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Nationale Ethikkommission im Bereich Humanmedizin
Commission nationale d'éthique pour la médecine humaine
Commissione nazionale d'etica per la medicina
Swiss National Advisory Commission on Biomedical Ethics

# Medically assisted reproduction

## Ethical considerations and recommendations for the future

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# Preface

Medically assisted reproduction (MAR) – as a special form of human reproduction – has implications for intergenerational ties, social relationships and community life. For this reason, the state intervenes in this area, introducing specific legal regulations. The limits to such intervention deserve to be carefully examined, particularly with regard to the underlying normative justifications, as the state is, of necessity, required to define what constitutes a family or the welfare of the future child, and also to permit or to prohibit specific practices such as sperm, ovum or embryo donation, surrogacy or preimplantation genetic diagnosis. These decisions establish, extend or restrict reproductive rights, affecting in turn our understanding of the extent of personal freedoms and the weighting of the various interests involved.

The present Opinion of the Swiss National Advisory Commission on Biomedical Ethics (NEK-CNE) adopts a broad approach, covering a number of different issues of interest and concern to the public. The choice of this approach was due to two circumstances – one external, the other internal: firstly, the fact that technical and social developments in the area of MAR have given rise to multiple areas of normative debate in a short space of time; and secondly, the fact that the composition of the Commission is to be renewed in 2014.

The Commission was established on the basis of Article 28 of the Reproductive Medicine Act (RMA), which came into force on 1 January 2001. The Commission's responsibilities include monitoring developments in assisted reproductive techniques in human medicine and – in a advisory capacity – offering ethical opinions on the social, scientific and legal questions arising as a result; drawing up additional guidelines in relation to the RMA; identifying gaps in the relevant legislation; and informing the public about important developments and promoting ethical debate within society. While the Commission has already expressed its views on preimplantation genetic diagnosis on several occasions in the past, see the Commission's responses to the 2009 and 2011 consultation procedures concerning, respectively, the proposed revision of the RMA and the revision of Article 119 of the Federal Constitution, it now believes that, to promote a better understanding, there is a need to provide a general overview of the specific issues raised by MAR and the associated normative and conceptual questions. This conviction was reinforced by another consideration: this year, certain members of the Commission are reaching the end of their tenure, having followed the passionate debates concerning MAR over the past 14 years. The Commission thus concluded that the time had come to seek to review these developments and offer an interpretation of what it regards as the normative consequences.

The Commission by no means intends this Opinion to be the "last word" in what is a highly sensitive and contentious debate, where fundamental positions remain in some cases irreconcilable; however, it hopes to contribute to an informed and broadened perception of the ethical issues relating to MAR – which in turn is a prerequisite for a constructive public debate and, ultimately, for the development of an appropriate legal framework.

Otfried Höffe, Chair

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## List of abbreviations

| | |
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| CCNE | National Consultative Ethics Committee for Health and Life Sciences |
| ECtHR | European Court of Human Rights |
| EKFF/COFF | Swiss Coordination Committee for Family Matters |
| eSET | elective single embryo transfer |
| FSO | Swiss Federal Statistical Office |
| HLA | human leukocyte antigen |
| HSCT | haematopoietic stem cell transplantation |
| ICSI | intracytoplasmic sperm injection |
| ITT | immature testicular tissue |
| IVF | in vitro fertilisation |
| MAR | medically assisted reproduction |
| OTC | ovarian tissue cryopreservation |
| PartA | Federal Act on Same-Sex Registered Partnership (Partnership Act) |
| PND | prenatal diagnosis |
| PGD | preimplantation genetic diagnosis |
| PGS | preimplantation genetic screening |
| RMA | Federal Act on Medically Assisted Reproduction (Reproductive Medicine Act) |
| RMO | Ordinance on Medically Assisted Reproduction (Reproductive Medicine Ordinance) |
| StRA | Federal Act on Research Involving Embryonic Stem Cells (Stem Cell Research Act) |
| TTCP | testicular tissue cryopreservation |
| VNEK/OCNE | Ordinance on the National Advisory Commission on Biomedical Ethics |
| WGSA | whole genome sequencing and analysis |

## Outline of the problem

The Federal Act on Medically Assisted Reproduction (Reproductive Medicine Act, RMA) and the related Ordinance (RMO) came into force on 1 January 2001 against a background of social and political controversy. Following a popular initiative, public and parliamentary debate had focused initially on the protection of human beings from the misuse of technological developments. Article 119 of the Federal Constitution on "Reproductive medicine and gene technology involving human beings" – approved by a large majority of cantons and the electorate in 1992 – thus set a legislative framework for access to these techniques which is now one of the most restrictive anywhere in Europe and, moreover, has served to conflate assisted reproductive techniques and medical applications of gene technology.

Since then, public perceptions of the risks involved in the techniques and applications of assisted reproduction have evolved. Evidence of these changes is provided by the proposal to amend Art. 119 of the Constitution with a view to lifting the prohibition on preimplantation genetic diagnosis – which, if approved by parliament, will be submitted to a popular vote – and by recent parliamentary activities concerning ovum donation and surrogacy[1]. In addition, the existence of the Swiss National Advisory Commission on Biomedical Ethics (NEK-CNE) was originally linked to medically assisted reproduction (RMA, Art. 28), as it was established for the specific purpose of monitoring developments in assisted reproductive techniques in the area of human medicine, drawing up additional guidelines relating to the Act and identifying gaps in the legislation. While the Ordinance on the National Advisory Commission on Biomedical Ethics (VNEK/OCNE) certainly broadened its remit, the rooting of the NEK-CNE in the RMA makes it particularly attentive to changes affecting such practices and to their ethical implications. For this reason, the Commission wished to express its views on a very broad range of questions, without underestimating the complexity or the controversial nature of the issues, or the difficulty of the task. It may be noted that, while the changes undergone by society over the past twenty years are manifest, the transformations observed in household/family structures and attitudes are not directly normative; in other words, their mere existence does not necessitate a revision of existing law or demand moral acceptance. However, it is important to recognise that these changes are not neutral or without consequences. On the contrary, they give rise to new sensibilities and expectations among the public, and to different ways of conceiving of society and evaluating the extent of individual freedoms and the general conditions of communal life.

The Commission thus faced the difficulty of evaluating these phenomena without keeping them at arm's length – i.e. of addressing the challenge which these demands pose for normative activities. A twofold approach was therefore adopted. Firstly, the practices associated with the new possibilities raised by medically assisted reproduction (MAR) were subjected to critical examination on the basis of the normative values invoked in the RMA. Secondly, these values were themselves critically analysed, given that their interpretation is influenced by the development of attitudes and practices. The Commission therefore decided to question not only the numerous prohibitions currently in force (ovum donation, embryo donation and surrogacy, in particular) but also the legal and ethical values on which they are based. It is worth asking once again whether these prohibitions are legitimate and valid. In the Commission's judgment, the practices associated with MAR do not solely represent threats but may also promote an understanding and sharing of certain values within our society. As is typical of any field of human

1 See Neirynck's parliamentary initiative on Legalisation of ovum donation (12.487), available online at: www.parlament.ch/f/suche/pages/geschaefte.aspx?gesch_id=20120487, and Fehr's postulate on Preparation of a report on surrogacy (12.3917), available at: www.parlament.ch/f/suche/pages/geschaefte.aspx?gesch_id=20123917; the Federal Council's response to this postulate took the form of a report on surrogacy published on 29 November 2013 (Federal Council 2013a).

activity, MAR involves a certain ambivalence and calls for a judicious balancing of the values and sensibilities in question. Many people view the development of MAR with concern, particularly because assisted reproductive techniques open the way to certain applications in the area of genetic engineering and could also lead to mechanisms for inappropriate control of reproduction in women.
In this document, the Commission addresses a variety of questions relating to MAR. No account is taken of reproductive arrangements which may be undertaken with third parties by couples or individuals on a private basis. The Opinion is concerned with those situations which are subject to regulation – in the form of permission or prohibition – under the RMA. The issue of preimplantation genetic diagnosis is not considered in depth, as the Commission has already expressed its views on this topic in earlier publications (NEK-CNE 2005, 2007)[2].

The document is divided into five parts:

1. Introduction and background

2. The normative values of the RMA

3. Critical discussion and positions adopted

4. Good medical practice

5. Conclusions and recommendations

The first part provides technical and statistical information on MAR, together with more general information, which should give some idea of the complex issues raised by these techniques. The second part focuses on the values which explicitly and implicitly inform the RMA, emphasising the main ways in which these values can be interpreted. In the third part, the ethical/legal implications and consequences of the existing regulations are critically discussed. The fourth part underlines the importance of ensuring, through the RMA, that medical practice is in conformity with currently recognised standards. Finally, in the fifth part, the Commission's recommendations are presented.

With this document, the Commission wishes to contribute to the debate which – in Switzerland, as elsewhere – accompanies the application of assisted reproductive techniques. The Commission has chosen to present an overall view of the ethical issues relating to MAR; it reserves the right to reconsider certain issues in more detail, with a view to developing normative positions.

2 See also the Commission's responses to the 2009 and 2011 consultation procedures concerning, respectively, the proposed revision of the RMA (legalisation of preimplantation genetic diagnosis) and the revision of Article 119 of the Federal Constitution and of the RMA.

# 1. Introduction and background

## 1.1 Background to the introduction of the RMA: indirect counterproposal

In 1993, in response to the popular initiative "For reproduction respecting human dignity" – which sought a complete ban on in vitro fertilisation and the use of donor gametes in medically assisted reproduction (MAR) – the Federal Council elaborated a draft law constituting an indirect counterproposal to this initiative. The deliberately restrictive content of the law and the limited legalisation of certain forms of MAR can be explained by the desire to protect and respect human life and dignity while at the same time seeking to avoid a complete ban on these techniques. The indirect counterproposal was ultimately accepted by the electorate. On 1 January 2001, therefore, the Federal Act of 18 December 1998 on Medically Assisted Reproduction (Reproductive Medicine Act, RMA) came into force. The Swiss public, within this highly negative context, had not decided to impose a complete ban on MAR, but surrogacy, embryo donation and ovum donation were prohibited, as well as the preservation of embryos and preimplantation genetic diagnosis. Fifteen years later, in the light of social changes and the development of assisted reproductive techniques, it is appropriate to ask whether the prohibitions established by the RMA are still ethically justified.

## 1.2 Social developments and changes in family structures

Since the 1960s, with the use of oral contraceptives and the liberalisation or decriminalisation of abortion, human reproduction – or more precisely reproduction control – has become a major social issue. This control was initially exercised in the area of sexual activity, which it became possible to separate from reproductive purposes. The demands issuing from civil society thus initially concerned women's right to autonomy and, more specifically, the *freedom not to reproduce*. Scientific and technical advances then made it possible to provide treatment for infertility. Over time, this condition and the treatments developed have been increasingly accepted by society, to the extent that the possibilities offered by MAR are now being sought, independently of any medical indication, as a means of fulfilling personal life plans. Though not representing an alternative method, MAR and cryopreservation of gametes are being demanded in the name of *freedom to reproduce*. In this case, it is the techniques of reproduction which have been separated from sexual activity. The result is a rupturing of the "natural" reproductive framework. This rupture has numerous consequences, amongst which particular mention should be made of the splitting of the gestational mother and genetic and social parenthood. This splitting could lead to changes in the way in which filiation is established – in other words, the method of determining who, *legally*, are a child's father and mother, a decision which determines the types of family structure that are socially accepted.

In 2009, the Swiss Coordination Committee for Family Matters (EKFF/COFF) underlined the significant changes that had occurred in household structures, types of family and the very concept of "family" (EKFF/COFF 2009). On the basis of a report on "Families in Switzerland" issued by the Swiss Federal Statistical Office (FSO 2008) and the federal census conducted in 2000, the EKFF/COFF highlighted certain fundamental trends, namely: (a) the increase in the number of private households, and particularly single-person households (currently accounting for 36.4% of the total); (b) ongoing changes in family types; and (c) the individualisation of life courses. It should be noted that 15% of persons living in households which include children belong to a single-parent family and 5.7% to a reconstituted family (FSO 2010), i.e. a family consisting of a couple raising children at least one of whom comes from a previous relationship. The COFF points out that the multiplicity of types of family is a recognised fact within our society. It also emphasises four trends of particular relevance to the matter in question:

- today, men and women are getting married later (average age 31 for men and 29 for women) and are older when their first child is born (average age 30 for women);
- the total fertility rate has fallen by almost half since the mid-1960s (current average of 1.53 children per woman, compared with 2.7);
- compared with 1970, three times as many couples now divorce and twice as many children have divorced parents;
- more women are now in paid employment (17% of mothers with one or more children under 25 work full-time, 59% part-time).

As regards MAR, in 2012, around 6320 women used *in vitro* fertilisation (IVF); the average age of women starting treatment was 36.2 (39.4 for their partners), while the minimum age recorded was 19 (21), and the maximum age 51 (66) (FSO 2013c). With regard to age groups, 9.0% of the women starting treatment were 29 or under, 29.7% were 30–34, 39.3% were 35–39, 19.8% were 40–44 and 2.2% were 45 or over (FSO 2013c). In 2011, multiple births accounted for 18.3% of all births arising from MAR (FSO 2013d).

The above-mentioned trends indicate, firstly, that a profound transformation in family structures and lifestyles is underway. At the same time, they make it clear that, while MAR is certainly focusing society's attention on this transformation – and even fuelling fears, given the implications of certain techniques (especially surrogacy, ovum donation and embryo donation) for filiation – it would be simplistic to regard MAR as the driving force from a social viewpoint.

### 1.3 Broader transformations: pluralism, technoscience and medicalisation

It is important to note that the changes observed in family structures are part of broader transformations affecting contemporary societies. Amongst these, the Commission would single out value pluralism (in the normative sphere), the increasing power of technology (in the scientific sphere), and the growing medicalisation of human life (in the social sphere).

The plurality of values is considered to be a "fact" (Rawls 1972). It is a direct result of the transformations which, from a historical perspective, led to the formation of the modern state. The growing recognition and protection of the liberties of individuals or citizens, manifested in the recognition and protection of their (civil, political and social) rights, was fundamental to a process triggered, *inter alia*, by wars of religion and by a radical shift of perspective in the representation of political power – from sovereign to subjects, from state to citizens (Bobbio 1990). Tolerance, liberty and justice thus become the values regulating the activity of the state; these principles have concrete implications for the limits to state intervention in individuals' private lives. Accordingly, the very possibility of expressing and pursuing different general conceptions of the "good life" rests on the idea of liberty and tolerance as overarching principles. Specifically, the idea that it is possible to hold and to express different views concerning abortion, reproduction, assisted suicide, etc., is intrinsic to liberal democracies.

This has various implications on the ethical front. Given that, beyond the core of generally accepted fundamental principles, one can no longer count on the existence of a single system of (religious, metaphysical, moral or other) values, the legitimacy of moral norms then rests on the quality of the formal validation procedure – that is, on public consensus regarding one or more principles or norms (with fundamental rights naturally being respected) – rather then on the imposition by the legislative authority of a particular conception of a "fulfilled life". For example, the validity of the Universal Declaration of Human Rights can be said to rest on the *consensus* which it commanded within the United Nations General Assembly on 10 December 1948. This explains why

political ethics has moved away from substantive ethics – i.e. ethics imposing a system of particular norms on a community (in this sense, any action or behaviour would be legitimate if it conforms to a certain system of values which is applicable for all but is not freely consented to) – towards formal ethics – i.e. ethics involving the elaboration of a procedural framework which can guarantee, at a given time and for a given period, the legitimacy of the norms adopted; this form of ethics does not itself define what is good, but specifies the procedure for attaining this goal.

Within this general normative framework, there is a perceived need to develop, on the practical or applied level, ethics for particular sectors (biomedical ethics, business ethics, environmental ethics, etc.). Thus, biomedical ethics has to answer more specific questions raised by the development and application of biomedical knowledge. It may be considered surprising or regrettable that reflection in the area of applied ethics should be carried out "after the event", i.e. that it should lag behind technological developments; however, it should be emphasised that ethics evaluates practices, and that its function is to critically analyse what exists or is done in the light of the undisputed core of fundamental principles, the knowledge available and the caution which is desirable.

For several centuries, the scope, extent and applications of the knowledge generated by science have been expanding. To underline the growing importance of the last aspect – its practical applications – the term "technoscience" was coined by Hottois (1984). In the area with which we are concerned – human reproduction – three scientific developments played a decisive role in the establishment of assisted reproductive techniques: firstly, improvements in imaging systems (ultrasound and laparoscopy in particular); secondly, the production of sex hormones; and thirdly, the understanding of biological mechanisms of reproduction (Orland 1999), as well as, more broadly, advances in genetics. These scientific developments contributed significantly to the medicalisation of infertility.

To this must also be added the emergence of infertility discourse and the perception of infertility as a public health issue (Heitman 1999). It should also be borne in mind that developed countries are facing growing fertility problems, due not only to the tendency of couples to delay reproduction (infertility increasing with age) but also to a decrease in fertility (attributed by some to environmental factors such as endocrine disruptors, but also to smoking or overweight), the effect of which is to increase demand for assisted reproduction. Taking a broader perspective, it is to be emphasised that technoscience is closely linked to the spread (industrialisation) of applications of science. We are witnessing an unprecedented diffusion and penetration of technologies into the public sphere and personal life (e.g. genetic tests freely available online and over the counter).

The same is true of the medical domain, where high-tech medicines are available not only to patients but also to individuals wishing to use them for subjective reasons. This trend, combined with underlying economic interests, partly explains the proliferation of (public or private) infertility treatment centres (27 altogether in Switzerland). Also observable in society is the use of techniques or medicines in the absence of medical indications; the most obvious example is cosmetic surgery, but one could also cite elective caesarean sections, certain psychopharmacological treatments or enhancement medicine (e.g. doping), social egg freezing and sex selection (family balancing).

Finally, it is important to emphasise the advances made in the areas of gene technology and genetic diagnosis. While applications of assisted reproductive techniques are independent of these advances, the field of MAR is increasingly being penetrated by methods such as preimplantation genetic diagnosis and screening (cf. Section 3.2).

## 1.4 Technical aspects of MAR[3]

If, despite a wish to conceive, a woman fails to become pregnant by "natural means" within a certain period (Federal Council 1996) – between one and two years, depending on the criteria applied – the reproductive capacity of the couple concerned will first need to be assessed, in both partners, with a view to making a diagnosis of infertility (one of the two indications currently recognised as a condition of eligibility for MAR) and embarking on assisted reproduction. In the course of their reproductive lives, one couple in six will seek medical advice for difficulties in conceiving.[4] Among the couples starting treatment in Switzerland in 2011, the indication was female infertility in 18.2% of cases, male infertility in 47.7%, and female and male infertility in 23.3% (FSO 2013c). In the other 10% of cases, infertility was unexplained ("idiopathic"). The pregnancy rate per treatment cycle is around 30%.

MAR involves techniques which enable pregnancy to be achieved without "natural" sexual union – specifically, insemination and *in vitro* fertilisation (IVF) (Art. 2 RMA).

With insemination, fertilisation occurs inside the woman's body; with IVF, fertilisation is carried out outside the woman's body, with the aid of hormone treatment and microtechnical procedures.

### *1.4.1 In vitro fertilisation*

Various techniques have been developed for IVF: (1) with the conventional technique, the egg and sperm cells are brought together in a culture medium; (2) with the technique known as intracytoplasmic sperm injection (ICSI), or microinsemination, a single sperm cell is injected directly into the egg[5].

IVF and ICSI are essential steps in the conduct of preimplantation genetic diagnosis (see Section 3.2).

Around 18 hours after the sperm has been added, microscopic examination is used to determine whether fertilisation has occurred. Experience shows that this is the case in 60–80% of eggs. The process of fertilisation takes a number of hours. Once the sperm cell has entered or been introduced into the egg (by IVF or ICSI), the two parents' genetic material is still located in two different areas, known as the pronuclei. In the RMA, this is referred to as the "impregnated ovum"[6]. It should, however, be emphasised that the introduction of this term was a legal device (for the sometimes counterproductive effects of legal devices, see Karnein 2013). In order to comply with the formal prohibition on the preservation of embryos, legislators invented a concept and conjured up an entity – the impregnated ovum – which in fact corresponds more to a *phase* of the fertilisation process (lasting several hours) than to a new *entity*. The Commission has already expressed its critical view of this invention (NEK-CNE 2006, pp. 54–55). That said, the fusion of the two pronuclei then gives rise to the fertilised ovum, i.e. to what is known in the law as an embryo.

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3 A more detailed description of these techniques was included in the Opinion on research involving human embryos and fetuses (NEK-CNE 2006).

4 According to a booklet on IVF ("La fécondation in-vitro pour concrétiser le désir d'être parents") issued by the Reproductive Medicine Unit, CHUV, Lausanne.

5 In Switzerland in 2012, conventional IVF was used in 2027 cases (18.7%) and ICSI in 8568 cases (79.1%) (FSO 2013b).

6 Considering the proposed revision of Art. 119 of the Federal Constitution and of the RMA with regard to elimination of the prohibition on preimplantation genetic diagnosis, the Commission wonders whether it is still useful and appropriate to use the term "impregnated ovum" (it should be noted that in other countries the term "pre-embryo" is used).

In cases of IVF without preimplantation genetic diagnosis (PGD), embryo transfer generally takes place two or three days after fertilisation. With PGD, the transfer is postponed until the third day at the earliest, since genetic analysis can only be carried out when a multi-cell embryo is available.
Given that in Switzerland, the preservation of embryos is prohibited under the RMA, most "impregnated ova" are therefore frozen (for later attempts, if pregnancy is not established), while a small number are allowed to develop *in vitro* for a few days. The embryo or embryos thus obtained (from one to three at most per treatment cycle under the current law) are then immediately transferred to the uterus.

### *1.4.2 Cryopreservation: principles and new applications*

It is possible, in principle, to cryopreserve gametes (ova and sperm cells) or tissue (ovarian and testicular).

The RMA permits the freezing of gametes and "impregnated ova"[7] but prohibits the freezing of embryos. Gametes may be preserved for a maximum period of five years; in cases where medical treatment or a particular activity could lead to infertility or damage genetic material, a longer preservation period may be agreed. It should, however, be noted that in the current state of knowledge – particularly thanks to the development of a promising but still experimental method of cryopreservation known as vitrification – it is now possible to preserve ova much more effectively. "Impregnated ova" may only be preserved – for a maximum period of five years – if subsequent reproduction is envisaged and remains conceivable for the couple concerned and written consent has been obtained from both partners. When the preservation period expires, the gametes and "impregnated ova" must be destroyed immediately.

Amongst the methods of maintaining fertility which involve the preservation of gametes, important ethical questions are raised by three techniques in particular – ovarian tissue cryopreservation (OTC), testicular tissue cryopreservation (TTCP), and social egg freezing (i.e. preservation in the absence of a medical indication).

#### a) Ovarian tissue cryopreservation

OTC is an option for maintaining fertility offered to patients who are generally suffering from cancer. These patients undergo therapies (surgical, chemical or radiological) whose side effects may lead to temporary or permanent infertility. In certain cases where cancer therapy is to be performed in postpubertal patients in short time and it is therefore not possible to employ other methods of fertility preservation (such as ovarian stimulation with a view to retrieval and freezing of impregnated or mature ova, followed by self-donation after successful therapy, for example), ovarian tissue may be harvested by laparoscopy. During the period required for the treatment of cancer or other diseases, the tissue is preserved in liquid nitrogen for subsequent autotransplantation, which will only be undertaken if the presence of cancerous cells is excluded by histological examination. After transplantation, if normal functioning of the cycle is re-established, follicular maturation proceeds naturally to the point of ovulation and possible fertilisation. Thus, for example, women with cancer whose gametes could be at risk from radiotherapy or chemotherapy would still have a chance of becoming pregnant, once cured of their malignancy. However, because of the difficulties involved in revascularisation of transplanted tissue and other possible complications leading to loss of follicles, the period of time available for reproduction – after ovarian tissue thawing and autotransplantation – is, at best, only a few years. At present, it is very difficult to obtain *in vitro* maturation of immature oocytes from ovarian tissue; accordingly, this option cannot yet generally be offered to prepuber-

7 In 2012, the total number of impregnated ova frozen was 12,839 (FSO 2013a).

tal patients (although in the US in July 2010, a two-year-old girl became the youngest person ever to undergo OTC; see Quinn et al. 2012). In such cases, OTC may simply be performed in the hope that maturation of primordial follicles may become technically feasible in the future. Freezing could also prove useful for women with ovarian insufficiency (as in certain forms of Turner's syndrome), who may not be able to produce eggs when they wish to have children.

**b) Testicular tissue cryopreservation**

TTCP also represents an option for fertility preservation (Ruutiainen et al. 2013). This method is offered in cases where no sperm is present in the ejaculate. Testicular tissue is retrieved from postpubertal patients and then cryopreserved. In this case, rather than autotransplantation, ICSI is used – a technique which has been established for decades. However, TTCP cannot yet be offered to prepubertal patients, as the technique for *in vitro* maturation of immature testicular tissue (ITT) is still at an early stage of development. Here, as for prepubertal girls, cryopreservation of ITT may simply be undertaken in the hope that thawing and reimplantation may at some point become technically feasible.

It should be emphasised that the two methods described above are still experimental, and that they cannot be regarded as established reproductive techniques.

**c) Social egg freezing**

An application of a quite different kind is so-called social egg freezing. This involves the cryopreservation of ova for reasons relating to life plans, independently of any medical indication. Generally, the women concerned wish to maintain their fertility in this way with a view to possible *in vitro* fertilisation and pregnancy in later years. The demand for social egg freezing can be partly explained by the available sociological data concerning household structures and trends and, more particularly, the increase in the age at which women are getting married and having their first child, as well as the proportion of women in paid employment.

The technique of cryopreservation as such allows gametes to be stored without any need for a medical indication. This option is increasingly widely available, and the issue of social egg freezing is now arising in Switzerland (Wunder 2013). As we have seen, the maximum period of gamete preservation permitted under the RMA is 5 years, after which time the existing law requires that the gametes should be destroyed; a request may be made in advance for a longer preservation period or for transfer of the frozen gametes to a centre abroad. The arguments put forward in favour of social egg freezing generally invoke the reproductive freedom which a young woman acquires thanks to the possibility of avoiding the disadvantages associated with the ageing of her own eggs (thus also avoiding the need for ovum donation) and countering the risks of a pregnancy delayed for lack of a partner, or as a result of the demands of professional life or a belated desire to have children.

## 1.5 Ethical considerations concerning cryopreservation procedures

### *1.5.1 Social egg freezing*

In the Commission's view, social egg freezing is open to two types of objections, medical and social.

Firstly, it should be stressed that it is not simply a question of delaying pregnancy, but of replacing natural conception with IVF-ICSI – whereas the former is possible, since the women opting for this procedure are fertile (elective egg freezing being undertaken for

social rather than medical reasons). This change of reproductive method is not without consequences for the health of the future child since, under the conditions imposed by the existing law, IVF-ICSI leads to a higher rate of multiple pregnancies, with a greater risk of complications (prematurity, acute and long-term morbidity, mortality) and congenital malformations, associated with significant human and financial costs. Children conceived by IVF-ICSI are already known to be at increased risk for cardiovascular and metabolic problems (Scherrer et al. 2012). In addition, scant data is available regarding the implications of the vitrification (flash-freezing) process for the health of the children subsequently conceived. Nor is social freezing devoid of consequences for the woman's health. Risks are associated with egg retrieval and ovarian stimulation (ovarian hyperstimulation syndrome can be fatal) – not to mention the risk of failure, as eggs should ideally be harvested around the age of 25, but the procedure is generally carried out after the age of 35.

The second type of objections are of a social nature. Elective egg freezing resolves neither the problem of finding a partner nor that of balancing work and family life. This regrettable problem persists owing to the paucity of sociopolitical efforts to help women to fulfil themselves both professionally and as mothers (nursery and day-care places, childcare during school terms, reduction in working hours for fathers, acceptance of mothers in the workplace, etc.). The Commission takes the view that reflection on the role of women in our society is an essential first step. In addition, clear information on the biology of reproduction should be made available to the public. While it may certainly be true that cryopreserved eggs "do not age", the same does not apply to a woman's body: after the age of 35, this entails declining chances of pregnancy and a greater risk of miscarriage and pregnancy-related complications. Finally, it may be emphasised that medical indications are currently required to justify MAR.

### *1.5.2 The prohibition on preservation of embryos*

Under the RMA, the preservation of embryos is prohibited; this means that all the embryos developed outside the woman's body (three at most) must be either immediately transferred or destroyed. This situation invites two observations:

(1) Specialists in obstetrics/gynecology underline the danger posed by this prohibition, as it forces them to maintain a high rate of multiple pregnancies[8] (especially twin pregnancies) with IVF or IVF-ICSI. Compared with Sweden, for example, where the multiple pregnancy rate is less than 5%, the rate in Switzerland is 20%.[9] The main reason is that it is not possible here to transfer one embryo selected from a larger number (i.e. elective single embryo transfer, eSET) rather than two or three embryos (a single embryo can still of course be transferred, but only if just one is developed, with a consequent drop in the success rate).

(2) Secondly, it must be recognised that embryo transfer is not always possible. There are many reasons why this may be so: (a) embryo development appears to be abnormal; (b) the woman, contrary to her earlier decision, no longer wishes to have all the embryos developed transferred to her uterus; (c) the couple no longer wishes to pursue its plans for parenthood; (d) consent is withdrawn by one of the partners; (e) the woman is temporarily unavailable (because of an accident or illness). In some of these cases – (a), (c)

8 Multiple pregnancies carry risks of premature birth and low birth weight, associated with long-term consequences for infants' health, malformations, cerebral palsy, neonatal and maternal morbidity and mortality, postnatal depression, etc.

9 It should also be borne in mind that, following the use of eSET, the number of surplus embryos in Sweden amounts to several thousand.

and (d) – the embryos are then preserved and thus become "surplus embryos"[10]. In Switzerland, according to the definition given in the Federal Act on Research Involving Embryonic Stem Cells (StRA, Art. 2 let. b), a surplus embryo is "an embryo produced in the course of an *in vitro* fertilisation procedure that cannot be used to establish a pregnancy and therefore has no prospect of survival". Such embryos may be used for the derivation of stem cells (provided that the couple give their consent)[11]. It should be emphasised that, in countries where cryopreservation is permissible, most clinics avoid preserving fewer than three embryos, since about a quarter of the embryos will deteriorate in the course of manipulation and the chances of pregnancy are much reduced when only one embryo is transferred.

### 1.6 Considerations concerning the possibilities raised by MAR and concerning medical tourism

In Switzerland, MAR is only available for heterosexual couples, married or not, seeking treatment for infertility or wishing to avoid the transmission of a serious (incurable) disease to their offspring. The use of sperm donation, however, is only permissible for married heterosexual couples. Ovum and embryo donation are prohibited, as is surrogacy. These prohibitions determine the conditions for access to MAR and limit the number of persons involved to two (a couple using *autologous* insemination or IVF) or three (a married couple using *heterologous* insemination or IVF, i.e. sperm donation). From a purely technical perspective, however, MAR can be accessed by a single person – an unmarried woman could pursue motherhood through donor insemination – or can involve a larger number of persons (up to five) in the case of surrogacy.

While it was pointed out in the *Dispatch of 26 June 1996 concerning the popular initiative "For the protection of human beings against artificial reproductive technologies (Initiative for reproduction respecting human dignity)" and the Federal Act on Medically Assisted Reproduction (RMA)* (Federal Council 1996) that a complete ban on MAR could lead to "undesirable 'reproductive tourism'", it must be acknowledged that the law currently in force has not succeeded in preventing this phenomenon. It should also be noted that, despite the easing or liberalisation envisaged in the draft revision of the law, the problem of reproductive tourism will still not be resolved.

Couples wishing to take advantage of more favourable conditions, e.g. for surrogacy, turn to countries where this practice is permitted (on an altruistic or commercial basis), such as the UK, Belgium, the US or India.

It is extremely difficult to know how many Swiss couples have made use of surrogacy (Federal Council 2013a), ovum donation or embryo donation by going abroad. All the evidence suggests that it is not simply a question of a few isolated cases (especially as far as ovum donation is concerned).

The Commission believes that, in order to evaluate these practices, one needs to consider

10 It is difficult to determine the number of surplus embryos currently being stored because, until the RMA came into force in 2001, IVF centres were not obliged to submit an annual report on their activities, specifying in particular the preservation of IVF embryos. On the basis of the figures for 2012, it is possible to get a general idea of the use of embryos: a total of 25,888 impregnated ova and 18,660 embryos were obtained; 16,773 embryos and zygotes were transferred. A total of 118 embryos were frozen in the course of fresh treatment cycles, and 139 were thawed during frozen cycles – while the number of impregnated ova thawed was 9794 (FSO 2013a). Finally, it should be noted that a total of 2067 embryos were destroyed – as a result of arrested development in 67.5% of cases (FSO 2013e).

11 StRA (2003). Note that 10 embryos were made available for research purposes in 2012 (FSO 2013e).

them within a broader context, bearing in mind the influence of underlying social trends. Alongside the traditional heterosexual family, structures are emerging such as single-parent and same-sex parent families, as well as reconstituted or adoptive families. It is indisputable that MAR permits a multiplication of parental relationships. However, in the context of reproductive tourism, the prime concern from an ethical viewpoint should be to ensure the welfare, protection and integration into a legally recognised family structure of those children who, born as a result of practices prohibited in Switzerland, suffer the consequences of different legal systems. Couples wishing to return to Switzerland with their newborn child after using the services of a surrogate mother abroad must first obtain a clear legal identity for their offspring. This is not always granted, as surrogacy is prohibited in Switzerland. There then ensues a long process leading, at best, to adoption or, at worst, to the denial of legal recognition of the child. The Commission believes that the law should not simply legitimise an offence, nor should it be forced to recognise a practice which is prohibited in Switzerland. The fact remains, however, that the current legal situation contributes to the stigmatisation of the most vulnerable parties, i.e. the children concerned.

It is important not to underestimate the economic significance of reproductive tourism. A single fresh cycle of IVF-ICSI (where one or more embryos are transferred directly after fertilisation, without a cryopreservation step) costs between CHF 6000 and 9000; cryopreservation of impregnated ova, sometimes charged for separately, costs between CHF 300 and 600, while a single frozen/thawed cycle costs between CHF 1500 and 2000; finally, the annual costs of preservation are between CHF 150 and 300. In India, which is thought to be the world's largest provider of surrogate mothers, the surrogacy market is worth between USD 500 million and 2.3 billion (Deonandan et al. 2012). In Switzerland, though insemination is covered by health insurance, IVF is not, and the (substantial) costs are borne entirely by the couples concerned[12]. This gives rise to inequality of treatment based on individual economic circumstances.

The changes undergone by society over the past twenty years are manifest; internationally, the social, legal and ethical recognition of assisted reproductive techniques – and of family structures – varies widely.

Given these realities, it is important to emphasise, firstly, that the phenomena in question are not *directly* normative; in other words, their mere existence does not necessitate a revision of existing law or demand moral acceptance. For that to happen, one needs to explore how these facts are related to recognised values. It should also be noted that these changes are not neutral. On the contrary, they give rise to new sensibilities and expectations among the public, and to different ways of conceiving of society, the extent of individual freedoms and the general conditions of communal life.

The Commission thus had to address the challenge of evaluating these phenomena in more depth. A twofold approach was therefore adopted. Firstly, the practices made possible by MAR were subjected to critical examination on the basis of the normative values invoked in the RMA. Secondly, the Commission considered how these practices influence the interpretation of the underlying values, and how these normative values develop over time. The content of the norms and values on which the critical examination is based is directly influenced by the socio-historical context in which the work is undertaken. The Commission sought to develop an understanding of the issues arising on the practical and conceptual level which would facilitate coherent and reasoned decision-

12 The Federal Supreme Court recently confirmed once again that IVF is not covered by compulsory health insurance: ruling of 1 October 2012, 9C_835/2011.

making. It therefore decided to question not only the numerous prohibitions currently in force (ovum donation, embryo donation and surrogacy, in particular) but also the legal and ethical values on which they are based. It is worth asking once again whether these prohibitions are legitimate.

## 2. The normative values of the RMA

The RMA explicitly invokes four values which are, directly or indirectly, of normative force: "human dignity", "personality", the "family" (Art. 1 para. 2) and the "welfare of the child (Art. 3 para. 1). A fifth value, that of "nature" and what is "natural", is not explicitly invoked, but it does play an important role in the Dispatch (Federal Council 1996, p. 247 et seq.) and in the logic of the RMA (Art. 2 let. a), as it determines its structure, justifies the restrictions and prohibitions imposed, and illuminates some of its orientations. For this reason, the Commission decided to include it in the critical examination and review of the arguments in question.

The meaning of these values is subject to multiple interpretations, whose implications sometimes differ in practice. The value of human dignity, for example, is appealed to both by opponents of assisted reproductive techniques (supporters of the initiative called for an absolute ban on these techniques in the name of respect for human dignity) and by proponents of free access to MAR, who argue that dignity can effectively be respected by respecting individual autonomy.

The Commission acknowledges the importance of articulating a value specifically associated with parenthood. However, this dimension is not neatly subsumed under the concept of "family" – understood as a "fundamental unit of society" – whereby legislators sought to protect the individual's *social* essence (Federal Council 1996, p. 239) and, incidentally, a certain type of family, namely the traditional nuclear family. Insufficient attention has been paid to a couple's desire to pursue parenthood, which is, primarily, of a *personal* nature, and to the suffering which infertility can cause in an individual or couple. Given the centrality of these elements, the Commission believes that they should have been explicitly and separately highlighted. While the (future) child should rightly be protected as an intrinsically vulnerable being, and the child's interests should be given their full weight in the moral evaluation, the interests of persons wishing to become parents, and their vulnerability as patients, should also feature among the values in question. In the context of MAR, there would be no welfare of the child to protect if the future parent had not originally contemplated pursuing parenthood and thus *creating* a family. The very existence of any child depends on this *preliminary* personal intention, which is the condition of its realisation.

The Commission notes that these values do not all lie on the same level. The values of "human dignity", "personality" and "welfare of the child" belong to an *ethical register*, which is, moreover, of a *universalist* nature. They are invoked to protect the goods or interests that are intrinsic to all human beings, such as humanity, personal freedom, physical and mental integrity, or the desire to have children. If, as we shall see, it is difficult to assign a precise content to these concepts – which is sometimes regarded as a fatal weakness – it is nonetheless possible to determine the constitutive elements. The concept of "family", by contrast, belongs to a more detailed *sociocultural register*. The meaning of this concept depends on how it is perceived and understood by a given society. It is evident, firstly, that "family" today no longer denotes a form of existence bringing together,

exclusively, a mother, father and child(ren) – different combinations are now not only conceivable, but already a reality (single-parent, same-sex parent, adoptive and reconstituted families) – and, secondly, that types of family different from that which has served as a model in European countries (the traditional nuclear family) are now recognised.
The terms "nature" and "natural", lastly, can have different meanings, depending on how they are understood, and it is difficult to establish, as we shall see below, what is meant by "nature", how what is "natural" is to be distinguished from what is "artificial" or "cultural", and even whether these distinctions are still relevant. A particular conception of "nature" and the "natural" certainly underlies the RMA – according to which *what is natural is good* – a conception which determines the positions adopted and influences all the restrictions imposed.

### 2.1. Human dignity

The concept of "human dignity" (Höffe 2001) represents a fundamental principle of the current legal order and of modern moral thought. It is generally considered to be "the basis of an entire system of values designed to guarantee the intrinsic value of the individual" (Federal Council 1996, p. 215). Under Swiss law, human dignity must be *respected* and *protected*. As a guiding principle, human dignity is linked to other fundamental rights, particularly personal freedom; in this sense, it protects physical and mental integrity and freedom of movement. It is worth noting that while, in 1993, the issues were presented by the sponsors of the popular initiative precisely in terms of dignity – as a characteristic of humankind – the effect of this appeal to human dignity was to restrict freedom of access to assisted reproductive techniques. The initiative was entitled: "For the protection of human beings against artificial reproductive technologies (Initiative for reproduction respecting human dignity)".[13]

It can be seen that human dignity is invoked in different ways and for widely varying purposes. It is therefore essential to define the content and to determine the ethical implications thereof. To do so, one must first specify the structural elements and philosophical articulations of this concept.

The concept of "dignity" comprises an ontological and an ethico-legal element. In addition, more recently, its use has been defined in political and legal terms. The ontological element relates to the question: by virtue of what property or intrinsic characteristics does a human being[14] have an intrinsic value, called dignity, and from what point onwards? The second element relates to the question: what moral obligations exist vis-à-vis a being with an innate dignity or intrinsic value.

Traditionally, because of the rational nature of human beings, dignity is associated with or dependent on personality. It is therefore essential to review the main connections between these two concepts.

The **"personalist" view**. This view is based on the indissociable (psychophysical) unity of the person. It insists that the biological existence of a human, without being the highest, is the most fundamental. By virtue of being part of humanity, *every individual born of*

13 In this context, the adjective "artificial" combined with the term "reproduction" seems to suggest that the danger for humanity arises from the non-sexual (hence non-natural, or even artificial) character of MAR. For a discussion of the issues relating to this argument, see Sections 2.4 and 3.6.3.

14 But the entity in question could also be an animal or plant; in the Federal Constitution, the German and Italian versions of Art. 120 para. 2 on non-human gene technology refer respectively to "[die] Würde der Kreatur" and "[la] dignità della creatura", whereas the French version, for reasons which cannot be discussed here, refers to "l'intégrité des organismes vivants".

*a human mother* (Spaemann 2006) thus possesses dignity. On this account, the person is coextensive with the organism that underlies and expresses it, as the human person forms a unified whole. For the supporters of this *doctrine of equivalence* (Birnbacher 1997) "being a human being" and "being a person" are essential and coextensive properties. This is known as the "personalist" view because every human is endowed with personal dignity – dignity which is intrinsic because of the individual's rational nature, i.e. capacity for intellectual awareness and free choice. Even if a human being, at an early stage of development, because of handicap or severe mental disability, is no longer capable of acting rationally or reasonably, they will still remain a person, fully endowed with dignity, and this person's vulnerability gives them an even greater claim on society's solicitude. Individuals are thus persons by virtue of being part of humanity, to which they owe their existence (Putallaz & Schumacher 2008).

The personalist conception of the human embryo can be summarised as follows (Rager 2006, Ide 2004): from the zygote stage, "the human embryo is an individual endowed with human life". It has "human life" because it belongs to the human race. It is a "unique being", distinct from other organisms, such as the mother, because it is also capable of developing by its own internal dynamism, which requires extrinsic conditions, such as implantation in the mother's womb. On this view, it is concluded that the human embryo partakes of human life and that it must therefore be treated "as a person", with the dignity which requires respect and protection. For example, on this view, embryo selection is not justified, as it involves assuming the right to decide who deserves to live. Responses to parents' suffering should therefore respect the embryo's intrinsic dignity.

The "**rationalist" view**. This view likewise states that *only persons have dignity*, but according to its proponents, there is no equivalence between "person" and "human being". To be a person, it is neither necessary nor sufficient to be a human being. Consequently, in line with the empiricist and idealist traditions which go back respectively to Locke (1975) and Kant (2006), what counts is *currently possessing reason* (as Kant put it, "having the 'I' in one's representations"). On this view, to be a person, and hence to have dignity, an individual must be endowed with an *actual* or *current* rational capacity (memory, self-awareness, etc.). It should also be noted that, for Kant, the person is the rational *and* moral individual. There is a shift in his thought towards using the concept in a normative sense. From an ethical perspective, respecting the nature of the human being means respecting the dignity – i.e. the autonomy or freedom – of the person (Baertschi 2005, ch. 5). Being free, the person has a dignity or absolute intrinsic value – as opposed to things, which have a price and are subject to the determinism of nature. For this reason, things have a *relative* value and are interchangeable (whereas a being endowed with dignity is unique), and it is possible to use them "as one likes"; as Kant (2006, p. 15) writes: "[the human being] is a person […] i.e. through rank and dignity an entirely different being from *things*, such as irrational animals, with which one can do as one likes." This last point needs to be emphasised, as it has important implications for the argument concerning the instrumentalisation of human beings.

This view allows for the existence of human beings who are not persons (Engelhardt 1996), either because they have not yet developed the capacity for the exercise of reason (e.g. embryos, fetuses, infants), cannot develop this capacity (e.g. anencephalics, infants suffering severe perinatal anoxia), or have permanently lost it (e.g. individuals in a permanent vegetative state or with senile dementia, major stroke victims). It should, however, be noted that while this view maintains that there are human beings who are not persons, it does not say that they may be treated as one likes.

The **"gradualist" view** is based on an understanding of the human being informed by

scientific knowledge of embryo development. This view adopts the criterion of potentiality – that is, the possibility, power, capacity or faculty normally inherent in a being of transforming itself into a different state, thus actualising something which is as yet only potential. Proponents of this view admit that embryos do not yet possess a number of properties generally required for the existence of a person (consciousness, will, reason, ability to feel pain, etc.), but argue that, under appropriate conditions, they can by themselves develop these properties over time – which cannot be said of egg or sperm cells, which cannot by themselves generate an embryo. What counts, therefore, is not the current capacity to exercise reason and other inherent qualities (memory, autonomy, self-consciousness, etc.), but having the dispositional properties which enable one to do so.

The potentiality argument takes two forms. The first maintains that the zygote is an incipient or potential person, in the sense that, in the course of its development, the zygote will actualise its intrinsic potential to become a fully-fledged person. On this account, a potential person does not have the prerogatives enjoyed by an actual person (these are acquired gradually over time). The second position (akin to the personalist view) maintains that the zygote is – currently – a person, and that the development of its potential realises what it already is from the outset.

A consequence of the gradualist view is that society has a responsibility to determine, in specific situations, the extent of the rights and the degree of protection to be accorded to the embryo, taking into account the gradual acquisition of essential properties generally present in adult members of the human race.

### *2.1.1 Broader implications*

For some authors, individuals who lack the capacity for self-determination, who are devoid of intellectual abilities or rationality, who are not autonomous (in the moral sense of the term), are human beings, but not "persons"; they thus, strictly speaking, are not endowed with dignity – which does not in the least imply that they are not owed respect. Dignity is an absolute intrinsic value – traditionally associated with the status of a person – which must not be susceptible of variation, whereas cognitive faculties such as consciousness or memory may vary. Certain groups of individuals (e.g. those who are profoundly disabled or in a coma) lack the cognitive faculties characteristic of persons; nonetheless, their intrinsic value remains intact. In the Commission's view, they must therefore be treated with the respect that is due to every human being, as they would otherwise be the victims of ethically inadmissible discrimination. For other authors, it would be difficult to protect the embryo without regarding it as a person from the moment of conception (Putallaz 2008). A majority of the Commission believes that all human beings, because they are human, have a human nature which endows them with an intrinsic value, but not *ipso facto* with the status of a person. A difference arises with regard to the possession of cognitive faculties – the fact of being or of developing into a person. In the case of the embryo, the properties which confer the status of a person are only dispositional, i.e. they are not yet actual (and, in certain cases, they may not be realised at all). Thus, for some authors, the potentiality argument makes it possible to establish a gradation in the protection accorded to the embryo, depending on the stage of development.

Some members of the Commission believe that a distinction should be drawn between "dignity", on the one hand, and "person", on the other, without denying that these concepts overlap to a certain extent. The respect which is due to the embryo depends firstly on the intrinsic value which it possesses as a human entity and secondly on its capacity to develop the properties characteristic of a person. The more the embryo develops (provided it has the capacity to do so), the more it will have to be respected and accor-

ded adequate protection as it gains in personality – this means conceiving of an "ethics based on a *progressive* ontology" or "relational ontology" (Fagot-Largeault & Delaisi de Parseval 1989, pp. 110, 93). In this sense, an entity (an embryo or fetus, for example) acquires part of its value thanks to the human relations which it establishes with others – a point which is also valid for the previous thesis because, to become a person, to become autonomous, an individual requires the assistance of others. This is how autonomous and free individuals fully realise their potentialities. They may thus be considered as *moral agents*, i.e. individuals with the capacity for self-determination who can be held responsible for their actions. By contrast, individuals who are not (yet) persons – such as embryos, for example – are to be considered solely as *moral patients*, i.e. vulnerable beings who, because of their ontological status and their exposure outside the woman's body, require the protection of third parties. It may be objected that the possibility of a progressive ontology logically implies the possibility of a *regressive* ontology. However, while an embryo may, under certain conditions and pursuing its biological development, acquire the characteristics distinctive of persons – i.e. the (essentially cognitive and relational) characteristics generally present in adult members of the human race – an adult retains the dignity which has been acquired.

Given the difficulties outlined above, some authors maintain that dignity is a concept of no normative use (Macklin 2003). They argue that it could be replaced, without any loss, by the principles of respect for autonomy and beneficence. The Commission does not share this view; the concept of dignity currently covers a much wider semantic field than that of autonomy and freedom. Thanks to its semantic richness, extended and complemented by the notions of integrity and vulnerability, this concept makes it possible to apprehend and to express experiences constitutive of our common humanity. The variety of senses encompassed by the concept of dignity includes and transcends those covered by the concepts of beneficence and autonomy.

### 2.2 The family

For the purposes of its deliberations, the NEK-CNE decided to use the definition of "family" elaborated by the Swiss Coordination Committee for Family Matters (EKFF/COFF), while fully aware that this body was not focusing on the issues associated with MAR. According to this definition, the concept of "family" designates "those forms of life which are based on parent-child relationships in a multigenerational unit and are recognised by society" (EKFF/COFF 2009, p. 12).

In the Commission's view, this definition highlights the generic and relative nature of the family as an institution, considering in turn the two elements of the formulation – descriptive and normative (introducing a restriction).

Firstly, it should be noted that the formulation "those forms of life which are based on parent-child relationships" is highly open, which is particularly interesting with regard to MAR. Thus, according to the first part of the definition, and from a descriptive viewpoint, how these forms of life are established – by sexual means or by MAR – would appear to make no difference since, ultimately, the form of life in question will always be based on the relationship between parents and children. However, nothing is specified about the nature of this relationship: is it biological, emotional or genetic? As we have seen, the effect of certain assisted reproductive techniques is precisely to separate the gestational mother from genetic and social or intended parenthood.

Secondly, returning to the point made above, the Commission notes that the second part of the definition – "[forms of life which are] recognised by society" – introduces a restriction which underlines the eminently relative nature of social arrangements: forms

of life involving parents and children can and do vary from one society to another or at different times in the history of a given society. Consequently, if the concept of "family" is employed as a normative value – as is the case in the current law – it needs to be linked to a theory of value. If one says that the permissible forms of life based on parent-child relationships are those recognised by society, then one is using a sociological foundation. But to determine whether a form of life is ethically legitimate, one also needs to clarify by what moral criteria a society judges one form of life to be better than another. Taking the social context into account, one could specify what types of relationships are considered to be legitimate. However, the question at issue is not whether different forms of life are permissible from a social viewpoint, but whether they are so from a normative viewpoint – i.e. in terms of the relevant values. The Dispatch states that the family is to be protected as a "fundamental unit of society" and that "protection of the welfare of the child – a pillar of family law – is among the well-founded public-interest concerns of our society" (Federal Council 1996, p. 243). It is thus apparent that the value "family" involves distinct but interrelated social interests: the preservation of social stability or the state and the welfare of the child.

An interesting question, therefore, is why the legislators included so many restrictions which, *de facto*, prevent the formation of families via assisted reproductive techniques. Here, family is not to be understood in the generic sense, since assisted reproductive techniques certainly do contribute to the "establishment of families" (Federal Council 1996, p. 239) – indeed it is their main objective. The (implicit) assumption is that a certain form of life or certain types of family more effectively promote the stability of the state and the satisfaction of public interests (the welfare of the child, in particular). Several conditions restricting access to assisted reproductive techniques – requests for treatment must come from a heterosexual couple, married or exhibiting a degree of stability, where it will be possible for a parent-child relationship to be established in accordance with Articles 252–263 of the Civil Code – indicate that the current law protects the establishment of the traditional nuclear family. However, there are good reasons for believing that families of other types can fulfil the purposes traditionally associated with the family (see Section 3.3.2 (a)).

### 2.3 The welfare of the child

As stated in the Dispatch, "guaranteeing the welfare of the child is established as a fundamental principle" (Federal Council 1996, p. 198). According to the legislators, this principle implies that:

- third parties participating in MAR must justify their involvement in terms of the welfare of the child to be conceived;
- the welfare of the child trumps the interests and desires of the couple wishing to use MAR;
- MAR can only be used when the welfare of the child is guaranteed.

The Commission notes certain points which deserve to be considered in more detail.

Firstly, while there is no doubt about the centrality of the "welfare of the child" in the logic of the RMA, the content – or interpretation – of this principle remains vague. Is it to be understood as deriving from children's rights as guaranteed, for example, by the Convention on the Rights of the Child (United Nations 1990)? The Convention states that: "the best interests of the child shall be a primary consideration". The Commission takes the view that the principle is not to be understood in the *children's rights* sense, as such rights only relate to children after their birth, when they have acquired a legal personality. It would therefore be more appropriate to understand the principle in the sense of an *evaluation in advance* of the (familial, emotional, psychosocial, etc.) framework within

which the child will be born (Dreifuss-Netter 2009). From this perspective, the "welfare of the child" initially concerns persons other than the future child. For this reason, it needs to be ensured that the advance evaluation does not lead to discrimination against parents, particularly with regard to race, colour, sex, social background, wealth or any other circumstances.

Secondly, the Commission believes it would be wrong to overemphasise the idea of a conflict between parents' wishes and the welfare of the child. Given that this is not done in the case of couples who reproduce naturally, there is no reason to stigmatise infertile couples seeking MAR. It must be recognised that, in the circumstances – prolonged and burdensome interventions, and a success rate which, though rising, provides no assurance of treatment resulting in a birth for every couple – children born via MAR are "wanted" children, and that while there could be an element of egoism in parents' motives, this could just as well be true of parents reproducing naturally, who, however – in the absence of medical intervention – are not confronted with this accusation.

Thirdly, it is questionable to invoke the principle of the welfare of the child to deny a child the chance of being born. This involves a logical inconsistency – known in philosophy as the "non-identity problem" (Parfit 1984). If, at a given time, one refuses access to an assisted reproductive technique, invoking the "welfare of the child", the child whose welfare is evaluated in advance will simply not exist. Thus, one is claiming that it is better for "a" particular (hypothetical) child not to be born than to be born.

Fourthly, following on from the previous point, it could be objected that if the act is not harmful *for someone* (who does not yet exist and who, if the act is not performed here and now, will never exist), it is harmful by virtue of the consequences which the act will have for *any child* born in the given circumstances. In this sense, the welfare of the child is "conceived as a rule of conduct designed for physicians" (Federal Council 1996, p. 243), who thus have room for evaluation. The "welfare of the child" principle concerns third parties directly and the child only indirectly and generically. It is indisputable that *medically* assisted reproduction necessarily involves the intervention of third parties, who accept responsibility. However, it would be discriminatory to demand that couples seeking MAR should conform to ideal standards for perfect parenthood (which would have to be specified by legislators). For this reason, it is important that third parties should *assess the risk of specific harms, rather than what is supposed or believed to be harmful on the basis of prejudice*. It would be questionable to conclude that for the sake of the welfare of the child, it would be better not to be born than to be born to a mother aged 46, or to be born as the child of a same-sex couple, or even into a single-person household.

Finally, the question of the welfare of the child arises essentially in the RMA for those households which diverge from the model of the traditional nuclear family, which, it may be said in passing, does not represent all the types of family existing in society.

One might wonder whether the conditions applicable for the protection of children in the context of adoption should not be the same or at least similar in the context of MAR. While the welfare of the child is at issue in both cases, it should be emphasised that fundamental differences make this comparison problematic, especially because the child does not (yet) exist in the case of MAR. Nonetheless, the familial and social conditions of the future parents should be evaluated in a similar manner when medical advice is sought prior to treatment.

## 2.4 "Nature" and "natural"

The RMA frequently appeals to the concept of "nature". The Dispatch includes the following statements: "Nature intends every child to have a father and a mother"; "These fundamental principles of human nature are to be respected in the practice of MAR"; "the menopause sets a natural limit as far as women are concerned, since ovum donation is prohibited"; "The decisive point is that medically assisted reproduction should not give rise to familial relations differing from those which nature makes possible" (Federal Council 1996, pp. 243, 244, 245, 248). These extracts show that employing the concept of "nature" is problematic, as it is used in a vague manner. The term is actually understood in various senses, including the three discussed below:

1. The concept of "nature" can be understood in a **descriptive** sense, in which "*it either denotes the entire system of things, with the aggregates of all their properties, or it denotes things as they would be, apart from human intervention"* (Mill 2006) – even though what could today be called a natural product was created, yesterday, by human intervention. In this descriptive sense, nature cannot (directly) serve as a basis for ethical judgments: in fact, the function of technology in general, and medicine in particular, is precisely to combat diseases, to provide protection against adverse natural phenomena or to improve living conditions – in short, to liberate us from the constraints of the natural world whenever they impede the development of human values. In sense (1), nature can be seen as ethically indifferent – unless ethical normativity is considered to be objectively inherent in nature (in senses (2) and (3)).

2. One speaks of "nature" in an **ontological** sense, referring to the essence of a being. For example, the term "human nature" is used to indicate *what is specific to a human being*. The function of this sense of "nature" is to identify certain properties which are especially important in determining what a being is *fundamentally* – properties which do not depend on sociocultural factors. To identify such properties, we use criteria, or (non-moral) norms. For some, the "nature" of a being is the principle of its development, indicating the purposes which constitute the moral principles of its flourishing. It should also be noted that, while the human person, like any other being, incorporates a nature with intrinsic purposes, persons differ from other beings in exercising their *reason* and *freedom* to internalise these. Human persons can thus freely choose to modify the immanent orientations with which they are endowed by nature (in sense (1)).

3. The concept of "nature" is thus also used in an **evaluative** sense. A relationship exists between ontology (what *is* essentially) and ethics (what *should be*) – dimensions which, in human beings, interlock. This need not be the case, but certain ontological properties may be considered to have important moral implications. In sense (3), "nature", under certain conditions, plays the role of a fact and of a (moral) norm. Human nature thus indicates norms of human action and regulates (ethical) choices, both individual and collective: it is in the nature (sense (2)) of humans to develop technologies suitable for controlling nature (sense (1)) so as to promote their flourishing or the realisation of certain fundamental (moral) values (sense (3)).

The issues relating to these different senses are discussed in Section 3.6.3 (The normativity of "nature" and "natural").

## 2.5 Personal freedom (personality)

The protection of personality – taken here purely in the legal, not the philosophical sense – refers to the protection of personal *freedom* and of those elements (choice, self-

determination, etc.) which permit the *flourishing* of the person. For example, this value concerns not only couples seeking MAR, who demand the freedom to reproduce, but also children born via MAR, who may demand the freedom to access data concerning their ancestry, if they are born as the result of a sperm donation.

Personal freedom thus covers various legal goods, such as human dignity, the right to life, physical and mental integrity, freedom of movement, respect for privacy and the wish to reproduce.

It should also be noted that personal freedom pertains to physical persons; it is not altogether clear from existing legal decisions whether it is possible to invoke a right to life for the embryo *in vivo* or *in vitro*, for example – i.e. whether it has a claim to personal freedom and human dignity.

Historically speaking, personal freedom has served from the beginning of the modern period as a basis for determining a set of rights with which citizens can oppose intrusion of the state into individuals' personal and private lives; it thus primarily plays a *protective* role. Social developments and technological progress, as we shall see below (cf. Section 3.1), are giving rise to calls for the recognition of new freedoms relating to the possibility of satisfying needs. In this latter case, it is a question of obtaining certain benefits from the state; here, personal freedom plays a *stimulative* role and could even impose a positive obligation on the state. The law is thus called on to create new freedoms, which is indeed one of its prerogatives.

# 3. Critical discussion and positions adopted

## 3.1 Reproductive freedom

The question which needs to be answered now is: who has the right to access MAR? The question of reproductive freedom is thus essential.

The concept of "freedom" plays a key role in moral and political philosophy, and in the legal order of constitutional democracies, where it is embraced as a fundamental right (Preamble and Art. 10, Federal Constitution). It is, however, difficult to define this concept in practical terms. With regard to reproduction, we have seen that the right *not to reproduce* and the right *to be able to reproduce* may both be invoked in the name of reproductive freedom. Two opposing conceptions of freedom need to be considered. The first is based on the idea that being free involves *the absence of restrictions*, i.e. being able to decide – *without facing pressure, obstacles or constraints* – to: (a) avoid pregnancy (using contraceptive methods); (b) terminate a pregnancy (abortion); or (c) pursue parenthood through reproduction. The second conception, in contrast, is based on the idea that being free requires *additional conditions* to be present or met. Those who support this view believe that the state has a duty to make available the means which enable individuals to actually exercise their autonomy.

These two conceptions are known respectively as *negative* and *positive* freedom (Berlin 1988).

**Negative freedom.** Historically, negative freedom has meant the absence of interference by other parties, particularly the state, in individual choices which do not cause serious harm to others. For example, the regulations allowing pregnancy to be voluntarily terminated during the first trimester manifest the negative freedom granted to women to decide, without interference, to have an abortion. The fact that this ability is subject to a time limit reflects the collective – or the state's – duty to protect the life of the fetus, or to balance the interests at stake: the freedom of the mother and the right to life of the fetus.

In the reproductive sphere, the state recognises individuals' negative freedom; it no longer intervenes (as unfortunately was the case in the past, with compulsory sterilisation of certain groups) in the personal or private lives of individuals, who are thus free to choose their sexual partners, subject to the provisions of the Criminal Code (prohibiting sex with minors, incest, etc.), and possibly to reproduce.

With **positive freedom**, an individual or couple request medical assistance so that they can pursue parenthood; the individual or couple request the state to provide the means or conditions which are necessary to allow them to actually exercise an autonomous reproductive choice.

The question is thus whether – and if so, on what grounds – the state must guarantee freedom in relation to MAR. There is no right to a child, or right to a healthy child. Such rights would oblige the state to undertake certain acts, or even to guarantee that the desired results can be obtained, but it is not conceivable that these rights could be morally or legally recognised. However, it may be asked whether there is a "right" to medical assistance with regard to reproduction and, if so, in what circumstances.

Under the law, two medical circumstances can justify recourse to MAR:
enabling a couple to overcome infertility when other treatment methods have failed or offer no prospect of success (Art. 5 para. 1 let. a RMA);

b) avoiding the risk of transmitting a serious, incurable disease to the offspring (Art. 5 para. 1 let. b RMA)

As the second point is discussed below (cf. Section 3.2), we shall consider the first here. In the Dispatch, infertility is defined as follows: "involuntary childlessness despite regular, unprotected sexual relations over a given period" (Federal Council 1996, p. 244). Circumstance (a) in itself provides a basis for the prohibition concerning same-sex couples and single persons. In fact, persons who satisfy this condition are also excluded if they suffer from types of infertility which would require the use of prohibited methods of MAR (such as surrogacy in the case, for example, of congenital aplasia of the uterus – Mayer-Rokitansky-Küster-Hauser syndrome – or hysterectomy due to cancer or postpartum haemorrhage). Taken individually, the members of a same-sex couple might not suffer from any dysfunction and be fertile; equally, while it is impossible for them to overcome the biological conditions that prevent them from starting a family, this impossibility does not set them apart from the norm for a given population (two individuals of the same sex cannot conceive a child by sexual means). This shows that same-sex couples do not satisfy the conditions which, according to the law, justify the use of assisted reproductive techniques. Single persons, for their part, even if they are infertile, obviously do not constitute a couple in the sense of the law – the question of what elements (relating to the impossibility of having children) should be taken into account in the evaluation of infertility is considered in Section 3.3.2 paragraph (d).

Claiming the freedom to be able to access methods of conceiving a child with medical assistance represents a more convincing approach. It must first be recognised that the wish to have a child and start a family may be just as central for a same-sex couple and for a single person as it is for a heterosexual couple. It would in this sense be justified, in the name of personal freedom (in the *positive* sense), for the state to make available the methods that allow this freedom to be exercised – e.g. by establishing reproductive medicine units in public hospitals. It would also be justified, in the name of personal freedom (in the *negative* sense), for same-sex couples or single persons to be able to use the services offered by private clinics without being restricted, subject to what is said about the welfare of the child in Section 2.3.

It should be noted that a certain vagueness attaches to the concept of "nature" in Swiss legislation. On the one hand, the concept of "nature" is invoked to say that, among the various forms of interpersonal emotional and sexual relationships, there is that which exists between individuals of the same sex. Among the human population, homosexuality represents a natural variant of sexuality. Same-sex unions have, in addition, been legally recognised in Switzerland since 2004 (Partnership Act). It is therefore understandable that two persons of the same sex, living together, may express the wish to have a child and start a family. Thanks to technological progress and social developments, this wish – which for many people represents a central concern in their life – can now be perceived as a legitimate expression of personal freedom. As this freedom is restricted by a biological constraint which cannot be overcome without the intervention of third parties, it is conceivable that the methods allowing them to exercise this freedom could be made available to those who request them. This would be justified in the name of personal freedom and the principle of non-discrimination, given the freedom granted to heterosexual couples.

On the other hand, the concept of "nature" is invoked to argue that, since there is no medical indication in this situation, the demands of same-sex couples for assisted reproductive techniques do not seem relevant to establish a right. For the same reasons, an ontological understanding of the notion of "nature" allows reservations to be expressed

concerning the legitimacy of the use of MAR in the situation in question.

Thus, while an absolute prohibition on access to assisted reproductive techniques for same-sex couples and single persons does not seem to be justified, the conditions for the realisation of this freedom, especially the involvement of third parties – both for technical reasons (physicians) and for material reasons (sperm/ovum/embryo donors and gestational mothers) – make liberalisation much more complicated in practical terms (see Section 3.6).

### 3.2 PGD (Art. 5 let. b; Art. 5a of the draft revised Act)

For the sake of the ethical discussion, it is important that the methods and aims of MAR should be distinguished from those of preimplantation genetic diagnosis (PGD). *IVF is performed independently of PGD*, but PGD is only technically possible with a detour via IVF-ICSI: to prevent contamination due to the presence of genetic material from a second sperm cell, which could falsify the results of genetic testing, IVF must be carried out by means of ICSI. To date, IVF or IVF-ICSI have remained occasional treatments, dependent on a diagnosis of infertility in a heterosexual couple with a stable relationship. However, a second indication is specified in the RMA, concerned with "avoiding the risk of transmitting a serious, incurable disease to the offspring" (Art. 5 para. 1 let. b). Originally, this aim could only be realised via sperm selection and polar body analysis, but a wider range of methods of selection are now available.

There are various types of preimplantation procedures, each with quite different objectives and ethical implications: (1) PGD, (2) preimplantation genetic screening (PGS) and (3) human leukocyte antigen (HLA) typing.

The first can be used to search specifically for a mutation underlying a disease. PGD is a diagnostic application designed to detect a particular condition known to be hereditary.

The second, which may be performed in different ways, is undertaken in order to (a) screen for embryo abnormalities in a non-invasive manner (morphological examination); (b) screen for aneuploidy (e.g. trisomy 13, 18 or 21, or monosomy) in embryonic cells, in the absence of any familial genetic disorder; and (c) permit comprehensive screening or whole genome sequencing and analysis (WGSA) prior to embryo transfer. This last technique remains experimental and under development. In the future, it could permit screening for a set of genes influencing the chances of success of IVF, or for a set of genetic risk factors for complex, multifactorial disorders. However, it is important to emphasise the numerous weaknesses of comprehensive screening, which make embryo selection highly problematic – in particular, the large number of false-positive results, the limited predictive value of the analysis as regards genetic risk factors for multifactorial disorders, the imbalance between benefits and risks (principle of proportionality), and the difficulty of obtaining truly informed consent from the individuals concerned, given the vast amount of information yielded by the procedure (de Wert 2013).

1. PGD may also be used as a means of selecting tissue donors (tissue typing). These are cases where parents have a child with a serious disease, who could only be saved by haematopoietic stem cell transplantation (HSCT). This problem may arise with numerous conditions, such as Fanconi anaemia, beta thalassaemia or chronic granulomatous disease. Parents who cannot find a potential donor for HSCT (a peripheral blood, bone marrow, or cord blood transplant) among family members or anonymous donors may consider conceiving another child who could serve as a donor. Two approaches are open to them: the first involves conceiving a child by natural means and then carrying out prenatal HLA typing, knowing that the chances of a successful match are only 25%. The second approach involves opting for IVF and carrying out HLA typing as part of PGD, so as to ensure that a "saviour sibling"

can be transferred to the uterus and then born.

### *3.2.1 Reflections of the NEK-CNE*

#### a) Legal considerations

From a legal viewpoint, Switzerland should certainly revise the RMA to bring it into line with the case law of the European Court of Human Rights. In a 2012 judgment[15], the ECtHR held that legislation which prohibits the selective transfer of embryos unaffected by a disease of which the parents are healthy carriers (in this case, cystic fibrosis), while allowing the parents to abort a fetus affected by the disease lacks consistency and is in violation of Article 8 of the European Convention on Human Rights.[16]

#### b) Ethical considerations: PGD and PND

The main argument in favour of PGD arises from the contradiction faced by couples with a known genetic risk (Höffe 2011). On the one hand, they can opt for a "trial pregnancy", which may then be terminated after prenatal diagnosis (PND). On the other hand, they are not allowed to have an embryo analysed prior to transfer to the uterus.

The majority of members of the Commission do not see how one can justify the fact that it is not possible to determine, prior to transfer to the uterus, whether an embryo conceived *in vitro* is a carrier of a serious hereditary illness, while it is possible to carry out the same analysis on a fetus at a later stage of development and, if appropriate, terminate the pregnancy (on the analogy between PGD and PND, see the opposing views of Zimmermann-Acklin 2012 and Schaber 2013). The Commission takes the view that the reservations rightly expressed concerning the risk of a slippery slope associated with embryo selection cannot trump the need to support the couples concerned or their right to self-determination.

PGD can also be regarded as an act of solidarity with the parents concerned and a way of avoiding a foreseeable and unnecessary harm (Martin & Baertschi 2013); for this reason, a majority of the Commission approves of the changes made in the draft revision of the RMA.

This ethical framework sets a limit beyond which PGD is not acceptable: there must be a risk of serious suffering. It is, however, difficult to predict suffering, especially that of others. Those affected perceive their own suffering differently than a third party, particularly as regards the possibility of "living with it". Accordingly, PGD involves a certain ethical ambiguity: it may be assumed that, in many cases, the decision will not be taken from the perspective of the person affected but from that of the parents who, normally, are not directly affected, but are simply afraid of certain diseases or disabilities.

In practice, PND and PGD are generally performed because of the burden which the child's potential disease would represent for the parents, rather than because of the disease itself. And on what basis could it be claimed that a child suffering from a given disease would prefer not to be alive? For this reason, no attempt should be made to compile a list of conditions constituting indications for PGD. One and the same disease or disability may appear acceptable or tolerable to certain parents but not to others. The varying reactions of couples to news of trisomy 21 (Down's syndrome) provide a good illustration of this point. These considerations prompt the following question: in whose

15 Costa and Pavan v. Italy, 28 August 2012, § 64.

16 The Court notes that: "in order to protect their right to have a child unaffected by the disease of which they are healthy carriers, the only possibility available to them is to start a pregnancy by natural means and then terminate it if the prenatal test shows that the foetus is unhealthy" (§ 65) and continues: "The Court should not underestimate either the anxiety experienced by the first applicant, whose only hope of having another child, since she is unable to have recourse to PGD, carries the concomitant risk that the child will be born with the disease, or the suffering inherent in the painful decision to undergo, as the case may be, an abortion on medical grounds" (§ 66) (ECtHR 2012).

interests is PGD carried out? In the interests of the child, or of the parents? The Commission believes it is not possible to maintain that PGD is justified for the sake of the future child (see the non-identity problem discussed in Section 2.3), in that it involves a selection procedure concerning a particular embryo, and it is perfectly possible that "that healthy one" would also be the child who was born if PGD were not performed.

A minority of the Commission disputes the supposed analogy between PND and PGD and supports the arguments put forward by the Federal Council[17]; PGD, unlike PND, involves an explicit intention to produce embryos *with a view to* subsequently destroying most of them. Unlike PND, such "sorting" involves genuine selection.[18]

This minority sees a fundamental difference: in the case of PND, the pregnant woman is directly involved through her physical relationship with the embryo, which provides the latter with a certain protection. It thus requires a different way of weighing up the conflicting goods and of doing so in each particular case (should the pregnancy be continued or not?). In the case of PGD, by contrast, a choice is to be made between different embryos which – being *in vitro* (the woman's body is not involved) – are more readily accessible.

The Commission wishes to underline that what is at issue here is understanding the suffering of parents confronted with a genetic disorder and the reasons for their choices, and not evaluating the status of persons with disabilities. The authorities should initiate a wider debate on sociopolitical measures to promote the acceptance and integration of persons with disabilities in our society (marked by individualism and the glorification of autonomy), so as to ensure that PGD is an expression of free will rather than a result of social pressures (Kind et al. 2009). The debate should include reflection on the essential vulnerability of human beings.

It should be noted that, while practices vary at foreign centres where PGD is currently used, it is clear that the number of embryos which are required if PGD is to be performed is greater than the eight specified in the draft revision of the Act (three in cases where genetic material is not analysed). Experience at centres abroad shows that at least 9 or 10 ova, and possibly 12 or more, need to be fertilised during a given cycle if there is to be a realistic chance of embryo transfer in the same cycle. While not all the ova retrieved are fertilised, it is also the case that not all fertilised ova can be successfully analysed. By restricting to eight the number of embryos that can be produced during a given cycle, one is making genetic diagnosis difficult and failing to consider the welfare of the woman. A majority of the Commission therefore recommends that this restriction should be removed for PGD.

A majority of the Commission also believes that the indication for PGD in the law should be defined in relatively general terms and that a list of conditions should not be compiled, for reasons which have already been explained (NEK-CNE 2005, p. 19).

Finally, the question will arise of whether the methods of PGD are to be included in the list of items reimbursable under the compulsory health insurance scheme. The Commission wishes to emphasise that the aim should be to establish an equitable system and a coherent reimbursement policy. Insofar as PND is included in the list, it is difficult to see why PGD should not also be covered.

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17 "While PND does raise the question of a possible abortion, it may also be associated with early treatment options […]. In the case of PGD, however, when selecting between a certain number of embryos, the only choice is between acceptance and rejection. What is involved in one case is the unique relationship between the pregnant woman and her unborn child and, in the other, microscopic objects – be they human beings or clusters of cells – in a Petri dish, whose relationship to their progenitors is based on complex technical interventions. Just as the available options are not the same in these two cases, the moral criteria cannot be simply transferred from one to the other." (Federal Council 2013, p. 5279).

18 Federal Council (2013, pp. 5278–5279 and 5282), citing Haker (2002, p. 224 et seqq.).

### c) Ethical considerations: PGD and screening

In the case of PGD for a particular disease, the parents are often even more familiar with the implications than the physician and know from their family's own experience what it really means to live with the disease in question. In the case of screening, however, the parents cannot normally draw on personal experience and very often have only a vague idea of what consequences a positive result would have for their family. It would therefore seem to be necessary to offer counselling which can be adapted to the specific requirements of these two different situations.

Part of the Commission emphasises the fundamental difference between PGD and preimplantation genetic screening (PGS), and believes that legalisation of the former need not entail legalisation of the latter.

Unlike PGD, screening concerns numerous couples wishing to use IVF-ICSI. It is therefore essential to distinguish cases where the genetic risk is high (10–50%, rarely higher) from those where it is average (1–10%). This distinction also has implications for the number of embryos required for genetic analysis. It should be emphasised that the ethical implications of a test which allows screening for various potential diseases (deviation from a norm) are not the same as for a test which only allows a single disease to be detected (PGD). So it is important that the use of screening should be limited, given its broad scope, the fact that abnormalities may only be classified as "possible", and the difficulty of evaluating the actual impact of these abnormalities on the individual concerned. The characteristics covered by a screening programme need to be defined and the indications for screening specified. Opting for screening is not the same as deciding to carry out a specific genetic test.

Some members of the Commission believe that PGD and PGS should be legalised for IVF-ICSI, but that the latter should not be automatically performed for any infertility-related IVF procedure. Other members of the Commission stress the ethical differences between PGD and PGS; for them, the latter does not appear to be ethically legitimate, unless one were to posit a right to a "healthy" child, which has previously been ruled out for reasons of principle. In addition, the appropriateness of screening varies in line with the age of the woman using IVF-ICSI. Finally, it should be noted that the *performance of either of these tests should not be considered an ethical obligation.*

A majority of Commission members are in favour of the legalisation of PGD for couples with a genetic risk of having a child with a serious disease or disability. They believe that PGS should also be legalised in connection with infertility-related IVF-ICSI, but under somewhat different conditions: a distinction can be made between couples where the woman is young and those where the woman's age exposes her to a certain risk of chromosomal aberrations such as aneuploidy. However, the majority view is that an age-related indication for PGS should not be specified by the law.

With regard to good medical practice, it should also be noted that screening and the elimination of aneuploid (frequently non-viable) embryos may increase the chances of success of IVF for couples seeking to overcome infertility. However, the effectiveness of this technique is still subject to debate.

### d) Ethical considerations: PGD and HLA typing

As regards the use of PGD as a means of selecting tissue donors (tissue typing or HLA typing), it must be stressed that these cases raise important ethical questions (NEK-CNE 2007): do parents have a right to conceive a child for this purpose? If so, should this right be guaranteed by the law? Could parents be said to have a moral duty to act in this way? What about the rights and obligations of the new child, apart from those of the parents and the child affected by the disease? Does the former have a duty to undergo HSCT?

While it cannot be said that the new child is obliged to undergo an invasive procedure in order to donate tissue to the older sibling, the former's rights are certainly not infringed by a donation of cord blood, which is no longer needed once the child is born

– it is even possible that, depending on the recipient's age and weight, the number of cells present in cord blood may be sufficient for HSCT. The same cannot be said for the donation of tissue obtained invasively. In this situation, the parents are using their authority to involve the new child in "saving" the older one, without the former even being able to express an opinion. There is no doubt that invasive tissue collection represents a violation of the new child's physical integrity and that, while motivated by laudable aims, it is largely alien to this child's own interests (though later, the fact of having helped to save an older brother or sister could enhance the child's self-esteem or simply contribute to its development). One must therefore ask whether these factors are sufficient to render such tissue typing illegitimate, or whether it may be justified on the assumption that consent to donation would certainly be given, were the new child in a position to do so.

It should be recalled that the transplantation legislation imposes highly restrictive conditions on the collection of organs and tissues from children. The question of protecting the interests of the embryo and future child vis-à-vis the collection of haematopoietic stem cells and that of "consent" given by legal representatives (in this case, the parents) are particularly sensitive issues (Rehmann-Sutter et al. 2013). To assess whether invasive collection is ethically acceptable, one must also ask whether the intervention itself or its consequences expose the child to medical or psychosocial difficulties in the short, medium or long term. This involves talking into consideration the subjective situation of the individuals concerned. The conclusions reached will differ depending on whether one considers the question of the saviour sibling's welfare or that of its rights and obligations. Given that there are significant objections to the concept of a saviour sibling from the viewpoint of medical ethics (notably in terms of failure to respect the principles of non-maleficence and autonomy), the legalisation of tissue typing remains controversial. Must we conclude that it is ethically unacceptable? Or that it involves instrumentalisation of the child?

It should be noted, first, that parents who have no other way of helping their seriously ill son or daughter probably see the situation quite differently; for them – wishing to do everything in their power to save their child, even believing they are morally obliged to do so – the instrumentalisation argument no doubt appears distinctly shallow and abstract. While it may seem relevant at first glance, the argument that the saviour sibling is instrumentalised – and its dignity thus compromised – does not withstand closer analysis. According to Kant (the philosopher most frequently referred to in this regard), only complete instrumentalisation represents a valid ethical objection to a course of action. The formulation of the categorical imperative invoked in this case is as follows: "Act in such a way that you always treat humanity, whether in your own person or in the person of any other, never *simply* as a means, but always *at the same time* as an end" (Kant 2009, p. 96; emphasis added). In addition, for the reasons explained earlier, it would be dubious to claim that, in the Kantian sense, an embryo can be regarded as a person. From the perspective of the parents, the saviour sibling is also generally accepted and loved for its own sake, even if the older sibling's illness may be the element that triggers its conception.

Proponents of the "personalist" view criticise the instrumentalisation of the saviour sibling, not because of the parents' (subjective) intentions – which are assumed to be generous and altruistic – but to the extent that this practice (objectively) fails to respect the embryos which are produced to this end and deliberately destroyed. While in the case of PGD embryos are eliminated which carry a predisposition to a serious illness, in the saviour sibling case healthy embryos are also eliminated simply because of a lack of compatibility with the child who is ill. There is thus an instrumentalisation of the embryos, and consequently a partial instrumentalisation of the child who is to be born.

Other arguments have been put forward against tissue typing by PGD (Putallaz 2008), in particular, that of a slippery slope – i.e. the extension of indications for donation to other types of cells or tissues, or even organs, and the expansion of the potential

circle of recipients. Is there a risk of the practice spreading if it were legalised? One can respond to this argument by drawing attention to the specific features of the various types of donation. HSCT requires extremely close tissue compatibility, much more so than in the case of organs, for example (Romagnoli et al. 2012). This is why there is a much greater chance of finding a matching donor for an organ transplant than for HSCT, which explains the need to resort to a saviour sibling. As far as the circle of recipients is concerned, this is a question which can be resolved with the aid of specific provisions, as in the case of organs removed from living persons, and minors in particular (Art. 13 para 2 let. d, Transplantation Act). For the Commission, it seems clear that while genetic tests can be justified in the case of tissue typing (the saviour sibling), this does not mean that it is desirable for such tests to be extended to cover other characteristics of the future child. The Commission is thus opposed to the determination of genetic characteristics for reasons connected with subjective life plans (the "designer baby").

All the members of the Commission, whether they accept or reject tissue typing by PGD, have come to the conclusion that parents who seek PGD abroad so as to ensure that they have an HLA-compatible child do so for reasons which are ethically comprehensible and honourable; they are not in any way to be blamed. Those members of the Commission who oppose the legalisation of tissue typing by PGD in Switzerland do not call into question the individual decisions of the parents concerned.

### 3.3 Restrictions on reproductive freedom

While recognising that the wish to have a child is one of the "fundamental manifestations of the development of the human personality" (Federal Council 1996, p. 217), and that an absolute prohibition on all assisted reproductive techniques is contrary to the principle of proportionality, the Federal Supreme Court has nonetheless taken the view that to place certain restrictions on the use of these techniques is not prejudicial to the intangible core of personal freedom (ATF 119 Ia 478). It is therefore important to assess the restrictions specified in the RMA.

#### *3.3.1 Primacy of the welfare of the child (Art. 3 para. 1)*

As we have seen, ensuring the welfare of the child is established as a fundamental principle of the RMA. However, the Commission believes that, as explained above (cf. Section 2.3), there are various limitations to the "welfare of the child" as this value is used in the RMA: (1) its content and application remain vague; (2) it seems generally to be pitted against the pursuit of parenthood, whereas in many respects the latter is what makes its realisation possible; and (3) there is a lack of precision regarding empirical evidence of the harms which it is designed to prevent. For example, the Dispatch states that: "It is […] clear that, in the interests of the child, only different-sex couples can have recourse to MAR" (Federal Council 1996, p. 244). For the Commission, however, it is not at all "clear" why, in the interests of the child, only different-sex couples should be able to access assisted reproductive techniques. Rather, it sees this as an expression of prejudices which are not based on any evidence (unless one invokes a normative notion of "nature"). Same-sex couples can jointly assume parental responsibility for a child, even though they cannot "naturally" (in sense (1)) conceive it without the intervention of third parties. The Commission believes that this is a case of discrimination based on a misapprehension of the welfare of the child (probably due to its imprecision), the presumption of harms which are not corroborated by empirical studies, and the general orientation of the RMA towards normativity modelled on biology.

The Commission takes the view that the welfare of the child is an important value. However, it is also important to determine more precisely what this expression denotes within the logic of the RMA, so as to provide a clearer mandate for third parties who are required to act in conformity with the normative values specified therein. Otherwise, the wel-

fare of the child could be used in an arbitrary manner to frustrate legitimate freedoms. For this reason, in each particular situation, refusal of MAR should be based on a strong presumption – supported if necessary by empirical studies – in other words, on an *advance assessment* to the effect that the (familial, emotional, psychosocial, etc.) framework within which the child would be born represents a threat sufficiently serious for it to be preferable for the child not to be born at all. Otherwise, this value would serve, as pointed out above, to conceal more arbitrary, or even discriminatory, motives.

For that section of public opinion which conceives of the family solely and essentially as a household comprising a heterosexual couple, however, it is acceptable to prevent same-sex couples and single persons from accessing MAR.

### *3.3.2 Conditions for access to assisted reproductive techniques*

While the normative values permit a general evaluation of the issues at stake in assisted reproductive techniques, other, more specific conditions are stipulated in the RMA. It will be useful to review those which could be subject to controversy.

#### a) Restricted to couples where a basis for filiation exists (Art. 3 para. 2 let. a)

"Article 3 para. 2 let. a restricts the use of assisted reproductive techniques to couples for whom a basis for filiation exists in accordance with Articles 252–263 of the Swiss Civil Code" (Federal Council 1996, p. 244). These provisions entail that the use of MAR by a single person or by same-sex couples is prohibited. The Commission notes that these provisions are based on a questionable premise, namely that the traditional nuclear family, as a "natural" form, is the best possible parental configuration. The various types of family (traditional nuclear families, reconstituted families, heterosexual and same-sex couples with children, single-parent families, etc.) cannot, by their mere structure, guarantee the welfare of the child. This results from several factors, such as the parents' commitment, the richness and stability of interpersonal relationships, and the availability of human and material resources. Empirical data, frequently deficient in the case of homosexual parenthood, does not provide conclusive evidence of a clearly negative influence of one family type compared to another (Simoni 2012, pp. 52–56). Others, however, believe that even if a child can in fact flourish in a single-parent family, legislators should not encourage the emergence of this type of family by broadening the indications for access to MAR.

Under the RMA, same-sex couples are denied access to assisted reproductive techniques on the basis of the law of filiation, which reflects a particular understanding of the normativity of nature (in sense (1)). Indeed, the Dispatch states that: "medically assisted reproduction should not give rise to familial relations differing from those which nature makes possible" (Federal Council 1996, p. 248). Filiation law developed around a hitherto indisputable fact, namely that the mother is always certain (*mater semper certa est*). This certainty is dispelled by various assisted reproductive techniques (ovum/embryo donation and surrogacy). However, on closer examination, it can be seen that the law sometimes allows for departures from biological reality. Arrangements of a more arbitrary kind legitimise the fact that the father is not necessarily the biological father. The law of filiation specifies, *inter alia*, that "[the parent-child relationship] is formed between child and father by virtue of the latter being married to the mother" (Art. 252 para. 2 Swiss Civil Code). This presumption – involving a justification which differs from the biological character of maternity – could also be accorded to other persons, such as a woman living in a registered partnership with the child's mother (who could use sperm donation), or a man living in a partnership with the father who donated sperm for a surrogate pregnancy, the gestational mother having herself received an ovum donation. The Commission believes

that a revision of the law of filiation could be justified, and that it would be quite possible to incorporate the variations arising from MAR into coherent legislation – comparable to the law of adoption or the law of filiation for a non-biological father.

Disputes may arise – as has already occurred in the United States (see, for example the cases of Johnson v. Calvert (Cal. 1993) for gestational surrogacy and In the Matter of Baby M. (N.J. 1988) for "traditional" surrogacy) – between the intended parents and the surrogate mother over the question of who is the "natural" parent of a child conceived by IVF or IVF-ICSI. It would thus be essential – were ovum donation, embryo donation and surrogacy to be legalised – for legislators to clearly define the type of parental relationship privileged in each situation. It should be borne in mind that a change in the law of filiation ultimately involves major political choices.

### b) Age, personal circumstances and age of majority (Art. 3 para. 2 let. b.)

Other requirements serve to restrict access to assisted reproductive techniques, but in the name of the welfare of the child. The first concerns age (in the sense of an age limit for reproduction). No specific age limit for access to MAR is defined in the RMA. This limit is left to the discretion of practitioners, who are to determine it on the basis of three criteria.

1. The first criterion is of a supposedly biological order and involves taking the menopause as the natural age limit for reproduction in women. The Commission believes that this is not a sound criterion. Firstly, the onset of menopause can vary from one woman to another for either natural or pathological reasons; in the latter case, where the menopause occurs prematurely (before the age of 30 in some women), recourse to assisted reproductive techniques would be justified, as the women concerned are socially of childbearing age. Secondly, this is a case of imposing a restriction based on a biological fact (nature in sense (1)), whereas the question is precisely whether this fact provides a sufficient reason for doing so.
2. The second criterion links the age of the parents to the welfare of the child (understood as an interest in receiving parental support up to the age of majority). The question is thus to determine the ideal age for parents – a question which arises essentially for the woman, as it is very rare for discussions of the age limit for treatment to focus on the male partner. It is indisputable that parents have a duty to attend to their children's mental, physical, emotional and material needs at least until they reach majority. They should therefore be in a position to do so, and age obviously affects their capacity to meet their children's needs. However, grandparents often assume responsibilities which are important for the development of their grandchildren, sometimes in place of the parents. It is also rightly emphasised that intergenerational ties – the relationships a child can enjoy with several generations of a single family – certainly represent an experience of great human richness. But while age is certainly significant in various respects, it remains difficult to draw any general conclusions. Given that there can be no completely satisfactory answer to the question of age, a pragmatic approach would take the form of gathering, on a case-by-case basis, a set of elements supporting a presumption, on the part of the professional, that recourse to MAR is unacceptable in a given situation (at the risk, however, of intruding on the private life of the persons concerned). The elements in question would include those mentioned above, such as whether the child will be able to benefit from a network of human relationships (initially including the parents, grandparents, etc.) which is as rich and enduring as possible, with professional standards also being respected. This last point brings us to the third criterion, which is of a medical kind.

3. Scientific studies demonstrate a correlation between maternal age at the start of pregnancy and the risks of morbidity and mortality for the mother and child. The principle of non-maleficence – a cornerstone of medical ethics – thus means that one may refuse to provide MAR services in accordance with a code of professional ethics.

Finally, the Commission notes that the criterion of "personal circumstances" needs to be more precisely defined; for example, legislators should clarify whether this refers to the parents' physical and mental health (thus prohibiting IVF-ICSI if one member of a couple is being treated for cancer, for example – at the risk of intruding on the couple's private life) or their socioeconomic situation.

### c) Use of sperm donation restricted to married couples (Art. 3 para. 3)

The Commission takes the view that this restriction discriminates against unmarried couples, same-sex couples and single persons. The questionable nature of the restriction is shown by two arguments. Firstly, an unmarried couple's relationship may be just as stable as that of a married couple – and it is difficult to prove that a relationship will stand the test of time, whether the couple is married or not. Secondly, a stable relationship does not in itself guarantee the welfare of the child, although it may (subject to certain conditions) be essential in ensuring the child's harmonious development (Federal Council 1996, p. 245).

In addition, given that when a married couple uses MAR with heterologous sperm donation the man becomes the father solely by virtue of the fact that he is married to the mother – i.e. by means of a legal device – legislators could employ this same device to establish parenthood for a woman living as the partner of a mother who conceives as a result of a sperm donation from a third party. If legal recognition of a couple's relationship is considered to provide a guarantee of stability, a same-sex couple could possibly be required to be in a registered partnership (assuming that the prohibition on accessing assisted reproductive techniques is also removed from the Partnership Act). It would then be necessary to specify the respective duties of assistance and maintenance which would be entailed. For the sake of the welfare of the child, registered partnership should be a legal institution as clearly defined as marriage. In the legislation, registered partnership – as it involves a same-sex couple – is not considered to be equivalent to marriage, and adoption and the use of assisted reproductive techniques are therefore prohibited. A majority of the Commission does not share this position (for the supporting arguments cf. Section 3.6.3). The Commission believes it appropriate to recall that in the Federal Constitution (Art. 41 para. 1 let. c) families are defined simply as "communities of adults and children", with no further specifications.

### d) Overcoming infertility (Art. 5 para. 1 let. a)

Infertility is defined as "involuntary childlessness despite regular, unprotected sexual relations over a given period" (Federal Council 1996, p. 244). Studies suggest that, overall, 24% of the global population experiences fertility problems, and that 15% of the population of reproductive age will seek medical assistance to conceive (Fisher 2009).

Infertility may be caused by disorders in the man or woman, or by the combined effects of male and female factors. The causes may also remain unknown. In both men and women, infertility may be associated with disorders or diseases of genital or nongenital systems, or it may be psychogenic. It is frequently due to infections, injuries, malformations or genetic abnormalities. In certain cases, an immunological reaction can be observed, with the production of antibodies to sperm antigens. It should also be noted that chemotherapy, radiotherapy or surgery may lead to temporary or permanent infertility

in patients with cancer.

Determining whether infertility is a disease is not just a technical or medical question, but a question of evaluation from a social perspective. In the evaluation of infertility, four aspects need to be taken into account: (1) the biological dimension of infertility; (2) infertility as the result of a certain type of relationship, or the absence of a relationship; (3) the suffering associated with infertility; (4) the social components of infertility.

1. Infertility can first be regarded as a deviation from a statistically dominant functional state (i.e. the ability of a heterosexual couple to reproduce). In this sense, infertility may be considered a disease. Granting or withholding the status of a disease makes it possible to justify or to deny medical assistance for infertility, and to classify treatment as legitimate or not. It should be noted that, among couples starting treatment, infertility remains unexplained in 10% of cases.
2. The second way of viewing infertility – as the result of a certain type of relationship, or the absence of a relationship – makes it possible to depart from the infertility-as-disease logic (thus broadening the legitimacy of MAR) and to include persons who are childless for other reasons – for example, because they are single (for all kinds of individual reasons) or because they form a same-sex couple (infertility then results from the type of emotional relationship, not from a functional state, since, taken individually, the persons could be fertile).
3. The suffering associated with the inability to have children is the crucial factor; after all, a single person or the members of a (heterosexual or same-sex) couple may not be able to have children without, however, suffering on this account. Reproduction is not an obligation, just as childbirth is not an inexorable fate. In the Commission's view, the use of assisted reproductive techniques is ethically justified only insofar as childlessness is a source of serious suffering for the persons concerned – in other words, only to the extent that it is perceived and experienced as intolerable. It must be recognised that many people who are infertile suffer intensely as a result of this situation, just as there are people who, though not infertile, likewise suffer as a result of their inability to start a family. In these cases, the majority of the Commission believes that the use of assisted reproductive techniques is justifiable.
4. Lastly, infertility has social and cultural components. A person or couple may feel under pressure from their social environment and "want" to wish to reproduce for, as it were, external reasons. Here, a significant role is played by cultural factors associated with fertility, sexuality, women's role in society and their reproductive function. Reproductive medicine is often inextricably bound up with considerations of *gender*. It is of course extremely difficult, if not impossible, to say when a motive is authentic or socially constructed, given the intricate web of human and social relationships in which individuals are normally caught up from birth onwards. Infertility should therefore always be considered in its practical context and according to the particular constellation in which it is expressed. For the reasons mentioned above, it is important that the law should include protective mechanisms for cases where the person or couple concerned is subject to undue pressure.

The legal regulation of IVF-ICSI should seek to ensure that everyone can decide freely, without being subjected to pressure of any kind, or to any kind of restrictions of principle.

### 3.4 Development of embryos (Art. 17)

Under the existing law, a maximum of three embryos can be developed outside the woman's body (under the draft revision of the RMA, the maximum number is eight if genetic analysis is performed). These restrictions invite three observations.

1. The technique of elective single embryo transfer (eSET) is currently being promo-

ted as a way of avoiding multiple pregnancies. At the same time, however, the version of the RMA now in force rules out the possibility of preserving embryos which have been identified as healthy but cannot be transferred within the current cycle. As it is thus prohibited to freeze unused embryos in anticipation of future IVF cycles, couples are left with no other choice but to have these embryos destroyed or to donate them for research.[19] Some people see this situation as ethically questionable, asking why couples cannot be allowed to preserve the embryos concerned when they wish to make subsequent use of them for another IVF attempt. This would offer the advantage, *inter alia*, of sparing the woman unnecessary treatments, since the freezing of impregnated ova produces less satisfactory results than the freezing of embryos, and impregnated ova, once thawed, may turn out to be unusable. The prohibition on freezing was originally introduced in the RMA so as to prevent MAR centres from "stockpiling" frozen embryos. The Commission believes that this motivation should be reviewed with regard to both IVF-ICSI and PGD. The majority of Commission members can see no ethical justification for the prohibition on freezing; a minority, however, considers that cryopreservation instrumentalises human embryos and compromises their intrinsic dignity. The majority thus recommends that this prohibition should be removed from the RMA. It takes the view that freezing should be permitted for longer periods and for purposes which should be reconsidered.

2. With eSET, the same pregnancy rate can be achieved as with the transfer of two or more embryos, while at the same time the risk of multiple pregnancies is minimised. This technique involves developing all the impregnated ova – rather than only three – to the embryo stage (for two to five days). The embryo with the highest implantation potential is then selected on the basis of morphological and cell biological criteria (i.e. without genetic analysis) and transferred, while the other embryos are cryopreserved. Experts point out that, in order to ensure the same pregnancy rate with eSET, it is important to be able to choose from a relatively large number of embryos (for example, it has been observed that out of ten embryos, two are actually viable). With the number of embryos restricted to three, this technique – used all over the world – cannot be contemplated, as it does not satisfy the medical requirements. The Commission believes that, having regard to good medical practice, it is ethically justifiable to develop a larger number of embryos; the number should be specified in professional guidelines in accordance with the principles of good medical practice (see Section 4).
3. The debate on the status of the human embryo arose from the fact that, since the pioneering work on IVF carried out in the late 1960s, human embryos have existed outside the mother's body and been available for purposes such as MAR or biomedical research. In the light of this new situation, the question of the status of the embryo – and the protection which it deserves during this stage of its development – needs to be reconsidered. Certain key arguments in favour of recognising a human embryo's moral right to protection have come to dominate the international debate, being constantly put forward or criticised. In most cases, these arguments assume that a right to protection derives from recognition of the embryo's human dignity and/or status as a person (cf. Section 2.1). While the majority of Commission members believe that the human embryo has an intrinsic value, they do not endorse the assumption that the embryo is already a person or that it should be considered "as if it were" a person. For this reason, it takes a gradualist and pragmatic view of the rights of the embryo and fetus to protection, in accordance with the

19 Under the draft revision of the RMA, the conditions specified for the preservation of embryos are the same as those currently applicable for "impregnated ova"; it is no longer stipulated that all the embryos developed must be transferred immediately (Federal Council 2013, p. 5331 et seqq.).

idea that there is a progressive development of, *inter alia*, cognitive faculties and relational life, and that this development plays an essential role in the determination of personhood. The Commission thus maintains that the human embryo has an intrinsic value, but is not a person. Of course, because it is "exposed", the embryo appears more vulnerable *in vitro* than it is in the mother's womb, and the question of its protection arises in a different way. However, is this sufficient to require us to conclude that the embryo *in vitro* has a different status from the embryo *in utero*? The majority of the Commission takes the view that the former need not be accorded greater protection than the latter, which may be aborted up to the 12th week of pregnancy if the mother so wishes.

### 3.5 Prohibition of ovum and embryo donation and surrogacy (Art. 4)

Three practices are prohibited by the RMA: ovum donation, embryo donation and surrogacy (Art. 4). These assisted reproductive techniques lead to the "splitting" of parenthood, by separating the gestational mother, the genetic mother (the woman donating the ovum), the genetic father (the man donating the sperm) and possibly also the intended or social mother and the intended or social father. The first two prohibitions will be considered in this section; surrogacy will be evaluated separately.

It must be acknowledged that ovum donation, unlike sperm donation, involves a physical intervention which may have adverse effects on the health of the donor (as the gametes have to be retrieved from inside the woman's body, following hormonal ovarian stimulation). Nonetheless, the majority of the Commission takes the view that the prohibition on ovum donation is discriminatory vis-à-vis sperm donation and is based on a highly questionable naturalist justification. As a genetic relationship is not required for fathers, it is not apparent why it should be required for mothers. The Dispatch states: "For the Federal Council, the decisive point is that medically assisted reproduction should not give rise to familial relations differing from those which nature makes possible. The principle of the certainty of maternity at birth, expressed in the adage '*mater semper certa est*', should not be abandoned" (Federal Council 1996, p. 248).

The Commission believes that ovum donation could be organised along the same lines as organ donation, with provision being made for two types of donation – intra-familial (related donor) and "anonymous" (unrelated donor). In order to safeguard the child's right to know its ancestry, it would be necessary to establish an ovum donation registry; the identity of the donor could then be ascertained via a coded identification system. "Anonymous" ovum donations could be made by couples using MAR. Ova retrieved for this purpose which are not used could be preserved (using the promising technique of vitrification) and then made available when they are no longer required by the couple. This would also prevent gametes from being wasted.

The Dispatch also states that embryo donation is not desirable from the point of the view of the welfare of the child and embryo protection: the child "should at least be genetically related to one of its legal parents"; in addition, "the legalisation of embryo donation could lead to inappropriate production of 'surplus' embryos" (Federal Council 1996, p. 247). Legislators argued in favour of sperm donation for married couples by pointing out that the division of paternity between a genetic and a social father has a "parallel in natural reproduction" (Federal Council 1996, p. 248). It is true that the Latin adage involves the idea that no certainty attaches to paternity ("*mater semper certa est, pater numquam*"). However, genetic analysis and the technical possibilities opened up by MAR mean that contemporary social reality is quite different from that of Ancient Rome. However true it may originally have been, the adage is no longer valid today and should not be used to justify a prohibition. Today, it is possible for us to establish an individual's paternity and

also to separate the genetic and the gestational mother. This is the reality which needs to be addressed. As regards the inappropriate production of "surplus" embryos, the Commission takes the view that this problem could be resolved by using existing frozen impregnated ova which are no longer required by the original couple. While the Commission has expressed reservations as to the validity of the distinction between "impregnated ovum" and embryo, it recognises that impregnated ova – rather than being destroyed, and provided that consent is granted by the original couple – could represent a valuable resource for infertile couples with no viable gametes. This would not only prevent inappropriate production of "surplus" embryos but also allow better use to be made of impregnated ova, again avoiding wastage. As in the case of "anonymous" ovum donation, the child's right to know its ancestry could be safeguarded by means of an embryo donation registry, which would include a coded system for identification of the genetic parents.

A minority of the Commission is opposed to ovum and embryo donation: as soon as human biological entities become available outside the woman's body, the conditions exist for the commodification of human beings, leading to market-driven commercialisation on an international scale.

### 3.6 Ethical evaluation of the prohibition on surrogacy

Before examining the main arguments put forward in the ethical debate both for and against surrogacy, it will be useful to provide some general information on this topic (Bleisch 2012). The first point to note is that a wide variety of scenarios are technically conceivable with MAR:

- In *traditional surrogacy*, the fertilised ovum is always that of the surrogate mother, who agrees – altruistically or in return for payment – to carry to term a child conceived by MAR. This may involve, in the case of a heterosexual couple, intrauterine insemination of the surrogate mother with sperm from the husband or partner (unmarried couple) or, in the case of a same-sex couple, with sperm from one of the partners.
- In *traditional surrogacy with donor sperm*, the surrogate mother is inseminated with sperm from a (possibly anonymous) donor.
- In *gestational surrogacy*, the fertilised ovum does not originate from the surrogate mother; IVF is performed with gametes from the intended parents, and the embryo is then transferred to the uterus of the surrogate mother. The intended or social parents will thus be genetically related to the child.
- In *gestational surrogacy with donor sperm*, IVF is performed with the ovum from the intended mother (who will be genetically related to the child) and sperm from a (possibly anonymous) donor.
- In *gestational surrogacy with a donor embryo*, IVF is performed for an infertile couple, i.e. the intended parents (social parenthood), using donated ova and sperm (genetic parenthood) and the embryo thus obtained is transferred to the uterus of the surrogate mother (gestational parenthood). In this case, neither the surrogate mother nor the intended parents are genetically related to the child, as the embryo transferred is produced by IVF with donated gametes.

It should also be borne in mind that surrogacy may be undertaken on an altruistic (i.e. unpaid) basis or for payment. Finally, surrogacy responds to the needs or desires of two distinct groups. On the basis of medical indications, it enables heterosexual couples and single persons to overcome fertility problems; at the same time, on the basis of social demand, it can allow male couples to become parents.

To the extent that surrogacy could help a couple to overcome infertility, it could theoretically fall within the scope of the RMA. However, under the current law, certain women are not allowed to access assisted reproductive techniques because the type of infertility from which they suffer (e.g. congenital aplasia of the uterus – Mayer-Rokitansky-Küster-Hauser syndrome – or hysterectomy due to cancer or postpartum haemorrhage) would require recourse to prohibited practices such as surrogacy. This exclusion could be regarded as discrimination.

The reasons for which surrogacy could be legalised include the following in particular:
- solidarity towards women with serious uterine conditions;
- restriction of medical tourism (certain women or couples are currently forced to seek treatment abroad).

The Commission notes that if surrogacy were to be permitted on a case-by-case basis for medical indications, this would still exclude same-sex couples, where the basis for the demand is social. For situations of this kind, various arguments need to be considered, which come under the following headings: the harm principle, the stability of the state, the normativity of nature and the status of disagreements in a pluralist society. It should be emphasised that some of the arguments concern surrogacy as such, while others concern surrogacy for same-sex couples or single persons.

### *3.6.1 The harm principle*

Generally speaking, in a liberal democracy, personal freedom may be restricted, *inter alia* (in the case of overriding personal or public interests), if the exercise of this freedom violates other people's fundamental rights (such as the right to physical/mental integrity, non-discrimination, life, etc.). We have said that it is important to determine specific harms rather than what is supposed or believed to be harmful on the basis of prejudice. As regards the welfare of the child, the Dispatch specifies two circumstances justifying denial of access to assisted reproductive techniques (Federal Council 1996, p. 243):
- "Assisted reproductive techniques should only be used if, compared to natural reproduction, they do not pose an increased risk to the child's development."
- "Treatment should not be undertaken in cases where the physician is convinced that the conditions of the child's life would be rendered difficult by major psychosocial risks."

With regard to the first – scientific and technical – question, the Commission notes that, according to the results of recent studies, assisted reproductive techniques *appear to represent an adult cardiovascular risk factor* (Scherrer et al. 2012). The Commission has carefully noted these findings, which concern the practice of MAR as a whole. However, for the time being, and in the absence of definitive evidence which it is essential to obtain, the Commission believes that these findings place an obligation on physicians to inform couples wishing to access MAR, and to ensure long-term follow-up of children born via IVF-ICSI (by establishing a registry of children born via MAR), but they do not justify an absolute ban on these techniques.

The second – psychosocial – question is a broader one; however, it will be considered here exclusively in relation to surrogacy. What needs to be evaluated is *who* could be harmed by the practice of surrogacy and *under what conditions*.

#### a) For the child

With regard to psychosocial risks, it is important to specify on what the physician's "conviction" is based. Explaining the reasons for a possible refusal of MAR is essential because risks to the child's psychosocial development are often invoked as an argument

against, for example, granting same-sex couples access to assisted reproductive techniques. The (sometimes contradictory) results of empirical studies appear to show that the development of children born via MAR is similar to that of children conceived by natural means. It should be emphasised that these studies tend to focus on female same-sex couples, while male couples remain inadequately studied (Simoni 2012).

The welfare of the child is also invoked as an argument against surrogacy, which is said to involve:

- breaking the bonds of attachment between the surrogate mother and the child, which could have a long-term impact;
- instrumentalisation of the child, who is "treated like a commodity which can be ordered by a third party" (Federal Council 1996, p. 273) and thus becomes an object of commerce;
- giving the interests of the intended parents priority over those of the future child.

At birth, when the child is received by the intended mother, surrogacy entails a breaking of the bonds which have developed between the surrogate mother and the fetus during pregnancy – bonds which underlie an early attachment. This rupture could have adverse consequences for the child's perception of its immediate emotional environment and, in the longer term, for its sense of its personal history. It is true that, during pregnancy, bonds of a psychological and biological nature are formed between the pregnant woman and the fetus. At birth, these bonds are broken, as the relationship is carried on by the intended mother. The Commission recognises the importance of these bonds as a significant epigenetic factor. It believes that, from the perspective of the welfare of the child, it would be advisable for the surrogate mother to cultivate these bonds, in the full knowledge that she will have to surrender the child she is carrying to the intended mother – a separation which will probably be painful for her. However, in the Commission's view, the child is not truly abandoned, as the intended parents are there to receive it and to provide all the care and attention which it needs.

According to Kant – whose formulation of the categorical imperative is frequently invoked in relation to instrumentalisation – one must act in such a way as always to treat humanity never *simply* as a means, but always *at the same time* as an end (Kant 2009, p. 96). On this reading, only *complete* instrumentalisation represents a valid ethical objection to a course of action.

The Commission believes that a third-party organisation (independent of the clinic where the surrogate mother is treated) could assume responsibility for safeguarding the interests of the future child, as against the interests of the intended parents.

The Commission does have concerns about a practice which leads to problems analogous to those which may arise in situations of adoption: while adoption is a way of providing a solution to an existing situation (e.g. children abandoned or orphaned), in the case of surrogacy, a difficulty is deliberately created which did not previously exist.

### b) For the surrogate mother

Numerous arguments have been put forward to justify a prohibition on surrogacy, including the following:

- it involves risks to the physical health of the surrogate mother (risks associated with pregnancy, childbirth and a possible termination);
- it "reduces the woman to the level of an object" (Federal Council 1996, p. 273), involving risks of instrumentalising and commodifying the surrogate mother;
- it violates the autonomy and privacy of the surrogate mother, who is closely super-

vised by the intended parents;
- it is contrary to human dignity, as it is based on instrumentalisation of the woman and commodification of the child;
- by separating the various functions of motherhood, uterine, social and even genetic, it would represent a "major anthropological mutation" (CCNE 2010, p. 8);
- it involves exploitation of the most disadvantaged women, possibly on an almost "industrial" scale.

The Commission recognises that it is impossible to avoid exposing the surrogate mother to the potential medical risks associated with childbirth or termination of pregnancy, or to the psychological burdens which accompany childbirth (postnatal depression, etc.). For this reason, if surrogacy were to be legalised, particular attention would have to be paid to questions of information, understanding and voluntariness so as to respect the autonomy of the surrogate mother. It would then be difficult to conclude that instrumentalisation was involved if an adult person with capacity gave her informed consent to act as a surrogate mother. In thus expressing her autonomy, the woman concerned might see her decision in terms of purposes (solidarity with the intended parents, a desire to help persons in distress, etc.) which suggest that she is never viewed simply as a means. However, the mere fact that consent has been given can never, in itself, guarantee that the person is not being instrumentalised.

It remains true that the surrogate mother's freedom may be threatened by the expectations of the intended parents. It is therefore crucial that the conditions by which she is bound should be made explicit before any decision is made. It cannot be ruled out that, for example, genetic abnormalities may be detected in the fetus. In this case, depending on the values and perceptions of the persons involved, the question of a termination could arise. The surrogate mother cannot be forced to undergo a procedure of which she disapproves and which, moreover, violates her personal integrity. The intended parents, for their part, would certainly wish to have a say with regard to the health and psychophysical status of the unborn child – all the more so if one of the intended parents is genetically related to the child (via sperm or ovum donation). It is therefore essential that the surrogate mother and the intended parents should discuss in advance scenarios which could arise, and that there should be agreement (with regard to the procedures and values in question) on what is desirable for the various parties.

The exploitation argument raises issues which are particularly sensitive and relevant. It is well known (cf. Federal Council's report on surrogacy, 2013a, pp. 14–17) that surrogacy arrangements often bring together affluent Western couples with women living under adverse socioeconomic conditions in developing countries, who are frequently poorly educated or even illiterate (some authors have used the term "neocolonialism" in this connection). It is therefore important to ensure that the rights and interests of these women are protected. At least six elements should be taken into consideration:
- *Establishing and ensuring compliance with international standards for voluntary informed consent:* the information surrogate mothers receive from professionals should be as comprehensive and clear as possible; it should be adapted to the sociocultural level and cognitive capacities of the woman concerned. She should not be subjected to any pressure from the intended parents, from her family and friends, or from medical personnel, who under certain conditions could be led to identify with the interests of the intended parents. Consideration is to be given to the social risks of ostracism and stigmatisation for surrogate mothers living in a culture radically different from that of the intended parents. These risks need to be mentioned as well as the physical risks (Deonandan et al. 2012).
- *Specifying the conditions for legal validity of surrogacy contracts:* a contract is only

valid if equal consideration is given to the interests of the various parties concerned, including the custodial rights of the intended parents; it should, however, be borne in mind that the legal definition of parenthood and custodial rights may be influenced by economic interests (Deonandan et al. 2012).

- *Ensuring that quality care is provided before and during pregnancy and after delivery, for as long as is required to ensure the welfare of the surrogate mother*. The intended parents should take out insurance to cover the costs of any treatment required by the surrogate mother. In addition, the number of pregnancies which can be undertaken by a surrogate mother should be regulated or controlled.
- *Supporting the non-commercialisation of surrogacy and promoting an altruistic approach*. This point is particularly crucial in preventing the exploitation of surrogate mothers. A system similar to that existing for living organ donation could be established (with all the complexities and difficulties which would be involved in the context of international relations). A ban on commercial surrogacy could promote altruistic surrogacy (or encourage a black market in surrogacy). The surrogate mother would not be paid for her services but merely compensated for loss of earnings, with the rates varying from one country to another. Conversely, in the case of commercialisation, it would be necessary to define international standards so as to ensure "fair compensation" or "mutually advantageous exploitation" in accordance with the principle of "fair trade surrogacy" (Humbyrd 2009).
- *Providing IVF-ICSI according to the standards of good medical practice*, so as to avoid, for example, the risks associated with multiple pregnancy.
- *Ensuring that the surrogate mother's rights and interests are safeguarded by a third-party entity* (*medical advocacy*), independent of the clinic where IVF or delivery takes place.

The Commission is aware of the difficulties involved in international regulation of the practice of surrogacy; however, these elements could provide a basis for regulation at the national level.

Some members of the Commission are opposed to surrogacy for reasons of principle. Others take the view that surrogacy may be accepted in principle but doubt that it is possible to establish an acceptable framework which would ensure appropriate protection for all parties. A third group wishes to see surrogacy legalised, believing that implementation should be possible without major difficulties.

The Commission is aware that changes of this kind, like a change in the law of filiation, would involve major political choices.

### *3.6.2 Implications for community life*

With regard to the interpretation of Article 119 of the Federal Constitution, the Dispatch on PGD (Federal Council 2013, p. 5351) states that: "The family as a fundamental form of community life is to be preserved, in its composition, from various dangers posed by medically assisted reproduction (in particular, the splitting of parenthood, access to assisted reproduction for same-sex couples, reproduction after the death of one of the parents). It is essential to safeguard the right of a child resulting from IVF treatment – like those conceived by natural means – to have a mother and father and to grow up as part of a family."

The argument could be summarised as follows: by making possible ovum and embryo donation and surrogacy, MAR poses a danger to the family as a social institution (understood as the traditional nuclear family) because it separates gestational, genetic and intended parenthood. Legislators have thus considered the traditional nuclear family to be

best able to ensure the cohesion and stability of society. It is not specified on what basis legislators arrived at this conclusion; data on household structures show that, in Switzerland at present, the nuclear family is no longer the only existing model; public order does not appear to be disrupted as a result. So it might well be asked whether the reason is not in fact fear of the repercussions which the introduction of another model could have.

Is this fear sufficient to justify a prohibition on certain techniques of assisted reproduction? The effect of legalising these practices would certainly be to significantly alter the landscape and customs of our society. It could even initially unleash concerns and protests by offending the sensibilities of a section of the population – a point which raises questions, as we shall see below, about the status of disagreements in a pluralist society. It may be wondered whether – by its mere existence – a change affecting the social landscape and customs, however important it may be, constitutes a threat to the integrity of society, a threat arising from practices which are intolerable for citizens and impermissible for institutions.

The majority of the Commission takes the view that allowing recourse to these techniques on a case-by-case basis, under specified conditions, does not pose a threat to heterosexual couples wishing to have a child, who represent the predominant family model in our society (traditional nuclear family). Firstly, it is not a question of imposing a general change, but of enabling heterosexual couples where the female partner is affected by particular conditions and same-sex couples to pursue parenthood, and offering the same possibilities to single persons. Secondly, a liberal democracy (as opposed to a democracy *tout court*) does not rest exclusively on the views of the *majority of the population*, but also on the rational and considered nature of these views, *which in particular should not – except for compelling, well-founded reasons – violate the fundamental freedoms of individuals and minorities*.

It is in the nature of the family and of the law, as socially constructed institutions, that they can undergo and incorporate changes which reflect new needs arising among the population. Clearly, this change – being of an essentially political nature – must follow the legitimation procedures which are customary in constitutional democracies, but for this reason it should not pose a threat to social cohesion.

### *3.6.3 The normativity of "nature" and "natural"*

In the RMA, the terms "nature" and "natural" are used in an imprecise manner, as demonstrated by the following quotation from the Dispatch (Federal Council 1996, pp. 243–244): "Nature intends every child to have a father and a mother. These persons are of particular importance for the child's development and are generally considered, in legal terms, to be its parents. These fundamental principles of human nature are to be respected in the practice of MAR. Use of these techniques should therefore only be contemplated for heterosexual couples where the partners intend to assume joint parental responsibility for the child."

The Commission believes that, if it is to thrive, a child needs care and affection and familial and social conditions apt to promote its self-confidence and trust in the world which it inhabits.

A minority of Commission members accept the argument put forward by the legislators ("nature intends every child to have a father and a mother, who each play an important role in its development," Federal Council 2002, p. 1222). They invoke the normativity of nature (in sense (2), the ontological sense), which provides foundations for ethics and ensures that the barriers established are not arbitrary. On this view, the biolo-

gical, psychological and social dimensions of human nature indicate to the moral subject the type of behaviour that is in conformity with the fundamental dynamism of his being, and is conducive to full self-realisation. In this sense, nature provides the norms for the practice of medicine, and reproductive medicine in particular. "Natural law" is thus not reducible to a set of physical laws, but constitutes the rational expression of human ends, attentive to deep-seated aspirations. It is in this sense natural that a child should have a father and a mother: the dynamism of reproduction is associated with a man's inclination towards a woman, and vice versa, which promotes the couple's stability and care for the children to be received and raised. To defend this type of normativity, in line with a two-thousand-year-old tradition, is to be respectful of persons, while at the same time situating individual freedom within the normative framework of human nature.

For the majority of Commission members, the character of any such normative force could not be immutably defined; to infer a norm directly from a fact is essentially to commit an error of reasoning (the naturalistic fallacy), as specific moral values cannot be derived from the fact of following nature. In addition, they believe that, particularly on the grounds of non-discrimination, access to MAR should not be prohibited for same-sex couples or single persons. To found ethical principles on natural (sense (1)) laws is problematic, as this implies that it is inherently bad to intervene in a natural process. This attitude amounts to claiming that everything which nature does is good. In fact, the very practice of medicine demonstrates precisely the opposite: nature does not always act for the best, and one of the tasks of medicine is precisely to modify the natural outcome of certain phenomena in the legitimate interests of the living. In addition, what we call "nature" or "natural" is often culturally constructed. For example, to maintain that assisted reproductive techniques should not be available for same-sex couples on the basis of the supposed normativity of nature is essentially to claim that these couples do not form part of the "natural order of things" – a phrase used in the Dispatch concerning the Federal Act on Same-Sex Registered Partnership to justify the prohibition on adoption (Federal Council 2002, p. 1222) – but it is now very widely accepted (in biology, medicine and sociology) that same-sex couples are indeed part of the "natural order of things", representing variations of sexuality present in the human population. The decision to prohibit access to assisted reproductive techniques for same-sex couples (and also for single persons) in the name of the normativity of nature is thus based on questionable and discriminatory interpretations.

### *3.6.4 The status of disagreements in a pluralist society*

Contemporary societies are fundamentally pluralist. A single worldview, a single, universal conception of the good is no longer possible. As a direct consequence, disagreement is an essential and constitutive feature of postmodern societies. A pluralist society which aspires to resolve moral disagreements without the use of force has to adopt formal conditions allowing citizens to coexist peacefully: among the conditions adopted by liberal democracies are mutual respect or the principle of justice (equal consideration for everybody's freedom), the harm principle and an attitude of neutrality. This means that "differences" are to be tolerated on principle – be they conceptions of the good, lifestyles or family models – so long as they do not harm other people's legal goods or violate their rights.

With regard to the problems discussed in this Opinion, the Commission believes that the state should adopt a neutral stance vis-à-vis conceptions of the sexual and familial good, so long as no actual harm is established, and should not intervene in its citizens' private lives. This neutrality means that political principles are not to be justified on the basis of controversial conceptions of the good life, the family or human nature. Society is not a homogeneous entity wherein each individual shares all the conceptions of the good, morality and decency held by other individuals.

As we have seen in relation to human dignity, personality or the welfare of the child, different underlying metaphysical conceptions are at work. For this reason, there will always ultimately be the possibility of disagreement. A liberal democracy must permit the expression of this diversity and grant it the freedom it demands, within the limits of respect for constitutional rights. The desire to have children, to start a family and to live "like other people" is a legitimate aspiration and demand (as, equally, are those of not starting a family or not having children). The aspirations or demands of some may not be shared by others, but this is not in itself a sufficient reason to prevent them from being realised. The majority of the Commission is convinced that families formed by same-sex couples, whose children are born via ovum or embryo donation, are perfectly capable of pursuing the ends constitutive of the family as an institution, namely to meet the child's educational, economic, emotional and recreational needs, while respecting its best interests.

# 4. Good medical practice

In the face of new methods in the field of medicine and healthcare, and as is obvious in the present case, a degree of caution is appropriate, in order to have time to observe the development of these techniques in practice, and if necessary to benefit from experience elsewhere (including adverse experiences).

In Switzerland, a cautious approach (for reasons at once medical, political and "moral") has been central to the history of the RMA. The present NEK-CNE report, coming 15 years after the adoption of the law and 12 years after its entry into force, must take advantage of what has been learned in the meantime.

This is true both in general, and particularly from the viewpoint of the quality of medical activities (the Commission's mandate concerns biomedical ethics). A revised law should not, while claiming to seek to facilitate a procedure, specify limits which – though less restrictive – do not allow medical practice to comply with currently recognised standards. Such limits would make it impossible to assess Swiss practice on the basis of international standards and make it extremely difficult to provide appropriate information for the persons concerned.

The Commission therefore wishes to emphasise how important it is not to introduce relaxed restrictions or liberalisations which could turn out not to allow the desired aim to be achieved, for several possible reasons:

- cumbersome procedures for access and authorisation (bureaucratic formalities), which are likely to deter many couples – and even clinicians;
- the fact that, under the new regulations, clinicians are not in a position to offer patients/couples optimal therapeutic procedures, in accordance with the principles of good medical practice.

This observation is of particular relevance to PGD, which the Federal Council intends to legalise, especially because the current prohibition encourages medical tourism (in relatively large numbers, though precise figures are lacking) to other countries – some of which, such as Belgium, operate under impeccable medical and ethical conditions. For this reason, the Commission calls for the elimination of the specific limits envisaged for the number of ova that can be fertilised: if this number is limited to eight, it will not be possible for the diagnostic procedure which is supposedly being legalised to be carried out in an appropriate manner.

For similar reasons, the Commission recommends that the freezing of embryos should be legalised, so as to prevent avoidable difficulties and complications for the woman concerned (practical, financial, but also medical and health-related – for example, due to the need for repeated egg retrieval). Clearly, it is a fundamental part of clinical ethics to keep such difficulties to a minimum, as they frequently represent serious psychosocial burdens for the woman or couple.

Finally, although this is a more complex issue, prohibiting embryo donation (and thus requiring the embryo to be destroyed if the originating couple no longer pursues pregnancy) is also questionable as regards the – medical and social – quality of the practice.

## 5. Conclusions and recommendations of the NEK-CNE

The Commission is unanimous on the following principles: social justice and non-discrimination, the harm principle and the need to take into consideration the general conditions required for child development.

### 1. The majority of the Commission recommends the legalisation of PGD (see Section 3.2).

It approves of the approach adopted in the draft revision, which continues to make PGD subject to strict criteria – avoiding the transmission of a serious hereditary disease – while according great importance to the welfare of the couples concerned (carriers of a genetic predisposition). PGD can be regarded as an act of solidarity with these couples. The protection due to an embryo does not justify imposing a burden on couples which they find excessive, a source of anxiety and suffering. The view of the majority is that, to ensure the consistency of legislation, an analogy between PGD and PND is justified. In the light of experience abroad and given the small number of cases to be expected, a certain concentration of laboratory activities would be in the interests of the best possible PGD, reducing as far as possible any unwanted effects for the couple concerned.
A minority is opposed to legalisation because PGD involves the selection of deliberately produced embryos; it believes that – even if restrictions are imposed – it will not be possible to prevent the extension of indications for PGD, and there will be undesirable social consequences. This minority disputes the analogy between PGD (embryo *in vitro*) and PND (embryo *in utero*). Finally, the legalisation of PGD will substantially increase the number of "surplus" embryos.

### 2. The majority of the Commission recommends the legalisation of aneuploidy detection (see Section 3.2).

It advocates that the detection of aneuploidy should be permitted in order to prevent diseases and disabilities, but also for reasons connected with good medical practice (in particular, the effectiveness of IVF).

The Commission hesitates to recommend routine screening in all cases of IVF-ICSI, but it does recommend aneuploidy detection where this is medically indicated.

A minority supports the legalisation of PGD but is opposed to any form of screening.

### 3. The majority of the Commission recommends the legalisation of HLA typing (see Section 3.2).

It recommends that HLA typing should be permitted because it believes that one should not pass judgment on the motives underlying the wish to have a child and then conclude that a child is being instrumentalised, whereas it could in fact be desired for its own sake; with an appropriate legal framework, there would be no danger of a slippery slope.

A minority is opposed to HLA typing because, by eliminating healthy embryos, it involves the commodification of human life and leads to partial instrumentalisation of the future child.

**4. The Commission unanimously recommends the legalisation of sperm donation for unmarried heterosexual couples (see Section 3.3.2 (a) and (c)).**

**5. The majority of the Commission recommends the legalisation of sperm donation for same-sex couples and single persons (see Section 3.3.2 (a) and (c)).**

It believes that the current restrictions are discriminatory. It rejects the (highly problematic) argument of the normativity of nature; in addition, it emphasises that the concepts of "nature" and "natural" are culturally constructed.

A minority invokes the normativity of nature as providing foundations for ethics and a basis for the view that a child should have a father and a mother.

**6. The majority of the Commission recommends the legalisation of ovum donation and embryo donation (see Section 3.5).**

It takes the view that the prohibition of ovum donation is discriminatory vis-à-vis sperm donation.

**7. The majority of the Commission believes that surrogacy may be accepted in principle but doubts that it is possible to establish an acceptable framework which would ensure appropriate protection for all parties, given the risks associated with commercialisation of this practice (see Section 3.6).**

A minority wishes to see surrogacy legalised, believing that implementation should be possible without major difficulties.

Another minority is opposed to surrogacy for reasons of principle.

**8. The Commission unanimously recommends that – to avoid consequences detrimental to the child – the right of entry and an assured legal status should be guaranteed for children who are born via surrogacy abroad and are refused permission to enter Switzerland.**

**9. The majority of the Commission welcomes the draft revision of the law with regard to the elimination of the prohibition on cryopreservation of embryos and advocates the removal of the specification of a maximum number of embryos to be developed, as a prerequisite for impro-**

**ving the chances of successful eSET in accordance with good medical practice – reducing the likelihood of multiple pregnancy and the associated risks, and increasing the effectiveness of assisted reproductive techniques (see Section 3.4).**

**10. The Commission unanimously recommends the establishment of a registry of children born via MAR (for follow-up purposes).**

**11. The Commission unanimously emphasises that it is important for legal regulations to take account of good medical practice (see Section 4).**

**12. The Commission calls for the law of filiation to be amended so that its recommendations can be put into effect (see Section 3.3.2 (a)).**

**13. The Commission emphasises its concerns regarding current commercialisation developments, particularly in this area.**

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