

Designing Life and New Eugenics

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Introduction

As biomedical research on the generation of life and the application of advanced medical technologies have developed in recent years, the tendency toward manipulating human life has grown stronger. In particular, the intervention in genetic makeup has increased the accuracy of manipulation, and the possibility of designing life is a pressing matter. For example, screening out abnormal embryos to prevent the births of babies with serious genetic diseases, and creating babies with specific traits (e.g. high IQ, excellent athletic ability) by germline modification according to parental choice are indicated. Some advanced medical technologies have made it possible to meet the needs of parents to obtain/avoid desirable/undesirable inherited or genetic qualities. This problem has been discussed in the field of eugenics. Can we regard this tendency as a new version of eugenics? It is not an easy question to answer.

Originally, eugenics was defined as an academic science and social movement aiming to reduce inferior heredity traits and increasing superior heredity traits to improve humankind at the level of population, mostly by governmental policy with coercive measures such as sterilization, abortion and the restriction of marriage and immigration. We can refer to this as classical eugenics. On the other hand, designing human life by advanced medical technologies is performed directly on genetic makeup, not due to government coercion but by individual, voluntary choice. For this reason, it is called "new" eugenics.⁽¹⁾ However, there is a common point between both forms of intervention, which is the objective of improving human genetic qualities. Some point out that new eugenics is only a sophisticated version of classical eugenics in the name of "individual voluntary choice." By contrast, others consider this manipulation of life in the quest for desirable qualities as the practice of individual reproductive freedom or rights and is thus a morally justifiable type of eugenics. There is a basic ethical issue, i.e., the serious opposition of views in respect to relationship or communication. In other words, we must answer the question of what it means to choose the quality of another human being's life.

This paper investigates the ethical and social implications of designing life, and elucidates the range and the problems of new eugenics by classifying it into two major types. In particular, the way of thinking and practice are critically examined in terms of human understanding and societal conception. Based on this consideration, I pursue

ethical standpoints against new eugenics.

1. Germline Genetic Enhancement as Designing Life

Activities such as generating or terminating human life can be considered as the wish to design life assisted by biomedical technologies. There are three modes of intervention at the beginning of life in designing. The first is starting/terminating life desirable/undesirable qualities, i.e. positive-surviving or negative-eliminative selection. When this selection has been made, the evaluated quality of human life such as being normal/abnormal, sound/disabled is used as criteria. The second is negative or positive intervention in the genes of the embryo, fetus or adult. The former is a form of treatment, i.e. elimination or repair of negative conditions such as disease or abnormality, the latter is a form of enhancement or addition of positive conditions such as "superior" traits, both types of which are called the modification or alteration of life. The third is the production of life, especially using cloning techniques.

These types of intervention have their own technical, legal, social and ethical problems, so they need investigation from multifaced perspectives. We will focus on germline genetic positive modification and enhancement to clarify these points. Through enhancive manipulation of an early embryo created by *in vitro* fertilization, human traits are supposed to be physically, mentally or morally improved. There are two ways of enhancement, one is preventive such as the reinforcement of immunity, delay of aging or prevention of cranial nerve disease, the other is additive, such as strengthening muscle power, raising IQ or artistic talent and elevating compassion, etc.(2)

However, is it possible for intellectual or moral traits to be enhanced by genetic modification? Are they not also affected by environmental factors and interaction among genes? This may be the case, and many researchers do not believe in its technical feasibility. Despite this, because no one knows how far future technologies will develop, and taking into consideration the desires of the general public, the entry of venture businesses, the possibility of breakthroughs in techniques and potential social effects, predictive examination should be conducted. It can be compared to the importance of considering possible adverse effects such as the violation of privacy or employment discrimination by the use of personal genetic information.

2. Arguments in Support of Germline Genetic Enhancement

Several arguments justifying germline genetic enhancement have been presented.

These are the main arguments.(3)

(i) It is unjust for governments to regulate or prohibit individual choice. As far as the right to have a child with the help of infertility treatment is admitted, including quality selection such as the purchase of sperm or eggs, having a baby genetically modified at an early stage should also be allowed.

(ii) Since bringing up a child as the parents wish is a basic right in a liberal society, using technologies to produce a baby as one wishes would also be justified. It can be compared to parents sending their child to private school or to piano lessons in terms of the child's best interests.

(iii) Opponents stress that the legal protection and psychological support of children produced by reproductive technologies are required, and this also holds true in germline engineering. Moreover, the "instrumentalization of a child" or "invasion of a child's right to an open future" is often raised against designing baby technologies. In reply to such criticism, some claim that only parents should be responsible for their children, and that these technologies would have certain advantages for the child such as expanding the possibility of social success.

(iv) People tend to regard preventive or corrective medical intervention (=treatment) as justifiable and positive intervention (=enhancement) as not permissible. However, it is impossible to draw a line between the two modes, so antipathy to the latter is not rationally based but an emotional reaction.

(v) It is certainly necessary to confirm the technical safety of the interventions, but people have to be ready to cope with prospective risks with their own choices and take responsibility for them. The possibility of the adverse effects on offspring of germline engineering, i.e., "unknown future risks," should not be a reason to prohibit the technologies, because this would hinder the progress of science and technology. Enjoying enormous benefits of technologies, we must accept the preferences of the people concerned.

(vi) There is a view that since there may be an expansion of the gap between the haves and have-nots due to these technologies, the government should strictly regulate them. However, this view has no grounds. On the contrary, few people would choose these technologies because they are expensive. In addition, through the spread of cost and cost reduction, almost everyone could access them. In any case, the "gene rich" or a genetic privileged class would not appear in the future, so this is not a problem.

The core of these arguments justifying the new eugenics lies in the thesis that

designing a child by parental choice with the aid of advanced medical technologies is not special, and thus need not be regulated by the government. To verify its ethical and social validity, it is necessary to examine the relation with eugenics, because in long-term discussion on eugenics, several topics concerning intervention in heredity and the genetic quality of human life have been dealt with; is it justifiable or not to intervene? Is there any difference between these technologies being used by governmental policy or by individual voluntary choice, and is there a difference between the negative mode and the positive mode?

3. Basic Framework of New Eugenics

I propose an understanding of eugenics in general as follows.

The core of eugenics lies in intervention in the genetic qualities of human beings based on specific values of being superior/inferior, whether at population level or at individual level, by government policy or by individual voluntary choice. As far as such interventions are concerned, both negative-eliminative and positive-enhancive interventions are eugenic practices.

This is a broad definition of eugenics.⁽⁴⁾ It is often said that eugenics is intervention in heredity traits only by governmental policy at the population level, so genetic intervention by individual voluntary choice with the aid of biomedical technologies is not eugenics. However, depending on our interpretation, we could miss the commonality and continuity of both types of intervention. Governmental policy and individual voluntary choice are not necessarily opposed, but rather, complement each other as factors promoting eugenic practices. Eugenics must be understood as a theoretical/practical movement that is changing as technologies advance.

We will now consider some discourses on germline genetic enhancement as a eugenic practice and present two arguments for its validity. One is the voluntary choice of the individual as a consumer or client in the market, the other is the self-evolution of humankind through remodelling human beings. Each position can be summarized as follows;

- (a) It is a morally acceptable eugenic activity just like a consumer choosing a service in the market to pursue his/her happiness.
- (b) It is a morally justifiable eugenic practice, because it would result in improving the human gene pool, and future generations would be newly evolved human beings.

These arguments hold true in the other forms of intervention in the quality of human life such as positive/negative selection, therapeutic modification and

production by cloning. From this, we could define new eugenics as ideas and practices that aim to obtain desirable genetic qualities and avoid undesirable genetic qualities through direct intervention at the beginning of life through individual voluntary choice with the aid of advanced medical technologies. Thus, we now examine concepts of 'human being' and 'society' in new eugenics in detail.

4. Eugenics as Consumer Choice(5)

Some views expressed in the form of (a) above are often called "market eugenics," "consumer eugenics" or "liberal eugenics." Under these views, the leading actor is an individual who chooses from what is on offer in the reproductive marketplace according to personal taste. As each individual heads for the market to realize his/her life plan that suits his/her values, business and industry to satisfy the various needs of the consumer are increasingly flourishing. We can see examples such as commercial sperm/egg banks and the surrogate mothering business.

The force promoting this direction is not compulsory policy by the government but individual voluntary choice and free competition in the market, and thus does not impose a single-value standard as seen in classical eugenics but rather defend plural-value standards. As neoliberalistic social and economic policies have grown more influential in some industrialized countries since the 1990s, this tendency will strengthen. Neoliberalism is an ideology of libertarianism as an ethical-political concept and market-centered economic policy. It requires only individual self-determination and self-responsibility, and the prevention of harm to others, and that governmental or third-party interference in personal matters be excluded in principle. Thus, the privatization of the public sector, reduction in official subsidies and deregulation in various fields, permission for patents for advanced technologies and promotion of cross-border free trade are recommended.

According to this stance, genetic engineering and cloning techniques are also approved as reproductive freedoms and rights. In this type of new eugenics, a specific combination of individuals and society are assumed, with consumers who want to choose the qualities of their children while holding proper values and lifestyles on the one hand, and a market-centered society protecting the right to choose and meeting the various needs of the consumer on the other.

5. Eugenics to Remodel Humankind(6)

The second type of new eugenics in (b) mentioned above can be called "eugenics to

remodel humankind." Remodelling implies self-evolution or self-transformation through germline engineering, in other words, changing the biological constitution of future humankind. This is based on the ideal of classical eugenics proposed by English scientist Francis Galton, i.e., reducing inferior heredity traits and increasing superior traits to improve humankind at population level by governmental policy. In addition, by using advanced medical technologies, this purpose will be realized in a more effective and sophisticated manner. In a democratic society, there can be no non-humanitarian eugenic policies such as coercive sterilization or the genocide of an "inferior race" by state power. Instead, these advocates assert that each government has the obligation to promote the welfare of people in general by making eugenic reproductive choice voluntarily by the spread of education and enlightenment activities for a good understanding of genetics.

It attempts not only to remodel the human body in a biological sense, but also to remodel the social human being. With the idea of "dysgenics," where the human gene pool has degenerated due to public health policy, social welfare and progress in medicine, and where these factors have resulted in the survival or even the prosperity of genetically inferior beings. So, first of all, eliminating or remedying hereditary disease by germline modification is a duty of the citizen for the benefit of future generations. Moreover, there is no reason to submit to the genetic makeup given to us and to regard our own genetic constitution as the last stage of biological evolution. We are now overcoming biological determinism and recreating our destiny by ourselves. This is a new evolution or transformation, the emergence of the "posthuman."

Behind this somewhat exaggerated theory of civilization lies the request for policy making based on efficiency or cost-benefit analysis. Promoting the manipulation of human life would be driven by the pressure to reduce disability, that is, preventing the birth of "defective" babies, and increasing the number of "excellent" babies. This pressure might take the form of controlling the tax system or official subsidies, coverage of health insurance, etc. Of course, these measures should not be imposed by the government but spontaneously taken by the individual who has a good understanding of genetics and a sense of obligation to humankind and society. Together, these actions would result in improvement in genetic qualities at population level, and is desirable for humankind as a whole.

Conclusion – An Ethical Standpoint against New Eugenics

As has been indicated, new eugenic practices are performed by individuals who are

consumers pursuing their desires or citizens responsible for society or humankind. Both attempt to intervene in the qualities of other people, and this is the the core of new eugenics. However, what problems will arise as a result of such intervention? Some opponents claim that it would undermine or violate humanity and human dignity.(7) Although this is a question that inevitably arises, we will not deal with it directly but will investigate the ethical implications underlying this issue from the viewpoints of relationship and communication.

Just as people select goods and services in the market to satisfy their own desires, they also choose compatible friends, partners or spouses and children-to-be as they wish. Moreover, when parents invest money in extra education for their child, this can be considered as modifying or rather enhancing one's child's attributes; there do not seem to be any problems concerned with such activities. Most people would accept this kind of conduct because it is in the best interests of the child, so can we not also approve germline genetic enhancement? I believe there are fundamental differences between the two. Although both ways of intervention can be chosen or controlled, we have to be careful about the meaning of the relationship in each way of intervention. In the former, it is presupposed that the inherent value of the other is recognized and the relationship established by the preceding interaction or communication is accepted. So one is often forced to give up or revise the intention to design life when conflict is encountered. In the latter, however, the parental desire for controllability of a prospective child is set up as the starting point of "producing," followed by the attempt to build up the relation to their own wishes. Of course, parental dreams do not always come true, and desired abilities or traits are not necessarily realized through germline genetic enhancement. Despite this, the fact that parents have designed the quality of their child and regard it as a controllable product cannot be denied.

Therefore, even if fertility treatment might be permitted as a reproductive right or freedom, we would not consider germline genetic modification as such a right because it implies the commodification of the child. Parents of course want normally functioning, happy children and to avoid having abnormally functioning, unhappy children, but mostly, the child is accepted as a gift of nature. The attitude of accepting a baby as it is restrains the desire for control. As genotypes corresponding to traits considered desirable by the majority of people will be more strongly identified, the reproductive business is more likely to promote the commodification of the child by upgrading the menu of preferred qualities.

Some people believe that by expanding the possibility of manipulating human life,

the various needs of parents as consumers could be satisfied and value-pluralism would be ensured. Indeed, we can no longer be under the control of a one-dimensional value hierarchy system by the state, by race or national group, even if genetic engineering becomes popular. Instead, it is likely that current dominant values such as ability, productivity and efficiency will strengthen. According to these values, "superior" qualities will be recommended and "inferior" ones exposed to strict evaluation. Above all, for the new eugenic way of thinking, those who possess "inferior" or "harmful" genes will be eliminated from the human gene pool. Evaluating the views of those who advocate the new eugenics shows that it is a real threat to disabled people. It is natural that disabled people and their advocates feel a sense of crisis concerning the social effects of genetic engineering and that they actively express their anxieties.(8)

When human life is regarded for the benefit of the individual and for humankind, its diverse forms are reduced to aspects of control, and the mentality of ranking people as more or less superior or desirable is likely to strengthen. It raises a question that has a bearing on the fundamental character of ethics, i.e. the collapse of the basic value (=dignity) of human life as irreplaceable and indispensable. We are now required to construct effective, solid counter-discourse.

Notes

(1)About eugenics including its classification and distinction between the classical eugenics and the new one, cf. Kevles/Duster 2004; Lynn 2001.

(2)cf. Walters/Palmer 1997:108-133; Lynn 2001:preface.

(3)cf. Agar 1999; Buchanan et al 2000:chap.1,4-6; Caplan 2000; Daniels 2000; Engelhardt 2002; Harris 1998; Parens 1998; Silver 1997,2000.

(4)cf. Paul 1998:100.

(5)cf. Agar 1999; Caplan 2000; Gosden 1999:prologue, chap.9; Kitcher 2000; Robertson 1994:chap.1,7.

(6)cf. Buchanan et al 2000:chap.4; Engelhardt 2002; Harris 1998; Kitcher 2000; Lynn 2001:chap.19-21; Stock 2002:chap.1,9; Silver 2000.

(7)cf. Fukuyama 2002:chap.7-9; Kass 2002:introduction, chap.4.

(8)cf. Disabled People International Europe, Disabled People Speak on the New Genetics. <http://www.dpieurope.org/htm/bioethics/dpsngfullreport.htm>; King 2001.

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