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The impact of biotechnological development on the scope of protection of life in the prenatal phase—varying standards of protection of life as exemplified by Polish legal solutions

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Highlights:

- Both abortion and the IVF procedure give rise to significant ethical controversy and polarized opinions as regards the justification for their legality or illegality.
- Polish legal solutions are not coherent with respect to the protection of life in the prenatal phase-the differentiating criterion is the origin of the embryo.
- Among the many potential harmonization solutions, reinstating the possibility of the termination of pregnancy on the grounds of fetal impairment appears to be the most appropriate.

Abstract: The article presents two parallel Polish models of the protection of life in the prenatal phase under criminal law. This differentiation is due to the permissibility of the *in vitro* fertilization (IVF) procedure and modern diagnostic possibilities. When fetal impairment is detected, the statutes under analysis provide for different consequences depending on the origin of the embryo. The article presents several ways of resolving the axiological disharmony, indicating the reinstatement of the possibility of the termination of pregnancy on the grounds of fetal impairment as the most appropriate.

Keywords: Main-abortion; PGD; IVF; embryo with no capacity for normal development; right to life; Additional-axiological coherence; life in the prenatal phase; fetus; infertility

1. Introduction

On 25 July 1978, at Kernshaw Cottage Hospital, in the town of Oldham, United Kingdom, Louise Brown was born—the first child conceived via *in vitro* fertilization (IVF) [1]. Ten years later, the first child conceived via *in vitro* fertilization was born in Poland in Białystok. These dates mark a new era in the history of medicine and humanity and prompt new questions from ethicists and legal scholars.

There is an extensive medical literature on *in vitro* fertilization [2–4]. At this point, it is necessary to mention only the basic facts relevant to the further discussion. IVF is a laboratory fertilization method (taking various forms) consisting of the fusion of an egg cell and a sperm cell outside the female reproductive system. Irrespective of the fertilization method, after several days of culture, selected embryos with the highest developmental quality are placed in the uterus. This procedure is called the embryo transfer. In the case where during an IVF procedure the number of embryos produced exceeds

those transferred to the uterus, the surplus embryos, if of sufficient quality, may be frozen for future use. In cases where during an IVF procedure more embryos were obtained than are required for a single fertilization cycle, or the woman is unable to undergo the procedure of having the embryos placed in her uterus (embryo transfer), cryopreservation is employed, whereby the embryos are stored in a liquid nitrogen container at a temperature of around −196 ℃. Research has not shown a deterioration in the quality of embryos related to their storage time [5–7].

While resolving numerous medical and social problems (among others, infertility), advances in medicine expand the space for behaviours deemed unacceptable by societies or social groups with a specific vision of the human being. Consequently, the list of prohibited acts essentially connected with the creation and duration of the human being is expanding in scope. The regulations relate to a specific phase of an individual human life. Accordingly, four key phases of the differentiated approach of criminal law provisions to human life can be distinguished: (1) prezygotic embryonic phase; (2) prenatal phase; (3) postnatal phase; (4) post-mortem phase.

We are aware of the controversies that may arise from distinguishing phases one and four. However, numerous legal systems recognize prohibited acts relating to the stage preceding the process of fertilization or prior to its completion (because fertilization is a process that can be interfered with) [8]. Similarly, the Polish Law on Infertility Treatment (2015) introduces criminal liability for acts committed before the formation of an embryo. The creation of chimeras, hybrids, or modifications to the inherited human genome and cloning constitute a prohibited act. In numerous states, it is also prohibited on pain of penalty, among other things, to collect reproductive cells from a human corpse for the purpose of use in a medically assisted procreation procedure [9,10].

The analysis focuses on the second phase—the prenatal phase. The research question refers to the argument frequently reiterated in Polish constitutional case-law according to which human life begins at conception and the value of human life as a constitutionally protected good cannot depend on the stage of its development [11]. It has been highlighted that the essence of humanity does not reside merely in a human organism exhibiting certain morphological traits or the species-specific structure and form, but in the presence of the human genotype in that organism. The Constitution of the Republic of Poland forms the basis for the legal protection of the biological existence of the human being at all stages of their development—pre- and postnatal. The legal protection of life is absolute in nature and can be limited only in the case where it is in conflict with an identical legal good—human life [12]. The question thus arises whether the advances in medicine and the widespread accessibility of IVF differentiate the legal situation of the embryo in the Polish criminal law space, and if that is true, whether this differentiation is legitimate.

2. Theoretical basis

Given that the prenatal phase elicits considerable ethical controversy and the legal evaluation of behaviours relating to human embryos differs across jurisdictions worldwide, this analysis is limited to the issue of the destruction of embryos, taking into consideration two basic forms of their formation—natural (*in vivo*) and IVF (*in utero—in vitro*).

The analysis has been conducted based on Polish legal regulations, in particular, the Law of 25 June 2015 on Infertility Treatment (ULN) [13], the Act of 7 January 1993 on Family Planning, the Protection of the Human Fetus, and the Conditions for Permissible Termination of Pregnancy (UPR) [14], the Act

of 6 June 1997—the Penal Code (KK) [15], the Constitution of the Republic of Poland of 2 April 1997 [16] and the Act of 5 December 1996 on the Professions of Physician and Dentist (UZL) [17]. The primary research is the dogmatic-legal (formal-dogmatic) method, consisting of an analysis of applicable legal provisions and their interpretation. In the course of the study, relevant case-law of the Constitutional Tribunal and the Supreme Court, the body of legal doctrine and legislative sources have also been considered.

The dogmatic-legal analysis has been placed in a broader context of ethical considerations, taking into account the position of the Roman Catholic Church. It is justified by the prominent role of this religion in Polish society[1] and its impact on public debate [18] and the formation of regulations concerning bioethical issues (which is evidenced by frequent references to the teachings of John Paul II and passages from the Catechism of the Catholic Church in the explanatory memoranda to draft laws) [19]. This section will employ the following methods: descriptive and normative methods based on logical analysis and ethical argument. The study will draw on the relevant scientific literature and documentary sources of the Catholic Church.

2.1. Vocabulary

At this point, a few remarks of a linguistic nature should be made. In Polish law, there are several terms relating to life in the prenatal phase, which gives rise to doubts among scholars and participants in public debate. This is the case primarily with defining the human organism during this phase.

Polish legislation makes use of such concepts as the embryo, pregnancy, the child to be born as a result of a medically assisted procreation procedure or the conceived child. In public debate, the former concepts are more frequently associated with positions characterised as liberal, whereas the latter are linked to conservative positions. Notably, the term pre-embryo is increasingly being used in the context of the early development of the embryo before the appearance of the primitive streak (around 14th day) [20], which—as it turns out—is proving increasingly useful, including in legal discourse.

A similar situation occurs with regard to the terminology pertaining to embryo destruction. Depending on the assumed axiological perspective, this is referred to as abortion, termination of pregnancy, or killing unborn children. In the context of laboratory procedures, terms such as destruction of embryos or killing unborn children appear.

It is difficult to select terminology that is completely axiology-neutral in the Polish language. The English language facilitates, to some extent, the formulation of more neutral terms. It should be noted that Article 18 item 1 of the European Convention on Bioethics—*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* (ETS No. 164)—uses the term *embryo*. In turn, in the global debate, the concept of "embryonic human beings" has emerged [21].

This problem can be illustrated by the broader issue of defining concepts relating to life in the prenatal phase. Under Article 2 item 1 point 28 of the Law on Infertility Treatment, the embryo is understood as a group of cells formed as a result of the *in vitro* union of female and male reproductive cells—from the completion of the process of fusion of the nuclei of reproductive cells (karyogamy) until the moment of implantation in the uterine lining. This definition explicitly determines the temporal limits of protection provided by criminal law during the preimplantation stage of development under the Law

[1] According to the data from the National Census (2021), affiliation with this Church was declared by over 71% of inhabitants.

on Infertility Treatment. The explanatory memorandum to that law indicates that this definition was introduced specifically for the purpose of proper interpretation and application of the provisions of the proposed law rather than on the basis of other regulations. The definition of the embryo is biological in nature and, in this context, was formulated in the clearest and most unambiguous manner possible. The adoption of this definition sought to exclude the possibility of multiple interpretations of the term, which could consequently lead to the restrictive application of the provisions of the proposed law, and thus to a reduction in the protection afforded to the embryo [22]. Nevertheless, objections have been raised that the cited law adopts a reductionist definition of the embryo, framing it merely as "a zygote" or "a group of cells", overlooking the fact that the embryo is an early form of a separate human organism having a defined, separate genetic identity [23]. Notably, one of the amendments (of 2018) [24] sought to redefine the embryo, changing its legal status from "a group of cells formed as a result of the extracorporeal fusion of reproductive cells" to "a child conceived at the earliest phase of development, formed from the fusion of gametes." Moreover, a specific and at the same time critical description of the *in vitro* procedure was provided by Archbishop Stanisław Gądecki: "semen is obtained from the father through self-abuse, the mother's body is subjected to multiple manipulations, and the child becomes a product" [25].

3. Results

As regards the destruction of embryo and fetus, two distinct models of the criminal law's response can be identified in the Polish legal system: (1) in the case of natural fertilization, this constitutes the termination of pregnancy, for which criminal liability is provided under the Penal Code, with due regard to the relevant provisions of the Act on Family Planning, the Protection of the Human Fetus, and the Conditions for Permissible Termination of Pregnancy; (2) in IVF, the issue involves embryo destruction under the Law on Infertility Treatment.

The termination of pregnancy is defined in Article 152 of the Penal Code. It prescribes that whoever, with the consent of a pregnant woman, terminates her pregnancy in violation of the statutory provisions, is subject to the penalty of deprivation of liberty for up to three years. Whoever provides assistance to a pregnant woman to terminate her pregnancy in violation of the statutory provisions, or incites her to do so, is subject to the same penalty (§§ 1 and 2). Given that abortion is punishable when carried out in violation of the statutory provisions, reference should be made to Article 4a of the Act on Family Planning, the Protection of the Human Fetus, and the Conditions for Permissible Termination of Pregnancy. The provision lays down that "a pregnancy may be terminated exclusively by a physician in cases where: (1) the pregnancy poses a threat to the life or health of the pregnant woman; (2) (repealed); (3) there are reasonable grounds to suspect that the pregnancy resulted from a prohibited act; (4) (repealed)." The interpretation of the cited provisions suggests that, as a rule, abortion is punishable with the exception of the two indicated situations (so-called medical and social grounds). By virtue of the rulings of the Constitutional Tribunal, the situation where prenatal testing and other medical grounds indicate a high probability of severe and irreversible fetal impairment or an incurable disease threatening the life of the fetus no longer constitutes a ground excluding criminal liability (judgment of the Constitutional Tribunal of 2020 [26]—the so-called embryo-pathological grounds). The same applies where the pregnant woman is in hard living conditions or a difficult personal situation (judgment of the Constitutional Tribunal of 1997 [27]—the so-called social grounds). In these situations, the termination of a pregnancy is an

offence. The *ratio legis* behind these provisions is clear—the protection of human life in the prenatal phase throughout pregnancy, practically without exceptions.

Being somewhat specific because of the lack of an explicit standard, the Polish construction of the provisions suggests that an abortion performed independently by the pregnant woman is not an offence. Abortion is an intentional offence, meaning that criminal liability for the termination of a pregnancy is incurred only by a perpetrator who acted with intent (unintentional abortion does not constitute a criminal offence).

Concerning the matter at hand, two detailed issues are relevant. Disputes persist regarding the initial moment at which the prohibition of abortion begins—should this moment be understood as fertilization or pregnancy and what marks the start of pregnancy. For example, reference should be made to the correct, though rather isolated, argument put forward by Jacek Potulski, who has pointed out that the Act on Family Planning and the relevant Penal Code provisions (Article 152) protect not so much the conceived child as the pregnancy—in general, the period of human development from the implantation of a fertilized ovum in the endometrium to the onset of labour. The period of development of the conceived child, prior to the onset of the stage in the mother's life referred to as pregnancy, falls outside the scope of protection of life under criminal law [28]. Different views on this matter are presented, among others, by Krzysztof Wiak [29], who adopt a genetic criterion, recognizing that a new human organism, possessing an individual genetic code, is formed at conception. The second issue is the differentiation of liability in the case of abortion. Article 152 §3 of the Penal Code envisages a so-called qualified type, meaning that a perpetrator of a performed abortion incurs more severe criminal liability (ranging from 6 months to 8 years) in the case where that perpetrator commits the act defined in §1 or 2 when the conceived child has attained the capacity to live independently outside the organism of the pregnant woman. In light of Polish criminal law, a differentiation has been introduced within the prenatal *in vivo* period. In the "natural" prenatal phase, an important temporal boundary is established by the wording "capable of living independently outside the mother's organism."

On 5 June 2024, new provisions pertaining to free-of-charge prenatal testing entered into force in Poland. Under the Regulation of the Minister of Health, all pregnant women, regardless of age, have the right to access free prenatal testing. In the past regulations restricting the availability of prenatal testing were deliberated, designed to impede the termination of pregnancy on the basis of fetal abnormalities. In view of the availability of prenatal testing, the current legal state—the cited prohibition on terminating a pregnancy on the grounds of fetal impairment—does not seem to raise such concern (though such concerns have been raised by the Commissioner for Human Rights) [30].

The criminal law's response to embryo destruction is different. Article 83 of the Law on Infertility Treatment is of fundamental importance. It establishes a penalty of imprisonment ranging from 6 months to 5 years for whoever destroys an embryo capable of normal development created via a medically assisted procreation procedure. As in the previous case, the prima facie justification for criminalization is to protect the life of an embryo and respect its integrity. However, the specific reservation made in the provision renders the concept of this defence fundamentally different. The cited Article 83 of the Law on Infertility Treatment refers to embryos formed during the IVF procedure with "the capacity for normal development". This approach is confirmed by Article 23 of the said Act, pursuant to which embryos created from reproductive cells and capable of normal development, which have not been used in a medically assisted procreation procedure, are stored under conditions ensuring their proper

protection until their transfer into the recipient's body. In the light of the above, a cautious argument has been advanced that "Such wording of the provision may lead the interpretative process to a conclusion unfavourable to embryos incapable of normal development, namely that they do not fall within the protective scope of the provision under discussion" [31]. A view isolated in the Polish scholarly debate is that those embryos are protected by the provisions on detriment to the health of a conceived child developing in a woman's body (pursuant to Article 157a of the Penal Code) [32,33]. The conclusion, however, is obvious and unequivocal. Embryos incapable of normal development created via a medically assisted procreation procedure are not subject to any protection under criminal law. The Law on Infertility Treatment does not provide for detailed grounds allowing for the exceptional destruction of embryos capable of normal development created in a medically assisted procreation procedure that are not transferred to the recipient's organism—it contains no provisions in this respect. Moreover, the Law on Infertility Treatment provides for no mechanisms by which the donors of gametes from which an embryo incapable of normal development was created may express their objection. It must therefore be concluded that the handling of embryos incapable of normal development is governed by the provisions of the Waste Act of 14 December 2012 [34] and the Regulation of the Minister of Health on the detailed procedure for handling medical waste [35].

The introduction of a distinction between embryos deemed 'viable' and 'non-viable' (those exhibiting and not exhibiting the capacity for normal development) means that it was necessary to establish assessment criteria and an appropriate procedure. Under Article 23 item 2, an embryo capable of normal development is one that cumulatively meets the following conditions: (1) the rate and sequence of cell division, the degree of development relative to the embryo's age, and its morphological structure make normal development probable; (2) no defect has been identified that would result in severe and irreversible impairment or an incurable disease. The procedural issues (including the grounds) concerning preimplantation testing are governed by Articles 26 and 27 of the Law on Infertility Treatment.

Embryo testing is most commonly performed at an early stage of development and involves a biopsy of 1–2 cells from an embryo at the 6–8 cell blastomere stage, *i.e.*, a few days after fertilization of the oocyte. Further, an examination of several cells of the embryo's trophectoderm is performed on the fifth day after the fusion of gametes under laboratory conditions. pre-implantation genetic diagnosis (PGD) is a form of genetic testing, the consequence of which may be the selection of embryos created *in vitro*. The selection can take the form of negative selection (PGD screening out) or positive selection (PGD screening in). In the former case, the purpose is to detect potential genetic defects prior to the transfer of the embryo into the uterine cavity. Pre-implantation testing makes it possible to identify chromosomal aberrations responsible for disorders such as Down syndrome, Edwards syndrome, Klinefelter syndrome, and Patau syndrome, some of which are lethal. It also provides the opportunity to diagnose almost all 16 monogenic disorders, including haemophilia, tuberous sclerosis, Huntington's disease, cystic fibrosis, deafness, and spinal muscular atrophy. The identification of chromosome aberrations or genetic mutations leads to the decision not to transfer an embryo affected by a genetic defect. It has been pointed out that in addition to chromosome aberrations and monogenic disorders, PGD will also enable, over time, the detection of diseases whose origins lie in polygenic mutations and environmental factors, for example, schizophrenia. Positive selection involves the assessment and selection of phenotypic traits desired by the parents, that is, essentially, "designing" a child according to the parents' expectations [36], which falls beyond the scope of the analysis.

Overall, embryos incapable of normal development created via a medically assisted procreation procedure are not subject to any protection under criminal law and any conflicts of goods have been resolved to their detriment. In turn, the status of embryos capable of normal development, but not used in an *in vitro* procedure, is not clear. In sum, as regards the *nasciturus in vitro*, one can only speak of the legal protection of the viable embryo. The dominant good is reproductive health or, more precisely, a pregnancy likely to result in the birth of a healthy child, since the purpose of the law is to lead to the birth of a healthy child (see Article 6, Article 11 item 3 point 1, Article 73 point 1 of the Law). As indicated by the drafter of the Law on Infertility Treatment, the purpose of the provisions proposed in this area is to ensure the high quality and safety of the procedure, the protection of donors and recipients, as well as of the reproductive cells and embryos themselves, and—what is particularly important—of the children born as a result of medically assisted procreation procedures [22].

All the controversies related to the use of IVF have led to the statutory restriction of overly hasty recourse to IVF through the adoption of appropriate eligibility criteria for IVF procedures—the treatment of infertility via a medically assisted procreation procedure may be initiated only after the exhaustion of other treatment methods applied over a period of no less than 12 months. The *in vitro* fertilization procedure may be undertaken without the exhaustion of other treatment methods and within a period shorter than 12 months from the start of infertility treatment if—according to current medical knowledge—achieving pregnancy by means of those methods is not possible, as is the case with absolute infertility (Article 5 item 2 ULN).

In summary**,** Polish law differentiates the scope of prenatal protection depending on whether it concerns a natural pregnancy or embryos created through IVF. While abortion in natural pregnancies is generally criminalized except for narrowly defined statutory exceptions, criminal-law protection in IVF applies only to embryos considered capable of proper development. Consequently, the regulatory framework governing infertility treatment appears to focus primarily on protecting embryos with developmental potential and on achieving the birth of a healthy child.

Unsurprisingly, these regulations provoke a great deal of lively debate. The disputes revolving around the issue of the criminalization of abortion in Poland have been frequently reported. On one hand, there are groups advocating for a complete ban on abortion, in accordance with the principle of the sanctity of life from conception, with the termination of a pregnancy punishable as homicide [37]. On the other hand, efforts continue to push through liberal measures, though they have so far been unsuccessful [38–41]. Disputes over the perception of abortion influence the perception of prenatal testing. The opponents of the legalization of abortion have frequently cited Pope John Paul II's view: "Prenatal diagnosis, which presents no moral objections if carried out in order to identify medical treatment which may be needed by the child in the womb, all too often becomes an opportunity for proposing and procuring an abortion. This is eugenic abortion, justified in public opinion on the basis of a mentality—mistakenly held to be consistent with the demands of "therapeutic interventions"—which accepts life only under certain conditions and rejects it when it is affected by any limitation, handicap or illness" [42].

The different situation of *in vitro* embryos prompts a more careful examination of the disputes taking place in Poland concerning IVF. The Catholic Church (not only in Poland) rejects *in vitro* fertilization. This opposition is justified by several reasons. First, the disruption of the natural connection between sexual relations within marriage and procreation is contrary to Catholic sexual ethics. In the view of the

Church, *in vitro* fertilization places procreation outside the parental, personal, and at the same time biological function of the father and mother. In the *in vitro* procedure, the child is treated instrumentally and his or her dignity is violated. The Church holds that it is ethically unacceptable to dissociate procreation from the integrally personal context of the conjugal act: human procreation is a personal act of a husband and wife, which is not capable of substitution [43–45]. Even insemination with the husband's semen is not acceptable because the child becomes a product of a technical procedure and it does not permit the child to come into being through the loving union of individuals [46]. The second reason why the Catholic Church objects to *in vitro* fertilization is a common practice, according to his assessment, of destroying embryos not used during embryo transfer and using them as biological material for other medical purposes, for example, for obtaining stem cells. The Church views an embryo as a legitimate person on an equal footing with adult humans, justifying this by the fact that human conception is equivalent to obtaining an immortal soul [47]. Moreover, the Team of Experts of the Polish Bishops' Conference for Bioethics has indicated that "Scientific studies confirm a statistically significant incidence of adverse changes in children conceived through *in vitro* fertilization" [48]. Another objection raised by the Catholic Church is that the collection of male and female gametes occurs in a manner contrary to personal dignity (for example, via masturbation) [49]. Representatives of the Church ultimately hold the position that infertility must be accepted as God's will[2] [50]—"As God Wills: Understanding God's Plan for Childless Couples" [51,52]. For this reason, it is frequently argued that the longstanding lack of regulations governing IVF in Poland is due primarily to the objection from the Catholic Church, which is echoed by a number of conservative politicians [53]. It is therefore not surprising that in November 2025, in a letter to the President of the Republic of Poland Andrzej Duda, Chairman of the Polish Bishops' Conference Archbishop Stanisław Gądecki called on the President not to sign the Act of 29 November 2023, which provided funding for policies including medically assisted procreation. The author of the letter argued that the *in vitro* method amounts to experimentation on the human being, a specific type of "production" representing a "form of domination over human life" [54].

Even before the Law on Infertility Treatment entered into force, it was maintained also within academic and media discourse that by approving *in vitro* fertilization, the legal system actively generated obstacles for itself in ensuring the effective protection of life of the embryo [55]. It was also suggested that the provision relating to selection is discriminatory in nature [56] and the negative selection equals treating the existence of an embryo "as life on a trial basis" [57]. Criticism was levelled at the measures regarding embryos with severe abnormalities, as they could tend toward the "eradication of all genetically conditioned disabilities" [58]. The Law on Infertility Treatment drew criticism from the Polish Federation of Pro-Life Movements. The Federation believed that the Law proposes the legalization of selecting human beings at the earliest stage of development, which constitutes consent based on eugenic criteria for the elimination of disabled persons from the society [22]. In 2010, one thousand staff members of the Polish health service issued the "Appeal to Polish Parliamentarians regarding the *in vitro* fertilization procedure and NaProTechnology." It declares that the *in vitro* method cannot be accepted by healthcare personnel who, respecting the canon of the traditional Hippocratic

[2] Above all, however, we should pray for God's will in our lives. If it is His will that we have biological children, we will certainly have them. If His will is that we adopt children, become foster parents, or remain childless, we should accept this and remain faith ful to it. For we know that God has a wonderful plan for each of us. God is the giver of life. https://www.gotquestions.org/Polski/Bezplodnosc.html.

Oath, serve the life and health of every human being from the moment of their conception. It calls for a complete ban on *in vitro*, indicating the "ethical and effective" method of NaPro Technology (which ought to be reimbursed by the State) [59]. In turn, the only comprehensive commentary on the Law on Infertility Treatment states that the preimplantation diagnostic procedure is essentially eugenic in nature; it is undertaken to exclude from the group of embryos—granted the opportunity to develop into a child—those embryos that carry genetic defects. Doubts have been raised as to whether the possibility of applying such a procedure to artificially created human life should be permitted at all [31,60]. In addition, Polish scholarly writing has invoked the position of the Steering Committee on Bioethics of the Council of Europe of 2003, which highlighted that the use of preimplantation diagnostic methods may result in a form of stigmatization of individuals with genetic disorders (or, potentially, of parents who choose to implant embryos affected by defects), adding that the widespread access to genetic risk assessment may also lead to social pressure to engage in selection, as well as to the expansion of the denotation of the term "severe genetic defect." In the opinion of O. Nowrot, the situation is far more complicated. In addition to an embryo whose fate depends on test results, there is a cell or cells used in the test. Their fate is certain—they are destroyed during the diagnostic process. Their normative status is relegated to a secondary role and is most frequently omitted entirely. The blastomere collected for diagnostic purposes is likely totipotent, meaning that it can give rise to all specialized cells of the organism, and even to an entire organism. In the opinion of that author, the destruction of a blastomere may not differ in moral terms from the destruction of an embryo from which it was collected. In sum, Nawrot has argued that the acknowledgement of humanity of the latter implies that the killing of a human being occurs in the case of preimplantation diagnosis [59,61].

Finally, the opponents have argued that at different stages of its application, the Polish *in vitro* procedure proposes measures that drastically undermine human dignity and run counter to Article 30 and other provisions of the Constitution of the Republic of Poland (Articles 18, 38, and 47), Convention on the Rights of the Child and case law of the Court of Justice of the European Union [23]. The possibility of selecting human embryos implies that the criteria for selection will almost certainly include factors causing disability. This is equivalent to discrimination on the basis of disability, prohibited under the UN Convention on the Rights of Persons with Disabilities. In light of the Convention, discrimination of that type is an offence against human dignity [61]. A draft amendment to the Penal Code was even proposed by the Legislative Initiative Committee "Contra in Vitro," which provided for a penalty of up to three years of imprisonment for causing the fertilization of a human ovum outside the mother's body [62].

To address the various criticisms, it is appropriate to invoke Ewa Wojewoda's balanced perspective, which provides a reasoned counterargument. The essence of the measures relating to PGD and the destruction of non-viable embryos set out in the Law on Infertility Treatment lies in minimizing the risk associated with the birth of a child affected by a severe medical condition rather than in eliminating the birth of children with any disabilities or designing ideal offspring according to the arbitrary preferences of prospective parents, or creating so-called "saviour siblings" (creation of an embryo to save an ill, living sibling) [63,64] or offspring with intended genetic defects (most frequently deafness or dwarfism) [65,66].

In light of these conceptual controversies, it is appropriate to examine how the Polish public views the issues under discussion. A 2023 survey of Poles' views on abortion took into account various circumstances, both those that constitute an offence and those that exceptionally are not punishable. In short, 72% of Poles support the legality of abortion when the mother's health is at risk, 70% when the pregnancy results from a criminal act (e.g. rape), 62% when it is known that the child will be born with

an impairment, 21% when the woman is in a difficult financial situation, 20% when the woman is in a difficult personal situation and 18% when the woman does not wish to have a child [67]. Polish public shows greater acceptance of *in vitro* fertilization (a 2015 study): 76% of Poles approve of IVF for married couples, 62% support its use by couples in informal partnerships, and 44% have no objection to its use by single women [68]. Public support for *in vitro* is particularly high among young adults aged 18–30, amounting to 75%, which indicates growing acceptance of this method among younger generations. Among middle-aged individuals (31–50 years), the support drops to 52%. It is approximately 30% among seniors (over 50 years of age), which indicates clear differences in perception across age groups [69,70]. The majority of Poles believe that the Catholic Church should allow infertile married couples to use *in vitro* fertilization: definitely yes—48%, rather yes—31%, no—8%, rather no—5%, don't know—7% [71]. A survey conducted by the Public Opinion Research Centre (CBOS) has shown that despite being familiar with the Church's teaching on this subject, the majority of respondents do not consider the use of or support for *in vitro* fertilization to be sinful. In the opinion of a majority of respondents (from 66% to 69%), neither the physicians performing *in vitro* fertilization procedures, nor the women undergoing them, nor those advocating for the permissibility of this method or in any way supporting it, are committing a sin. Only from 15% to 17% of respondents consider such behaviour to be sinful [72]. It is unfortunate that there are no detailed studies on the attitude of the Polish toward the destruction of embryos with no capacity for normal development, which is a fundamental issue when compared with abortion. A 2015 study found only that over half of respondents (53%) believe that increasing the chances of achieving pregnancy justifies the creation of supernumerary embryos, regardless of whether all of them will have the opportunity to develop in the future. The opponents of the creation of supernumerary embryos constituted one third of the total sample (33%) [68]. The issue of supernumerary embryos is a separate problem and falls beyond the scope of the present analysis.

Overall, debates concerning prenatal life involve both abortion and IVF. Some groups advocate a total ban on abortion based on the sanctity-of-life principle, treating the termination of pregnancy as equivalent to homicide, whereas others support a much broader scope of legal access to abortion. In the context of IVF, the discussion focuses primarily on the moral and legal status of the embryo, the permissibility of embryo selection, and the balance between prenatal life protection and access to infertility treatment. Critics raise concerns about embryo destruction, preimplantation genetic testing, and the potential for eugenic practices, whereas supporters emphasize the therapeutic value of IVF and its role in reducing the risk of severe genetic diseases. At the same time, public opinion studies indicate that support for IVF in Poland remains high and significantly exceeds support for the liberalization of abortion laws.

4. Discussion

Various opinions concerning the legal status of the *nasciturus* are presented in Polish doctrine. Views have been presented suggesting that Article 38 of the Constitution, stating that "The Republic of Poland shall ensure the legal protection of the life of every human being," does not settle the question of the beginning of the legal protection of life [73,74] (and thus the proposed amendments to Article 38 of the Constitution through the insertion of "from the moment of conception" [19,75]). It is appropriate to recall the view of the Constitutional Tribunal, under which "The value of the legally protected constitutional good of human life, including life in the prenatal stage, cannot be differentiated. There are

no sufficiently precise and justified criteria that would allow such differentiation according to the developmental stage of human life. From the moment of its inception, human life thus becomes a constitutionally protected value. This also applies to the prenatal stage" [11]. Krzysztof Wiak is one of numerous lawyers holding the view that based on constitutional standards it must be concluded that the attribute of being 'human' and the inherent dignity belong to every human being from the moment their existence begins (from the conception) until the end of their life. It is irrelevant how human life began—whether the beginning occurs in a natural or artificial setting (*in vitro*) [29]. However, the presence of IVF in Polish legal space caused an even greater divergence in the criminal law's response to the destruction of life. Differential treatment is no longer limited to the destruction of fetus and the death of a born human being, variation occurs in the prenatal phase depending on the form of fertilization and setting of an embryo. A clear example of this duality is provided by the directive provisions of each of the laws. Article 1 of the Act on Family Planning (having an impact on the extent of criminal liability for abortion) prescribes as follows: The right to life is protected, including during the prenatal phase, within the limits defined by statute. In turn, Article 4 of the Law on Infertility Treatment (relating to IVF) prescribes as follows: The treatment of infertility is conducted with respect for human dignity, the right to private and family life, with particular emphasis on the legal protection of the life, health, welfare, and rights of the child.

The discrepancy between the indicated legal orders is significant and real, and it engages with fundamental axiological assumptions. The scope of contradictions in the area under analysis concerns the handling of embryos/fetuses with diagnosed genetic disorders. Several potential solutions can be identified; however, not all of them seem acceptable.

The first solution is to accept the axiological inconsistency and inequality before the law of "non-viable" embryos resulting from the method of embryo creation. In formal terms, it is the simplest solution (it requires no action to be taken) and it is not the only instance of this kind within the Polish system of criminal law [76]. It can also be argued that the existing regulations reflect some form of social compromise (as evidenced by the previously presented public opinion data), acknowledging that the public does not hold coherent views on the destruction of embryos affected by genetic defects.

However, the absence of internal consistency of the law and the axiological (functional and formal) contradictions run counter to the pedagogical principle that education should be consistent [77]. Moreover, when a system of legal norms is inconsistent, unstable, or internally contradictory, questions arise regarding the appropriateness and adequacy of the axiological foundation of such law. Questions also arise as to how such law should be applied and what stance should be adopted toward it [78]. It is relevant wherever the legislature makes use of general clauses, the concretization of which is the responsibility of those applying the law.

The second solution is to rationalize these discrepancies, enabling the conclusion that, in fact, no axiological inconsistencies are present—or even facilitating their rationalization as such. It is hard to find such a justification. The concept of asymmetry may be an interesting formulation at the moral level. The starting point can be the following argument of Polish philosopher and theologian Halina Bortnowska: "I therefore hope that the Church, once better informed, will in the future distinguish what it currently fails to distinguish in the context of *in vitro* fertilization—namely, the difference between refraining from implanting a supernumerary embryo and abortion (the difference being analogous to that between not planting a tree and uprooting one). The fate of embryos that are not allowed to develop is

regrettable. It is difficult to accept, particularly if one holds that the embryo is already a human being (rather than merely something from which a human being may develop). This is a real and serious problem, although in my view fundamentally distinct from the issue of abortion" [79]. It seems justified to paraphrase the author's words and conclude that one must differentiate between withholding the implantation of a non-viable embryo and the abortion of a non-viable fetus. The argument of moral asymmetry applies here—namely, the asymmetry between bringing about a given effect through positive action and bringing about that same effect through inaction [80]. It has been argued from this perspective that "Assuming all other factors remain constant, causing harm is more difficult to justify than allowing it to occur." It has been argued that our moral system incorporates a distinction between what we owe to others by way of help and what we owe them by way of non-interference [81,82]. Reference can be made to an argument advanced by Gerald Grünwald, who, in proposing the criminalization of homicide through omission ("a failure to avert a fatal result"), foresees (without any additional grounds) the possibility of an extraordinary mitigation of penalty [83]. It has even been argued that the prevailing tendency in the legal tradition of modern democratic and liberal states is not to punish individuals for passivity [84].

The question may arise whether such a perspective on the omission of sustaining life results from a certain unreality of omission per se or from its imperceptibility. Passivity is physically imperceptible and only becomes manifest once a duty to act has been articulated. It is possible that the failure to act where there was a duty to do so (which ultimately co-contributed to death) is less reprehensible than an act producing the same effect.

Elsewhere [85], we have proposed a somewhat different perspective on the intuitively divergent assessment of omission and action. It seems that human activity requires greater physical, intellectual, mental, emotional, and even moral effort. Increased effort is required both for actions evaluated positively and for those evaluated negatively. The well-known trolley problem (in addition to all other ethical and moral dilemmas) [86,87] shows that an action is "harder to initiate"—the tension of the will must be stronger. It is easier to be passive than active (in a somewhat different context, the psychological mechanisms underlying the tolerance of evil and the failure to provide assistance, *etc.*, are well known) [88]. When evaluating reprehensive behaviour, we intuitively tend to regard action as indicative of a stronger, more intense degree of ill will, which makes omission appear as a less blameworthy act. As Paweł Marcinkiewicz has pointed out, every motivational process is characterized by two fundamental properties—direction and intensity. The author has explained that "direction" denotes the goal that a particular action seeks to achieve or avoid, according to an individual's assessment of that goal as positive or negative [89]. Tadeusz Tyszka has confirmed the intuition that—according to the research—harm caused by taking action is judged as morally more reprehensible than an equivalent harm caused as a result of a failure to act. The author has cited a study by Mark Spranca, Elisa Minsk and Jonathan Baron (1991) and a study by Ilana Ritov and J. Baron (1990), which support the above argument [90–92]. Recent studies have shown that taking action entails assuming responsibility on the part of the decision-maker [93], which (additionally?) requires a stronger intensity of the will. Psychology seems to confirm the intuitive differentiation in the evaluation of action and omission, even in cases involving the infringement of a legally protected good in the form of human life. The question is whether the differences are significant enough to be reflected in the principles of liability or the principles governing the severity of punishment. We are not convinced that the answer is affirmative.

The third solution could involve a modification of the first solution through an individual "justice-oriented" (or perhaps moral) adjustment made by an acting agent. One can, after all, raise the question of whether in individual cases the conscience clause of an agent taking action with respect to non-viable embryos in an IVF procedure can equalize the status of life in the prenatal phase (regardless of the form of fertilization). This possibility is seen in a slightly different context by Ewa Łowińska [94].

In Poland, the concept of the conscience clause in currently related to the practice of medical professions: physician, and nurse and midwife. The relevant legal regulations can be found in Article 39 of the Act of 5 December 1996 on the Professions of Physician and Dentist and in Article 12 of the Act of 15 July 2011 on the Professions of Nurse and Midwife. Under the cited Article 39, a physician may refrain from providing healthcare services that conflict with their conscience, subject to Article 30 (life-saving services), provided that this fact is recorded in the medical records. The Constitution does not use this term. Notably, Article 85 item 3 of the Constitution provides that a citizen whose religious beliefs or moral values prevent them from performing military service may be required to perform alternative service under the conditions specified by law.

The conscience clause has also been addressed in the Polish academic debate. It is sufficient to cite the argument by eminent Polish criminal law expert Włodzimierz Wróbel, who has pointed out that "The function of a conscience clause is to exempt a specific individual from the obligation to comply with a general legal duty. Thus, a conscience clause allows an individual, in a particular situation, when resolving a conflict between specific legal goods, to determine according to their personal legal judgment that a given legal norm does not apply to them. This decision is respected by the legal system, and public authorities are obliged to respond to any violations of the law. A person invoking the conscience clause and refusing to fulfil a legal duty does not break the law but acts legally" [95]. It is hard however to dispute the argument advanced by the Polish Academy of Sciences that the vagueness of the concept of conscience creates a temptation to interpret any strongly held personal belief as being dictated by one's conscience. The Bioethics Committee emphasizes that neither the intensity of an individual's conviction in the correctness of their own view nor the zeal with which it is expressed, by themselves, constitutes sufficient justification for acting on that view—particularly when such action produces negative consequences for others or leads to the restriction or violation of their rights [96]. We believe that the presence of the conscience clause in a system of law signifies its instability, its limited operation based on, let us emphasize, individual decisions by specific individuals, who in the name of their own morality exempt themselves from compliance. This results in discrimination against those whose interests were meant to be protected by a provision that conflicts with the views of an entitled party. The conscience clause discriminates all recipients of legally guaranteed services and protection, who, due to their characteristics (beliefs, religion, identity in various areas), do not conform to the moral worldview of the service and security provider. The conscience clause is already generating legal ghettos in terms of access to abortion, sterilization, *in vitro* procedures with respect to activities that fall within the competencies of physicians (or nurses). Expanding the scope of the conscience clause to additional subjects will not restore equality to embryos but will instead create even greater chaos.

The fourth solution to the lack of axiological coherence can be to increase consistency of the law (harmonize it) by prohibiting the *in vitro* procedure or prohibiting the destruction of non-viable embryos and extending the criminalization of such behaviour. This solution would mean that there would be analogous prohibitions on the destruction of life at the prenatal stage, regardless of the form of

fertilization (with a view to their further tightening, as proposed in the context of equalizing the protection of life at the prenatal and postnatal stages).

The Church in Poland proposes solutions in this spirit, actively engaging in the promotion of naprotechnology (Natural Procreative Technology) [97,98]. The "method" places emphasis on teaching spouses seeking to conceive the skills of recognizing their own fertility. It is aimed at patients whose infertility is curable [99]. The "method" has come in for criticism from the medical world. Professor of Medicine Rafał Kurzawa, former chairman of the section of fertility and infertility of the Polish Gynaecological Society, has stated that "A fundamental criticism of NaProTechnology is that, for ideological reasons, it does not provide people with access to methods that would genuinely resolve their problem. It represents merely a conservative diagnostic and therapeutic approach, which unfortunately often relies on only a few selected elements from the broader range of infertility treatments and is powerless in addressing certain problems" [100].

The prohibition of the *in vitro* procedure appears rather unrealistic, especially if one recalls the cited public opinion surveys and the 72% support for assisted motherhood. The prohibition of destroying impaired embryos is also difficult to imagine (though with a lower degree of certainty). It is appropriate to recall a comment by professor of medicine Marian Szamatowicz[3], who in response to an objection that "the life of a child conceived via *in vitro* fertilization is always paid for by the death of his or her siblings" has argued that "A similar process occurs in nature. If we adopt this rhetoric, one could say that both my life and that of (…) bishops was paid for by the death of unborn siblings. In natural reproduction, only 25%–30% of all embryos successfully implant and continue to develop; the rest perish. No physician or biologist disputes this. A comparable process occurs in the procedure of *in vitro* fertilization" [101]. Identical data are given by medical doctor Krzysztof Woźniak, a specialist in forensic medicine [102]. An important issue, partly falling within the area outlined above, is *chemical pregnancy (*often also known by other terms, including chemical pregnancy, non-visualized pregnancy or pregnancy of unknown location*)*, which means a very early miscarriage, and many women are unaware that they have experienced a biochemical pregnancy, mistaking it for a slightly delayed menstrual period [103].

Moreover, the decision to have an embryo with defects implanted entails assuming moral responsibility for the suffering of a child yet to be born [22]. At the same time, it is a decision to devote one's life to such a child and sacrifice the lives of one's loved ones, including the remaining children, who must assume responsibility for caring for their sibling in the absence of their parents (particularly under Polish conditions).

The final, fifth solution to the axiological inconsistency is to remove it by lifting the ban on abortion because of embryonic pathology. It is necessary to restore the possibility of terminating a pregnancy in cases where there is a high probability of severe and irreversible fetal impairment or an incurable disease threatening the fetus's life. The arguments in favour of the use of PGD are at the same time the arguments in favour of decriminalizing abortion within the cited scope. In drafting the law on infertility treatment, the legislator indicated that such diagnostics provide individuals affected by genetic disorders with the possibility of having healthy offspring, to the extent possible according to contemporary scientific knowledge, as well as in situations where the couple is interested in utilizing such treatment [36]. The

[3] 23 years ago, Professor Marian Czesław Szamatowicz performed the first successful *in vitro* fertilization procedure in Poland. For many years he served as the head of the Clinic of Gynaecology at the Medical University in Białystok.

arguments put forward by Adrienne K. Martin and Bernard Baertschi are convincing. They have pointed out that the use of PGD may be morally permissible and, in some situations, may in fact be a moral obligation because PGD makes it possible to avert significant damage to a future child. The authors have argued that in the case where parents can prevent serious suffering of a future child and the moral cost of doing so is not high, they ought to take advantage of this possibility. PGD enables such action. In the opinion of the authors, we should not deliberately cause serious harm, and giving birth of a child with a severe, foreseeable disease may entail his or her significant suffering. Therefore, if there exists a technology that allows this to be averted PGD, ignoring its use may be morally problematic [104]. This line of reasoning aligns with the repeatedly formulated thesis that, at times, a better solution is not to have been born at all rather than live below a minimal level of quality [105–107]. In other words, it is the regulations regarding pre-implantation diagnostics that set the rational direction for the process of providing axiological coherence.

An additional ethical argument in favour of restoring the embryopathological ground for abortion derives from the principles of responsible parenthood and reproductive autonomy. Bioethical literature emphasizes that reproductive decisions belong to the most intimate sphere of individual freedom and encompass not only the choice whether to have children, but also responsibility for the conditions under which a future child will live. Julian Savulescu's principle of procreative beneficence holds that prospective parents should, where possible, select the child who is expected to have the best opportunity for the best possible life. From this perspective, the use of preimplantation genetic diagnosis is not primarily an expression of discrimination against persons with disabilities, but rather an attempt to minimize foreseeable and serious suffering. Although this approach remains controversial, particularly because of concerns regarding the medicalization of reproduction and the risk of eugenic practices, it constitutes one of the most influential contemporary ethical justifications for embryo selection in cases involving severe genetic disorders. If this argument is considered sufficient to justify preimplantation genetic diagnosis and the non-transfer of embryos affected by serious abnormalities, it is difficult to identify convincing ethical reasons for adopting a fundamentally different assessment when analogous abnormalities are detected only during the prenatal stage of development [108,109].

This reasoning may be further reinforced by reference to the principle of non-maleficence. According to one of the foundational principles of biomedical ethics, actions that foreseeably result in serious harm should, as far as possible, be avoided. Where contemporary medical knowledge makes it possible to establish a high probability that a fetus suffers from a severe and incurable condition associated with substantial suffering, the obligation to prevent avoidable harm may be interpreted as supporting the availability of abortion in such exceptional circumstances. From this perspective, the ethical justification for preimplantation embryo selection and for the embryopathological ground for abortion rests on a common premise: the prevention of serious and foreseeable suffering in the future life of the child [110].

Furthermore, I am not persuaded by the claim that permitting abortion on embryopathological grounds constitutes discrimination against persons with disabilities. This argument, most prominently advanced by Adrienne Asch [111,112] in the form of the so-called expressivist objection, rests on the assumption that prenatal selection communicates a negative judgment about the value of the lives of people living with disabilities. However, this assumption is far from self-evident. As Bonnie Steinbock [113] has argued, rejecting a particular medical condition is not equivalent to rejecting the persons who live with

that condition; similarly, efforts to prevent disease do not imply that the lives of those affected by disease are less valuable. Moreover, the claim that abortion on embryopathological grounds wrongs or discriminates against a particular individual is difficult to sustain in light of Derek Parfit's [114] non-identity argument, according to which no existing person is harmed when the decision results in that person never coming into existence. Further support for this view can be found in Ronald Dworkin's account of the intrinsic value of human life. Although Dworkin [115] firmly rejected the notion that the worth of a human life depends on characteristics such as health, intelligence, or physical ability, he also emphasized the significance of a person's biography, relationships, commitments, and autonomous choices in shaping the moral meaning of a human life. From this perspective, it is difficult to equate a decision concerning a fetus diagnosed with severe abnormalities with a judgment about the value of the lives of persons with disabilities, who possess their own identities, life histories, and capacity for self-determination. Accordingly, recognition of the equal dignity and moral worth of persons with disabilities does not, in itself, entail the prohibition of abortion on embryopathological grounds. A more convincing position is that such a ground for abortion reflects an attempt to balance respect for prenatal life with the pregnant woman's autonomy and with the profound consequences associated with severe and irreversible fetal impairment, rather than constituting a form of impermissible discrimination.

5. Conclusion

The criticism of IVF and the accompanying measures is not solely a Polish phenomenon. The Society for the Protection of Unborn Children (Northern Ireland Branch) maintains that legislation permitting *in vitro* fertilization is inconsistent with the Convention on the Rights of the Child (and the ensured right to life arising from its Preamble) and ought to be amended [21].

The analysis demonstrates that contemporary biotechnology, particularly IVF combined with preimplantation genetic diagnosis, has led to the emergence of two parallel and axiologically inconsistent models of prenatal life protection within the Polish legal system. While embryos developing in utero are, in principle, protected regardless of their health condition, embryos created through IVF are subject to a model in which legal protection depends on their developmental potential and genetic status. Consequently, the decisive criterion is no longer solely the fact of human existence at the prenatal stage, but also the prospect of giving birth to a healthy child.

This inconsistency cannot be fully reconciled without either fundamentally restricting assisted reproduction techniques or revising the scope of criminal-law protection afforded during pregnancy. Among the solutions analysed in this article, the restoration of the embryopathological ground for abortion appears to be the most coherent. It preserves access to both prenatal and preimplantation diagnostics, respects reproductive autonomy, and aligns the legal consequences of detecting severe fetal abnormalities irrespective of whether they are identified before or after embryo transfer. Although this solution remains ethically controversial, it requires the least radical modification of the existing legal framework while offering the greatest degree of axiological consistency.

The conducted analysis also demonstrates that debates concerning prenatal life protection extend beyond legal questions and increasingly encompass broader ethical and social issues, including reproductive autonomy, disability rights, embryo selection, and the risk of stigmatization of children conceived through assisted reproductive technologies. These issues constitute important directions for further interdisciplinary research.

6. Further research problems

A distinct area requiring further investigation concerns the social consequences of public debates surrounding IVF, particularly the risk of stigmatization and discrimination against children conceived through medically assisted reproduction. Within the Polish public discourse, shaped in part by representatives of the Roman Catholic Church and other opponents of IVF, narratives can be identified that portray assisted reproduction as "unnatural" and children conceived through IVF as somehow different from other children. Magdalena Radkowska-Walkowicz [116] describes this phenomenon through the concept of the "monster strategy", referring to cultural processes that construct the reproductive technology, its users, and the children born as a result of it as socially and symbolically "monstrous". Public statements have also appeared suggesting that IVF-conceived children can be identified by particular physical characteristics or comparing assisted reproduction to the production or breeding of human beings. Such narratives may contribute to the reinforcement of social stereotypes, the creation of perceptions of otherness, and the symbolic exclusion of individuals conceived through IVF. Consequently, future research should extend beyond questions concerning the legal status of embryos and the permissible limits of reproductive medicine to examine the broader social impact of bioethical controversies on children born through assisted reproductive technologies. Particular attention should be devoted to mechanisms of stigmatization, symbolic violence, exclusionary discourse, and the effectiveness of legal and educational measures designed to counteract these phenomena.

Declaration of generative AI and AI-assisted technologies

The author did not use generative AI or AI-assisted technologies in the writing of this manuscript. The author takes full responsibility for the content of the manuscript.

Conflicts of interest

The author declares no conflicts of interest.

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