Book Review – Barbara Böckenförde-Wunderlich, Präimplantationsdiagnostik als Rechtsproblem (2002).

Barbara Böckenförde-Wunderlich, Präimplantationsdiagnostik als Rechtsproblem, Mohr Siebeck, Tübingen, 2002, 300 pages. ISBN: 3161479246, Price: 49,00 €.

By Marion Weschka[*]

When Barbara Böckenförde-Wunderlich began work on her doctoral dissertation "Präimplantationsdiagnostik als Rechtsproblem" in autumn 1999, the experts aside almost no-one had ever heard of pre-implantation genetic diagnosis. Meanwhile, things have changed, and since spring 2001 this very special method of analyzing human embryonic cells in the first days of their existence in order to find out whether the embryo has a genetic disposition to develop a serious disease has become an everyday newspaper topic. On the one hand, the possibility of having a liberal and open discussion about the ethical, legal and social implications of these new biomedical methods can only now be appreciated as they have for quite some time been considered taboo subjects in Germany.[1] On the other hand, due to this omnipresence of the subject everybody feels able to take part in the discussion, whether she is well informed or not. Therefore, the discussion is often led in an emotional and irrational manner and arguments are put forward that are ill founded from a legal perspective without anyone being bothered about it. Another difficult point is the fact that we are dealing with the complexities of an interdisciplinary discussion. Consequently, special attention has to be paid to the question of the level on which one is arguing. For example, there is a considerable difference between talking of human dignity from a philosophical point of view or from a legal perspective, bearing in mind the wording of article 1 *Grundgesetz* (German Basic Law):[2] "Human dignity shall be inviolable." If one argues from a philosophi-

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[1] *See, e.g.*, Dieter Birnbacher (ed.), Bioethik als Tabu? Toleranz und ihre Grenzen (2000).

[2] Grundgesetz für die Bundesrepublik Deutschland (*Grundgesetz*, GG) = Basic Law for the Federal Republic of Germany as promulgated on 23 May 1949, Federal Law Gazette 1949, p. 1, as amended up to and including 26.7.2002, Federal Law Gazette I 2002, p. 2863.

cal standpoint, there is the possibility of weighing human dignity against other core values, while this possibility does not exist in the legal dimension as the inviolability of human dignity outlaws every balancing process.

Fortunately, the book being discussed here is very clear about all this. As the title ("Pre-implantation genetic diagnosis as a legal problem") itself indicates, Böckenförde-Wunderlich deals with the problem of preimplantation genetic diagnosis (PGD) from a legal perspective and abstains from emotional argumentation, even where discussing the work of other authors in which such arguments are used. Even though – as always in law – one could come to different conclusions as to the single points of the legal analysis, there is no question about the fact that the legal analysis is sound, profound and coherent.

The author begins by introducing the subject of PGD, referring to the case that first stirred the specialist public in Germany in 1995 – the so-called *"Lübeck-Case"*(8). This case illustrates well the tragedy implicit with PGD. It makes clear that, in the first place, this method is not intended for screenings of all embryos created by in-vitro fertilization but that it is necessary in cases where the parents have a high genetic risk of having a baby suffering from a severe hereditary disease and do not feel able to deal with this situation. In the *"Lübeck-Case"* a married couple sought help at Lübeck University Hospital for in-vitro fertilization (IVF) and PGD in order to have a baby free from cystic fibrosis, a hereditary disease the potential parents had a 25 % risk of submitting to their offspring. One could ask why they did not try for a child in the "conventional" way – they were not infertile – thereby avoiding the unpleasant and occasionally risky procedure of IVF and the legal and ethical problems involved with PGD. However, in 1990, the woman had given birth to a child suffering from cystic fibrosis, which had led to the painful death of the child. Two other pregnancies followed, but as the couple knew the hereditary risk, a prenatal gene check was performed and showed that both embryos again had the genetic disposition for cystic fibrosis; both pregnancies were terminated. The couple, suffering from the death of their first child and the two abortions, still wished for a child, but one free of cystic fibrosis and without the risk of requiring a further abortion. PGD appeared to be a solution to their dilemma; however, the ethics commission of the university turned down their application. It is interesting to note that the reason for this decision was not the ethical unacceptability of their wish for PGD – the ethics committee found their request understandable – but rather the illegality of PGD as it conflicts with the German *Embryonenschutzgesetz* (Embryo Protection Act).[3]

Following a short presentation of the currently discussed arguments in favour of and against the introduction of PGD in Germany (9), Böckenförde-Wunderlich

[3] Gesetz zum Schutz von Embryonen (*Embryonenschutzgesetz* – ESchG) as promulgated on 13 December 1990, Federal Law Gazette I, p. 2746.

gives a detailed overview over the medical and genetic background of PGD (14). For the non-expert, the following definition of PGD may suffice: PGD is a diagnostic measure analyzing one or more cells taken from the early embryo in vitro after the first cell divisions in order to check the embryo for genetic defects or dispositions. The aim of PGD is to select those embryos showing a disposition for certain diseases and transferring into the woman's uterus only those that are genetically inconspicuous (14).

Having laid the natural-scientific foundations for the legal analysis of PGD and dealt with the legal framework in Germany (89), the author casts a critical eye over the legal situation in other European countries (34). It is noted, for example, that Switzerland has implemented regulations on reproductive medicine at the level of its constitution,[4] declaring all kinds of cloning, whether reproductive or therapeutic, as illegal with the result that PGD using totipotent cells[5] would also be illegal (36). While the Swiss Constitution does not take a stand on PGD using pluripotent cells,[6] this method is prohibited by a law that declares illegal every act of removing one or more cells from an embryo, no matter if they are totipotent or not.[7] In Austria (38), PGD is also prohibited by law,[8] because a fertilized ovum capable of development must not be used for purposes other than medically assisted reproduction. Moreover, PGD is not available for fertile couples as IVF is reserved solely for the infertile. While the German speaking countries have very restrictive regulations on PGD, it is striking that Italy and Belgium do not have any legal regulations at all, which does not keep them from considering PGD legal and making abundant use of it (39). France and the United Kingdom represent a third group of countries that are applying PGD within a legal framework. While the first French PGD baby was born on 16 November 2000, England has more than ten years of experience with PGD (41).

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[4] Article 119 Bundesverfassung der Schweizerischen Eidgenossenschaft as promulgated on 18 April 1999 as amended up to and including 15 July 2003, *available at*: http://www.admin.ch/ch/d/sr/1/101.de.pdf. See especially Art. 119 sec. 2 lit. a and c.

[5] A totipotent cell is a cell that has the potential to develop into an embryo. It contains the same genetic material as the embryo, therefore the splitting of a totipotent cell from the embryo means cloning the embryo.

[6] It is possible that Article 119 sec. 2 lit. c could allow for the use of PGD, as this clause explicitly provides for the use of IVF where the danger of transmitting a serious disease cannot be avoided in any other way.

[7] Article 5 sec. 3 Bundesgesetz über die medizinisch unterstützte Fortpflanzung (Fortpflanzungsmedizingesetz, FmedG) as promulgated on 18 December 1998, available on the internet: http://www.admin.ch/ch/d/as/2000/3055.pdf

[8] *Fortpflanzungsmedizingesetz* as promulgated on 14 May 1992, Federal Law Gazette 275/1992. See especially § 9 sec. 1 and § 2 sec. 2.

Therefore, instead of just giving an overview the author dedicates herself to a detailed analysis of the legal framework in England (46), firstly familiarizing the German reader with the relevant peculiarities of the English legal system before concentrating on the legal regulations in the field of reproductive medicine, thereby including also a historical and a philosophical approach. She points out that regarding the moral and legal status of the human embryo in general three different approaches could and still can be distinguished in England (55): the first asks whether the human embryo can be regarded as a person, therefore bearing the rights of all individuals, including the right to life. According to this perspective, the status of being a person requires the possession of certain qualities that are commonly attributed to persons, like, for example, self-awareness, reflection and an interest in one's own life. Therefore, beings like embryos, "that cannot value their own existence cannot be wronged in this way, for their death deprives them of nothing that they can value".[9] Those who hold this opinion are not convinced by the argument that even though the embryo actually does not have any of these personal qualities it has the potentiality to develop them all and therefore has to be protected, as they hold instead that future changes in the life of a human being do not require that it now be treated as if those changes had already occurred.
The second approach argues that human life begins at conception and therefore, the same rights must be granted the human embryo as belong to every other human being. This position is based on the idea of the sanctity of human life and is supported predominantly by the Roman Catholic Church (57). Between these two positions, an intermediate approach, the third, advocates a concept of gradual protection of the embryo. Interestingly, the Anglican Church, Judaism and Islam share this approach (58).

At the beginning of the 1980s while preparing the Human Fertilization and Embryology Act, the Warnock Commission[10] concluded that at least some legal protection had to be attributed to the human embryo (63). Unfortunately, it did not take a stand on one of the three approaches, thereby leaving open the basis for its decision. However, one cannot reproach the Warnock Commission for taking a pragmatic approach as it faced almost insurmountable difficulties, being unable to reach a moral consensus (68). Amongst other decisions, it recommended a ban on embryonic research after the 14th day after fertilization.

[9] John Harris, The Value of Life, London/New York 1985, p. 19, cited after Böckenförde-Wunderlich, p. 56.

[10] Committee of Inquiry into Human Fertilization and Embryology (Warnock Commission) named after the chair woman Mary Warnock.

The Human Fertilization and Embryology Act of 1990 that entered into force on 1 August 1991 essentially followed the results of the Warnock-report.[11] Its four main aims included the regulation of infertility treatment and embryonic research. Therefore, it prohibits the creation, retention or use of embryos except in pursuance of a license and regulates those cases that not even a license can authorize.[12] The development and improvement of PGD methods are considered research aims capable of being licensed.[13] Furthermore, the practical application of PGD is made possible by a provision of Schedule 2 that reads: "A license under this paragraph may authorize any of the following in the course of providing treatment services […] (d) practices designed to secure that embryos are in a suitable condition to be placed in a woman or to determine whether embryos are suitable for that purpose".[14] This left a wide margin of appreciation to the then newly installed Human Fertilization and Embryology Authority responsible for issuing the licenses. The work of this Authority is of utmost importance as it demonstrates that the practical distribution of PGD licenses occurs on a very restrictive and careful basis. "The HFEA decided it would be unacceptable to allow PGD to be used to test for any social, physical or psychological characteristics, or any other conditions that are not associated with serious, often life threatening, medical disorders".[15]

Having considered the legal situation in England, the author turns to the question of the reception among the public at large of such treatment of human embryos. According to Böckenförde-Wunderlich, the English view PGD as a better alternative to an abortion, this method enabling couples to solve the dilemma at an early stage and avoids aggravating the situation for all concerned (81). English public opinion appears to accept the destruction of embryos necessary in the PGD process, as during IVF treatment the creation of surplus embryos, as well as the creation of embryos for research purposes and their destruction by it is also held to be legal (81). Why should it be prohibited for a woman to have only certain embryos transferred if, on the other hand, she has the undisputed right to reject an embryonic transfer entirely at any stage of the IVF treatment without being forced to give any reason whatsoever for doing so (83)? From the German point of view, one could answer that there is a qualitative difference in these two situations: one involves

[11] *Available at*: http://www.hmso.gov.uk/acts/acts1990/Ukpga_19900037_en_1.htm.

[12] Article 3 sec. 1 and 3 Human Fertilization and Embryology Act 1990 (c. 37).

[13] Schedule 2 Sec. 3 (2) (e) Human Fertilization and Embryology Act: "A licence under this paragraph cannot authorize any activity unless it appears to the Authority to be necessary or desirable for the purpose of […] (e) developing methods for detecting the presence of gene or chromosome abnormalities in embryos before implantation."

[14] Schedule 2, section 1, subsection 1 (d) Human Fertilization and Embryology Act 1990 (c. 37).

[15] Ruth Deech, Chairman of the HFEA, cited after Böckenförde-Wunderlich, p. 77.

selection and therefore discrimination against those embryos which are not implanted. As every embryo should have the same right to develop, their survival should be left to random selection (83). However, is chance really a moral concept? In England, even were no PGD to be available, nothing is left to chance, because while in every IVF cycle the doctors harvest as many embryos as possible, not more than three may be transferred to the woman, in order to avoid multiple pregnancy. Therefore, those embryos considered to have the greatest chance of successful implantation are selected under the microscope (83). This situation is not comparable to that in Germany, as German doctors are not allowed to produce more embryos than can be transferred to the woman.

In addition to the belief that the survival of the embryos should be left to random selection, another line of argumentation frequently used in Germany against selection is that of the danger of eugenics, normally with a comparison made to the eugenic programs during the Third Reich. In England, this line of argument does not play a role (83). Obviously, the English are not traumatized by history in quite the same way the Germans are in respect of eugenics. However, this argument is hardly relevant in modern Germany either. The private decision of responsible individual couples about an embryo in its early days is barely comparable to the large scale eugenics program organized by the Nazi government, which saw handicapped people sent to the gas chambers. The irresponsibility of those making such comparisons arguably do an injustice to those that suffered under the Nazi regime.

Most English experts, according to Böckenförde-Wunderlich, involved in the legal discussion surrounding PGD reason on a utilitarian pragmatical basis. For them, the advantages of PGD, such as avoiding hereditary diseases, outweigh the disadvantages, namely the destruction of human embryos, which, for the majority, do not bear the full right to life (85). Interestingly and entirely in contrast to Germany, the moral conservatives pushing for a full right to life even for the early stages of embryonic life had great difficulties in convincing people of their point of view. This may be due to the fact that the Catholic Church represents a small minority in England and cannot exercise much influence on public opinion in this matter, while on the other hand the Anglican Church is reasonably progressive in this area (85). From a glance across the Channel to the restrictive licensing practices of the HFEA, the German public could see that the authorization of PGD does not necessarily constitute the first stage on a slippery slope to all-out permissiveness (87).[16]

In the third part of her work (89), Böckenförde-Wunderlich analyzes the legal situation in Germany with regard to PGD, beginning first with the ethos and legal regulations of the medical profession, proceeding to the statutory law and finally end-

[16] Admittedly, Böckenförde-Wunderlich is more skeptical with regard to this point.

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ing with the difficult problems posed by constitutional law. As the parliamentary legislator must not leave to professional bodies important decisions that may have repercussions on third parties (the embryo, the parents), especially if the possibility of infringement of fundamental rights exists[17] (109), this review shall proceed directly to the provisions of statutory law protecting the embryo. Until the passing of the *Embryonenschutzgesetz*, which entered into force in Germany in 1991, there was no protection at all for the embryo before nidation in the woman's uterus, that is for all extracorporeal embryos. At the time the Act was passed, the competence for the regulation of reproductive medicine belonged to the *Länder* and the only possibility for the federal legislator was to protect the embryo using criminal law (such competence passed to the *Bund* only in 1994).[18] Moreover, as at the drafting stage of the *Embryonenschutzgesetz*, PGD was not yet a practically relevant method, the law does not contain explicit regulation relating to PGD (118), although there are several regulations indirectly prohibiting PGD to be carried out on totipotent embryonic cells. Whether these regulations also prohibit PGD carried out on pluripotent cells is a controversial matter that shall be left aside here, as the common PGD method used deals with the very early stages of the embryo where totipotency cannot be excluded. Böckenförde-Wunderlich dedicates herself to a detailed and concise analysis of all the relevant provisions.

Firstly, she asks whether § 1 sec. 1 no. 2 *Embryonenschutzgesetz* prohibits PGD (119). This regulation sanctions all who act in order to fertilize an ovum artificially for a purpose other than to bring about a pregnancy in the woman to whom the ovum belongs. One can distinguish two lines of argumentation in the legal discussion surrounding the Act: the general and the particular. At the general level, one could say that the overall purpose of IVF and PGD is of course to assist parents in conceiving a healthy child, therefore the doctor acts "to bring about a pregnancy in the woman to whom the ovum belongs". However, with regard to the single ovum, not every fertilized ovum can be used unconditionally "to bring about a pregnancy in the woman" as those which turn out to carry hereditary diseases after PGD will not be transferred. The author takes her work seriously, meticulously weighing carefully every possible argument as regards this regulation over more than eleven pages. In the end, she endorses the particularist line of argumentation resulting in PGD being prohibited by § 1 sec. 1 no. 2.

A second problem is posed by § 1 sec. 1 no. 5, which limits the fertilization of a woman's ova to those that are to be transferred to her during one cycle. As § 1 sec. 1 no. 3 limits the maximum number of transferable embryos to three and due to the

[17] BVerfGE 33,125.

[18] Article 74 sec. 1 no. 26 Grundgesetz.

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fact that not every fertilization is successful, the maximum number of ova fertilized is four in order to obtain three transferable embryos. In the author's opinion, this regulation conflicts with PGD as well, for several reasons: a doctor who fertilizes several ova of a woman with the aim of carrying out PGD must take into account that due to the considerable hereditary risk of the couple, not all of the ova fertilized will be transferred (131). Even the hope of transferring all the ova cannot rule out the foreseeable probability that some will be affected by the undesired genetic disposition and consequently not transferred. Thus, the very reason for using PGD conflicts with one of the most important aims of the *Embryonenschutzgesetz*, that the creation of surplus embryos has to be avoided at all costs (131). Moreover, another practical aspect of IVF conflicts with § 1 sec. 1 no. 5: although it is possible in theory to follow this rule, the odds against a successful pregnancy rate require the creation of more embryos than the three that can be transferred to the woman because considering the hereditary risk of the couple one may end up with no healthy embryo at all if only four ova were to be fertilized. In countries where PGD is practiced an average of 8-12 embryos are created (131).

Another difficult regulation is § 2 sec. 1 *Embryonenschutzgesetz* that prohibits the use of a human embryo created in vitro for purposes other than its preservation. Böckenförde-Wunderlich analyzes this regulation in detail (132) splitting the process of PGD into several single actions, e.g. the removal of the cell to be examined, the examination of the cell, the active pouring away of the embryo or the passive action of allowing it to die. For the author, the removal of the cell in order to carry out PGD is not a neutral action because PGD is a diagnosis without therapy and inevitably leads to the rejection of the embryo if the hereditary disease in question is discovered. Consequently, the removal of the cell does not serve the preservation of the embryo (136). Looking at the examination of the cell, PGD carried out with a totipotent cell is contrary to § 2 sec. 1 because § 8 gives the same rights to totipotent cells as to embryos and PGD inevitably destroys the totipotent cell, therefore not serving its preservation, while PGD with a pluripotent cell does not conflict with § 2 sec. 1. Obviously, pouring away the embryo does not serve its preservation and is therefore forbidden by § 2 sec. 1. In contrast to this, one cannot be punished for simply leaving the embryo to die because as it is not possible to transfer the embryo to the woman against her will,[19] the doctor has no other legal alternative than to allow it to die. The author makes an interesting aside in a footnote,[20] drawing a parallel between the above example and that of a doctor that actively pours away the embryo, noting that the latter does not have a legal alternative either. It could therefore be suggested that he too cannot be punished for his/ her actions.

[19] This is prohibited by § 4 sec. 1 no. 2 *Embryonenschutzgesetz.*

[20] See Böckenförde-Wunderlich, p. 139, ann. 132.

As to § 6 sec. 1 *Embryonenschutzgesetz*, the prohibition against carrying out PGD with a totipotent cell is clear, as this provision punishes anyone who brings about the creation of an embryo carrying the same genetic information as another embryo. As the totipotent cell that has been split up from the embryo carries the same genetic information as the embryo and because according to § 8 a totipotent cell has the same rights as an embryo, two embryos with the same genetic information would thus be created.
To sum up, PGD with totipotent cells is prohibited by a bundle of regulations in the *Embryonenschutzgesetz*. Furthermore, for several reasons there is no way to justify PGD by relying upon any other norms that the author examines (141).

In the following part of her dissertation (147), Böckenförde-Wunderlich examines the relationship between PGD and constitutional law in order to find out whether a liberalization of the *Embryonenschutzgesetz* would be possible under the German *Grundgesetz* (GG) or maybe even be demanded by it. The main question here is whether the human embryo is protected by human dignity as laid down in Article 1 sec. 1 GG and by the right to life of Article 2 sec. 2 sent. 1 GG.

As noted above, Article 1 reads, "Human dignity shall be inviolable." This is not the right place to give an outline of the philosophical background of Article 1, although it should be noted that its drafting and place in the *Grundgesetz* owes much to the atrocities committed during the Nazi regime. Its content is also much discussed and so far no positive definition of "human dignity" can be given. A commonly used negative definition provides that the concept of dignity means that no one can be reduced to a mere object of the state,[21] referring to intense infringements like humiliation, persecution, stigmatization, outlawing.[22] As human dignity shall be inviolable, it cannot be weighed against other fundamental rights, which means that every time an infringement of human dignity is identified there is no means by which to justify it. Therefore, one should be very careful to assume an infringement of human dignity. Unfortunately, in the present discussion about PGD and other methods of biomedicine, Article 1 is often misused as a weapon to withdraw one's personal ideological standpoint from the discussion by creating a taboo and by accusing the opponent of touching upon the core value of the German constitution.

In contrast to Article 1, the right to life set down in Article 2 can be restricted by law. Of course, this restriction must be appropriate. Acknowledged examples (157) of such an appropriate restriction of the right to life are military service, operations

[21] So-called „Dürig-Formel" named after Günter Dürig, Der Grundsatz von der Menschenwürde, AöR 81 (1956), p. 117, 127.

[22] BVerfGE 1, 97, 104.

of the police or of fire brigades, the final and fatal shot fired by a police officer in the course of defending life and the privilege of self-defence.

Human dignity and the right to life are separate fundamental rights. Therefore, the destruction of a life does not necessarily entail that human dignity is thereby infringed; however, this can of course be the case under certain circumstances. Article 2 reads, "Everyone has the right to life". In consideration of the human embryo, the question is whether it constitutes "everyone" in the sense of Article 2 and a "human being" in the sense of Article 1.[23] In both cases the wording is not quite clear. On the one hand, it can be interpreted in a way referring only to human beings from the moment of birth; on the other hand, it could also include embryos (161). The historical interpretation does not help here with interpretation. The drafters of the constitution rejected the explicit inclusion of embryos in Article 2, but it is not clear if those who were against it rejected it because they did not consider embryos as included or rather because they simply held that they were necessarily included in the wording of Article 2 (162).

One therefore looks to the purpose of the norm (162). This is a delicate matter because, naturally, every author would tend to give an interpretation that is in conformity with his or her own convictions. This is not meant as a reproach to the author, because, as throughout the book, she weighs all the arguments carefully, but is more a general remark. Böckenförde-Wunderlich examines the different scholarly attempts to find a convincing starting point in the development of human life - fertilization, nidation, the beginning of brain activity in contrast to brain death at the end of life, the ability to survive outside the mother's womb, birth, as well as the perspective of life as a moral argument - in order to establish where constitutional protection begins (167). Her analysis sees her unconvinced by any argument that does not see the embryo protected from the moment of conception (178). Additionally, she also scrutinizes the statements of the legislator as to the *Embryonenschutzgesetz*, the abortion regulation in § 218 *Strafgesetzbuch*[24] (179) as well as the judgments of the *Bundesverfassungsgericht* (Federal Constitutional Court)[25] in this respect (181), all of which suggest that developing human life should be protected in the same way as born human beings. This leads her to the conclusion that human embryos are "human beings" in the sense of Article 1 GG and "everyone" in the

[23] The actual wording is: „Die Würde des Menschen ist unantastbar." The literal translation would be: „The dignity of the human being is inviolable."

[24] Strafgesetzbuch (StGB) = Criminal Code as promulgated on 13 November 1998, Federal Law Gazette I, p. 3322 as amended up to and including 22 August 2002, Federal Gazette I, p. 3390.

[25] BVerfGE 39,1; 88, 203.

sense of Article 2 GG and can therefore enjoy human dignity and the right to life (184).

All of the above would lead one to assume that there is no possibility of legalizing PGD in Germany. However, it is not quite as simple as that and the most interesting part of the author's dissertation is yet to come. In this part, she leaves the pure principle perspective behind and examines the way in which the mandatory constitutional requirements are reflected in legal reality (186) – with astonishing results.

Firstly, it seems surprising that the morning-after pill and the intrauterine device are available to every woman and that their use is not forbidden by law (187). These means of terminating conception are widely accepted by German society and while no position is being taken here either for or against their use, if one is to take the constitutional protection of the embryo seriously, the only logical – and the only legal – outcome could be their prohibition as these devices clearly destroy human embryos. It has been argued that purely for practical reasons the use of these devices cannot be punishable as there is no way of proving that an embryo existed and that its destruction was due to the use of the devices in question. This is obviously a hollow argument because there is no need to punish the woman; the legislator could simply prohibit the distribution of the morning-after pill and the intrauterine device in order to take the constitutional protection of the embryo seriously. For several reasons, it is clear that this would lead to unwanted results, but considering the constitutional protection of embryos there remain some doubts about the legality of such forms of (emergency) contraception.

Another doubtful legal practice is the current IVF regulation allowing the woman the right to refuse the transfer of her embryos created in vitro without giving any reasons for her decision (189). On the contrary, any doctor that were to transfer an embryo against a woman's will would be punishable under § 4 sec. 1 no. 2 *Embryonenschutzgesetz*. Of course, from a practical point of view this makes sense, as were the embryo to be transferred to the woman against her will she could easily abort it without facing any legal sanction. Nevertheless, from a purely constitutional point of view this unconditional acceptance of a woman's right to choose over the right to life of the embryo is very much open to criticism.

The question of abortion leads us to the third critical point regarding the current legal practice as to the treatment of embryos (191). According to § 218 a sec. 1 *Strafgesetzbuch* "the elements of the offense under § 218 have not been fulfilled, if: 1. the pregnant woman requests the termination of pregnancy and demonstrated to the physician with a certificate pursuant to § 219 section 2, sent. 2, that she had counseling at least three days before the operation; 2. the termination of pregnancy was performed by a physician; and 3. not more than twelve weeks have elapsed since

conception." The *Bundesverfassungsgericht* concluded that even though such an abortion was not punishable as violation of § 218 *StGB*, it was still considered to be unlawful by the legal order.[26] This seems somehow absurd as on the one hand one could not possibly come to this conclusion by reading the wording of the relevant norm. And on the other hand such an abortion is simply not treated in practice as being unlawful: the contract between the doctor and the woman about the abortion is valid, no defense in favor of the embryo is admissible, the woman's employer has a statutory obligation to pay her sick pay and the state must guarantee that there are enough hospitals offering abortions available to cover the needs of pregnant women in a conflict situation. The only obligation that is excluded is the payment of the abortion by the health insurance (192). An embryo has therefore almost no legal protection during its first twelve weeks, despite the ruling of the *Bundesverfassungsgericht*.

Furthermore, § 218 a sec. 2 StGB provides that "the termination of pregnancy performed by a physician with the consent of the pregnant woman shall not be unlawful, if, considering the present and future living conditions of the pregnant woman, the termination of the pregnancy is advisable to avert a danger to life or the danger of a grave impairment of the physical or emotional state of health of the pregnant woman and the danger cannot be averted in another way which is reasonable for her." In this case, there is no time-limit for an abortion which means that a pregnancy can be terminated right up until the moment of birth. This norm also includes those cases in which the embryo suffers from a severe genetic disease and the woman does not see herself fit to cope with this situation such as that the embryo's future illness afflicts her physical or emotional state of health. By imagining a similar situation, only substituting an embryo with a born child, where it is obvious that the woman could not lawfully rid herself of a sick child, it becomes clear that legal reality does not treat an embryo as if it enjoyed the fundamental right to life and human dignity in the same way that born people do (195). This leaves us again considering PGD from a constitutional perspective.

Bearing the aforementioned cases in mind, and the last example in particular which is comparable with the situation of couples requesting PGD, one might think that PGD should be allowed because it infringes the rights of mother and child less than an abortion. Nevertheless, in her constitutional assessment of PGD Böckenförde-Wunderlich comes to the conclusion that PGD infringes upon the human dignity of the embryo as well as its right to life (219). In her opinion, PGD and an abortion following prenatal diagnosis (PND) are not comparable because PND is primarily carried out with the aim of curing any illnesses discovered while PGD does not

[26] BVerfGE 88, 203, 278.

offer any therapy at all but only selection (205). Furthermore, with an abortion subsequent to PND a couple is reacting to an unforeseen conflict situation, while with IVF and PGD they bring about the conflict knowingly and willingly (226). She argues that PGD infringes human dignity because the embryo is not accepted unconditionally by its parents but only under the condition that it will develop into a healthy child, consequently not accepting the embryo as it is as valuable in its own right (206). Hence, as human dignity is infringed there is no way of justifying PGD under the constitution. However, even if Article 1 GG was not considered to be breached by this process, an infringement of the right to life of the embryo could not be justified by law as neither the conflicting rights of the parents, the doctors nor the scientists outweigh the right to life of the embryo (219).
Consequently, Böckenförde-Wunderlich's constitutional analysis of PGD does not see any possibility of legalizing it under German constitutional law. Nevertheless, she is not blind to the discrepancies between the theoretical constitutional status of the embryo and its practical treatment and she can imagine that couples are in situations in which on the one hand an abortion would be allowed and on the other hand a less controversial PGD would be forbidden, as for example in the Lübeck case (225). In this case, the two pregnancies that were terminated were sought and then ended with the knowledge of the high genetic risk on the basis of the unwillingness to endure the suffering of another handicapped child, and therefore both pregnancies were begun and ended consciously with the determination that these children were only to be born if they did not show the genetic disposition for cystic fibrosis during PND. Hence, in this case PGD and PND are quite comparable. This does not change Böckenförde-Wunderlich's constitutional assessment of PGD but she is well aware of the problems this discrepancy brings about.

Obviously, it cannot be satisfying to see the legal reality and constitutional values out of step with one another. Two different options have been suggested to deal with this situation (233): firstly, one could rethink the actual treatment of embryos in legal reality and amend the law in order to make it compatible with the constitution. In theory, this would be feasible, but its implementation would likely cause a societal outcry were access to abortion to be restricted and the morning-after-pill and intrauterine device no longer to be available. Society accepts the present treatment of embryos because people simply understand there to be a difference between an embryo and a born child. A restriction of the laws would therefore be seen as an assault on the rights of women and thus a change of the law in this direction is highly unlikely. However, what is the alternative? Should PGD be accepted knowing that it is unconstitutional? Of course, this question cannot be answered in a positive way.

Nevertheless, Böckenförde-Wunderlich demonstrates a possible solution to this dilemma at the end of her dissertation, although she herself remains neutral as to

which way to go: without the possibility of turning back time, it is doubtful that the present interpretation of the constitution can be communicated to society in an understandable manner. One can hardly believe that the embryo has a constitutional right to life if this right is – legally – violated in every day life. Therefore, the honest approach would be to consider a reinterpretation of the constitution as regards the right to life and human dignity of embryos (235).

Böckenförde-Wunderlich's dissertation is skilfully written and provides an indepth account of the current discussions about preimplantation genetic diagnosis in Germany. It can only be highly recommended to anyone interested in this topic. However, there is still work to be done by future generations of legal scholars in order that the gap between the current interpretation of the constitution as to the status of the human embryos and their treatment in every day life is closed, for the actual discrepancy is highly unacceptable.

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