really trying to play God? And the fact of the matter is, that those imitating God are not God.

Questions must also be raised about the motives of prospective parents. It is easy to sympathize with childless couples but should they all be encouraged? Some perhaps want offspring to carry on the family name, or the family trade. Would not IVF then be used selfishly?

What about the children who are produced and “we cannot know what hazards their production entails until enough have lived out their lives to allow for statistical analysis of their medical histories.”<sup>28</sup> “Is it right to distort natural processes to produce a human being when the distortion may do unguessable harm to that human being?”<sup>29</sup> These children will be viewed as “special” at every critical juncture of their lives. Someone has said,

<sup>26</sup> Ethics Advisory Board, *op. cit.*, p.104-112.

<sup>27</sup> Grobstein, *op. cit.*, p. 57.

<sup>28</sup> *Scientific American*, *op. cit.*, p. 11.

<sup>29</sup> *The Washington Star*, Washington D.C. January 12, 1980.

“When I ask myself whether I would want to be a test-tube person, I know that I would not like to have to add those self-doubts to my more ordinary repertory of insecurities.”<sup>30</sup>

The doubts surrounding the status of the embryo in the clinical context are not as numerous as those questions dealing with the status of the embryo in the laboratory-research context. In the clinical context there is at least that remote possibility that each embryo “created” will be transferred to the uterus, will implant and will develop to term.

In the laboratory-research context there is no intention of transferring these embryos to a womb. Yet these scientists seek justification in the fact that their research will be beneficial. Is the price of this research not too high? Are there not limits beyond which man should not dare to go? In an article in the *Arkansas Democrat*, the author states:

Leave parenthood out and turn to test-tube creations for experimental purposes, and ethical questions arise that go to the heart of our outlook on life itself. The thought of anyone playing God in the laboratory, shaping the genetic material to whim and theory, raises visions of selective breeding, chance monsters, or what have you. And at the end of the road sits the specter of “social eugenics,” the creation of the ideal society of ideal human beings. What is there to stop this sure progress of bio-engineering?<sup>31</sup>

The responses of religious spokesmen to test-tube birth covered a wide spectrum:

Jewish rabbis were among the least bothered. Rabbi Wolfe Kelman, executive vice-president of the Rabbinical Council of America, the major Orthodox group, pointed out “the first of 613 commandments in the Torah is ‘be fruitful and multiply’. Therefore, he said, Judaism is quite lenient in that area.”<sup>32</sup>

Protestant theologians were a little more cautious. Theologian William Lazareth of the Lutheran Church in America’s Department of Church and Society stated:

Christian ethics cannot be determined by medical technology. Fallopian tubes, as the Sabbath, are here for the benefit of moral human beings created in God’s image. The basic issue is the validity of conception control whether in aiding or in preventing such conception.<sup>33</sup>

According to Lazareth, “the ethical significance of the use of any medically sound method within a covenant of marital fidelity depends chiefly on the motivation of the users.”<sup>34</sup> He pointed out that “human beings do not actually create life, whether inside or outside of test tubes. Ultimately, God remains the sole Creator of the egg or the sperm, and the sovereign author of the miracle of life.”<sup>35</sup>

Chairman Haddon W. Robinson of the Department of Pastoral Missions at Dallas Seminary saw “no theological problem”<sup>36</sup> with the Brown baby, but he feared that surrogate motherhood would become a reality.

Doctor C. Everett Koop, a surgeon-in-chief at Children’s Hospital in Philadelphia, who is a Presbyterian elder and an author of bioethics, praised the “remarkable scientific achievement.”<sup>37</sup> But he added, “Since I believe that life begins at conception, I must ask, what happens if somebody wants to cancel the experiment and he dumps it down the sink?”<sup>38</sup> Koop also expressed concern about “the next step, when Mrs. Jones decides she wants a child from that tall blond gene pool down the block.”<sup>39</sup> He also expressed the concern that some might

<sup>30</sup> *Scientific American*, op. cit., p. 11.

<sup>31</sup> *Arkansas Democrat*, Little Rock, Arkansas, August 3, 1978.

<sup>32</sup> *Christianity Today*, op. cit., p. 36.

<sup>33</sup> *Christianity Today*, op. cit., p. 36.

<sup>34</sup> *Christianity Today*, op. cit., p. 36.

<sup>35</sup> *Christianity Today*, op. cit., p. 36.

<sup>36</sup> *Christianity Today*, op. cit., p. 36.

<sup>37</sup> *Christianity Today*, op. cit., p. 36.

<sup>38</sup> *Christianity Today*, op. cit., p. 36.

<sup>39</sup> *Christianity Today*, op. cit., p. 36.

see it as a step toward single parenthood, while he just viewed it as “just another threat to the family.”<sup>40</sup> He also could foresee genetic manipulation to try to produce a perfect race.

Catholics take the dimmest view of IVF developments. Bishop Thomas C. Kelly, General Secretary of the National Conference of Catholic Bishops says:

The episode points to a readiness to implement new technology before its moral implications have been thoroughly considered. The consequences of this mentality from the atom bomb to uncontrolled use of coreinogenic pesticides have become clear in recent years. We should proceed cautiously when the same mentality manifests itself in regard to as sensitive and sacred a matter as the transmission of human life.<sup>41</sup>

Theologian Charles Curran of Catholic University in Washington goes even farther: “You have no right to use the process until you have the assurance that it is as safe as normal reproduction.”<sup>42</sup>

Director James McHugh of the Catholic Bishops’ Pro-Life Committee said priests should warn against anything that would tend to mechanize the marriage act.”<sup>43</sup> He added: “It is not necessary to have a child. People can have a certain confidence and reliance on God’s will. If God’s creative act doesn’t take place, it is not to be.”<sup>44</sup>

“In the case of the Brown couple,” wrote Vatican Journalist, Benny Lai, in the Florence daily, *LaNazione*, “sexual relations were missing, and thus the birth of Louise must be taken to be morally illicit.”<sup>45</sup>

“Many others feel that family values suffer because of the way *in vitro* fertilization separates procreation from sexual communion.”<sup>46</sup>

And still another concern must be that if sperm and ova are borrowed from others than the prospective parents, what happens to the concepts of parenthood?

Then finally, IVF poses the question of abortion. When does life begin? All those who believe that life begins at conception must oppose IVF. One of several fertilized eggs is chosen for implantation, which means that others will be discarded. “If man can strike the spark of human life in a glass laboratory dish, how casually may he extinguish it?”<sup>47</sup> And who bears the responsibility for the loss and waste of embryos? Having been informed of the procedure beforehand, is it not the egg donor? Is it not the sperm donor? Is it not the doctor who unites them, implants them or discards them?

But there are those who strongly disagree and who can overlook the loss or waste of embryos stating:

The parallel drawn between abortion and laboratory fertilization is limited, and there is, of course, a decisive distinction: one is done for the purpose of taking away life, the other for the purpose of sponsoring life. If not all efforts at extending life are appropriate, surely some must be. There are couples, unable to reproduce naturally, who want nothing more than to bring a child into the world in their image and God’s, and to care for it. They deserve help.<sup>48</sup>

### Scriptural Principles Governing Test-Tube Babies

<sup>40</sup> *Christianity Today*, *op. cit.*, p. 36.

<sup>41</sup> *Christianity Today*, *op. cit.*, p. 36.

<sup>42</sup> *Christianity Today*, *op. cit.*, p. 36.

<sup>43</sup> *Christianity Today*, *op. cit.*, p. 37.

<sup>44</sup> *Christianity Today*, *op. cit.*, p. 37.

<sup>45</sup> *Christianity Today*, *op. cit.*, p. 37.

<sup>46</sup> *The Washington Star*, Washington D.C., January 12, 1980.

<sup>47</sup> *Detroit Free Press*, Detroit, Michigan, July 28, 1978.

<sup>48</sup> *The Christian Century*, *op. cit.*, p. 458.

Up until now, the writer has tried very hard to remain objective in the comments made thus far. He has tried to give the world's viewpoints concerning *in vitro* fertilization and embryo transfer, the strongly in favor of, the mildly in favor of, the mildly opposed, and the strongly opposed. Why is there such a divergence in opinions? At the time of creation, man was perfect. His will was in complete harmony with the will of God. He had a perfect understanding of God's will. He was created in God's image and everything about him was as God Himself said, "very good" (Genesis 1:31). But then man fell into sin. Man lost the image of God. His knowledge of God's will became clouded and darkened. He no longer had a correct understanding of right and wrong, and was unable to distinguish the difference in given situations. Consequently, in any question of ethics, it is not always perfectly clear what man should decide. This is why we have so many different opinions about test-tube babies also.

But for the Christian the matter should not be puzzling. In order that man might know the difference between right and wrong, God has given him His verbally inspired Word. And this Word of God is the only infallible authority in all matters of faith and life. "All Scripture is given by inspiration of God, and is profitable for doctrine, for reproof, for correction, for instruction in righteousness: that the man of God may be perfect, thoroughly furnished unto all good works" (II Timothy 3:16-17). Hence, even though Scripture does not state in these words "Test-tube birth is right" or "Test-tube birth is wrong," it does lay down some definite principles which make the decision for us rather an easy one.

Let us arrive at this decision by considering the following topics: God's Providence, The Purpose of Marriage, God and Evil, Death, Creation, Dignity and Worth of the Individual and the Sanctity of Life.

### **Creation**

The Biblical doctrine of creation has a definite bearing concerning test-tube birth because it tells us that the matter making up the embryo was created by God's almighty power. "In the beginning God created the heaven and the earth" (Genesis 1:1). Moreover, it was by God's almighty power that the matter which He created became alive. The Bible is very clear, too, in pointing out that the creation of human life is on a higher level than plant and animal life. For plant and animal life, God summoned them into existence by His almighty Word. But when it came to the creation of man, God's action was of a special kind.. "And God said, Let us make man in our image, after our likeness" (Genesis 1:26). "And the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul" (Genesis 2: 7) "And the rib, which the Lord God had taken from man, made He a woman"(Genesis 2:22).

So God created matter with His almighty power. It acquired the characteristics which we call life by God's almighty power. And Scripture also tells us that new life originates by God's almighty power. When He said "Be fruitful and multiply"(Genesis 1:28). He not only gave a command, but also the power that life might continue. Conception is in the hands of God. "Man may prevent it. He may be a secondary cause in effecting it. But he is not the primary agent in bringing it about. The giving of new life is God's prerogative."<sup>49</sup> "Lo, children are an heritage of the Lord; and the fruit of the womb is His reward" (Psalm 127:3).

Thus what Scripture says of the origin of life and of the way in which it continues must be given serious consideration in any discussion about IVF.

### **God's Providence**

The doctrine of providence is also involved. It is God who governs the universe. The earth's future is not finally determined by what happens in Washington, but ultimately its future is determined by the almighty God who sits in the heavens. God is not the watchmaker God, who sets everything in motion and who now just watches it tick. No, God is very active. "He upholds all things by the Word of His power" (Hebrews 1:3). "He

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<sup>49</sup> John W. Klotz, *A Christian View of Abortion* (St. Louis: COncordia Publishing House, 1973), p. 34.

is before all things, and by Him all things consist” (Colossians 1:17). That the world does not disintegrate is due to the will of God. Francis Pieper says:

Were God to withdraw Himself from the world, the world would disappear without a trace. Were God to withdraw Himself from a portion of the world, that portion of the world would cease to exist.<sup>50</sup>

His providence, then, extends also to the affairs of individuals be they husband or wife, doctor or scientist. It is God who causes and permits conception to occur. It is God who causes the egg and the sperm to unite even though He may use secondary means to bring this about. It is God who determines genetic content of the egg and sperm which is united. “That conception occurs, that the individual receives a particular set of genes from his mother and from his father, that certain conditions exist in the womb are a part of God’s providence, not the result of chance.”<sup>51</sup> “In Him we live and move and have our being” (Acts 17:28). The providence of God directs and controls the fortune of each individual from the moment of his conception. “For Thou hast possessed my reins: Thou hast covered me in my mother’s womb. My substance was not hid from Thee, when I was made in secret, and curiously wrought in the lowest parts of the earth. Thine eyes did see my substance, yet being unperfect; and in Thy book all my members were written, which in continuance were fashioned, when as yet there was none of them” (Psalm 139:13,15-16).

Moreover God’s providence directs the course of each man’s life. To each one God has appointed his particular task and work. To Jeremiah the Lord declared: “Before I formed thee in the belly, I knew thee; and before thou camest forth out of the womb, I sanctified thee and ordained thee a prophet unto the nations” (Jeremiah 1:5). Man does not know what God has in store for each embryo He creates and brings into existence. How could man determine which egg and sperm to unite? How could man assume the responsibility of deciding which embryo to implant and which to discard? How could man determine if an embryo is not worth implanting? “The way of man is not in himself; it is not in man that walketh to direct his steps” (Jeremiah 10:23).

### **The Purpose of Marriage**

When God created the woman and brought her to Adam, thus establishing marriage, no mention is made of offspring. Companionship alone is spoken of. “God ordained marriage, not in order to assure progeny, but in order to create a ‘help meet for’ man” (Genesis 2:18).<sup>52</sup> The reason given is “It is not good that the man should be alone” (Genesis 2:18). Of this companionship it is further stated “and they shall be one flesh” (Genesis 2:24).

In the condensed account of the sixth day of creation in Genesis 1, mention is already made of the blessings resting on marriage. “And God blessed them, and God said unto them, be fruitful and multiply and replenish the earth”(Genesis 1:28). What is not to be overlooked is that the institution of marriage and God’s reason for it actually precede the blessing pronounced upon it. The latter is pronounced upon the wedded pair living in marriage: male and female created He them” (Genesis 1:28).

We see from this that the essence of marriage does not depend upon its resulting in childbearing. When a couple is unable to bear children naturally, their love for each other should not diminish. And their relationship can be as happy as a married couple that has been blessed with children.

If the childless couple recalls the promise they made before God to each other on their wedding day, “Wilt thou love her, comfort her, honor her, and keep her in sickness and in health” and “Wilt thou love him, comfort him, honor and obey him in sickness and in health”, is not unforeseen infertility included?

### **God and Evil**

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<sup>50</sup> Francis Pieper, *Christian Dogmatics* (St. Louis: Concordia Publishing House, 1950), Vol. 1, p. 483.

<sup>51</sup> Klotz, *op. cit.*, p. 35.

<sup>52</sup> Hans Kirsten, *Birth Control as Ethical and Pastoral Problem*, p. 8.

We must recognize that as a result of the Fall of man into sin, man no longer has that state of perfection in which he was created. This imperfection takes many forms. Infertility, blocked or damaged fallopian tubes, and other causes for barrenness are not to be blamed upon God. Neither may they be the results of a particular sin committed by the individuals affected. But they are the results of original sin and the consequent departure from the perfection which God created. God is not at fault for the defect, but he may permit the effect.

But God assures all married couples who cannot produce their own children biologically, this is not a cross which is heavier than they can bear, or something that will cause them to lose their faith in God. “God is faithful, who will not suffer you to be tempted above that ye are able; but will with the temptation also make a way to escape, that ye may be able to bear it”(Corinthians 10:13). What then, is the “way to escape” in infertility?

Perhaps microsurgery is the answer, and the writer knows of nothing to forbid it in Scripture. But *in vitro* fertilization is definitely not the answer. Oh yes, it can be truly stated that three test-tube births have been successfully accomplished. It is also true that the conceptions would not have happened unless God brought them about. The fetuses would not have been preserved until birth without God’s hand protecting them. But when there is so much life destroyed with *in vitro* fertilization, which is not God’s will, would it not be that successful test-tube births are brought about in that God refrains from interfering, inasmuch as He does not place insurmountable difficulties in their way and prevent them from occurring?

Aren’t there other better “ways to escape” for infertile couples taking care of the homeless and abused children of the world through adoption or foster parenthood? Perhaps, our money and energy could be better spent by helping to educate and feed the children already present in the world. Or maybe the infertile couple could seek out a job working with children where this love for them may be satisfied. And who knows? Hannah’s barrenness was cured in answer to prayer. Could not a faith that is able to move mountains remove a little fallopian tube blockage?

### **Death**

Also to be considered should be what Scripture says about death. Not only is the beginning of life in God’s power, but also the end. David prayed, “My times are in Thy hand” (Psalm 31:15). Man has no right to take a life unless he is acting as an agent of the state or in self-defense. Man cannot even take his own life. Does this not apply then also to embryonic life which God has created? Only God should have the right to decide which embryos are to survive and which are not.

### **The Dignity and Worth of the Individual**

Another consideration is the dignity and worth of the individual. Did not God so love the world that He sent His only begotten Son to die for each individual? He cares for each of us even before birth. “Hast Thou not poured me out as milk, and curdled me like cheese? Thou hast clothed me with skin and flesh, and hast fenced me with bones and sinews. Thou hast granted me life and favor, and Thy Visitation hath preserved my spirit” (Job 10: 10-12).

Each one is the object of God’s love, not only in His granting him life, but also in sending him a Savior to suffer and die for him. The conceptus, the embryo, and the fetus also have a God-given dignity. This dignity is ignored in laboratory research of *in vitro* fertilization. This dignity of each individual becomes the subjective opinion of the doctor in *in vitro* fertilization in the clinical aspect. The embryo is life and deserves great respect.

### **The Sanctity of Life**

One final consideration is this. Human life is a special gift of God. This can be seen in God's special creation of man. He formed man Himself out of the dust. He created man in His image. He breathed into his nostrils the breath of life. God regards the violent termination of life as a serious matter. He placed a severe punishment upon the first murderer, and He threatens with death all those who violently take the life He has given. "Whose sheddeth man's blood, by man shall his blood be shed" (Genesis 9:6).

What about the defective embryo? Are we to assume that God made a mistake in creating them and destroy them? Hardly. The cross this individual may bear in life is also not so heavy that he cannot carry it. But through these defects God will purify the gold of faith.

God took such great care in creating life and He also took great care to see that life is respected. Since the beginning of time God has done a perfect job in these areas. He doesn't need any help. For when man assumes these tasks, they will all come to ruin and fail. Although medical science has a legal right to proceed, there are certain moral limits that must be set. Thus far God has permitted *in vitro* fertilization and embryo transfer to continue. But let us have nothing to do with it and do all we can to withhold support from it and stop it.

### BIBLIOGRAPHY

- Arkansas Democrat*. Little Rock, Arkansas. (August 3, 1978).
- Christian Century*. "Test-Tube Conception: Troubling issues" Vol. 95 No. 26 (August 16-23, 1978), p. 757-8.
- Christianity Today*. "Test-Tube Results" Vol. 22 No. 20 (August 18, 1978), p. 35-7.
- Detroit Free Press*. Detroit, Michigan. (July 28, 1978).
- Ethics Advisory Board. 'NEW Support of Research Involving Human *In vitro* Fertilization and Embryo Transfer" *Report and Conclusions*, (May 4, 1979).
- Grobstein, Clifford. "External Human Fertilization" *Scientific American*. Vol. 240 No. 6 (June 1979), p. 57-67.
- Kieffer, George H. "IVF-In vitro Fertilization" *The American Biology Teacher*. Vol. 42 No. 4 (April 1980), p. 211-213.
- Kirsten, Hans. *Birth Control as Ethical and Pastoral Problem*. Translation by Blume.
- Klotz, John W. *A Christian View Of Abortion*. St. Louis: Concordia Publishing House. 1973.
- Laetsch, Theodore. *The Abiding Word*. St. Louis: Concordia Publishing House. 1947.
- Pieper, Francis. *Christian Dogmatics*. St. Louis: Concordia Publishing House\* 1950.
- Science News*. "Test-Tube Babies and the Law" Vol. 115 No. 22 (June 2, 1979), p. 358.
- Technology Review*. "Test-Tube Babies: Solution or Problem" Vol. 82, No. 5 (March/April 1980), p. 10-12.
- The Plain Dealer*. Cleveland, Ohio. (July 27, 1978).
- The Washington Star*. Washington, D.C. (January 12, 1980).
- Tulsa World*. Tulsa, Oklahoma. (January 10, 1980).