



Male or Female, We Will Create Them

The Ethics of Sex Selection for Non-Medical Reasons

David Heyd

ABSTRACT

The article examines the arguments for and against the practice of sex selection for non-medical reasons (e.g. parental preferences, family balancing, religious reasons) in the light of the new technology of Preimplantation Genetic Diagnosis (PGD). It distinguishes between arguments about the risks to the future child, the mother and society, on the one hand, and the inherent wrongness of the practice as an illegitimate interference in the natural course of reproduction, on the other. The article tries to show that at least in the well defined context of sex selection by PGD, when IVF was performed for independent medical reasons, there is no danger to either the child or the mother and hence that the practice should be permitted. Furthermore, the alleged dangers to society are demonstrated to be mostly illusory. On the one hand, the demographic danger is usually overstated and lacks historical support. On the other hand, the feminist claim that sex selection is necessarily discriminatory is found to be both theoretically and empirically groundless. The article's conclusion is that despite widespread intuitive objection to the practice of sex selection, it can be justified in terms of parental autonomy and falls within the value of family planning. This liberal view does not, however, imply that having a child of the desired sex is the parents' right, nor does it apply to sex selection in later phases of gestation (abortions and, obviously, infanticide).

KEYWORDS

Sex Selection; Preimplantation Genetic Diagnosis; Feminism

1. Fears and Negative Connotations

It is sometimes instructive to start from the beginning. On the sixth day of creation God created man, "in the image of God He created *him*; male and female He created *them*" (Gen. 1: 27). God's choice is to create man in the generic sense (which reflects God's own a-sexual nature). The split of male and female, that is the move from "him" to "them", is only derivative, though necessary, since only by such a split can humans pro-create themselves, thereby reflecting God's unlimited creative power.¹ But then there, is of course, the other version of the creation story. God first created Adam, "man" in a specifically male form, and only upon realizing that "it is not for man to be alone" he decided to make "a fitting helper for him" (Gen.

2: 18). If, as I read the biblical text, the image of God in which human beings are made amounts to the power of procreation, then the two versions of the creation of "man" suggest two alternatives for approaching the problem of sex selection. According to the first, control over human reproduction extends only to the act of procreation, while the sex of the future child is left to luck or to the work of nature. According to the second version of the story, we may in principle have the power of choice between having male or a female offspring.

Advances in modern medicine have given human beings safer and more reliable methods of birth control, which is the exercise of choice over the number of children we have. But now, with the development of ultra-sound technology, amniocentesis, and most recently pre-implantation

AUTHOR INFORMATION: David Heyd, PhD. Chaim Perelman Professor of Philosophy, Department of Philosophy, The Hebrew University, Jerusalem 91905 (Israel). E-mail: david.heyd@huji.ac.il



genetic diagnosis (PGD), we have gained also the ability to choose the sex of the child. We are getting closer to the power to choose at least some elements in the genetic character of future children, and hence their identity, even beyond their gender. To most people, some control over the number of children and the timing of their conception looks morally innocuous, while designing the genetic identity of future children seems morally abhorrent. In between lies the question of sex selection: may we act on the basis of what has become easily accessible information about the sex of a future child?

I would like to argue that from a philosophical perspective, sex selection is a 'non-issue'. Unlike abortion, sex selection does not involve the killing of an allegedly unique human being; unlike human cloning, it does not raise questions as to the nature of reproduction; unlike surrogate motherhood, sex selection does not force us to revise the notion of parenthood and the institution of the family; and most conspicuously, unlike genetic engineering, it does not give rise to a revision in our deep conception of human identity and the long-term nature of the human genome. This does not mean that there are no moral considerations that should be taken into account when we form an opinion about practices of sex selection; and indeed these considerations will constitute the substance of this paper. My only argument is that the extensive treatment of the subject in the last few years, in both public and professional circles, has often had a tendency to over-dramatization, as if sex selection involved radical challenges to traditional conceptions of humanity and reproduction.

There is a strong emotional element underlying the current rhetoric about sex selection. The word 'selection' itself is marred by horrifying connotations relating to the infamous separation of people on the railway platform in a concentration camp. The term 'selection' is also unfortunate in its being associated with the preference of items that are considered objectively superior, like tomatoes in the market. Accordingly, the 'select' or 'selected' are those items, or human beings, that

enjoy a special standing due to their high quality. But for a sober ethical discussion of the determination of the sex of future people, a more neutral term could serve us better. 'Choice', in contradistinction to 'selection' implies only a preference and not necessarily an objective evaluation of quality or a general norm. But since the term 'sex selection' has become so widespread, I am going to use it in the rest of the discussion, though with a value-neutral sense in mind.

The emotionally charged debate about sex selection should be understood against the background of the general reluctance in society to 'play God', to intervene in natural processes, to assume control over what traditionally has been left to fate or luck. Although we often have definite wishes and hopes regarding our offspring, we are not enthusiastic about attaining control over their realization. We regard many aspects of reproduction as processes that 'happen' rather than are chosen and hence tend to a traditional policy of non-interference. The law is typically a conservative system of norms, which is often slow to adapt to new options in reproductive technologies. Thus, most European countries today as well as many other countries in the world prohibit by law the practice of sex selection for non-medical reasons, and are cautious and restrictive about selecting the sex of an embryo on medical grounds.²

The most common apprehension about sex selection has to do with the confusion of the choice of sex with the intervention in the human genome. This is a powerful fallacy that must be dispelled before we engage in the more rational arguments against sex selection. The source of the mistake is easy to detect: sex is indeed one of the properties that constitute the identity of human individuals, as are other genetic qualities currently studied by genetic science. However, it is obvious that by choosing the sex of a child we do *not* interfere or manipulate the genome in any way, especially when we do so for *non*-medical reasons. Hence, the common concern with a slippery slope leading from sex selection to genetic engineering has no basis in reality and the discussion of the



two issues should better be completely separated in both professional and public discussion. Sex selection has nothing to do with eugenics and does not lead to it.

Another related confusion that plays a major role in the debate on sex selection is the allusion to Nazi practices. The alleged slippery slope from sex selection or some forms of genetic screening and engineering to Nazi experiments and mass murder is illusory. The inhumane and cruel treatment of human beings practised by the Nazis was propelled by a racist hatred of Jews, Slavs, Gypsies and other non-Aryan people rather than by a eugenic plan for the betterment of the *human* species. Eugenics preceded Nazi ideology, on the one hand, and Nazi ideology developed mostly independently of eugenic theory, on the other. The wish to choose the sex of one's child is a personal or a cultural preference, which is not related to a eugenic or racist ideal of a world consisting of a single sex.

2. Methods of Sex Selection

There is nothing new in the human attempt to decide the sex of future children. The reasons for preferring one sex (usually the male) over the other are of many kinds: economic (work force, the cost of dowries); prestige and inheritance; religious; and psychological (family balancing). Numerous methods have been tried in the course of history, most of which proved ineffective and lacking scientific basis. The Talmud reports one such folk theory:

R. Isaac b. Ammi stated "If the woman is first to emit the semen she bears a male child and if the male is first to do it she bears a female child".³

Some commentators note the considerate attitude to the woman's sexual welfare is implied in this counsel, namely, if the man wishes to have a son, he should do his best to let his wife reach an orgasm first. But the scientific basis of this advice is highly dubious. The Talmud itself, in another place in the same Tractate, concedes that the only way to enhance the chances of having a male child is prayer!

Diets, timing of sexual relations, or the sexual positions of the partners have all been suggested as methods for determining the sex of the child. None have proven reliable (or, as the joke goes, they have a 50% chance of success). But it should be noted in the context of our discussion that none of the home-made methods has ever given rise to an opposition on ethical grounds.

Modern science has provided us with a variety of scientifically-based methods of determining the sex of the future child. These can be ordered according to the stages in the reproductive process. A pre-conceptive method involves sperm sorting, followed by artificial insemination. In a later stage, in vitro fertilization (IVF) might be used to create a number of fertilized ova out of which those of the desired sex are selected for implantation in the uterus. The most effective way of doing so is by pre-implantation genetic diagnosis (PGD) whereby a single cell is removed from an eight-cell 'pre-embryo' and tested for a whole gamut of potential genetic disorders. The sex of the embryo can be easily discovered in this procedure. Ultra-sound and amniocentesis are tests undertaken in yet a later stage of gestation and in some societies are used as methods of sex selection. Finally, and unfortunately, sex selection is often practised after birth, usually in the form of female infanticide or abandonment. This last method is of course not a new one and is not related to technological advances. One may also want to add to this list an even later phenomenon, even if not a systematic method, that expresses the preference of one sex to the other, namely the better chances of survival of children of the desired sex who are given better care, nutrition and protection.

This hierarchy of methods of sex selection is of ethical significance. The lower one is on the ladder, the less problematic is the practice from a moral point of view. We have mentioned already that 'folk methods' are not considered morally problematic. The interesting question is whether the lack of opposition to them has to do with their inefficiency or rather with the fact that they are natural. Think of an imaginary DIY set, sold in a



pharmacy, which could help couples decide the sex of their offspring: would that be considered ethically wrong? Legally prohibited? It seems that even if private methods of controlling the sex of the future child were to become effective and reliable, society would not want to interfere in the reproductive freedom of the parents any more than it does in the case of family planning (i.e. decisions about the number of children and their spacing).

So it seems that the ethical reservations about sex selection have to do with the *artificiality* of the methods used for its realization and the need for external (medical) assistance. Sperm sorting is indeed a highly artificial procedure that interferes with the natural process of reproduction in a significant way. Its ethical advantage lies, however, in avoiding the controversial issue of abortion, since it precedes the existence of an embryo. No person, even in the most minimal sense, maintained for instance by Catholics, is harmed by this method. And of course there is no risk to the mother either. It is true that the method is not very reliable nowadays, but technically it could in the future become quite easy to apply by couples without the need of any medical assistance.

IVF is different in morally relevant ways. The selection method is performed on fertilized eggs or pre-embryos, some of which are implanted in the uterus, others either destroyed or frozen. Being an invasive procedure, IVF also involves risk to the woman. Unlike 'natural' methods and sperm sorting, which harm no one, IVF affects both existing pre-embryos and the mother. Medical reasons usually justify this procedure, but it leaves open the question whether IVF may be performed for *non*-medical reasons. In order to identify the sex of the future child a genetic test (PGD) must follow the IVF. Now, assuming that IVF is performed as a matter of medical necessity (e.g. to overcome a fertility problem), should PGD be permitted with the sole purpose of selecting the sex of the child? The more conservative view is that sex selection is justified only if its purpose is of a medical nature, typically to prevent sex-linked diseases. In other words, 'social' sex selection should never be

permitted. The more permissive view holds that if IVF has been performed for a medical purpose, there is no reason to prohibit the further PGD test, even if it is carried out just for the sake of selecting the sex of the implanted embryos. A middle approach between the two views is that sex selection could be performed only if there are medical indications for the PGD test, that is to say, selecting sex is legitimate only as a 'side benefit' of a procedure that is independently justified.

The conservative view is based either on the slight yet existing risk to the embryo connected with PGD, or on the intrinsic wrongness of sex selection for non-medical reasons. The permissive view maintains that there is nothing wrong *per se* in sex selection and that the risks of PGD (unlike IVF) are minimal and hence do not override the wish of the parents to choose the sex of their child (or specifically decide which of the fertilized eggs, which after all belong to them, should be implanted). The middle way wavers between the two views, respecting the wish of the parents but doing so only when it does not require taking a specific intentional action.

The conservative view does not seem compelling because the risk in PGD itself is only marginal in a way which does not override either medical reasons such as the prevention of sex-linked hereditary disease or non-medical reasons like parental autonomy. Furthermore, sex selection as such is not morally wrong, since, as we shall see in the following sections, it neither undermines the demographic future of society nor constitutes a stigmatization of women. The middle way, namely applying sex selection only in cases in which PGD is performed for other medical (genetic) indications, does not seem consistent. For if PGD in itself does not involve risk to either the mother or the future child, why should it not be done for gender selection? And if gender selection is illegitimate, why allow it when it is a side benefit? Would it not be a discrimination against women who were not treated for a medical problem and hence are deprived of the right to choose?



The only argument which carries some weight is that doctors should not engage in practices that are not purely medical (such as sex selection for 'social' reasons). In other words, the moral prohibition on social sex selection is related to the ethics of medical practice and the professional role of physicians, which must be limited to medical treatment. The scarce resources in medicine and the precious time of doctors should not be devoted to non-medical purposes. Unlike harmful genes, gender in itself is not a pathology and hence should not be considered a factor in medical treatment.⁴ In response, it should be noted that physicians are nowadays directly involved in a whole spectrum of practices and procedures that are not 'medical' in the traditional sense, be it cosmetic surgery or, closer to our concern, contraception and family planning (including abortions for personal reasons). We do not want physicians to become agents of society in implementing demographic or religious values.

Methods or practices of sex selection in later stages of the development of a human being are undoubtedly more problematic or even repugnant. Many believe that abortion, following ultra-sound or amniocentesis tests, is morally controversial and usually justified, if at all, only by serious medical or psychological considerations. A preference for one sex rather than another is hardly such a consideration. Infanticide or the neglect of children of a certain sex is a widespread practice in some societies, but of course can never be justified. But if infanticide is so morally abhorrent, should not abortions such as those performed in some clinics in India be considered the lesser evil? And if such abortions are also considered morally wrong, should we not prefer PGD, which is not an abortion, and does not harm the woman?

From the discussion so far we may conclude that if we look at the hierarchy of the stages of human development we can make the following judgements. Sex selection as part of the sexual act itself is morally neutral, and so is the case of sperm sorting. Performing IVF just for the sake of selecting sex is morally problematic and better avoided

because of the risk and pain to the woman. But once IVF is performed for justified medical reasons, further PGD procedure for selecting a male or a female embryo is morally permissible. Abortion for choosing the sex of a child is morally problematic due to both the status of the fetus and the harm to the mother. Infanticide of all kinds is obviously wrong. Now, since folk methods and sperm sorting are far from reliable, we are (at least for the time being) left with PGD as the only permissible and effective means of sex selection.

However, our analysis so far has taken into account only the interests and rights of the mother, the embryo/future child⁵ and possibly the professional duties of the doctor. But the most common arguments against sex selection focus on its impact on society. There are two lines such of opposition to sex selection: the demographic and the feminist. We will discuss them in turn.

3. Demographic Imbalance: Real or Imagined?

The principal opposition to the practice of sex selection is based on the fear that it might lead to a dangerous breach of the gender balance in future society. According to this approach, even if sex selection is morally permissible from the point of view of both the future child and the interests and rights of the mother, it should be prohibited on social grounds or in view of the harm to unidentified future people who are going to suffer from the scarcity of partners. The most conspicuous empirical evidence for the rationality of such fears comes from the widespread practice of sex selection in some countries, particularly China and India.⁶ Without entering into the widely documented literature on the causes of the clear preference of males to females in these societies, we can say that the prohibition on more than one child per family in China has given rise to female abortions and infanticide so as to guarantee a male offspring. In India, culturally based biases and economic considerations relating to the disastrously expensive costs of dowries have led to the mass appeal to ultra-sound tests followed by abortions



of female fetuses. Abortions and more recently PGD tests have become more attractive alternatives to female infanticide that seems to have been practised for a long time in India.

Without detracting from the repugnance of female infanticide or abortions for the sole purpose of sex selection, it should be noted that they have been practised for a long time before the introduction of modern technologies. PGD for sex selection is not only a morally superior means but also has only an infinitesimal impact on the demographic balance, at least for the moment. PGD is an expensive test and requires an invasive procedure (IVF) which yields only low chances of live birth (20% on average). Very few women would undergo this expensive and painful process just for having a boy rather than a girl. Immigration, for instance, has a much deeper influence on the demographic balance than medically assisted sex selection, and so do changes in child mortality that affect the two sexes differentially. Again, it seems that our moral reservation about sex selection is closely related to the active intervention in natural processes rather than to the demographic imbalance as such.

The concern about the impact of sex selection on the demographic balance should be seen in the wider perspective of large-scale demographic changes in human history. In her classic study, the Harvard social historian Marcia Guttentag analyzes patterns of gender distribution in various societies in human history and their impact on the status of women in those societies.⁷ Although it appears that there were fairly sharp differences in the ratio of men and women in certain societies (in both directions), none of them collapsed for that reason. Imbalances tend to correct themselves and societies adapt to them through institutional changes in social and legal practices. After all, even in a male-oriented society, men need women for the creation of more men!⁸

Furthermore, the problem of preference for males over females is conspicuous only in certain societies, mainly in East Asia. In contrast, studies show that in most western countries there is no

marked bias towards either of the sexes. Parents usually prefer a 'balanced' family, consisting of children of both sexes.⁹ Even in Jewish Orthodox society, in which there is a special premium on a first-born male, once a boy is born, the sex ratio in the rest of the children is of no significant concern.¹⁰

So it seems that much of the demographic scare associated with sex selection is more imaginary than real. But even if sex selection by PGD or other modern technological means proved to be a demographic risk, some countermeasures could be devised for neutralizing it. Thus, for example, every institution practising PGD would be required to balance the annual number of implantations of female and male embryos. This might happen as a natural process (if indeed people prefer balanced families rather than children of a particular sex, as seems to be the case in the developed world). Or, alternatively, a market mechanism could be introduced, in which each couple who wants to have a boy would have to be 'set off' by a couple who wants to have a girl. This arrangement of a Noah's Ark, into which only 'couples of couples' are allowed, may be a fanciful thought experiment, but it is a philosophical challenge to the demographic objectors to sex selection. One can also restrict the gender choice to parents who have already one child or have an imbalanced number of children.¹¹

Furthermore, the demographic worry could be easily allayed by a bold move that would condition the request for implantation of fertilized ova of a particular sex by the parents' consent to donate all the other eggs to another woman. This would not only solve the problem of demographic imbalance but also reduce the scarcity of fertilized eggs, which are in high demand by infertile couples. This proposition is admittedly problematic, since in many countries the donation of fertilized ova to other couples is legally prohibited. But this prohibition should anyway be re-considered for reasons other than the facilitation of sex selection.

The last comment on the demographic issue concerns the relation between sex selection and population control. Whether it occurs with the purpose of family balancing or with the purpose of



having more children of a particular sex (usually boys), the prohibition on sex selection contributes to population growth. Couples do not stop procreating as long as they do not have a child of a certain sex. If we want to curb population growth, particularly in third-world countries, we should allow early stage sex selection (either by sperm sorting or, in the future, by cheap and risk-free IVF and PGD procedures) as a means of satisfying parental wishes in a more responsible way.

4. *The Fear of Stigmatization: The Feminist Argument*

Since in most cultures, if there is a marked social preference for one sex it is for the male sex, feminists have naturally associated sex selection with patriarchy, sexist biases, and female subjugation. It is undeniable that female infanticide or abortion for non-medical reasons reflect a general discriminatory attitude to women and that the social status of women in societies in which these practices are widespread is low. The feminist argument is that sex selection, even by means other than infanticide or abortion such as PGD or sperm selection, should be prohibited, since it reflects an androcentric view and humiliates women. That is to say, even if there is no medical harm to the mother or to the embryo, the very idea of choosing the sex of children is wrong.

Marcia Guttentag, whom we mentioned above, studied in much detail the social implications of imbalanced sex ratios in various societies throughout human history. Her principal hypothesis suggests that the smaller the relative number of women to men, the higher is the status and prestige of women in society. In such societies, monogamy is stronger, although women are expected to fulfill their domestic roles. When the relative number of women increases and becomes larger than that of men (as was the rapid process in American society between the 1940s and the 1970s), women lose their traditional prestige, they become more like sex objects, the number of divorces rises, one-parent families become more

prevalent, and more women suffer from depression and suicide. However, in those circumstances more women become ambitious and career minded.¹²

So the first response to the feminist argument against sex selection is that the decrease in the number of women might lead exactly to the increase in their social status, at least in some respects. But independently of this empirical argument, one can add a second response, namely that personal preference for male or female children does not stigmatize either sex and should not be considered a manifestation of a sexist bias. Personal choice should be clearly distinguished from a systematic social norm, policy, or institutional preference. Personal preference *might* express a gender bias, but by no means must do so. The typical wish parents have for a boy after having three girls does not indicate a male chauvinist attitude. Nor does such a preference manifest a prejudice in other circumstances, such as the wish of a single mother to have a girl rather than a boy, or even the wish of a father to have a son who will carry on his name. None of these preferences expresses in a general way the superiority of one gender to the other.

It is indeed true that some cases of gender preference do indicate a prejudicial and discriminatory attitude. But here we get to the third response to the feminist opposition to sex selection, which might be referred to as putting the cart before the horse. Sex selection does not *create* an anti-women bias; it is a *manifestation* of it. In other words, the way to tackle the problem of sex selection in India is to fight against the deep causes underlying it, to change the social structures and norms that make the birth of girls economically burdensome, like the dowry system. Girls in India are not unwanted as such; they are too expensive for many families to raise. And this can be changed by social reform. Criminalizing sex selection does not address the structural causes that give rise to it.¹³ Thus, the current egalitarian attitude to the birth of boys and girls in the West is not the outcome of a prohibition on female infanticide or



sex selection but a manifestation of the more advanced status of women in society, economically, politically and culturally. In a strange way, the success of the feminist general struggle for gender equality renders the issue of sex selection irrelevant.

Conclusion: The Liberal View of Sex Selection

Reproductive rights have become entrenched in both legal and moral discourse in the modern world. Marriage and procreation are two dimensions in which people express their deepest preferences and life plans. Although the decision regarding the existence, number and identity of children has typically far-reaching consequences for society, it is protected in liberal normative systems as a private matter in which the law representing public interest should interfere only in extreme cases. Is sex selection one of the extreme cases? We saw that it lies somewhere between the choice of having children (including their number and spacing), on the one hand, and choice of their genetic profile (particularly by genetic screening, engineering and cloning), on the other. I argued that sex selection is closer to the former than to the latter, since it does not interfere with the human genome and does not introduce into it irreversible changes. In that respect, choosing to have a child and choosing its sex are no different in a morally relevant way. In gender choice human beings simply extend their power of creating 'man' in the generic, conjunctive sense of Genesis 1 to creating Adam or Eve in the gender specific, disjunctive sense of Genesis 2. If the first kind of (pro)creation is an exercise of the image of God, so must the second be.

Liberalism does not mean complete neutrality of the state. Even in matters pertaining to procreation, the state has a legitimate interest, both in the paternalistic protection of its citizens and in promoting social interests of future generations. Thus, it may encourage or discourage certain practices, or create incentives and disincentives by means of taxation and the distribution of social services.¹⁴ But

these are *indirect* means which apply on the social level, and they should be well distinguished from direct intervention in the life of individuals and their choices. It is therefore consistent from a liberal point of view to establish institutional rules and conditions, such as those suggested above, so as to prevent unbalanced sex ratios, even when no harm to the mother or the embryo/child is involved. For example, it seems that even in a socialized system of health services, the state should not be required to fund sex selection for non-medical reasons.

So far most of this article was devoted to the refutation of the arguments against sex selection, such as the theological, the demographic, the feminist and the medico-ethical. The discussion of the issue in a negative method is natural to liberalism, which is more concerned with explaining why a practice is not wrong and should be permitted than with positively supporting it. However, the positive reasons for sex selection should be explicitly stated too. The exercise of personal autonomy of parents in choosing the gender of their child does not consist merely of a capricious preference. The wish to have a gender-mixed family is reasonable and unrelated to any bias or prejudice.¹⁵ On the assumption that the parents prefer mixed families, would not two mixed families be superior to two unmixed families? Then there often are serious psychological reasons for having a child of a particular sex. One example is the hypothesis that a girl is easier to raise by a single mother than a boy. Another example comes from the only Israeli case so far that has reached a semi-legal discussion in which doctors asked for permission to select female pre-embryos in an IVF procedure for religious reasons.¹⁶ A simple analogy can support this liberal approach. In adopting a child, the preference of the parents for a child of a particular gender is taken as both legitimate and reasonable. It is usually not regarded as consisting of any prejudice or gender bias.

By defending a liberal argument about the permissibility of non-medically indicated sex selection I am by no means arguing that gender choice



is a moral or a political *right*. Having a child of a particular sex is not a claim parents have against doctors or the state. It is not a protected interest that must be actively advanced by society. Society may view the choice itself as morally unworthy and not deserving of assistance (financial or otherwise). It may even want to educate its citizens not to opt for such a practice and ask doctors to discourage it. The liberal argument advanced here made only the more modest claim of the *permissibility* of sex selection.

The philosophical analysis of the problem of sex selection in this article exposed the implicit distinctions that underlie but often confuse our judgement: the determination of the sex of the embryo before its creation (sperm sorting) vs. its determination after conception (PGD); the legitimacy of folk techniques vs. that of professional medical involvement; personal choice vs. public policy; the opposition to sex selection as such (for theological or feminist reasons) vs. the opposition to the practice on the basis of its consequences (demographic or social); performing PGD with the intention of selecting sex vs. getting the opportu-

nity to do so as a side benefit. Disassembling the reasons for rejecting sex selection may reveal whether our opposition is absolute or conditioned, sweeping or circumstantial, principled or pragmatic. The liberal approach adopted in this paper views the practice of sex selection as morally permissible in principle, qualifying it only on pragmatic and circumstantial considerations.

It seems that with the future advances in reproductive technologies, we will gain the godly power to create male *or* female. Society is in the beginning slow to adapt to such radical changes in human control over natural processes, but it turns out that after a certain period of time it rapidly incorporates them to its benefit. Such was the case with organ transplants, with IVF, with genetic screening and with surrogate motherhood. Twenty years ago, with the introduction of ultra-sound test, people were horrified at the very idea of *knowing in advance* the gender of the fetus and many parents demanded that this information not be divulged to them. I can only guess that in ten years' time sex selection will become a widespread practice and would be treated as routine and morally innocuous.

Notes

¹ I have developed the interpretation of procreation as the very image of God in my, "Divine Creation and Human Procreation: Reflections on Genesis in the Light of *Genesis*," in *Contingent Future Persons: On the Ethics of Deciding Who Will Live, or Not, in the Future*, ed. Nicholas Fotion and Jan C. Heller (Dordrecht: Kluwer Academic Press, 1997), 57-70.

² Section 14 in the Oviedo Convention of the Council of Europe prohibits sex selection for non-medical reasons. In the U.S. there is no regulation of the practice, but social sex selection is not "encouraged" ("Recommendations of The Ethics Committee of the American Society of Reproductive Medicine," *Fertility and Sterility* 72 (1999): 599. In India, abortion for sex selection is a criminal offence. When this article went to press, the British Human Fertilisation and Embryology Agency (HFEA) published its report "Sex Selection: Options for Regulation" in which the overwhelming majority of both individuals and institutions consulted expressed opposition to the practice of sex selection for non-medical reasons. See <http://www.hfea.gov.uk/AboutHFEA/Consultations>. The evidence for such a strong public objection to sex selection should be taken into account in the formation of regulatory policies, but it is not directly relevant to the critical normative discussion undertaken in this paper. See also: John McMillan, "Sex Selection in the United Kingdom," *Hastings Center Report* 32 (2002): 28-31. In Israel there has been so far only one case which was given a semi-legal attention (see below). There is not much discussion in Jewish rabbinical literature about the subject, but it is agreed that sex selection should not be practised just as a matter of personal preference. The main reason is that this goes against nature. But rabbis have no problem with sex selection by PGD when its purpose is of a medical nature. See Richard V. Grazi and Joel B. Wolowelsky, "Preimplantation Sex Selection and Genetic Screening in Contemporary Jewish Law and Ethics," *Journal of Assisted Reproduction* 9 (1992): 318-322.



³ “Tractate Niddah,” in *Babylonian Talmud* (London: Soncino Press, 1959), 26a.

⁴ This argument was suggested to me by Asa Kasher. It is interesting to note that the attitude of physicians to sex selection is deeply mixed, even confused. In an ESHRE PGD Consortium study, 15 centres expressed opposition to the practice and only 4 a favourable attitude (with 2 abstaining). See ESHRE PGD Consortium Steering Committee, “ESHRE Preimplantation Genetic Diagnosis Consortium: Data Collection III (May 2001),” *Human Reproduction* 17 (2002): 233-246, 244-245. Yet, it seems that there is a sufficient number of doctors who are willing to help parents choose the sex of their children in medically assisted pregnancies.

⁵ By the interests of the child I mean only those of an *actual* child, i.e. a child who was born and is killed if it belongs to an ‘unwanted’ sex. One cannot ascribe to the child either the interest in being born a male or a female (or not being born male or female) since possible children do not have interests or rights. On this complex issue, often associated with ‘wrongful life’ cases, see David Heyd, *Genethics: Moral Issues in the Creation of People* (Berkeley: University of California Press, 1992), chapter 1.

⁶ For the Indian scene, see Kusum, “The Use of Pre-Natal Diagnostic Techniques for Sex Selection: The Indian Scene,” *Bioethics* (7) 1993: 149-165. Kusum argues that sex selection in India should not be permitted due to the particular current economic and cultural circumstances. But see a letter to the editor by Dr. Aniruddha Malpani, a famous doctor in a Bombay clinic, who openly defends the right of women to choose the gender of their child on liberal grounds. Aniruddha Malpani, “PGD and Sex Selection,” *Human Reproduction* 17 (2002): 517.

⁷ Marcia Guttentag and Paul F. Secord, *Too Many Women?* (Beverly Hills: Sage, 1983).

⁸ But then, as Alan Buchanan noticed, a free-rider problem is created: although all parents have an interest in leaving a world of balanced sex ratios to their children, they might have overriding personal interests in having a male child. If everybody had acted according to their personal interests, a Tragedy of the Commons would be created; if only few did so, they would be free riders. See, A. Buchanan et al. (eds.), *From Chance to Choice: Genetics and Justice* (Cambridge: Cambridge University Press, 2000), 184-186.

⁹ Thus, studies reveal that the number of parents who decide to have a *third* child after having two children of the same sex is significantly larger than the number of parents whose first two children are of different sexes. And even more important, there is no significant difference in the wish to have a third child between those who have two boys and those who have two girls.

¹⁰ The commandment to be fruitful and multiply was sometimes interpreted as being fulfilled by having at least one son and one daughter. Of course, there is value in having as many children as one can have beyond one boy and one girl, but then their sex becomes unimportant.

¹¹ This is suggested in S. J. Fasouliotis and J. G. Schenker, “Preimplantation Genetic Diagnosis: Principles and Ethics,” *Human Reproduction* 13 (1998): 2243.

¹² Guttentag, chapter 1. Guttentag, like others, has noticed the relatively large number of men in Jewish Orthodox society. The general high regard for women in that society corroborates her hypothesis (including the values of monogamy and the domesticity of women). The causes of this unequal sex ratio in traditional Jewish communities is striking and has led to various attempts to explain it, mainly in terms of the rate and timing of sexual relations which are strictly regulated by rules of purity and the husband’s duty to sexually satisfy his wife. Since male babies have a smaller chance to survive childhood, the generally lower child mortality in Jewish society may also be a cause of this surplus of men. See Guttentag, chapter 4.

¹³ On this point see B. M. Dickens, “Can Sex Selection Be Ethically Tolerated?,” *Journal of Medical Ethics* 28 (2002): 335-336; and Bonnie Steinbock, “Sex Selection: Not Obviously Wrong,” *Hastings Center Report* 32 (2002): 23-28. Steinbock correctly argues that the prohibition of sex selection will not reduce sexist attitudes in society, but adds that the existence of a discriminatory society might be a reason for parents not to bring a girl into the world. This argument is susceptible to the same criticism as are wrongful life claims, since it ascribes rights and interests to possible people.

¹⁴ Consider the analogical case of IVF treatment after a certain age. Society has definite interests in discouraging it, for both the financial cost involved and the risk of the birth of handicapped children who would be a burden on society. Most of us believe, however, that criminalizing these parental choices would violate liberal principles and the privacy of individuals.

¹⁵ For a strong defence of the liberal approach to sex selection, based on the distinction between the coerced and the uncoerced exercise of the mother’s choice in reproductive matters, see Mary Anne Warren, “Sex Selection: Individual



Choice or Cultural Coercion?," in Helge Kuhse and Peter Singer, eds., *Bioethics* (Oxford: Blackwell, 1999), pp. 137-142.

¹⁶ An Orthodox couple who needed sperm donation due to the infertility of the husband was concerned that due to the special religious status of Cohen (priest) of the husband, the whole community would become aware of the fact that he was not the 'real' father once the child reached the age of 13 and the Bar Mitzvah ceremony. Only the biological sons of a Cohen become Cohanim with the distinct duty of making a special priestly blessing in the synagogue. A female child would spare the parents this embarrassment since girls are not called upon to make a blessing or read the Torah in this public ceremony. In 2002 the Israeli Ministry of Health granted permission to select the female pre-embryos but did so in a purely ad hoc manner. Nevertheless, it attracted some criticism and a fear of a slippery slope of other demands for sex selection for non-medical reasons.

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