Reproductive technologies: Are there limits to what we may do?

The title is provocative. Some definitions are required: what is meant with 'reproductive technologies' and what sort of 'limits' are intended? With reproductive technologies we mean those medical interventions that enhance the likelihood of conception and/or of successfully carrying a fetus to term. There is a wide range of these interventions—some simple, some very complicated and involved—some that allow natural conception to occur in the womb, and some that bring about conception (here defined as the fusing of egg and sperm) outside the womb. This latter distinction is critical. With 'limits' we mean what sort of interventions should, and which should not be considered permissible.

To ask if there are limits to what is permissible, as in the title, is a leading question: it presumes that the only answer is affirmative—that of course there are limits. But what are those limits, and who determines them? The first we would like to address here, and as for the second, our ultimate authority for ethical questions must be the Holy Scriptures.

One preliminary comment. For some readers this topic has little relevance to their lives. For such the following may seem like a useless debate, and it may be easy to be judgmental of those who have tried various interventions. For others this is a very sensitive and emotional issue. Perhaps some of these are, or are close to, couples who are unable to conceive and have long struggled to remedy this with medical interventions. It is not at all our intention to judge these readers or hurt them with any of our comments below.

Over the years consistories in our denominations in the Netherlands and Canada have been confronted with questions as to what medical interventions to remedy infertility are consistent with a belief in the doctrine of God's providence and a submission to His will—and what technologies should be considered as going too far. Questions involving surrogate motherhood and IVF and a range of other things. What follows is a basic treatment of the general principles derived from dealing with these cases, with some emphasis on an issue of current relevance.¹

A twofold purpose of marital relations

It may seem odd to start our discussion with a somewhat philosophical comment, but it may also serve to put the issue in perspective. All of us will agree with John Piper's recent comment that "sex belongs only in the sanctuary of a marriage covenant between one man [and] one woman." Less often mentioned is the traditional Reformed (and Catholic) view that conjugal (i.e. sexual) relations have both a 'unitive' and 'procreative' aspect, and that according to God's creation order these two aspects must not be deliberately separated. In other words, conjugal relations are designed both to strengthen the marital union (the unitive aspect) and lead to the gift of children. If the two are not to be purposely separated, it follows that we are not permitted to have sexual relations while deliberately trying to avoid pregnancy, and that we are not allowed to procreate via means other than natural sexual intercourse. Malachi 2:15 tells us that the ultimate purpose of these two functions is that God "might seek a godly seed."2

The twofold purpose of conjugal relations in marriage mentioned here is based on Scripture passages that teach us that children are to be conceived when husband and wife become one flesh (e.g. Gen. 2:24, Matt. 19:6; Mark 10:8; 1 Cor. 6:16). This is a clear stating of the ordained way new human life is to originate—within the marriage union, in private, and in the absence of third parties³. It indicates that all techniques that achieve conception outside the body are ethically unacceptable and contrary to God's ordination.

¹ For further reading see, "Eerbaar Door Het Leven: Rapport Over Huwelijk en Echtscheiding", published by the Synod of the Gereformeerde Gemeente in Nederland in 2006.

² Poole: "a holy seed, born to God in chaste wedlock, and brought up under the instructions and virtuous examples of parents living in the fear of God, and love of each other."

³ The Bible has several examples of a sort of surrogacy motherhood, such as when Sarai gave her servant Hagar to Abram and Rachel gave her servant Bilhah to Jacob. Neither instance suggests that God's approval was sought or experienced.

A basic principle

This does not suggest that no medical interventions are permitted to cure infertility. Often the inability to conceive is relatively easy to treat, and corrective surgery that enables the couple to conceive naturally (*in vivo*, Latin for 'within the living') is no more wrong than corrective surgery to restore one's vision or ability to walk. Surgeries and interventions that permit conception upon natural marital relations are permissible, but those that involve manipulation of gametes (e.g. ICSI) and/or achieve fertilization outside the womb are not.

What about IVF?

IVF is an abbreviation of 'in vitro fertilization', and refers to bringing gametes (sperm and egg) together in a laboratory dish (in vitro means "in glass"), and therefore outside the body. IVF was developed to create fertilized eggs (zygotes) when conception is not likely to occur in the womb (i.e. in vivo). Sperm and egg are taken from a couple (but could be from anyone) and combined in a fertility clinic, typically resulting in multiple embryos. Generally two or more embryos created this way are implanted in the womb of the mother (or any woman capable of carrying a fetus) within a week of the embryos' creation, while the remainder are frozen ("cryopreserved") until they can be implanted later. In some cases preimplantation genetic diagnoses (PGD) are performed to screen for genetic diseases in the embryo, or its sex, to enable couples to decide whether or not they will implant a particular embryo.

Since life begins at conception, we should consider IVF as the creation of tiny human beings in a laboratory. Most of these embryos are not implanted but frozen indefinitely and conveniently forgotten. There are hundreds of thousands of tiny frozen human beings, some already frozen for 20 or more years—suspended as it were in time. As they age their viability decreases, as does the likelihood of ever being implanted. Many are simply discarded, others are used for 'research purposes.' Few fertility technicians likely consider that at the time they mix human gametes the resulting fertilized eggs become persons, and commence an immortal spiritual existence.⁴ Lost in this procedure is the awareness that all human life is sacred from conception.

But what about snowflake adoption?

"Snowflake adoption" refers to the adopting (and implantation) of embryos created using IVF by another party. "Snowflake", as this usually involves embryos that had been frozen. A more technical term for this procedure is heterologous embryo transfer (HET), or the transfer of a genetically unrelated (i.e. heterologous) embryo from the biological parents (who supplied the sperm and egg) into the womb of the surrogate mother. This procedure allows some of the surplus embryos mentioned above to develop into full term babies, and a previously childless couple to have the experience of pregnancy and childbirth. Snowflake adoption is a form of third party reproduction and requires a variety of medical procedures to prepare the surrogate mother's womb and implant the embryo.

IVF, HET and the prerogative to create life

IVF is against the creation order of how life is to originate in the womb, and separates between the 'unitive' and 'procreative' aspects of conjugal relations, with procreation occurring in the laboratory. The creation of human life is solely God's prerogative, not that of a fertility clinic technician, or that of the married couple. It is in His providence and wisdom to bless a married couple with children upon their use of the ordained means-or to withhold this blessing.⁵ He opens the womb (Gen. 30:22), and He closes (Gen. 20:18). God gives conception upon the ordained means (Ruth 4:13) and guides the formation of the fetus in the womb (Jer. 1:5; Isa. 44:2, Job 31:15). When He withholds, it is presumptuous to assume His prerogative and attempt to force conception and fetal development through technological interventions. HET and surrogate motherhood also disrupt the marriage union, the birth mother being a third party to the couple who are

⁴ "We do not know with certainty the exact moment in which the soul is received in the body." (Kersten, Reformed Dogmatics). Cf. Zechariah 12:1. But Psalm 51:5 tells us we are sinners from conception, suggesting our spiritual existence and personhood

begins then. Both Calvin and Luther appeared to have held this view as well.

⁵ Hosea 9:11 makes separate mention of conception, fetal development and birth, and that all three depend on God's blessing.

the biological parents of the embryo. Both the creation of embryos in vitro, and the implantation of (donated) embryos are manipulations that cannot be reconciled with the created order and a belief that the gift of life is God's right alone.

Fetal development is one of creation's greatest miracles that we do wrong to manipulate or interfere with. Psalm 139 exults in the mysterious, "curious", workmanship of God and His especial eye on one's 'unformed mass' during development. It speaks of, as other translations render it, His marvelous 'knitting' and 'weaving' together of our fetal forms. This indicates our persons-both body and soulare under His special notice and providence right from conception.6 We are called to study nature, also human development, in order to glorify God. We were given the right to subdue and steward His creation. But both the right to study and to subdue have limits. If it is questionable whether man has the right to alter the animal "kinds" that were created, it is clear he has little right to physically interfere in human fetal development. An exception to the latter would be those special situations where fetal surgery is necessary to correct life-imperilling congenital defects.

What about children born from IVF and HET?

Let us never lose sight of the fact that these children are not to be blamed for the actions of their (surrogate) parents, or to be deemed as any different than other children. Their parents' actions in using IVF and HET were unacceptable, but the pregnancy itself is not sinful and the children born from such procedures should not be stigmatized. And as in other extra-marital pregnancies, when sin is repented of and confessed, God is gracious to forgive. We all, IVF and HET babies included, have been conceived and born in sin, have immortal souls, and equally stand in need of the same new birth. God can also so overrule the sinful actions of people that much good can come of it, as we see in the family histories of Judah and Jephthah, or in the case of the woman of whom we read in John 8:1-11.

But isn't snowflake adoption essentially the same as regular adoption?

The argument for this is that both involve human beings. An embryo should be considered a person, a human being with the potential to live independently, be sentient, and have consciousness. The crucial difference is that regular adoption does not breach the marital union and involves no manipulation of either an embryo or the surrogate mother's womb. Couples from whom God has withheld the marriage blessing may of course adopt a born child, and it is honourable to do so, but they are not permitted to adopt an embryo and implant it in their wombs.

Don't we have a duty towards these leftover embryos?

We are obliged to help others, to love our neighbour and seek his welfare. It is also good to remedy the consequences of improper actions taken by others, but we are rarely under a moral obligation to do so. We do not believe it is morally right to harvest human gametes, to create embryos in a laboratory, to freeze surplus embryos or use them for research purposes. But we are not obliged to adopt leftover embryos and carry them to term because the biological parents are unable or unwilling to do so, and because otherwise these embryos would be destroyed.7 A related point is that we are not to commit a wrong action in order that good may come of it (the end does not justify the means). We may think we are saving a life by adopting an embryo (something that can be argued), but that would not permit us to go against nature and employ unacceptable means to implant such an embryo into the recipient's womb. It is another provocative question, perhaps, but do those who argue our obligation to adopt embryos really feel a sense of Christian love to them, or their obligation to pray for them?

Are we really rescuing frozen embryos by adopting them? As mentioned, frozen embryos have the potential to live independently, to become able to perceive and feel things. In their frozen state they are insentient, are not

⁶ A remarkable passage regarding this occurs in Job 10:10. See Poole and Gill's explanations of this graphic text. One modern Bible translation renders the passage as, "You guided my conception and formed me in the womb."

⁷ The conversation changes when it is clear that Providence has laid a burden upon us. We always have the *right* to adopt born children given up by others, but it would only become our *obligation* to do so when it is clear from God's providential dealings that such a child was laid upon our way.

physically suffering, and are not committing actual sin. What a tremendous responsibility we bring upon ourselves by, humanly speaking, forcing the further development of these persons. If those persons develop and are born, but live to die in an unconverted state, then it "had been good for that man if he had not been born" (Matt. 26:24). Will they testify against their surrogate mothers: 'had you but left me frozen!' When Job curses the day of his conception and birth and wishes he had not developed, he directs his complaint to God rather than to his parents. And that we may not speak thus to our parents is evident from Isaiah 45:10. But when man assumes God's prerogative to create life, or force its development, will this give reason for the children thus created to cry out, "What begettest thou? ... What has thou brought forth?"

What then ought to be done with the hundreds of thousands of frozen embryos? This is a difficult question (particularly if you swap the word 'embryos' with 'persons'). Based on the arguments stated above, there is no morally acceptable method to further the development of these embryos. It is equally unacceptable to destroy, or murder, these embryos. That leaves only the third option of maintaining them indefinitely in their frozen state. This is also a powerful reason why IVF procedures must be ended immediately to prevent an ever increasing number of frozen embryos.

Future directions?

Many ethical issues can be placed on a continuous scale. On the one extreme are things that are obviously unacceptable, on the other end are things that are permissible, and in between things that are unclear and that people disagree on. In terms of reproductive technologies, most of us would agree that the creation of three parent embryos, harvesting eggs and stem cells from fetuses, geneediting to form designer babies or sperm selection to select the sex of your child, are all wrong. On the other hand, corrective surgeries to improve sperm motility, adjust ovarian cycles, or restore the uterine environment are acceptable. In between is a gray zone, and as assisted reproductive technologies continue to evolve, more 'gray zone' issues will be encountered and will need to be grappled with. It is hoped that members who consider using such technologies will ask the Church what is the right thing to do from a Biblical point of view before employing them.

The Church should not be the first party to ask, however. We ought to first ask ourselves what our motives are for considering a particular approach. For example, do we resort to embryo adoption to have a child at all costs, or are we genuinely driven by the urge to save a child who would otherwise remain suspended in a frozen state until the end of time? We cannot judge another's motives, and it is often hard to understand our own. Strikingly, Psalm 139 also speaks of God knowing our thoughts and intentions and every act from afar, and pleads with Him to know our hearts and lead us from all wicked ways. That has a lot to say for this discussion. God is the Author of all life, in whom we live and move and have our being-how this ought to humble us before Him and make us reluctant to reach out our hands presumptuously. May those from whom He has withheld the marriage blessing be given the grace to submit to His will and Word, and in prayer commit their ways to Him who continues to do miracles (Genesis 18:14). May those who have received this blessing be given compassion and understanding for those who have not, and gratitude to Him who gave.

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