



Research Paper

Genetic Futures: Sociopolitical Implications of Prenatal Technologies and Preimplantation Genetic Diagnosis

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Abstract

The paper explores biopolitical management of life in the context of Prenatal Testing and Preimplantation genetic diagnosis (PGD). These reproductive technologies are deeply embedded in biopolitical frameworks that regulate life, health and genetic futures. The paper highlights the societal expectations, medical discourse and policies of the state and how these shape reproductive choices. This raises critical, ethical and social questions about the notion of autonomy and the governance of reproduction.

Received 27 Dec., 2024; Revised 05 Jan., 2025; Accepted 07 Jan., 2025 © The author(s) 2025.

Published with open access at www.questjournals.org

I. Introduction

Contemporary reproductive health care serves as tools for governing life both at the molecular and genetic level. Apart from reflecting individual reproductive choices, the biopolitical framework also reflects societal imperatives on health, genetic fitness etc. so how technologies shape our understanding of life, health and future of humans is the basic question. Biopolitical turn implies a shift in understanding life, that is, life has become an object of the political strategies rather than a phenomenon exclusively biological. As a result, nutrition, procreation, birth, death, clothing, hygiene, rights, relations between gender and sexuality become the subject of politics. Advances in medicine and medical technology give a new dimension to the debates on life, body and power. Technology is not a matter of instruments or equipments, instead it is a collection of social and human relations where equipment and techniques are only one element. Medical technologies are not merely technologies of health instead they also constitute technologies of life. As a result, debates on human life, body and health are not confined to individual responses and decisions alone, but it has now extended to a wider network of politico-ethical discourses.

Biopolitics of Prenatal Testing

Earlier eugenics focused on restriction on conception, now in the biopolitical management of life, the focus is on 'quality control'. Prenatal testing is becoming routine for getting the 'best quality.' New reproductive technologies include prenatal testing, DNA, obstetric ultrasound, chorionic villus sampling and genetic morphology of a foetus in utero. While examining the social implications of prenatal testing technologies, both anthropologists and sociologists have pointed out that these technologies are biopolitical, that they provide the platform for foetal life becoming a commodity and also for altering the status of the woman. According to Rayna Rapp, the subsequent study of amniocentesis brought to the fore the way in which the medicalization of pregnancy in prenatal testing positioned women as 'moral pioneers', making decisions about life and death on the basis of medical testing that was unavailable to prior generations of women. (Mills 10)

Catherine Mills, in *Futures of Reproduction*, argues that obstetric ultrasound has some impacts upon the embodied experience of pregnancy. For her, Ultrasound does not simply represent an already existing body, but actually constitutes the foetus as an embodied, social being (108). The basic question whether abortion is morally right or wrong enters into another domain through an analysis of biopolitics of reproduction. The routine use of ultrasound in obstetrics has its impact on the intuitions about the moral status of the foetus. Ultrasound plays a significant role in the circulation and realization of norms in reproduction by establishing and shaping embodiment and thereby constituting social and ethical relationships. Ultrasound imaging allows the bodily life of the foetus to appear which was previously unavailable. It does not simply represent an already

existing body. Instead it reveals a bodily existence that was not present to a viewer early without the use of technology.

Using Foucault's perspective of normalization, Catherine Mill gives an account of biopolitical reproduction through which ultrasound works as a helping hand to create the norms against which foetal bodies are assessed to produce the desire for a 'normal healthy baby.' Technology produces a desire for norm. Ultrasound frames purports to represent and contributes to the social production. This instance of ultrasound provides an example of how reproductive technologies actively contribute to what will appear as a viable life or bodily form within the social sphere. Ultrasound is inherently normalizing. It allows for the identification and calibration of a set of statistical norms. Ultrasound contributes to the 'normation of the gestational development, that is, it makes possible the formation and establishment of norms for judging the gestational development of the foetus.

In Foucault's account of Biopower, a normalizing society is the historical outcome of a technology of power centered on life. Normalization produces individual as the counterpart of the operation of norms as a material artifact of power (Discipline and Punish 184). In a Biopolitics of population, norms are mobilized in the opposite way, i.e., normal comes first and the norm is deduced from it (Security, Territory, Population 63). Thus Biopolitics of populations involves, a plotting of the normal and the abnormal, of different curves of normality, and the operation of normalization consists in establishing interplay between these different distributions of normality and in acting to bring the most unfavourable into line with the most favourable. (Security, Territory, Population 63)

Coming to obstetric ultrasound, it acts as a means of normalization where it provides reassurance of normality. On the one hand normalization help to identify the normation of the foetus, through the formulation and application of norms and this forces to have a concern on the 'normal' and the 'abnormal'. The danger that lies here is the case when prospective parents make decisions about continuing or terminating pregnancy. Eva Kittay, has pointed out that normalization turns dangerous and has identified this as 'desire for the normal.' For Kittay, norms that are simultaneously descriptive and prescriptive are analytically desirable, whereas purely descriptive statistical norms become the basis of social norms and institutions that enforce distinctions between the functionally valuable and devalued. The eradication of the abnormal is here justified not to maintain the normal, but it points out that the deviation from the normal undermines the capacity to have a good life.

Biopolitics of PGD

Preimplantation genetic diagnosis (PGD) is a procedure, through which the selection between embryos before the initiation of pregnancy is made possible. The questions such as the moral status of embryos are hotly debated issues in the contemporary bioethical debates. As in the case of other technologies like IVF, gamete donation, surrogacy, mitochondrial transfer and uterus transplant, in PGD also technology works as a medium through which human reproduction is increasingly being externalized. It is widely observed that this externalization is linked to the increasing commercialization of human reproduction. Many scholars point out that it results in an unprecedented responsabilization of reproduction whereby women become 'the managers of their pregnancies'. From a Foucauldian perspective, this is one of main axes of biopower and biopolitical management, where individuals themselves are responsible for the enactment of biopolitics in reproduction.

PGD is being mainly criticized from the perspective of liberalism which relies on the hypothesis that that genetic manipulation entails a particular form of determination that undermines constitutive conditions of human morality. The worry is that the individual who accepts his or her own 'nature' as the expression of another's will would be at the risk of losing the precondition for being a person. One of the most important contemporary representatives of this line of criticism is Jurgen Habermas. In his paper 'The Future of Human Nature', he argues that the selection of an embryo by means of PGD implies a new form of control over humans, which undermines their autonomy moral agency. Habermas does not attempt to define the notion of human nature in an explicit manner, rather he simply refers to humans as they are born, not 'made' through any kind of genetic manipulation. 'Nature' or 'natural' existence in this sense is something 'given' which Habermas differentiates from the 'made'. In the biotechnological era, the manipulation of this natural aspect of human origin results in severe ethical consequences and this is what Habermas is concerned with in his critique of PGD.

A Foucauldian approach would be obviously different from the Habermasian approach precisely for the reason that it would not rely on the notion of any human nature, as the very notion of human nature is seen as part of the strategy of normalization of the biopolitical regime. Catherine Mills, in *Futures of Reproduction: Bioethics and Biopolitics* attempts to problematize the central argument of Habermas from a Foucauldian perspective. The very idea that that the persons are simply born and not made, for her, is contestable. The point that she raises is that status of personhood does not necessarily equate to biologically belonging to the human species or any naturally given biological status. The relation between biological 'givenness' and personhood is not simple and straightforward. If biological 'givenness' indicates the sense of not being determined or under

the control of an intentional agent, then ascribing personhood to the ‘given’ itself could be an aspect of the biopolitical act of normalization. Thus, from a Foucauldian perspective, the very relation between biological givenness and personhood would have some crucial biopolitical implications that Habermas’ analysis does not take into account.

Catherine Mills attempts to have a biopolitical critique of PGD by anchoring on a notion, the notion of singularity, which does not refer to the liberal notions of autonomy, freedom and personhood etc. She develops the notion of singularity basing on the perspectives provided mainly by three thinkers, primarily on Hannah Arendt’s distinction between ‘who’ and ‘what’ someone is. For Arendt each birth is to be understood as singular event by which something new comes into the world. Drawing in the implications of Heidegger’s existential analytic of Dasein, she argues that the unique personal identity of ‘who someone is’ is actively revealed in all speech and action and passively through the physical presentation of the body: If action as beginning corresponds to the fact of the birth, if it is the actualization of the human condition of natality, then speech corresponds to the fact of distinctness and is the actualization of the human condition of plurality that is of living as a distinct and unique being among equals (The Human Condition 178).

The important point that Arendt makes is the disclosure of ‘who’ in contradistinction with ‘what’ somebody is, his qualities, talents, gifts, and shortcomings may be implicit in everything somebody does and says (178), but this is disclosed to others by the condition of human plurality. Adriana Cavarero elaborates further on the question of singularity by pointing out how self-appearance and embodiment are intertwined in the case of the newborn:

The baby who is born is always unique and one. Within the scene of birth, the unity of the newborn is materially visible and incontrovertible through its glaring appearance. The new born- unique and immediately expressive in the fragile totality of her exposure – has her unity precisely in this totality nude self- exposure. The unity is already a physical identity, visibly sexed, and more perfect insofar as she is not yet qualifiable. (Cavarero 38)

From these accounts Mills derives an important insight that the uniqueness of newborn requires that the existent is not only embodied, but the condition of embodiment is unique of its personal identity. The meaning of embodiment can be captured only in terms of the notion of singularity, that all bodies are singularities. Jean-Luc Nancy explains the notion of singularity as, “that which occurs only once at a single point ... not a particular, which comes to belong to a genre, but a unique property that escapes appropriation” (qtd. in Mills, *Futures of Reproduction* 94-95). Individual body exceeds the correlation of generality and particularity. Nancy posits a close relation between singularity and embodiment. For him, singularity is always a body, and all bodies are singularities...their bodies, their states, their movements, their transformations (95). What is crucial in the case of genetic interventions like PGD is that newborn is born for what they are. It is not the individuality of the phenomenal appearance of the newborn that is under threat in PGD. The qualities of who someone is cannot be determined before its arrival. But in the case of PGD, the unexpectedness is absent by the choice made in advance. Here the child is born with particular characteristics which are favourable for its parents. Rather than having singularity and uniqueness, it is born with particularity. In a significant sense, we may argue that a new ethical subjectivity takes place between the ‘given’ and the ‘made’. The child born as the result of the technologies like PGD, is a composite of the given and the made.

The new reproductive technologies bring to light the relationship between domination, technology and subjectivity and these overlap each other. Jana Sawicki in *Disciplining Foucault*, points out that new reproductive technology represents a set of discourses that constitute a disciplinary technology of sex that was developed and implemented as a means of consolidating its power for improving and maximizing life (83).

II. Conclusion

By rethinking the biopolitical frameworks that shape reproductive decision-making, society can better address the complexities of life, health and the value of all forms of human existence. The biopolitical management of life through PGD and Prenatal testing reveals how these reproductive technologies mediate the relationship between individual choices and societal norms. More than providing reproductive options, these technologies define the notion of health and desirability. Genetic futures prioritize lives over others by challenging the biopolitical mechanisms. It ensure that technological advancements serve communities ethically.

REFERENCES

- [1]. Canguilhem, Georges. *The Normal and the Pathological*. Trans. Carolyn Fawcett, Zone Books: New York, 1978.
- [2]. Cavarero, Adriana. *Stately Bodies: Literature, Philosophy and the Question of Gender*. Trans. De Luca, Robert & Shemek, Deanna, Ann Arbor, University of Michigan Press:2002.
- [3]. Dooley, Mark and Richard Kearney (Eds.) *Questioning Ethics: Contemporary Debates in Philosophy*. Routledge: London, 2002.
- [4]. Foucault, Michel. “The Subject and Power”. *Critical Inquiry* 8.4 (1982):777- 95.
- [5]. Foucault, Miche. *Security, Territory, Population: Lectures at the College De France, 1977-78* Trans. Burchell, Graham. Palgrave MacMillan: New York, 2007.

- [6]. Frank, Arthur W., and Jones, Therese. "Bioethics and the Later Foucault". *Journal of Medical Humanities*, vol. 24. No. 3/4(2003): 179-86.
- [7]. Franklin, Sarah, and Celia Roberts. *Born and made: An ethnology of preimplantation genetic diagnosis*. Princeton University Press: Princeton, 2006.
- [8]. Fukuyama Francis. *Our posthuman future: Consequences of the biotechnology revolution*. Profile Books: London, 2003.
- [9]. Glover, Jonathan. *Choosing children: Genes, disability, and design*. Oxford University Press: Oxford, 2006.
- [10]. Gutting, Gary (Ed.) *The Cambridge Companion to Foucault*. Cambridge University Press: Cambridge, 1994.
- [11]. Lippman, Abby. "Prenatal Genetic Testing and Screening: Constructing Needs and Reinforcing Inequities". *American Journal of Law and Medicine* 17 (1-2) (1991): 15-50.
- [12]. Mills, Catherine. Forthcoming. "Resisting Biopolitics, Resisting Freedom: Prenatal Testing and Choice". Eds. Wilmer, Stephen & Zukauskaitė, Audrone. *Resisting Biopolitics: Philosophical, Political and Performative Strategies*. Routledge: London, 2015.
- [13]. Mills, Catherine. *Futures of Reproduction: Bioethics and Biopolitics*. Springer: London, 2006.