THE EMBRYO AS A LEGAL ENTITY-WOMAN AS A FETAL ENVIRONMENT. THE NEW GERMAN LAWS ON REPRODUCTIVE ENGINEERING AND EMBRYO RESEARCH

ANNE WALDSCHMIDT Elsa Brandströmstr. 33a, D – 5300 Bonn 3, Germany

Synopsis—At the beginning of 1991 a new law on the protection of embryos came into force in Germany. Although this Embryo Protection Law claims to prevent the abuse of reproductive engineering, it allows medical practitioners and researchers ample scope to continue their work unhindered. The refusal to set up statutory control and supervisory bodies means there are no effective restrictions on activities of this kind. The law relates exclusively to the Criminal Code and applies predominantly to doctors and scientists. It is based on an all-embracing concept of the embryo that implicitly devalues the concept of woman, on an uncritical understanding of the role and function of the doctor, and on the articles of the Constitution regarding the preservation of human dignity, the right to life, and physical inviolability. It focuses exclusively on the protection of the embryo and the well-being of the child. As far as women are concerned, the new law is nothing but bad news. It disregards women's basic rights and human dignity and degrades women to the status of a fetal environment. There was no effective opposition to the bill in parliament. Die Grünen/Bündnis 90 (the Greens/Alliance 90) rejected the bill outright and were the only parliamentary group to put forward feminist arguments, but they hardly gained a hearing. The social democratic opposition took an opportunistic stand by affirming reproductive engineering in principle, agreeing with the ruling conservative and liberal parties on central issues and merely demanding a few additional regulations in a bill of their own. At almost the same time as the Embryo Protection Law, another law passed through parliament guaranteeing that the costs of artificial fertilization would be borne by the public health scheme. Thus, decisive steps have been taken to ensure the widespread application and acceptance of reproductive engineering in Germany.

Synopsis—Anfang 1991 ist in Deutschland ein neues Gesetz zum Schutze von Embryonen in Kraft getreten. Dieses Embryonenschutzgesetz gibt zwar vor, die mißbräuchliche Anwendung der Fortpflanzungstechniken zu verhindern, doch der Medizin und Forschung bleiben für die ungehinderte Fortsetzung ihrer Praxis große Freiräume. Durch den Verzicht auf gesetzliche Kontroll- und Uberwachungsinstanzen sind ihnen keine wirksamen Grenzen gesetzt worden. Das Gesetz bedient sich auch ausschlieβ1ich des Strafrechtes und hat als Normadressaten überwiegend ÄrztInnen und NaturwissenschaftlerInnen im Blickfeld. Ausgehend von einem umfassenden Begriff vom Embryo, der ein abwertendes Frauenbild impliziert, einem unkritischen Verständnis der ärztlichen Rolle und Funktion sowie den verfassungsrechtlichen Bestimmungen der Wahrung der Menschenwürde und des Rechtes auf Leben und körperliche Unversehrtheit hebt das Gesetz ausschlieβlich auf den Schutz des Embryos und des Kindeswohls ab. Den Frauen allerdings bringt das neue Gesetz nichts Gutes. Sie werden zum fötalen Umfeld degradiert, unter Mißachtung ihrer Grundrechte und Menschenwürde. Im Parlament erfuhr das Gesetzesvorhaben keinen wirksamen Widerstand. Zwar lehnte die Fraktion Die Grünen/Bündnis 90, die als einzige Fraktion feministische Argumente vertrat, das Gesetz eindeutig ab, konnte sich aber kaum Gehör verschaffen. Die sozialdemokratische Oppositionsfraktion nahm eine opportunistische Haltung ein, indem sie die Reproduktionstechniken grundsätzlich bejahte, in zentralen Punkten mit den konservativen und liberalen Regierungsfraktionen konform ging und nur in einem eigenen Gesetzentwurf einige umfassendere Regelungen forderte. Fast zeitgleich mit dem Embryonenschutzgesetz passierte 1990 ein Gesetz, das die Finanzierung der künstlichen Befruchtung über das öffentliche Gesundheitswesen garantiert, die parlamentarischen Gremien. Mit den neuen gesetzlichen Regelungen sind entscheidende Schritte vollzogen worden. um Ausbreitung Akzeptanz Fortpflanzungstechniken und Embryo-nenforschung in Deutschland zu sichern.

Translated by Helen Petzold.

It came into force on January 1, 1991: the new German law to protect embryos, the Embryo Protection Law. In the public debate since 1986, brought before parliament by the Federal Government in October 1989, and, following a fairly lengthy committee stage, finally passed in Autumn 1990 (just before the last General Election), it has now become legal reality at last. The Pro-Lifers can cheer and jump for joy; the medical and research lobbies will have to twist the statutes to their taste and push for amendments to be made as soon as possible. And we women? The new law brings nothing but bad news as far as women are concerned. From now on women are confronted with an extremely extensive definition of the embryo; they themselves remain the objects of medical practices that blatantly disregard their rights to physical inviolability and human dignity.

The aim of this article is to explain and critically examine the main provisions of the new law from a feminist point of view. summary of the positions and arguments put forward by the opposition parties represented in the Federal German Parliament at the time (the Social Democratic Party [SPD] and The Greens/Alliance [Grünen/Bündnis] 90) serves to illustrate the range of opinion expressed within parliamentary debate. Reference is also made to another law that was passed in 1990 and largely escaped public notice. In providing for the costs of in vitro fertilization (IVF) to be borne by the statutory health insurance scheme it will play a decisive role in establishing and promoting reproductive engineering in Germany. The article concludes with an assessment of the current controls on reproductive engineering in Germany as formulated in the above-mentioned laws.

THE EMBRYO PROTECTION LAW: FULL OF LOOPHOLES, FULL OF IDEOLOGY

The new Embryo Protection Law is based purely on the Criminal Code and, in the

words of the Federal Minister for Justice who formulated the law, designed to "effectively (counter) wrongful manipulation of nascent life and the nightmare prospect of selective human breeding" (Report, 1989, p. 1). However, because the Federal Government and the ruling parties accept reproductive engineering in principle, this noble claim is not worth the paper it is written on. In view of the enormous risks of this technology, particularly to women and children, and in view of the many stillunsolved legal problems it has raised, the law that has now been enacted cannot be described as anything other than totally inadequate and full of loopholes.

True to the lawcourt maxim, "If it's not prohibited (by law), it's allowed," the current version of the Embryo Protection Law¹ continues to condone the following activities: heterologous, auasihomologous and homologous fertilization, that is, artificial insemination by husband, by partner, or by donor; artificial insemination for single women and lesbian partnerships;² eugenic selection of sperm donors; sperm quality tests as well as the setting up of sperm banks; the application of artificial insemination and embryo transfer without medical grounds; research on gametes, gamete cell lines, and nonviable and dead embryos; and, finally, the freezing of gametes, pronuclei, and embryos.

Moreover, the law still remains obscure with regard to a number of other areas closely linked to reproductive medicine, such as the analysis of genetic material and its many different applications,³ socalled somatic genetic therapy, that is, genetic surgery on humans, and germ line therapy. 4 What then is the true essence of this new law that has been described as the "most restrictive bundle of regulations on embryo research in the world" (die tageszeitung, 1990)?

The new law evidently espouses the logic of minimal surgery, for it merely bans ion of pronuclei and embryos for research purposes; experimentation on

"surplus" and "developable" embryos; the utilization of embryos for third-party interests (such as commercial trading, industrial uses, and research); implantation diagnosis; cloning; chimera and hybrid production; and, finally albeit with gaping loopholes - surrogate mother-hood and sperm sex preselection. The law says nothing at all about how observance of these regulations is to be monitored, controlled, or enforced. The sole aim is to prevent acts of abuse on the part of doctors and scientists. All others involved (such as surrogate mothers, contractors, patients, donors, intermediate agents) are not liable to punishment. Penalties range from prison sentences of 1 to 5 years or, alternatively, fines. Medical practitioners can thus count on getting off lightly, especially for a first offence. The imposition of prison sentences without probation would only ever come into question for persistent repeat offenders in particularly severe cases.

However, it is extremely unlikely that anyone will in fact ever be convicted for a criminal offence under the Embryo Protection Law. Criminal practices can be detected and exposed by those inside the profession, which means that the scientists and research staff employed in medical research and hospitals would have to supervise each other. But who's going to risk his or her career by reporting violations of the Embryo Protection Law? Even if charges are brought, in most cases prosecution will have no chance of success for it would prove extremely difficult, if not impossible, to provide evidence in the laboratories.

According to the writers of the new law, it is by no means "an expression of distrust in any particular professional group," it has been introduced on the understanding "that, in general, scientists as well as medical practitioners (are) aware of the responsibility they bear towards human life" (Report, 1989, p. 3). They obviously have complete faith in doctors' and researchers' sense of responsibility. Apparently, legislation is

only necessary to calm the public. And it is totally in keeping with this line of reasoning that the law introduces a saving clause for medical practitioners. Artificial insemination may only be carried out by doctors (§ 9 Embryo Protection Law). In other words, the very people who are supposed to be restricted by law are simultaneously granted a monopoly on performing the practices under restriction. This really is setting a thief to catch a thief! The justification for this clause is proof of an (intentionally?) naive assessment of the role of the doctor. Reference is made to "scientifically founded medical knowledge," to a "full diagnosis of the cause of sterility," to doctors conducting "a very thorough interview with the couple informing them of possible alternatives as well as of all the consequences and risks" (Bundestags-11/8057, Drucksache p. 17). The implication underlying these formulations is that doctors actually work this way in practice. If only that were the case! The experiences of women who have participated in IVF programmes prove the contrary. In addition to this, the vital public debate is "elegantly" side-stepped by including a "voluntary clause", that is, no doctor can be compelled to give these treatments. Reproductive technologies are thus first and foremost declared a doctor's problem and then reduced even further to become an ethical dilemma confronting some of them.

The overriding theme of the Embryo Protection Law is the protection of human dignity constitutionally guaranteed in the German Basic Law. Yet the only entity that is mentioned in the Embryo Protection Law as deserving protection is the embryo. The fact that women's basic rights may be violated is given no consideration whatsoever. In this, the new law is in complete harmony with the current legal debate on reproductive engineering and abortion, in which women and their human dignity simply do not exist. The discussion on the beginning of embryonic life and the human dignity of embryos and fetuses fill

the pages of countless legal reports. What was once the fruit of conception that was borne to term by the prospective mother before becoming a child has long since been redefined and declared a legal entity in its own right. Pregnant women are no longer regarded as whole individuals who bring forth life but as fetal environments that represent a potential danger to the embryo from which it has to be protected.

The new Embryo Protection Law goes even further, to extend the duration of embryo protection. According to § 218 of the German Criminal Code on abortion, the embryo is placed under protection after implantation in mother's womb. But now, according to § 8, Clause 1, of the Embryo Protection Law, the fertilized egg is considered an embryo from the moment cell fusion occurs. This definition marks the dividing line between legal and illegal embryo research. However, as it is more than doubtful that the Embryo Protection Law will have any practical repercussions on science and research, the symbolic nature of this definition of the embryo becomes all the more significant, in particular with regard to women. The new legal formula, defining the beginning of life severs the embryo from the pregnant woman who can now be held responsible for the absolute protection of the legal entity within her. Political experience shows that inasmuch as the embryo is held to be a legal entity in its own right, women's rights are curtailed. Indeed she, the woman, no longer exists as an entity herself. Thus, as far as women are concerned, there is more to this law than meets the eye and it is as yet impossible to foresee how far reaching its consequences will be. ⁷ It is more than likely, for instance, that the Abortion Law will be tightened up so as to guarantee state protection not only for test-tube embryos but also for naturally conceived embryos from the moment of conception.

Moreover, the Embryo Protection Law has adopted the ruling opinion with regard to freedom of research. In the case of reproductive technology "conflicting constitutional values (must be) weighed up against each other" making particular "allowance for the Basic Law's ruling in favour of human dignity and life." The basic right to freedom of research has to be taken "particularly seriously" but even this right is "subject to the immanent limitations . . . that ensue from the constitution itself (Federal Minister of Justice, 1989, p. 10). However, the numerous exceptions foreseen by the new law provide embryo researchers with enough loopholes – there will be no need for them to remain idle any more than in the past. Any claim to limit the freedom of research must thus be classed as lip-service.

If it is to be taken seriously, embryo protection can only be effective if it goes hand in hand with protection of the pregnant woman and is not carried out against her will. In this context the provisions concerning surrogate motherhood are the yardstick against which to measure the objectives and legal remedies put forward by the lawmakers. To be sure, the legislation claims to have banned surrogate motherhood, that is, for a child to be borne by anyone other than the genetic mother, yet at the same time it refrains from expressly banning embryo donation. According to § 1, Clause 2, of the Embryo Protection Law, anyone who "undertakes artificially to inseminate an ovum for any other purpose than to bring about a pregnancy of the woman from whom that ovum is taken" will be liable to punishment. However, this formulation refers solely to the purpose of artificial insemination and does not really exclude actual embryo donation or surrogate motherhood. The reasoning behind this is that "Objections could justifiably be raised against a criminal ban of this kind at least in those cases in which embryo donation offers the only possibility of saving the embryo from death" (Bundestags-Drucksache 11/5460, p. 8). So we see that this exception is geared toward a case in which a fertilized embryo cannot be implanted in the woman from whom the egg originated and is thus transferred to a"surrogate mother."

According to the reasoning of the **Embryo** Protection Law surrogate motherhood cannot reasonably imposed on a child as having three parents would complicate the child's identity (Bundestags-Drucksache development 11/5460, 1989, p. 7). Divided motherhood is thus only forbidden because of the prenatal emotional relationship of the woman to the fetus and future child. The structure of postnatal social relationships and the role of the father, which are crucial to the development of individual's identity, are ignored. The fact that this legislation forbids divided motherhood but not sperm donation, which after all implies divided fatherhood, clearly illustrates just how narrow the lawmakers' concept of the parent-child relationship is. Besides which it fails to formulate a detailed procedure for embryo donation and thus opens the door to surrogate motherhood, whether on a commercial or on an altruistic basis. For how is it intended to effectively prevent parties reaching amicable interested agreements (even without the knowledge of the doctors)? So far the lawmakers have not addressed this question. That surrogate motherhood should be rejected principle because it means using another woman's body to fulfill one's wish for a child, because it is bound up with the commercialization of reproductive organs abilities as well as eugenic expectations on the part of the genetic parents – not one of these aspects has been taken into account by the lawmakers.

The biased view of the Federal Government and the parliament is also illustrated by the fact that the Embryo Protection Law allows IVF to be used on fertile women. So-called microinjection, artificial penetration of the zona pellucida of the egg, designed to open the way for sperm that are not capable of penetration is finding increasing use as a therapy for male infertility. Bluntly this procedure means that a fertile woman has to submit to IVF treatment – with all the potential risks to her health it involves – although not she but her partner has a fertility

problem. This controversial and ethically reprehensible practice is condoned by the Embryo Protection Law. § 1, clause 2, only forbids microinjection if it is employed for other purposes than bringing about a pregnancy. Again the reasoning is embryo centered: The clause is designed to prevent the production of pronuclei and thus the possibility of producing embryos research purposes (Bundestags-Drucksache 11/5460, p. 9). lawmakers give no consideration at all to the fact that women also need to be protected from unnecessary, painful, and extremely dangerous medical invasions. Indeed, in this respect they even surpass German Federal Chamber Physicians.⁸ whose Central Commission was not (yet ?) prepared to permit this method in 1989. The argument here however was purely pragmatic: "The convinced commission is that microinjection has a great future potential in treating male infertility but that it is as yet too early for it to be applied to humans" (Central Commission, 1989, p. 24).

The Embryo Protection Law makes a rather helpless attempt to prohibit another scandalous practice associated reproductive technology, the killing off of multiple fetuses in the womb (fetocide). Multiple pregnancies often result from the high-dose hormone treatments that are prescribed to ensure that doctors can point to higher pregnancy rates while women's health is put at risk. Selective fetal reduction supposedly reduces the risk to the woman and the fetus after the event. In August 1989, the Federal Chamber of Physicians issued a policy statement on fetocide that indirectly legitimized this practice as far as the medical profession was concerned (Central Commission, 1989, Item 4.3). It was followed by vehement public protest and the ruling parties had no alternative but to introduce the relevant modifications to the Embryo Protection Bill during the committee stage. The original version made no specification as to the precise number of embryos to be transferred to the prospective mother, whereas now the number has been limited

to a maximum of three embryos that may be retransferred to the woman (§ 1, clause 1, No. 3, 4, and 5 – Embryo Protection Law). And what, may we ask, is the position with regard to the stimulation of egg production and the extraction of egg-cells? Again, there are no provisions to regulate procedures of this kind with the result that surplus embryos for future laboratory experimentation are preprogrammed.

In fact, the provisions of the Embryo Protection Law concerning embrvo research are altogether extremely questionable. According to the definition of the new law an "embryo" is a "fertilized, developable human egg-cell from the moment of cell fusion onwards" (§ 8, Clause 1 – Embryo Protection Law). Totipotent cells that are capable of division and development into individual along with pronuclei, that is, cells in which sperm penetration of the egg cell has occurred (whether by natural or artificial means) but cell fusion has not yet taken place, are also protected by the new law.

It the introduction "developability" as the major criterion in deciding if an embryo should be protected that is particularly problematic. This criterion did not feature in the draft bill for an embryo protection law that was discussed in 1986. According to the law that has now been passed all embryos are to be considered developable for the first 24 hours unless it is established that the fertilized egg-cell does not develop beyond the one-cell stage (§ 8, Clause 2 – Embryo Protection Law). The new law does not contain any definition of developability beyond this. Who is to judge, and on what criteria? This fundamental question remains unanswered. It is most probably correct to assume that in practice it will be the practitioners of reproductive medicine who will make this decision - led by their subjective and professional interests.

Cell fusion as a further major criterion of embryonic life has been around for a long time. Yet even this pillar of the law is

built on shaky foundations. The latest research findings, to which the lawmakers constantly refer, no longer support the assumption that human life begins with cell fusion. In 1987 and 1988 an English research team was able to establish that embryonic genome activity begins at the four-to-eight-cell stage (Central Commission, 1989, p. 32). Today, scientists argue that the embryo only becomes an individual once the genes are active, and not at the earlier stage of cell fusion. The embryonic cluster of cells can therefore only be regarded as a human being once its genetic programme is actually fixed, that is, when it has reached the four-to-eight-cell stage. Thus it should be permissable to experiment on and, under certain circumstances, to "use and destroy" embryos up to the first gene expression. This theory clearly illustrates that all attempts to define the beginning of life by means of a static concept lead to absurdity, particularly if they are based on an approach that concentrates solely on the cell and leaves the woman as childbearer and birth-giver out of consideration.

scientific Current developments suggest that it will be impossible to uphold the extensive protection of the embryo intended by the law for very long. Over the last few decades, embryos have become a highly coveted object of research and a raw material for medical experimentation. Embryo research is generally justified with the argument that it serves "higher" aims, namely the mitigation of human suffering and the protection of life and health. Yet any research can be vindicated generalized justifications of this kind. The end, in this case "health," is obviously supposed to justify any means as far as the scientists are concerned. But they are unable to say anything specific with regard to the tangible prospects of remedial success or therapies that embryo research might bring. A statement made on the Embryo Protection Law before the by the medical research lobby at the hearing parliamentary law committee in

March 1990 was very general and vague on this score: "The therapeutic objective remains even if gains for clinical application are only discernable on a very distant horizon" (Akademie für Ethik in der Medizin, 1989, p. 7).

Indeed, contrary to its stated aim, the Embryo Protection Law now brings Germany into line with other countries and opens the door to embryo research. The detailed provisions are so full of omissions as to provide enough opportunity for activities of this kind. 10 It already allows the deep-freezing of egg cells and embryos. For example, § 1, Clause 1, Item 5, implicitly sanctions conservation by failing to stipulate the maximum number of egg cells to be fertilized. Surplus embryos are always produced in connection with treatment. There is no way to prevent this because it is impossible to accurately gauge the hormone dosages required to stimulate egg maturation and because the practitioners of reproductive medicine have started to introduce more and more egg cells to the sperm in the test tube so as to increase the chances of fertilization and obtain a sufficient number of embryos to implant in the prospective mother. Otherwise their "success" rates would be far lower than they already are. There is nothing in the Embryo Protection Law to prevent the preservation of embryos provided that the storing of surplus embryos can be justified on medical grounds and is performed by a doctor (Bundestag-Drucksache 11/8057, p. 14; § 9, No. 3 – Embryo Protection Law). What this actually means is that the Embryo Protection Law allows embryo researchers to set up a bank of deep-frozen gametes for future use.

Gamete research may also conducted with a clear conscience according to the provisions of the Embryo Protection Law. § 5 allows artificial manipulation of gametes and/or germ line cells provided the possibility fertilization and implantation has been excluded. It is at present a criminal offence to perform germ line therapy but not to conduct the research necessary for the development of the technique.

interventions permitted by the new law license the basic research required for germ line cell gene transfer in future. Germ line therapy is already under discussion in the United States and its application is no longer ruled out on principle. Apparently, corresponding research is already under way in Portugal.¹¹

The lawmakers have also stood back from making a clear stand against germ line therapy. Consideration was given to the fact that the only way to develop the technique of germ line therapy would be by human experiment. Because the consequences of the inevitable setbacks would be irreversible - "at least at the present state of the art" - this would be irreconcilable with the Basic Law. Under these circumstances the question of whether germ line therapy was justifiable at all could remain unresolved. At all events it is impossible to overlook the danger that it could be misused for the purposes of selective human breeding (Bundestags-Druck-sache 11/5460, p. 11). So despite the fact that those responsible for the law are by all means fully aware of the dangers, on this issue of all issues they leave the way open to science and research.

There was only one question on which the Bundestag remained firm. Despite vigorous protests from the Federal Chamber of Physicians, the planned ban on embryo diagnosis was included in the law that was finally passed. § 6 of the Embryo Protection Law is designed to prevent the selective breeding of genetically identical individuals (cloning) and the isolation of totipotent embryonic cells for research or diagnostic purposes. This indirect ban on pre-implantation diagnosis was justified with argument that it was impossible to exclude the possibility of damage to the embryo during the separation process. However, no references was made to the eugenic aspects necessarily involved with diagnosis of this kind. The Federal Chamber of Physicians objected that there was basically no difference between prenatal diagnosis on embryos

chorionic villi sampling. procedures involved the extraction and examination of active or embryonic cells. Patients, geneticists, doctors, laymen, and the discerning public were in widespread agreement as to the ethical innocuity and medical benefits of prenatal diagnosis (Beier, 1989, p. 33). The interests of the research scientists are evident. Embryo diagnosis is a branch of basic research that is vital to the development of genetic and germ line therapy and appears to hold out the promise of "victory" over cancer and severe genetic diseases. It also promises to bring scientific laurels and the prospect of winning the Nobel Prize, as well as commercial success on an international scale.

The new law also contains a number of other loopholes. There is no clear definition covering the use of embryos for research purposes. "Use and destroy" embryo research is prohibited but there is no ban on noninvasive diagnosis by observation or the examination of embryos in vitro before transfer to the woman for the purpose of bringing about a pregnancy. Equally, there are no obstacles to experimentation on embryos that have been classified as dead or nondevelopable. The fact that the Embryo Protection Law also fails to prohibit or limit egg extraction has a great bearing on research policy. The availability of women's mature - or immature - eggs is the mainstay of reproductive medicine embryo and research. Science needs a constant supply of this essential raw material. Attempts are also being made to utilize human ovarian tissue taken from dead female fetuses. taken from corpses, or removed during surgery as a source of material for medical and embryological research. The aim is to then mature these egg cells in the laboratory so that they can subsequently be artificially inseminated or used for some other kind of research (Klein, 1989, 256 ff). These most recent pp. developments are not covered by the new Embryo Protection Law.

Above all, § 3 of the Embryo Protection Law has particularly far reaching consequences for it plainly and unashamedly provides a legal basis for the implementation of eugenics. It opens the door to the selection of sperm according to gender. Sex selection is now allowed "if...
. (it) serves to prevent a child suffering from Duchenne-type muscular dystrophy or another similarly severe genetic disease, providing that the disease the child is in danger of contracting is recognized as being sufficiently severe by the competent authority instituted by the law of the *Land*" (This refers to the decentralized legal framework in the German *Länder*.)

However, this provision contradicts the recommendations of a joint Federation-Lander Working Party on reproductive medicine made in 1988 to the effect that IVF should only be permitted to treat a couple's sterility. It was clearly stated that "this does not include genetic grounds" for otherwise, it was argued, this would promote "a mechanism by which damaged life would automatically be destroyed once damage has been detected" (Bund-Lander Working Party Reproductive Medicine, 1988, p. 34).

It is unbelievable - the Embryo Protection Law declares a specific disability as the yardstick against which all other diseases and disabilities are to be measured. Disabled people living with muscular dystrophy are obviously expected to live with the stigma of finding themselves stated by law to be objects of legitimate negative selection, or, in other words, meriting elimination. No doubt they will soon have to put up with remarks to the effect that their fathers must have missed their sperm selection appointments.

On the basis of current prenatal diagnosis practices, Trisomie 21 (Down's syndrome) is already counted as a form of disability that needn't really exist any more at all. Now muscular dystrophy is declared the next so-called avoidable disability on the list. So stealthily, step by step, we see the introduction of a catalogue of genetic diseases that are to be eliminated. Problems are also raised by the fact that the Embryo protection Law

provides for state recognition of "similarly severe diseases" for which sex selection is to be allowed by "legally competent authorities" that are not defined any more specifically. This gives state authorities a monopoly over the definition of disease and disability that is bound to have devastating repercussions on the traditional concepts of health and sickness. It is also probable that it will soon become part of routine procedure for each individual sperm to be examined and discarded if it carries a sexlinked genetic disease. There will be growing social pressure to prevent these diseases at the earliest possible stage that is, in the test-tube – as more and more diseases are discovered on the sex chromosomes. Couples who have a family history of diseases of this kind could find themselves compelled to restrict reproduction to IVF with "healthy" sperm. Historical experience shows that there is a tendency for measures that were initially restricted to limited target groups and justified on the grounds of preventing disease to be subsequently extended to cover the entire population and more and more so-called inferior characteristics.¹²

To my knowledge this is the first time since the end of the National Socialist era that a law officially specifies a disease the occurrence of which justifies selection. Up to now only one law has contained a paragraph specifying diseases warranting compulsory sterilization and this was the National Socialist Law For the Prevention Congenitally Diseased Offspring, passed in 1933.13 Not enough that for years now we have been confronted with legislation that is implicitly founded on a eugenic philosophy. The time has obviously come to formulate this philosophy openly (again?).¹⁴

THE POSITIONS OF THE PARLIAMENTARY OPPOSITION PARTIES: BETWEEN OPPORTUNISM AND OUTRIGHT REJECTION

Along with the Embryo Protection Law,

the Bundestag dealt with a bill put forward by the oppositional SPD to solve "the problems of artificial insemination for humans and surgery on human gametes" (Bundestag-Drucksache 11/5710). The bill contained provisions covering criminal, procedural, civil, and social insurance aspects of the problem and was intended to provide rulings for the entire field of reproductive medicine. However, this bill also condoned reproductive technology and embryo research in principle, it largely ignored women, and it was argued solely on the basis of child well-being and embryo protection. It was obviously written without understanding of feminist politics. The SPD even proceeded from the same definition of the embryo that underlies the Embryo Protection Law. Nor was their line of argument on embryo research and surrogate motherhood any different from that of the Federal Government.

There were only a few differences in the positions advanced by the Government and by the Parliamentary Group of the SPD. For instance, the SPD intended to make the production of surplus egg cells a punishable offence and attempted to obstruct the development of germ line therapy by calling for a ban on the manipulation of germ line cells. The SPD also intended to prohibit the freezing of embryos and inseminated or immature egg cells, but not the freezing of sperm. The argument in favour of banning cryoconservation rested solely on embryo protection and the prevention of a leap" "generation (Bundestags-Drucksache 11/5710, 1989, p. 12) and not on the fact that embryo research is dependent on frozen embryos and as a source material (although this is the real issue at stake with regard to cryo-conservation). The SPD also intended to restrict artificial insemination to married firmly couples and established nonmarital relationships and exclude sperm donation (AID). IVF treatment was to be restricted to "medically indicated infertility on the

part of the woman." Doctors were to be obliged to keep donor sperm records. It was also proposed that a state documentation office be set up as a depository for data on genetic case histories. These last two provisions would have made it possible to gather an enormous amount of information on the reproductive behaviour of the nation.

The SPD proposal to submit couples to compulsory counselling by a medical practitioner and a psychosocial advisory centre prior to IVF treatment must also be seen as extremely problematic. Counselling was to concentrate on child well-being and not, by any stretch of the imagination, on the needs and well-being of the woman who is, after all, the person who will physically undergo IVF treatment. Genetic counselling was also to be a component of this compulsory interview. Evidently, tribute was to be paid to eugenics in this way. It is apparent here that the SPD has no clear-cut position on eugenics. On the one hand the SPD saw counselling on selective procedures as a compulsory component of IVF treatment, on the other hand it opposed the introduction of eugenic sperm sex selection and unsuccessfully attempted to annul the relevant clause through the Bun-desrat (the German Federal Upper House) after the Embryo Protection Law had passed. However, all in all, the stance of the SPD can only be described as opportunistic. It came out in support of the crucial pillars of the government's proposal even if it was not satisfied with a purely criminal law and pushed for more comprehensive statutory controls. Our aim is to prevent abuse and safeguard possibilities – this is the credo of the SPD with regard to all new technologies and so too with regard to reproductive engineering. The belief behind this credo is that technology is in itself neutral and that ethical problems only arise when it comes down the application to technology. 15 In this, their basic

approach is no different from that of the ruling parties and it is with these ruling parties that they closed ranks in parliament.

The only remaining opposition of any significance was the Parliamentary Group of Die Grünen/Bündnis 90, which was unremitting and unequivocal rejection of reproductive engineering and the sole voice to articulate the feminist point of view in parliamentary debate.¹⁶ resolution put to the House, it exposed the inherently anti-woman and eugenic nature of these technologies and described them as a mass human experiment (Bundestag-Drucksache The detailed proposals 11/8179). demanded a broad public information campaign to point out the risks and failure rates of artificial insemination, rejected the financing of IVF through the public health insurance scheme, and called for a ban on all reproductive and medical experimentation on women, embryos, and gametes. The Federal Government was called on to provide a wide-ranging and voluntary advisory service for the involuntarily childless and to provide funds for research on the infertility causes of and the development of noninjurious means of contraception. Science and research was to be made more transparent and nongovernmental and public bodies were to be given more say in the distribution of research funds. Research policy would take ethical principles, social and ecological compatibility, safety regulations, and social benefits, as well as minority positions and hitherto neglected problem areas into account. In the parliamentary debate on October 24, 1990, the other parties sat through the speech held by the Greens' spokeswoman outlining these detailed proposals, interrupting it frequently with loud heckling and polemical remarks, and then proceeded to continue with the business of the day the Embryo Protection Law was passed with the votes of the Christian Democrats and the Liberals.

THE LAW ON THE FINANCING OF REPRODUCTIVE TECHNOLOGY THROUGH THE PUBLIC HEALTH SCHEME: MONEY IS THE DECISIVE FACTOR

Yet the ground had been prepared even be fore the Embryo Protection Law was passed. In June 1989 the Cabinet had already decided to prepare an amendment to existing legislation reintroducing the system by which the costs of IVF would be covered by the health insurance schemes.¹⁷ The demand for IVF to be returned to the list of social insurance benefits was justified with the argument that all involuntarily childless women should have access to this method of treatment irrespective of their financial circumstances. The new reproductive technologies should not be the privilege of the well-off, who are able to afford to go to private hospitals in this country or arrange to have the treatment abroad. This amendment was rushed through parliament, had already been passed by June 1990, and even came into force retrospectively from January 1, 1989. With the public hardly having become aware of it, this created the conditions necessary for reproductive engineering to go ahead with its plans even though its application in medical practice was subject to a number of controls.

 $1aw^{18}$ This restricts artificial insemination, IVF, gamete and intrafallopian transfer (GIFT) to married couples and does not allow sperm donation from a third party. These techniques may only be implemented on medical grounds and provided the married couple has previously been counselled by a doctor who is not conducting the treatment. The mandatory points to be covered by the counsellor were outlined in the ministerial draft as follows: "A detailed description must be given of the psychological and physical stress connected with this treatment. This includes providing information on the generally low rates of success. In the case of embryo transfer, the rate of successful

pregnancies following in vitro fertilization is currently in the region of 20 to 25 per cent at the most and of these roughly a third end with a miscarriage. The briefing should also deal with the health risks connected with artificial insemination (e.g., ovarian cysts, complications from surgery, high-risk pregnancies including a higher than normal incidence of multiple pregnancies)" (The Federal Minister for Labour and Social Management, 1990, p. 35). These statements amply illustrate the boundless ignorance and irresponsibility of the legislature - the regulations that have been introduced actually endorse and provide an institutional framework for IVF despite full knowledge of the dangers involved with this technique.

Moreover, publicly financed treatment of this kind may only be carried out in institutions and by doctors licensed to do so by the Länder authorities. They must be provided with the requisite diagnostic and therapeutic equipment, employ scientifically proven methods, and be run on a rational, efficient, and economically sound basis. Treatment must have a reasonable chance of success and may be attempted no more than four times. The criterion of success is pregnancy. What this actually means is that the legislature has adopted the line of reasoning put practitioners the forward bv reproductive medicine: that pregnancy is credited as a success to keep down the official failure rate, thus already reckoning with the high rates of unsuccessful embryo transfer, nonincidence pregnancy, and early miscarriage following IVF treatment.

THE LAWS ON REPRODUCTIVE MEDICINE AND EMBRYO RESEARCH: THE GROUND IS PREPARED FOR THE FUTURE

In the final analysis, public financing is the breakthrough for reproductive engineering. Past experience has shown that doctors tend to make certain diagnoses, prescribe certain courses of treatment, and apply certain techniques only when they can be sure that their bills will be paid and their profits assured. The howl of protest with which practitioners of reproductive medicine greeted the temporary removal of these treatments from the list of health insurance benefits demonstrated one thing quite clearly - their main interest is in the lucrative earnings associated reproductive engineering. Also, through the social insurance schemes, they now gain access to a huge reservoir of clients and patients on whom they can continue to experiment.

Essentially, the government is duty bound to guarantee scientifically proven standards of medical care and patient safety within public health service.¹⁹ These principles have been blatantly disregarded by the new health finance law because artificial test-tube insemination is, in effect, an unsuccessful treatment that is being conducted as a mass human experiment on a worldwide Evaluation and risk assessment have only just begun, and it is already apparent that these technologies involve immense social dangers both to individuals and to society as a whole - the manipulation and exploitation of women, the violation of women's rights, numerous severe injuries to the health of women and their children. eugenics, discrimination of the disabled and congenitally diseased, and the use of embryonic tissue for dubious scientific purposes.

The new Embryo Protection Law is also problematic in the extreme. It makes heavy weather of protecting embryos from the clutches of researchers, dispenses with any kind of control or supervisory mechanisms, and, as such, can only be designed to have purely symbolic value. It only half-heartedly bans embryo research while at the same time endorsing reproductive medicine and gamete and germ line cell research, and can only be seen as a compromise between the research lobby and life protectionists. Antiabortionists have been appeared by finding a formula for embryo protection that pays lip service to restricting freedom of research. The interests of the science

and research lobbies have been amply safeguarded by providing a framework for current practices that have up to now only been sanctioned from within the profession. Basically, the new law gives its blessing to what has long since become everyday practice – no more and no less. Even so, it represents a decisive strategic step. Statutory regulations provide the instruments necessary for state intervention in both biomedical research and the reproductive behaviour of society. The legislation introduces structures and categories that will lend themselves to modification and amendment in future. If fact, some of these are already for seeable today. There are signs that the outright ban will be lifted in the case of cancer research and that consideration is being given to the possibility of dropping state prosecution in cases in which medical practitioners are subject to a conflict of conscience (cf. Bülow, 1989, p. 139).

The penal clauses of the Embryo Protection Law only cover certain aspects of the complex problem of reproductive medicine, while condoning it in principle. It is here that the whole dilemma of the law becomes apparent. In view of the fact that reproductive medicine has been declared legal practice and the fact that it is as good as impossible to keep up with the latest technological developments, the law can only actually be brought to bear when it is much too late. This is quite apart from the fact that the government has no interest in prosecuting practitioners of this technology. In no way do the new regulations do justice to the problem. On the contrary, they actually support current developments and the uncontrolled application of reproductive technologies.

The laws on reproductive engineering will inevitably fail to fully address the problem as long as they only treat women in passing or, at best, treat them as a natural resource and the objects of experimentation. It is utterly incredible to defend the embryo's right to human dignity while trampling on the woman's right to human dignity in this way. Throughout, women are regarded as

nothing more than a receptacle for eggs that are taken from them, fertilized, and subsequently reim-planted. Attention is focused on the woman's attitude to pregnancy and the consequences this might have for the embryo – not on her relationship to the child growing within her. On the one hand, the Embryo Protection Law places an increasing number of restrictions on women's control over their own reproductive abilities and pregnancies and, on the other hand, lends the embryo an independent legal status of its own, thus effectively placing it in antagonism with its prospective mother.

And, last but not least, there is the question of technology assessment. The experience of test-tube fertilization clearly demonstrates how necessary it is to evaluate technologies, particularly in the medical field, and how important it is for this to be done before and not after new methods of treatment are applied to humans as a matter of common practice. The whole point of technology assessment is to inquire into the individual, social, and ecological compatibility of diagnostic methods and therapies and to remove all doubts as to their safety and effectiveness. Moreover, with genetic engineering actually being applied in medicine, there is the added danger of more and more human experiments being conducted in hospitals and medical practices all over the country. It may well soon become urgently necessary to introduce statutory controls to ban a branch of medicine that is "using up" and "destroying" human individuals in ever greater numbers. Yet, in view of the lamentable failure of the legislature to fully address the issues raised by reproductive engineering and embryo research (and this applies not only to Germany), it must be feared that any future laws will be more likely to open up the floodgates than to scotch the snake before it is too late.

ENDNOTES

- 1. Cf. the final version published in Bundesgesetzblatt I, p. 2746.
 - 2. The conflicting positions on homologous

and heterologous insemination have been the central issue of controversy between the political parties for years. The Bavarian Conservatives insist that artificial insemination should only be permitted for married couples; the SPD wants to allow it for firmly established non-marital partnerships and make sperm donation a criminal offence; the Liberals advocate heterologous fertilization. The only issue on which they all agree is that A.I.D. should not be available to single women and lesbians. It has proved impossible to introduce statutory regulations covering all these issues to date. During the committee stage the ruling parties put forward a number of compromise proposals that would permitted A.I.D. under have certain circumstances but agreement was not reached and they were not included in the final version of the Embryo Protection Law.

- 3. In May 1990 an official body, the Joint Federation-Länder Working Party on Genome Analysis, submitted a comprehensive report including recommendations for legal controls on genome analysis. Legislative proposals based on these recommendations will probably come before parliament during the current session.
- 4. The Central Ethics Commission of the Federal Chamber of Physicians established professional rules of conduct with regard to the application of genetic therapy on humans at the beginning of 1989. They are of no clinical relevance at present but they do prepare the ground for future genetic experimentation on humans and provide a framework within which genetic therapy is to be permitted in Germany (cf. Zentrale Kommission, 1989: Item 4.4).
- 5. § 10 of the Embryo Protection Law stresses that no-one may be obliged to submit to or to be party to artificial fertilization treatment.
- 6. For more details on this point cf. Chapter "Das Embryonenschutzgesetz eine rechtspolitischer Bewer-tung" in Fraktion Die Grünen im Bundestag (Ed.), 1990, pp. 25–31.
- 7. There was massive criticism of a draft of the Embryo Protection Bill presented by the Federal Minister of Justice in 1986 envisaging the prosecution of pregnant women who "irresponsibly" cause damage to the embryo or fetus within their bodies as a result of alcohol, nicotine or medication. This was no longer included in the Embryo Protection Law now in force although legal technicalities were the only reason for it being omitted the law

only deals with the abuse of reproductive engineering and does not relate to what happens after implantation of the egg in the womb. This is covered by the Abortion Law. But to defer a problem is not to solve it. According to the Federal Government an amendment is already in preparation to criminalize anyone irresponsibly damaging embryos or fetuses by medication or X-rays. It is unlikely that pregnant women will be exempted from this amendment.

8. The Federal Chamber of Physicians (Bundesärzte-kammer (BÄK)) is the private-law association of the Chambers of Physicians of the German Länder which, in turn, are public-law entities in which all certified doctors are statutory members. The Federal Chamber of Physicians is the not undisputed central policy-making body representing the status and professional interests of the medical profession.

9. This was discussed, for instance, at a conference in Bochum on the ethical problems of genome analysis and genetic therapy held by the Centre for Medical Ethics, Bochum, from October 5–6, 1989.

10. In effect, there was a moratorium on embryo research in the Federal Republic of Germany up to the end of 1990 based on the professional code, at that time the only official set of regulations referring to these activities. The Federal Chamber of Physicians had issued guidelines for research on early embryos in 1985 and these were incorporated into the rules of professional conduct that are laid down by the Chamber of Physicians in the individual Länder. The guidelines condoned examinations of this kind but only after previous authorization from the Federal Chamber of Physicians' "Central Commission Ethical Safeguard Principles Reproductive Medicine, Research on Human Embryos and Genetic Therapy" and it had been agreed that no such authorization would be granted before statutory regulations had come into force. At no time has the Federal Chamber of Physicians been near categorically rejecting embryo research of any kind.

11. cf, Statement of the Academy for Ethics in Medicine, March 3, 1989, (p. 7) and a German Press Agency (dpa) report, March 13, 1990

12. From 1933 onwards the sterilization and euthanasia programmes conducted by the National Socialists were extended to apply to more and more categories of the population.

13. The National Socialist Law for the

Prevention of Congenitally Diseased Offspring (1933) provided for compulsory sterilization for the following diseases: congenital idiocy, schizophrenia, manic-depressive disorders, epilepsy, hereditary St. Vitus' Dance (Chorea Huntington), hereditary blindness, hereditary deafness, severe cases of hereditary physical deformity and severe cases of alcoholism (cf. Weingart et al., 1988: 465).

14. This is not an inadvertant lapse but a clear strategy as is demonstrated by the fact that the modifications originally proposed by the ruling parties included a further disease. Among other things, sperm donation was to be permitted in order to help (I quote) "prevent extremely severe cases of congenital disease (e.g. Chorea Huntington)". However, lack of agreement on the issue of A.I.D. prevented this proposal from being taken up.

15. A typical example of the SPD position is given by Wolf-Michael Catenhausen, spokesman of the SPD Parliamentary Group on technological affairs, in an interview on the Embryo Protection Law in *die Tageszeitung*, October 23, 1990.

The party of Democratic Socialism (PDS) (the Socialist Unity Party in what was the GDR) which entered the Bundestag after German unification on October 3, 1990, was able to put forward its position in the plenary debate at the final reading of the Embryo Protection Law. In fact, the PDS spokeswoman even came out in favour of surrogate motherhood! (cf. Verhandlungen des Deutschen Bundestages, October 24, 1990: 18215)

17. In the Federal Republic of Germany (as it was before unification) IVF had been included in the list of benefits financed by the statutory health insurance scheme in 1985. A new law was passed at the beginning of 1989 to cut the costs of public health care and restructure the health service in the course of which IVF was struck from the list of benefits. Following massive protests and lobbying from the medical profession and from disadvantaged couples, who founded self-help organizations to support their cause, the Federal Government obviously felt compelled to reinstate this benefit.

18. cf. Bundesratsdrucksache 314/90 and the final version of the law published as KOV-Anpassungsgesetz 1990 in the Bundesgesetzblatt I, p. 1211.

19. At least, § 2 clause 1 and § 28 clause 1 Sozialgesetzbuch (1988) allow this interpretation and there are also provisions to this effect in the Arzneimittelgesetz (1976).

REFERENCES

- Akademie für Ethik in der Medizin. (1989, March 9). Stellungnahme zur Anhörung zum Embryonen-schutzgesetz vor dem Rechtsausschuβ des Deutschen Bundestages. Bonn. (Mimeographed manuscript).
- Arzneimittelgesetz. (1976). In the amendment of August 24, 1976. In *Bundesgesetzblatt* I pp. 2445, 2448.
- Beier, Henning. (1989). Die internationale Entwicklung der Reproduktonsmedizin und der Forschung an menschlichen Embryonen 1988. In Zentrale Kommission der Bundesärztekammer zur Wahrung ethischer Grundsätze inder Reproduktionsmedizin, *Forschung* an Embryonen und zur Gentherapie. Arbeitsund Erfahrungsbericht 1988 (Item 2.4). Köln. (Mimeographed manuscript).
- Bülow, Detlev von. (1989). Entwurf eines Embryonen-schutzgesetzes rechtliche Grenzen für die For-schungsfreiheit? In Max-Planck-Gesellschaft (Ed.), Respekt vor dem werdenden Leben. Ein Presseseminar der Max-Planck-Gesellschaft zum Thema Embryonenforschung. Schloβ Ringberg/Tegernsee. June 22–24, 1988 (pp. 131–140). Munich. (Self-published).
- Bund-Länder-Arbeitsgruppe Fortpflanzungsmedizin. (1989, August). *Abschlußbericht*. Bonn. (Mimeographed manuscript).
- Bund-Länder-Arbeitsgruppe Genomanalysen. (1990, May). *Abschluβbericht*. Bonn. (Mimeographed manuscript).
- Bundesrats-Drucksache 314/90. (1990, May 11). Geset-zesbeschluβ des Deutschen Bundestages. Gesetz über die neunzehnte Anpasung der Leistungen nach dem Bundesversorgungsgesetz sowie zur Änderung weiterer sozialrechlicher Vorschriften (KOV-Anpassungsgesetz 1990).
- Bundestags-Drucksache 11/5460. (1989,
 October 25). Deutscher Bundestag. 11.
 Wahlperiode. Geset-zentwurf der Bundesregierung. Entwurf eines Gesetzes zum Schutz von Embryonen (Embryonenschutzgesetz ESchG).
- Bundestags-Drucksache 11/5710. (1989, November 16).
- Deutscher Bundestag. 11. Wahlperiode. Gesetzentwurf der Frakion der SPD. Entwurf eines Gesetzes zur Regelung von

- Problemen der künstlichen Befruchtung beim Menschen und bei Eingriffen in menschliche Keimzellen.
- Bundestags-Drucksache 11/8057. (1990, October 8). Deutscher Bundestag. 11. Wahlperiode. Beschluß-empfehlung und Bericht des Rechtsausschusses a) zu dem von der Bundesregierung eingebrachten "Entwurf eines Gesetzes zum Schutz von Embryonen" (Drs. 11/5460), b) zu der durch Unterrichtung durch Bundesregierung "Kabinettbericht zur künstlichen Befruchtung beim Menschen" (Drs. 11/1856) und c) zu dem Antrag der Fraktion der SPD "Chancen und Risiken der Anwendung neuer Methoden der künstlichen Befruchtung und bei Eingriffen menschliche Keimzellen" in (Drs. 11/1662).
- Bundestags-Drucksache 11/1879. (1990, October 10). Deutscher Bundestag, 11. Wahlperiode. Entsch-lieβungsantrag der Fraktion der Grünen/Bündnis 90 zum Entwurf eines Gesetzes zum Schutze von Embryonen (Embryonenschutzgesetz ESchG).
- Der Bundesminister für Arbeit und Sozialordnung. (1990, January 31). Referentenentwurf für ein Gesetz uber die neunzehnte Anpassung der Leistungen nach dem Bundesversorgungsgesetz sowie zur Änderung weiterer sozialrechtlicher Vorschriften (KOV-Anpassungsgesetz 1990). Bonn. (Mimeographed manuscript).
- Der Bundesminister für Justiz. (1989, July 19).

 Referentenentwurf für ein Gesetz zum Schutze von Embryonen (Embryonenschutzgesetz ESchG). Bonn. (Mimeographed manuscript).
- Der Bundesminister für Justiz. (1986, April 29). Diskussionsentwurf für ein Gesetz zum Schutze von Embryonen (Embryonenschutzgesetz ESchG). Bonn. (Mimeographed manuscript).
- die tageszeitung. (1990, October 23). Einfallstor für die Eugenik. Embryonenschutzgesetz vor der Verabschiedung.
- Embryonenschutzgesetz. (1990, December 13). Gesetz zum Schutz von Embryonen (ESchG). In *Bundesgesetzblatt* I, p. 2746.
- Fraktion Die Grünen im Bundestag (Ed.). (1990, June). Fortpflanzungstechnologie, Embryonenforschung und rechtliche Regelungen. Stellungnahme der Fraktion. Bonn. (Mimeographed manuscript).

- Kaupen-Haas, Heidrun. (1986). Die Bevölkerungsplaner im Sachverständigenbeirat für Bevölkerungsund Rassenpolitik. In Heidrun Kaupen-Haas (Ed.), Der Griff nach der Bevölkerung. Aktualität und Kontinuität nazistischer Bevölkerungs politik (pp. 103–120). Nördlingen: Greno Verlag.
- Klein, Renate (Ed.). (1989). Das Geschäft mit der Hoffnung. Erfahrungen mit der Fortpflanzngstechnologie. Frauen berichten. Berlin: Orlanda Frauen-verlag.
- KOV-Anpassungsgesetz 1990. (1990, June 26). Gesetz über die neunzehnte Anpassung der Leistungen nach dem Bundesversorgungsgesetz sowie zur Änderung weiterer sozialrechtlicher Vorschriften (KOVAnpG 1990). In Bundesgesetzblatt I, p. 1211.

- Report. (1989, July 19). Eine Information des Bundesministers für Justiz. No. 30/89. Bonn.
- Sozialgesetzbuch. (1989). Fünftes Buch (V). Amendment of December 20, 1988. Gesetzliche Kranken-versicherung. In Bundesgesetzblatt I, p. 2477.
- Verhandlungen des Deutschen Bundestages. (1990, October 24). 11. Wahlperiode. Plenarprotokoll der 230. Sitzung in Bonn.
- Weingart, Peter, Kroll, Jürgen, & Bayertz, Kurt. (1988). Rasse. Blut und Gene. Geschichte der Eugenik und Rassenhygiene in Deutschland. Frankfurt/Main: Suhrkamp Verlag.
- Zentrale Kommission der Bundesärztekammer zur Wahrung ethischer Grundsätze in der Reproduktionsmedizin, Forschung an Embryonen und zur Gentherapie. (1989). *Arbeits- und Erfahrungsbericht 1988*. Köln. (Mimeographed manuscript).