

Reproductive Autonomy and Genetic Technologies: Ethical and Legal Implications Related to Sex Selection

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Autonomy has always been at the center of discussions on reproduction. Development of various genetic technologies, aimed at the expansion of parental reproductive choices, resulted in heated debates on the limitations of the exercise of reproductive autonomy. The aim of this research is to analyse the arguments on the content and limitations of the concept of “autonomy” and “harm” with relevance to non-medical sex selection. In particular, I focus on interpreting “the harm principle” within the context of preconception and preimplantation sex selection.

Keywords

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Autonomy has always been at the center of discussions on reproduction. Development of various genetic technologies, aimed at the expansion of parental reproductive choices, resulted in heated debates on the limitations of the exercise of reproductive autonomy. The aim of this research is to analyse the arguments on the content and limitations of the concept of “autonomy” and “harm” with relevance to non-medical sex selection. In particular, I focus on interpreting “the harm principle” within the context of preconception and preimplantation sex selection.

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I. Introduction

The latest advances in medicine and the increased access to modern biotechnologies have furthered discussions on the concepts of individual and reproductive autonomy in bioethics. In particular, genetic technologies like sperm sorting, pre-implantation genetic diagnosis (PGD), in-vitro fertilization (IVF), and non-invasive prenatal tests (NIPT) now allow potential parents to choose between a wide range of reproductive alternatives. One of the greatest benefits of these technologies is the ability to provide information on genetics in the context of human reproductive autonomy [1]. Such analysis can be used to inform individuals and thus reduce births of children with severely

disabling genetic diseases. Some of these technologies can also be used to alleviate or cure painful or progressive genetic diseases. However, reproductive alternatives offered by new biotechnologies go beyond the medical necessity for patients seeking reproduction, as they can be used for genetic enhancement or selection of particular features of the child, such as sex, eye, hair or skin colour. The choice of these technologies is explained by the perceived notion that they are less harmful and invasive in their nature and are more reliable.

Non-medical sex selection,¹ that once was a common practice in some Asian countries (India, China, South Korea), is recently being traced in several Eastern European societies (Albania, Montenegro) and South Caucasus (Armenia, Georgia, Azerbaijan). In China and India, the harm caused by sex selection amounts to millions of missing girls [2, 20]. During the past few decades, most of these countries have adopted policies aimed at banning non-medical sex selections.

In Western Europe non-medical sex selection can mainly be traced in ethnic minority groups, but these practices remain uncommon. However, prohibitive regulations on sex selection also exist in most Western European countries (the UK, Germany, France, Switzerland) [4]. The basis for the sex selective policies in Europe is the Article 14 of the European Convention on Human Rights and Biomedicine (Oviedo Convention), which prohibits the use of techniques of medically-assisted procreation for choosing a future child's sex, except where serious hereditary sex-related disease can be avoided. Despite that some provisions of the Convention received a lot of critical and controversial feedback from the member states, there seems to be unanimity regarding Article 14. Interestingly, the prohibition of sex selection in Europe is not directly associated to "social harm" (extensive gender imbalance, increased discrimination against one sex, slippery slope to eugenic practices), and is rather a result of various ethical and legal considerations, which will be further addressed. In other countries, like the USA, Israel and the Australian state of Victoria, sex selections are not prohibited or can be practiced based on distinct regulations [5] [6].

¹ Sex selection is considered non-medical when carried out in order to satisfy parental procreative desire. It is also sometimes referred to as "social sex selection."

The aim of my research is to analyse the arguments on the content and limitations of the concept of “autonomy” related to sex selection. In particular, I focus on interpreting “the harm principle” within the context of preconception and preimplantation sex selection. For this reason, this essay will present the main arguments in favour of sex selection from scholars of the Millian line of thought and will show why those failed to be taken into consideration in countries with prohibitive regulations on sex selection. In particular, I will argue that the principle of harm is acting as a general guideline for the prohibition of non-medical sex selection, but its practical application can be problematic when dealing with enforcement of the ban on selection.

II. Theoretical overview: autonomy and harm from liberal and traditional theory perspectives

Autonomy, in general, has been equated with liberty (both positive and negative), dignity, integrity, individuality, independence, responsibility, and self-knowledge, self-assertion, critical reflection, freedom from obligation, etc. In bioethics, autonomy has most often been understood as a feature of individual persons, generally seen as a matter of independence, or at least the capacity of independent decisions and actions [1]. Meanwhile, reproductive autonomy (otherwise known as “procreative autonomy”) has been extended to reflect the expansion of possibilities for individual self-determination and independence offered by new reproductive technologies [1]. While there are numerous definitions of “autonomy,” the debates on limitations of the exercise of autonomy have a more practical significance.

A. Liberals on autonomy and harm

The commonly accepted basis for liberal bioethicists to define the concept of “reproductive autonomy” or “procreative liberty” is inspired by John Stuart Mill.² He notes that “the only freedom which deserves the name, is that of pursuing our own good in our own way [15].” Mill argues that the individual maintains sovereignty over their own body and mind – “[that] the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is

² These terms are used interchangeably in bioethics.

to prevent harm to others” [7]. The principle of harm, as developed by Mill, became the foundation of arguments in favour of the unrestricted use of reproductive technologies (liberal theory of autonomy). These arguments have been further developed by several liberal scholars such as John Harris, John Robertson, and Ronald Dworkin. Following the ideology of John Stuart Mill, they argue that the use of reproductive (genetic) technologies should not be restricted, unless there is a harm caused to other people or society. In particular, John Robertson relies on the intuition that reproduction is a core human activity and that decisions on reproduction have a deep significance for personal identity and the meaning of one’s life. Thus, he argues that “procreative liberty should enjoy presumptive primacy when conflicts about its exercise arise because control over whether one reproduces or not is central to personal identity, to dignity, and to the meaning of one’s life...” [8]

Addressing the presumptive reproductive liberty, John Harris notes that presumption must be in favour of the liberty to access reproductive technologies and other means of founding families unless *good* and *sufficient* reasons can be shown against doing so. Thus, those who would exercise reproductive liberty would not have to show what good it would do; rather, those who would curtail freedom should not only demonstrate that it is unpopular or undesirable, but also that it is seriously harmful to others or to society; furthermore, it should be demonstrated that these harms are real and present, not probable in the future and speculative. Accordingly, the burden of proof is placed on the side which claims the existence of a very specific harm. Similar to John Robertson, Harris limits the understanding of liberty by stating that it should only be understood as a negative right. He claims that the right to reproductive freedom should be protected from the unnecessary intervention of the state (professional organizations, regulatory bodies) [9].

Dworkin rejects the abstract nature of the right to liberty; however, he points to the importance of rights to specific liberties. In particular, he acknowledges the rights of freedom of religion and freedom of speech or expression as rights protecting values of particular importance or moral and political significance [10]. For him, procreative autonomy is guaranteed by the First Amendment of the Constitution of the United States of America, which protects the freedom of religion and expression. Being able to express oneself, inter

alia through the exercise of procreative liberty rights, stems from each individual's moral values. Referring to the principle of harm, Dworkin claims that if constraints on basic liberties harm us, it is not because of the constraint on liberty itself, but because of its impacts on something beyond liberty. Specifically, this implies that "what we have a right to is not liberty at all, but to the values or interests or standing that this particular constraint defeats [16] (p. 271)."

B. Traditional (feminist) theories on autonomy and harm

In contrast, more traditional ideas have been expressed by Onora O'Neill, Catherine Mills and others, who argue against the use of embryo screening and genetic manipulation for non-medical purposes.

In her book titled *Futures of Reproduction. Bioethics and Biopolitics*, Catherine Mills agrees with Harris and Dworkin that reproductive liberty is solely based on the negative right of non-intervention [11]. She notes that "any effective capacity to exercise the right to access reproductive technologies that are supposed to be protected by that reproductive liberty will require the cooperation of medical experts and others to ensure the success of that reproductive project [11] (p.39)." Referring to Onora O'Neill [1], Mills argues that contrary the arguments of Harris and Dworkin, reproductive freedom should not be a matter of self-expression; in other words, reproductive freedom should not be seen as an analogy to constitutionally-protected freedom of expression. According to Mills, the error in the analogy between the reproductive liberty and freedom of expression lies in the fact that the former aims to produce another rights-bearing individual, while the latter does not. Ignoring the difference between these two constitutes a form of "moral narcissism," as it fails to recognize the other as other and their consequent incorporation into one's own self-regard [11] (pp. 40-42).

Returning to the argument on the sole negative feature of procreative liberty, Mills argues that both Robertson and Harris fail to acknowledge the implications of self-making entailed by autonomy and reproduction; rather, their approaches stress the moment of choice. Mills adds that

it is not simply genetic inheritance that establishes the importance of reproduction in people's lives; rather it is the

bonds of familial attachments, and the vulnerability and responsibility that they entail, in the variety of forms they take, that ensure the existential and ethical significance of reproduction [11] (p. 45).

If this argument is true, the delineation of procreative liberty as solely negative is unsustainable. According to Mills, if freedom is understood as enacted in self-formation, it is important to note that the entanglement of reproduction, technology, and moral choice leads not only to an extension of freedom, but to its problematization. The problematization of freedom and the contestation of its limits implies that any *a priori* formulation of the limits of individual freedom will necessarily also be part of that contestation. Deriving from Foucault's construal of ethics, Mills highlights that reproductive freedom only gains meaning and reality through its enactment in everyday practices of ethical self-formation.

C. Practical implications of the application of the harm principle

The interference of the state in reproductive autonomy can be justified or not. In most cases, as already outlined, the limitation of these rights is supported by the Millian harm principle. Referring to Mill's principle of harm, Catherine Mills argues that despite the apparent simplicity, what can be considered harm is not immediately clear from the principle itself. I concur with Mills arguing that the everyday idea of harm is too vague and that harms may not always constitute the kind of moral wrong that is to be prevented by the principle. In addition, according to her the theory, harm is stretched to its limit in regard to cases involving future people [11].

Interpreting "harm," Mills refers to Joel Feinberg's distinction between harm and wrongdoing [12]. Feinberg assumes that the principle of harm combines two understandings of harm: a non-normative notion referring to setbacks to interest, and a normative notion of harm as wrong. According to him, something constitutes harm if the interest concerned is in a "worse condition" than it would have been had the "invasion not occurred at all." The second sense of the normative notion of harm offered by Feinberg entails that "one-person wrongs another when his indefensible (unjustifiable and inexcusable) conduct violates the others rights [17] (p. 34)." By counter-arguing this

interpretation, John Harris explained what constitutes harm in his view. According to him, Feinberg's focus on criminal law led to narrowing the principle of harm. Therefore, it is unclear whether such a conception of harm is appropriate to the application of the harm principle in ethics. Harris argues that it is both more economical and more plausible to say "to be harmed is to be put in a condition that is harmful," where a harmed condition "obtains wherever someone is in a disabling or hurtful condition, even though that condition is only marginally disabling and even though it is not possible for that particular individual to avoid the condition in question," or more simply, "a harmed condition is one in which an individual is harmed or suffering in some way [18] (p. 109-110)."

This discussion shows that the idea of harm has become subjective and can hardly be established empirically. Nevertheless, in order to somewhat facilitate the discussion of the harm in the context of non-medical sex selection, I suggest to distinguish between social harm, individual harm and no harm (non-identifiable harm). This distinction is based on whether selection occurred in a country with socially widespread selective practices or it is an uncommon case within a particular society.

Most critical views on the extension of reproductive choice relate to the harmful large-scale consequences of the choice, that include "large-scale gender imbalance, increased discrimination against one sex, start of the slippery slope to more widespread selection, the child being treated as a consumer good or an inappropriate use of limited healthcare resources" [13] (p. 27). In addition, millions of the missing girls in China and India have been associated with other negative outcomes such as high crime rates, etc [2]. The interference with personal freedom in order to protect the society appears to be fully justified here.

As opposed to social harm, the issue of individual harm is more hypothetical in its nature, although not less important. Individual harm can be abortion, infanticide, or any other unwanted negative outcome for the mother or the foetus (such as post abortion health complications, psychological disorders, etc).

Catherine Mills argues that in formulating the principle of harm as the key limitation of an individual's actions (insofar as they impact on others), John Stuart Mill presupposed that the others in question were

other already-existing individuals. Thus, in order to discuss the speculative harm faced by yet unborn people the concept of “non-identity problem” was developed. The non-identity problem stands in the existential theory that if individuals were not conceived in the month in which they were conceived, they would not exist – yet another, different, person would exist instead. Mills gives an example of a woman with a medical condition which implies that any child she conceives is born with a disability. However, if the woman undertakes a short treatment and then conceives, her child will be born with no disability. It appears that conceiving now would harm the child, while conceiving at a later time would result in the existence of another child. It is a choice between being born with a disability or not being born at all. The only instance in which one can say that the child in question was harmed is if the disability is so severe that the life is not worth living (thus it would have been better that the child was never born). While this dispute discusses the concept of “wrongful life,” I believe it is analogous to cases when couples choose preconception or preimplantation sex selection methods: when a different embryo is conceived instead of the already-existing embryo which is of unwanted sex, the issue becomes hypothetical and leads to a regulatory dilemma [11].

III. The case of JS and LS vs Patient Review Panel

This section will discuss an important and unique decision regarding the permissibility of non-medical sex selection in the Australian state of Victoria.

The Assisted Reproductive Treatment Act of Victoria (ART) prohibits sex selection. However, it includes two exceptions: (1) sex selection can be undertaken to avoid the risk of transmission of a particular genetic abnormality or disease to a child of a particular sex, or (2) the Panel has otherwise approved the use of preimplantation genetic diagnosis (PGD) for sex selection [14]. Failing to comply with these regulations can lead to criminal prosecution. It follows, that the Patient Review Panel (or the Panel) has discretionary powers to approve non-medical sex selection on a case by case basis.

In the 2011 case of *JS and LS vs Patient Review Panel*,³ a couple applied to the Victorian Civil and Administrative Tribunal to review the decision of the Panel, which refused to allow them PGD for non-medical sex selection [14]. The couple, who already had children of one sex, wished to conceive a child of another sex, following the death of the child of that same sex. As they applied to the Tribunal, they struggled to convince that having a child of the desired sex would help them recover from a psychological stress associated with the loss of their child. However, the Tribunal refused to grant them access to ART services based on the welfare-of-the-child principle. According to the decision of the Tribunal, sex selection would not be in the best interests of the child to be born.

Interpreting the child welfare principle cited by the Tribunal in theory is very difficult; it is even more problematic in case of its practical application. The Victorian Law Reform Commission has acknowledged its complex nature, by stating; that the health and wellbeing of a child must be given a priority. The commission found it difficult to identify ways in which the best interests of the child were served by permitting sex selection for non-medical reason. Therefore, in case of absence of available evidence about the likely effects on a child of having been selected for their sex, the commission adopted a more cautionary position.⁴

Moreover, this principle becomes more contentious when discussing the interests of unborn children, as the debates shift to mainly hypothetical domain. In our case, the Tribunal failed to explicitly mention those identifiable and established factors of risk which could in reality harm the child [14], apart from the embryo biopsy procedure as possible harm. In particular, it stated that providing a tissue for a biopsy when aiming to create an embryo (that is, a saviour sibling⁵) is more ethically (morally) justified than a biopsy with the sole purpose of establishing tissue type. Thus, according to the Tribunal's reasoning, non-medical sex selection is distinct from other types of selections, such as selection regarding serious genetic disorders

³ *JS and LS v Patient Review Panel*³ (Health and Privacy) [2011] VCAT 856.

⁴ Final Report on Assisted Reproductive Technology and Adoption, 2007, Victorian Law Reform Commission, Victoria, 2007

⁵ The saviour sibling is the child who is conceived for the purpose of providing a tissue that is compatible with that of his/her seriously ill sibling.

or saviour sibling selection, which at least have therapeutic goals. This argument seems controversial considering that the therapeutic goal of the selection is not related to the well-being of the child to be conceived, but to another, already born child. In this respect, the welfare considerations of children born as a result of selection can be identical in both cases.

It should be noted that in Australia, the protection of the parents' interests have been prioritized in many cases when the welfare of the child principle was not taken into consideration. One such example is the request to utilize the sperm of a deceased partner for the purpose of having his child without his explicit consent [14]. Such requests have been approved in the past as they would benefit the woman conceiving the baby. The welfare of the child who had to be born without one parent was not considered to be harmed. The applicants' argument failed to prioritize the welfare and interests of the unborn child by instead focusing on their own desires. However, this alone may not be a reason to deny the request, since it is not drastically different from when parents prioritize the welfare of the sick child who could be cured by using tissue of an unborn child [14]. In both cases, priority is not given to the interests of the unborn child. In case of sex selection, however, the welfare of the child to be born can be less disputable, as parents would have their desires or expectations finally met. Moreover, there is a high probability that this child will be more privileged compared to other children in the family.

Another argument of the Tribunal was that selecting the sex of the child was only a means to satisfy the parents' specific desires and the method was therefore focused on their psychological well-being, instead of that of the child. Later, the Tribunal stated that it was not proven by the applicants that they would recover from a post-traumatic stress disorder or that they would otherwise benefit psychologically from having a child of the desired sex. It stated that even if having a child of the preferred sex would have a positive effect on the couple, "their situation would fall far short of the gravity of a condition of a third party which would justify giving permission for an ART procedure to create a saviour child" [14].

Concluding, unlike in the famous case of the Masterton family⁶ [19] (1), the regulatory framework of Victoria allowed the couple to apply to the Tribunal based on the possibility to circumvent the restriction of choosing the sex of an unborn child. In both cases, the couples were eventually refused to choose the sex of the child, but in the case of JS and LS, the Tribunal provided reasoning for the refusal. However, the decision of the Tribunal failed to discuss more relevant ethical and moral issues associated with non-medical sex selection. In my opinion, the comparison drawn between non-medical sex selection and selecting a saviour sibling did not provide legal and ethical clarification on why the applicants should be refused to choose the sex of their child. Moreover, the Tribunal's attempt to justify its decision, based on the necessity of pursuing a therapeutic goal, is not consistent with the ART regulation itself, since the latter provides the Panel with discretionary power to allow *non-medical* sex selection on a case by case basis. It follows that the Tribunal's reasoning on the permissibility of selection should not be associated with the therapeutic nature of the procedure.

IV. Conclusion

The prohibition of non-medical sex selection has many underlying justifications. First, it is a balancing (preventing) mechanism against a larger social harm, namely the skewed sex-at-birth ratio of a population, which has occurred in several countries with widespread selective practices [2, 20]. Second, the prohibition of non-medical sex selection is an incorporation of common moral values and principles of a certain society which considers sex selection as morally problematic.

⁶ The Masterton family case is a high-profile case in the UK which involved controversial debates around the permissibility of non-medical sex selection. The family, who had lost their daughter in an accident, applied to the Human Fertilisation and Embryology Authority (HFEA) to allow them to undergo an in vitro fertilization treatment using pre-implantation genetic diagnosis, which could ensure that they conceive a daughter. The family argued that they needed a daughter and this was causing them severe psychological suffering. However, in order to apply to the HFEA, the couple was required to find a clinic which could apply for a license to undertake the treatment. Being unable to find such a clinic, the family later sought the treatment in Italy and conceived a male embryo that was donated.

As outlined, the current regulations of non-medical sex selection are generally restrictive in their nature. This is especially the case in Western Europe, where Article 14 of the Oviedo Convention plays a significant role on both legal and ethical grounds. The Article does not result in ethical dilemmas mostly because the general population does not favour sex selection. Many studies have confirmed the attitude of most Western Europeans against the moral choice of selection [22, 23]. However, there is a lack of up-to-date studies, which can confirm that this attitude has not changed in the past years.

Unlike the situation in Western European countries, non-medical sex selection in the United States is not prohibited by law [3, 21]. Some other countries (Israel, Victoria) allow sex selection if based on distinct regulations. Policies which allow undertaking sex selection under certain conditions should be well analyzed, because they are problematic with regard to their practical applicability.

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