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Some Ethical Reflections on In Vitro Fertilization

Abstract

In vitro fertilization is becoming a pressing issue in contemporary societies. The article considers it starting from the Polish debate but takes up its broader anthropological and ethical aspects. Dealing with the latter, it also employs some acute remarks from “Dignitas Personae.” Finally it considers an approach to in vitro against the background of “European Convention on Bioethics.” In its conclusion the paper offers a balanced pro-life stance, albeit critical of in vitro.

Keywords: in vitro fertilization, embryo, naturalism, pro-life position, legal protection of embryos

1. Introduction

In Poland there has been an intense debate on in vitro fertilization for some time. It was basically triggered by a formal reason: there is no regulation in the Polish law concerning that issue. Hence sooner or later an adequate bill must be formulated and passed. It is also required by the fact that Poland in 1997 signed “The Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine,”¹ called in short “European Convention on Bioethics” issued by the Council of Europe. The document touches on embryos created in vitro and sets out a criterion concerning possible research on them. Therefore the Polish law is obliged to take stand on the

¹ Council of Europe, *The Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine*, (CPHRD), Oviedo, 4. IV. 1997, disponible en: <http://conventions.coe.int/treaty/EN/Treaties/Html/164.htm>.

permissibility of in vitro procedures and determine further issues as: how many embryos can be artificially created; what will be the lot of the so-called spare embryos; who will be entitled to undergo in vitro process; and in the end, what financial burden will be on the shoulders of the national health care.

The additional reason for in vitro debate is a growing number of childless couples. They perceive in that technique a chance to overcome a terrible woe which marks their relationship, namely infertility. Although they can apply freely for such a service right now, the costs which must be paid in private clinics are too high. A kind of the assistance from the Polish state and society is expected and longed for. This practical problem, however, which is *prima facie* the most debated issue, in fact is underpinned by a more subtle but, at the same time, the more seminal question: is it ethically allowable to employ in vitro procedure? This ethical question makes us indeed realize that we are facing the dilemma which crosses all political borders and must be answered not only in Poland.

In this article I am going to put into an anthropological and ethical examination in vitro technique. Following this line of investigation, I am going, first, to sketch both some facts concerning in vitro and some dangers stemming from a possible wide access to the service. Second, I am going to consider the anthropological status of human embryo, and what we can draw from it to the ethical thinking. In this respect I am going to draw upon some acute remarks set forth by the Vatican Instruction "Dignitas Personae." Finally, I am going to touch on some important points set forth by the "European Convention on Bioethics," especially those concerning treatment of the human embryo.

2. Reality and consequences of the in-vitro fertilization

Fertilization which takes place not in the woman's womb but in a petri dish in a laboratory requires prior possession of gametes. On the side of a woman, a kind of hormone treatment is needed in order to stimulate ovulation. Then some eggs, oocytes, are retrieved with an ultrasound-guided needle. Also sperm is obtained from a possible father, usually via masturbation. Further, male and female gametes are either placed together in a special laboratory

environment which results in fertilization of all provided female eggs, or a single sperm is directly inserted into an oocyte leading to the same result. Usually about 6-8 embryos are obtained and cultured in a special solution for up to 3-4 days. Then two or three of them are transferred to a woman's womb hoping that at least one of them will be successfully implanted. The possible mother is usually given an additional hormonal treatment in order to guarantee that her uterine lining remains suitable for implantation.²

The ethical problem starts with so-called spare embryos. If one of the artificially fertilized embryos is implanted it means the beginning of the pregnancy. It also means that the further embryos are not needed and they are frozen in liquid nitrogen (so-called cryopreservation). They may be used in future, although two obstacles may appear. First, the woman may be unwilling to start a second pregnancy. Basically an in vitro set of procedures aims at one pregnancy. The existence of the additional embryos, then, may be considered as an unwanted "side-effect" of that enterprise. Second, many embryos are not able to survive the process of freezing: about 50% of them die.³

Those embryos who manage to survive can be kept for as long as ten years. But the longer they are so maintained, the stronger is a conviction that they are orphan-embryos and that something constructive and useful must be done with them. This thinking however paves the way to all kinds of experiments on those initial instances of human life. A good example of such an experiment is a stem cell research. A longing to get to know and decipher the potentiality of embryonic stem cells leads to an attempt of harvesting blastomers of the early embryos (blastocists), and to culture them in order to obtain stem cell lines. Researchers of all kinds do have a strong hope that sooner or later we will be able to culture some essential human organs from these stem cell lines, within so-called regenerative medicine. But that seemingly innovative experiment is done at the expense of destruction of huge number of embryos. From this point of view, any spare embryo, created in vitro and available in laboratory, is seen only as a living resource of the very precious material.

² Center for Applied Reproductive Science, *In Vitro Fertilization (IVF) and Embryo Transfer (ET)*, disponible en: http://www.ivf-et.com/tlc/fact_ivf.html

³ *Idem.*

Also, other experiments do appear on the horizon opened up by in vitro process. Here, we can point to two of them. In contrast to the stem cell research, they are strictly connected with human reproduction. One of them is already in place and sooner or later will be treated as a necessary part of in vitro process, namely pre-implantation diagnosis. A second is not employed yet, although its application seems to be a matter of time, and of further advances in genetics and genetic engineering, namely genetic enhancement manipulations. The pre-implantation diagnosis aims at evaluation of the health condition of an early embryo. Usually in the centre of attention there is a structure of DNA, and its possible defects leading to future genetic-related diseases. Embryos which give some indications of such tendencies are not considered as possible candidates for implantation into mother's womb, and consequently are set apart. Their lot is precarious and they can become a subject of the stem cell research. Because within the limitations of prenatal medicine we are unable to treat those weaker early embryos, the pre-implantation diagnosis and practical conclusions which are drawn from it, that is a selection of zygotes, are clearly a kind of eugenics.

Genetic enhancement is a project for the future. It aims at correction of some personal characteristics which are good and not defective in themselves. Nevertheless, there is an expectation on parent's part to improve some features of their child. If we knew which genes or sequences of genes are responsible for such characteristics as color of eye, of hair, body building, level of intelligence (I.Q.), tendencies for some specific activities as scholarly work, artistic work, or athletics, we would be tempted to manipulate DNA of the given embryo in order to upgrade those traits. It brings with it many consequences, many uncertainties, dangers and even utopian expectations. Some thinkers perceive this experimentation as a wave of new therapeutic opportunities (e.g. upgrading some average health conditions can be a preventive move against some viruses or other diseases); whereas others – showing more realistic attitude – point to hidden menaces.⁴

All in all, we can contend that neither pre-implantation diagnosis nor genetic enhancement procedures, let alone stem cell research, do have a purely therapeutic character.

⁴ HOLUB, Grzegorz, "Creating Better People? Some Considerations on Genetic Enhancement", *The National Catholic Bioethics Quarterly*, Winter Vol. 4, 2010, pp. 723-740.

There appears some ambivalence here. First, it is difficult to sustain a thesis that embryo selection, as a result of pre-implantation screening, is curative for spare embryos set apart. They are classified as lower quality human organisms and actually treated as a research field by some cell biologists. Second, genetic enhancement has primarily a melioristic agenda. The therapeutic capabilities then can appear as a side-effect or a by-product of that enterprise because a changed human nature can acquire some resistance to diseases which is not typical for an average human being in his present condition. Third, stem cell research using embryonic cells is certainly not therapeutic for embryos themselves: they are destroyed and harvested for totipotent or pluripotent blastomers. There is, though, a conviction among some scientists that this is indeed a therapeutic-like research. Even if a therapy is basically not available now – they claim – there is a hope that it will be in place in some time in the future. That kind of attitude, of course, draws upon the concept of therapy which has nothing in common with treatment of individuals living here and now.

3. Critical examination of the in-vitro procedures

Looking critically at in vitro fertilization, we should first establish a status of the human embryo, especially at the pre-implantation stage. It is a crucial issue for the moral assessment of further undertakings, including in vitro procedures themselves. The discussion on the status of the human embryo, however, is very complex and an attempt to even sketch its main threads is impossible here. I am going to limit my remarks to the one position, namely a Christian-inspired and personalistic one. It stands in the opposition to a naturalistic stance, which claims that an early embryo is not a fully-fledged human being but a merely cluster of cells. Those cells-blastomers – in this view – stick to each other in a rather casual way, there is no interaction among them, and we should treat them as separate bodies adhering to each other, but not as a unified organism.⁵ Thus the naturalistic position is about to say that if there are e. g. eight totipotent blastomers, we have eight potential ontological individuals kept together by zona pellucida (an outer membrane).

⁵ BROGAARD, Berit, “*The Moral Status of the Human Embryo. The Twinning Argument*”, en KURTZ, Paul and KIEPSELL, David, *Science and Ethics. Can Science Help Us Make Wise Moral Judgment?*, Prometheus Books, New York 2007, p. 93.

The personalistic position, however, offers a couple of good reasons confirming that the moment of fertilization is the moment when a human creature comes to be.⁶ This anthropological position allows to claim that the human embryo is not a sheer bundle of cells but a fully-fledged human being, although immature. To back that stance, I am going to draw upon one reason, a so-called developmental reason, which can be accepted as by philosophers as well as by scientists. It goes as follows: “Whether produced by fertilization or by Somatic Cell Nuclear Transfer or some other cloning technique, the human embryo possesses all of the genetic material needed to inform and organize its growth. The direction of its growth is not extrinsically determined, but is in accord with the genetic information within it. Moreover, unless deprived of a suitable environment or prevented by accident or disease, the embryo is actively developing itself to maturity. Thus, it not only possesses all of the necessary organizational information for maturation, but it truly possesses an active disposition to develop itself using that information. The human embryo is, then, a whole, though immature, and distinct human organism – a human being.”⁷

The human embryo then must be treated as a human individual. We should decisively reject a concept of pre-embryo, which is widely used in naturalistic bioethics.⁸ This concept diminishes the humanity of the early embryo, and hence denies it a categorical right to life. Also, we should critically look at all instrumental approaches to this early and vulnerable human existence. At any stage of their existence, the embryos cannot be treated merely as a means. They are embryonic human beings and this means that they possess their inherent goals. We cannot ignore these goals while pondering on procreation problems, and dealing with the longing for offspring. We also will have to deal critically with further important question for in vitro

⁶ LEE, Patrick, GEORGE, Robert P., “The First Fourteen Days of Human Life”, *The New Atlantis*, Summer 2006, pp. 61-67. LEE, Patrick, GEORGE, Robert P., “Acorns and Embryos”, *The New Atlantis*, Fall 2004/Winter 2005, pp. 90-100.

⁷ GEORGE, Robert P., TOLLEFSEN, Christopher, *Embryo. A Defense of Human Life*, Doubleday, New York 2008, p. 53. A problem starts with so-called twinning when one embryo divides into two organisms. Although it is a troublesome issue and some bioethicists use it as a reason questioning the thesis about a pre-implantation embryo as a specified human life, we can plausibly claim that at least one embryo, a mother-embryo, exists since the moment of successfully completed fertilization. We cannot present this debate here but there is a relevant literature dealing with this issue. *Vid.* BECKWITH, Francis J., *Defending Life. A Moral and Legal Case against Abortion Choice*, Cambridge University Press, New York 2007, pp. 77-81. LEE, Patrick, *Abortion and Unborn Human Life*, CUA Press, Washington D.C. 1996, p. 93.

⁸ The concept of pre-embryo is employed by philosophers and bioethicists who deny that an early human organism, i.e. the organism up to the moment of implantation in uterus, is a specified human individual. They claim that a strictly embryonic stage starts after implantation when for example neither twinning nor creation of chimeras can occur.

procedures: may the embryo be created outside a mother's womb? may we allow the fertilization of several female eggs (oocytes) being aware, at the same time, that from resulting from them zygotes only one (or maybe two) will be implanted successfully and others left over for a precarious lot? Our reflection will be done with the help of some acute remarks and reflections set forth by the Instruction "Dignitas Personae."⁹ Although it is a theological writing, it contains some strictly rational arguments having a universal bearing.

"Dignitas Personae" shows that the in vitro mentality is deeply embedded in a naturalistic outlook, especially because the embryo itself is perceived in a naturalistic manner. In no. 14 of the Instruction we read as follows: "The fact that the process of in vitro fertilization very frequently involves the deliberate destruction of embryos was already noted in the Instruction "Donum vitae." There were some who maintained that this was due to techniques which were still somewhat imperfect. Subsequent experience has shown, however, that all techniques of in vitro fertilization proceed as if the human embryo were simply a mass of cells to be used, selected and discarded" (DP 14). A set of techniques employed and repeated, completely apart from the intentions of involved individuals, shows that the embryos are regarded as promising objects of experiments and this fact is taken to constitute justification for any research whatever. Of course, all stages of such experiments presuppose some losses and negative outcomes. Carrying on with these undertakings is however justified by the conviction that what is at stake is only a mass of cells. We could say that "the goal" inscribed in a set of in vitro fertilization tools tends to treat the embryo as a pure biological material and nothing else.

This naturalistic approach appears more clearly in the utilitarian calculations. What really matters here is a good result of the process, and this is a criterion for the moral action. "The act itself – as it is put by one of the critical commentators – is not good or bad; something beyond the act, something other to the act, makes it so."¹⁰ That external factor consists in the desired end and the moral assessment of the undertaking is derived only from that. "Dignitas Personae" speaks about this utilitarian mentality in a number of places. "(...) It is deeply disturbing that research in

⁹ Congregation for the Doctrine of the Faith, *Dignitas Personae*, (DP), Vatican, 8. IX. 2008, disponible en: http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_20081208_dignitas-personae_en.html.

¹⁰ SOKOLOWSKI, Robert, *Moral Action. A Phenomenological Study*, Indiana University Press, Bloomington 1985, p. 54.

this area aims principally at obtaining better results in terms of the percentage of babies born to women who begin the process, but does not manifest a concrete interest in the right to life of each individual embryo” (DP 14). In the center of attention is a viable pregnancy, and its attainment is good, despite a means which brings it about. Hence, an individual embryo – which can cause this state – is perceived as an only means, and its right to life is not taken seriously into consideration.

The utilitarian thinking reveals its sting when we look at the dealing with defective embryos. The Instruction touches on this topic saying: “Embryos produced in vitro which have defects are directly discarded. Cases are becoming ever more prevalent in which couples who have no fertility problems are using artificial means of procreation in order to engage in genetic selection of their offspring” (DP 15). This is of course possible thanks to the above-mentioned pre-implantation diagnosis. Defective embryos give no hopes for a viable pregnancy, hence from the utilitarian point of view we even cannot treat them as means: they are useless and so destined to destruction. The tendency of employing in vitro process in a case of healthy couples confirms that the embryo is important and gains its status as a human being only when it starts a “safe” pregnancy.

Furthermore, the process of the implantation of embryos operates in the same utilitarian logic. As “Dignitas Personae” notices: “In this technique (...) the number of embryos transferred is greater than the single child desired, in the expectation that some embryos will be lost and multiple pregnancy may not occur. In this way, the practice of multiple embryo transfer implies *a purely utilitarian treatment of embryos*” (DP 15). It is worth mentioning that in a case of a multiple pregnancy, while a single child is desired, a selective abortion seems to be a possible option. Nevertheless, the sole transfer of a couple of embryos is itself evidence that an embryo is not treated as a subject having its own end. It is rather a pre-embryo which is at the stage of competing for its human status.

“Dignitas Personae” sets out the second reason speaking against in vitro procedures. That reason is taken from the Catholic ethics of procreation. It roughly says that it is ethically unacceptable to separate procreation from the personal context of the marital act. In the document it is noticed that ignoring that objection leads to the further dangers. “The blithe acceptance of the enormous number of abortions involved in the process of in vitro fertilization vividly illustrates

how the replacement of the conjugal act by a technical procedure – in addition to being in contradiction with the respect that is due to procreation as something that cannot be reduced to mere reproduction – leads to a weakening of the respect owed to every human being” (DP 16). The embryo created in laboratory can easily gain a status of the fertilized oocyte only. If we can produce so many of them – one can claim – why shall we stress the importance of any particular zygote? It is just one of many cells. Its death (accidental or intentional) amounts to the price we have to pay for a viable pregnancy (“nothing is perfect”). Some people can also get a feeling that there is no need to worry too much about that microorganism, and because of its localization in the professional environment (i. e. in a laboratory), there is no urgency for an additional care for it.

Hence, this ethics of procreation argument strengthens the first argument against in vitro procedures, namely the argument of the anthropological status of human embryo. When possible parents relegate initiation of new human life to artificial setting, there is a danger of downgrading of who the human embryo is and what his/her value is, in thinking and attitudes of parents.

The positive suggestion of this “*Dignitas Personae*” remark is that the most appropriate environment for a coming-to-be embryo is a mother’s womb and an intimate sexual relation between wife and husband. The latter one is a strictly interpersonal space in which there is a possibility for a special encounter between ‘I’ and ‘thou,’ employing the language of Martin Buber.¹¹ Of course, a sexual relation can remain only a physical act. Then there is no chance to initiate an encounter between persons who should be, indeed, considered as someone more than material entities. However, when a person-wife is ready to meet a person-husband, and vice versa, a new interpersonal ground appears, something more than an exchange of bodily services. It includes these latter occurrences but goes further to a strictly interpersonal bond, to a kind of coming-together-as-persons, or a community of persons. It can basically be characterized by a readiness to give her/himself wholly and receive the other in her/his totality. Thus that interpersonal bond finds its ultimate meaning in a spiritual encounter taking place between two embodied human beings.

¹¹ The pair of relations, namely I-Thou, I-it, are essential for the concept of dialog set out by Martin Buber in his seminal book „I and Thou”. *Vid.* BUBER, Martin, *I and Thou*, trans. R. G. Smith, Scriber, New York 2000.

Therefore we can say that only in this encounter a truly human sexual interaction can occur. This is indeed a bodily act but it clearly has a broader meaning. It signifies, and builds up at the same time, a spiritual sphere between spouses. Such an I-thou relation is definitely a full manifestation of two personhoods and it is a kind of a unique experience. This becomes evident especially when we contrast that I-thou marital meeting with other possible I-thou relations which are not so intense, as far as the involvement of personhood is concerned. And finally we can contrast that I-thou conjugal encounter with an I-it meeting where the personal commitment is superficial and even slight, because a partner of the relation is not a human being or even an inanimate object. Hence only the I-thou encounter, especially between spouses, does really amount to the essential experience of the mutual love, feelings and consequences stemming from them. If one of the consequences is that a new life is conceived, it has a real chance to be a part of that experienced interpersonal importance taking place between spouses. The experience of a genuine marital love embraces, then, all that is also resulting from that, including a new human life.¹² An embryo as the human being is produced in a highly interpersonal sphere and this seems to be a guarantee that her/his personhood will not be questioned but rather fully respected.

“Dignitas Personae” takes into consideration a further important in-vitro-related attitude, namely a longing for a child, usually entertained by both parents. In a sense, that longing is made into a pressing issue which must be resolved as soon as possible. It is indeed an existential side of the debate and it usually goes before all other theoretical aspects. However, it causes some troubles. Not only is it difficult to conduct a rational discussion with that emotional approach, but also it can be an all-purpose attitude. The Instruction spells it out as follows: “The desire for a child cannot justify the “production” of offspring, just as the desire not to have a child cannot justify the abandonment or destruction of a child once he or she has been conceived” (DP 16). Strong feelings usually accompany as a lack of a child as his/her unexpected appearance. This is understandable. But should we employ only feelings as a guide to our actions, they can stimulate

¹² Patrick Lee, Robert George and Gerard Bradley highlight the other aspect of that, namely that a conceived new human life does indeed strengthen a relation between persons-spouses. Using our Buberan expressions, we can say that it prolongs that I-thou relationship making it something transcending a momentary experience. These authors put it this way: “The child is the concrete fruit and expression of their marital commitment and their love for one another; indeed, each child born of the marriage is the union of the spouses made concrete and prolonged in time”. *Vid.* LEE, Patrick, GEORGE, Robert P., BRADLEY, Gerard V., *Marriage and Procreation: The Intrinsic Connection*, The Whitherspoon Institute. Public Discourse Ethics, Law, and the Common Good, 28. III. 2011, disponible en: <http://www.thepublicdiscourse.com/2011/03/2638>.

us either to an “excessive procreation” (artificial procreation) or to an abandonment or even killing (abortion). They are like two sides of a coin: they are opposite and seem to exclude each other. But in fact there is something which joins them: they are passion-like feelings which do switch off a rational judgment and tend to dominate human behavior altogether. Feelings do not get to know anything therefore such important aspects of in vitro debate as the status of human embryo, its dignity and right to life can be completely beyond people governed and overwhelmed by emotions.

4. Conclusions

In the light of “Dignitas Personae,” the embryo should be granted not only the full status of human being but also all necessary rights, including an unrestricted right to life and a right to a proper developmental environment. The rational arguments given by this Vatican document support the thesis that for an ethical thinking is important as the fact *who* the embryo is as *how* this embryo is introduced into life. However, these two important for a pro-life position factors are not equally recognized. Some pro-life thinkers and activists can accept the former reason but not the latter. This can be the case, for instance, when people involved are not Catholics.

Nevertheless, the mentioned-above “European Convention on Bioethics” has also references only to the first argument. In article 1, there is a general remark speaking as follows: “Parties to this Convention shall protect the dignity and identity of all human beings and guarantee everyone, without discrimination, respect for their integrity and other rights and fundamental freedoms with regard to the application of biology and medicine” (CPHRD 1). If the human embryo is fully recognized as a human being, it means that his/her dignity must be guaranteed. And this should be done despite foreseen interests of a given society or science. Article 2 states this requirement clearly: “The interests and welfare of the human being shall prevail over the sole interest of society or science” (CPHRD 2). In vitro techniques cannot be employed as a mere means neither to gain knowledge on the very early instances of human life nor to tackle a population problem. Therefore, it seems that the Convention goes against in vitro as such. However, in article 18 it states differently opening up some possibility for in vitro procedures. Countries which sign the Convention retain a right to employ in vitro technique but

this is coupled with the task to protect artificially created human beings. The article states: “Where the law allows research on embryos *in vitro*, it shall ensure adequate protection of the embryo” (CPHRD 18, 1); “The creation of human embryos for research purposes is prohibited” (CPHRD 18, 2). The protection should ensure, first of all, a right to life and proper development. Therefore, it seems to suggest that any precarious solutions concerning embryos must be rejected out of hand. It means – as we can suppose – that their freezing and storage, and any stem cell experiments should be forbidden. The Convention apparently has a pro-life leaning, although, allowing *in vitro* procedures at all, does not offer so strong and decisive pro-life position.

A person who has a pro-life worldview should endorse those solutions which unambiguously serve the good of new human life. This is of course the position of “*Dignitas Personae*” which goes against *in vitro* technique. But at the same time, it is important to notice that such a person cannot retreat from a public debate over *in vitro*. Leaving the public forum only because the majority has a different view would be unwise and could enable very radical anti-life regulations. Pro-life people must participate in a nationwide discussion on *in vitro* fertilization defending the best possible outcome for early instances of human life. Sometimes it means that a full pro-life regulation is unachievable politically and only a partly pro-life solution is on the horizon. Voting for such an option is actually rescuing that part of the good which can be saved.¹³

¹³ This partly pro-life solution can include creation of three embryos and direct implantation of them all, as it is accepted in Italy and Germany. In such a case there is no problem with so-called spare embryos. There is no freezing of embryos and any research on them. This approach then is in accordance with the first objection on *in vitro* although not with the second. Still embryos are produced outside a mother’s womb and outside the context of marital sexual act. In terms of ethics, this approach does not go against the inviolability of human life – provided that abortion and pre-implantation selection connected with discarding of weaker embryos are unambiguously excluded – but it does go against the just order of procreation.

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