LIBERAL EQUALITY, FAIR COOPERATION AND GENETIC ENHANCEMENT

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ABSTRACT

Genetic enhancement represents an improvement of human abilities and talents, giving those who are thus enhanced a competitive advantage over others. If genetic enhancement technologies are privately funded and only a small group of wealthy people has access to them, their competitive advantage might be further increased, and the existing social, economic and political inequalities might be increased as well. I discuss Baccarini's regulation proposal according to which genetic enhancement can remain privately funded and (at least for some time) accessible only to a small group of people, provided that the benefits of their enhancement (e.g. increased productivity, better health care) are distributed is accordance with the lax difference principle (i.e. to the greatest reasonable advantage of the worst-off citizens). I have some doubts regarding this proposal. Namely, I argue that there are other more important principles (i.e. the principle of equal liberty and the principle of fair equality of opportunity) that have lexical priority over the difference principle, and offer several arguments supporting this claim. In the rest of the paper I argue that privately funded genetic enhancement, available only to a small number of wealthy citizens, can lead to the violation of both the principle of equal liberty and the principle of fair equality of opportunity. It should therefore be replaced with publicly funded genetic enhancement available to all citizens.

KEYWORDS

Genetic enhancement, difference principle, equality of opportunity, Baccarini, Rawls

INTRODUCTION

Genetic enhancement represents a method of improving human capacities and abilities, as well as particular skills and talents. Many of these improvements will inevitably increase the competitive advantages of individuals they are applied upon. Even improvements that are not applied with the intention of creating competitive advantage, but instead aim to realize the intrinsic value of some activity, can nonetheless result with increased competitive advantage, which is introduced as a beneficial side effect of such improvement¹. Increase of one's memory, as well as of one's analytical, mathematical and communication skills will result with the increase of competitive advantage, whether that was an original intention or not. Allowing genetic enhancement of people who are of average human capabilities (or even beyond them) can result with new inequalities in a society.

Research into these technologies will undoubtedly be very expensive and will thus be accessible only to elites. This might further increase existing inequalities since the methods of increasing competitive advantage will be available (at least for some time) only to those who are already in an advantaged position in society (Lev 2011). These new inequalities, some claim, might be a good public reason for banning genetic interventions.

Baccarini rightfully shapes his position by starting from Allhoff's (2005: 44) idea that genetic technologies are inherently neither good nor bad - "genetic enhancement procedures alone will not lead to unjust results: there would have to be an unjust distributive scheme to enable the injustice to come about". We should neither completely ban nor completely liberalize genetic enhancement. Instead, we should regulate these procedures with laws and policies that will ensure fair results and protect basic justice (Baccarini 2015: 10). I agree with Baccarini that regulation is the right answer, though I have some doubts regarding the model of regulation he is proposing.

I start the paper by analyzing the regulation that Baccarini has in mind, i.e. the lax difference principle, which states that social and economic inequalities are to be to the greatest reasonable benefit of the least advantaged. I proceed by arguing that there are other more important principles (i.e. the principle of equal liberty and the principle of fair equality of opportunity) that have lexical priority over the difference principle, and offer several arguments supporting this claim. In the rest of the paper I argue that privately funded genetic

¹ Consider a child whose music talents have been genetically increased because her parents consider music to be one of the highest intrinsic goods and want their child to be good in recognizing and creating intrinsic goods. Baccarini's position allows improvements of this kind, provided that they do not decrease some of the child's other abilities or talents. Parents have thus genetically improved their child aiming to realize the intrinsic value of some activity, and not aiming to give their child a competitive advantage over others. They might even think that the intrinsic value of music is reduced or damaged when one plays it for money, so they hope that their child will be a lawyer or a doctor, and play music only in her free time. Though this increases was clearly done with no intention of creating competitive advantage, it nonetheless increases the number of careers the child can take, (when compared to her neighbour who has similar abilities, but lacks the music talent), placing their child in a better position in the labor market.

enhancement, available only to a small number of wealthy citizens, can lead to the violation of both the principle of equal liberty and the principle of fair equality of opportunity. It should therefore be replaced with publicly funded genetic enhancement available to all citizens since the latter does not violate the two abovementioned principles.

BACCARINI AND THE DIFFERENCE PRINCIPLE

Though Baccarini addresses many different questions, it seems that the central idea he uses to regulate the problem of inequalities caused by genetic enhancement is Rawls' difference principle, or to be more precise, Farrelly's lax difference principle. (Baccarini 2015: 75). "Inequalities in the distribution of genes important to the natural primary goods are to be arranged so that they are to the greatest reasonable benefit of the least advantaged" (Farelly 2005: 95). A small group of people (e.g. those wealthy enough to be able to afford them) can benefit from genetic enhancement technologies and (further) increase their competitive advantage over others as long as this unequal distributive scheme provides the worst-off with more benefits than any other distributive scheme. Provided that genetic enhancement technologies create more highly skilled and highly talented people (e.g. super Michael Jordans and super Einsteins) who will be able to increase the total quantity of resources produced within a society, and provided that progressive taxation and redistributive policies are in place, the worst-off will receive more benefits in a society that allows and regulates genetic enhancement technologies according to the lax difference principle than in a society that forbids such technologies or distributes them is some other way.

While it is clear that Baccarini endorses the lax difference principle, some might argue that his position is not egalitarian. Should egalitarians not opt for the complete removal of inequalities within a society? Baccarini disagrees. Removing all inequalities within a society can be a wrong solution - "egalitarians must not remove inequalities by risking being exposed to the leveling down objection" (Baccarini 2015: 81). Since egalitarians care about the distribution of welfare (or of primary goods that constitute welfare), they must regard it as something valuable. Egalitarians will clearly favor a state of equality in which people have more welfare than they have in some other state of equality (e.g. they will favor a state in which everyone has 10 units of welfare over that state in which everyone has 5 units of welfare). Since some states of inequality can ensure that people who are worst-off are better off than they would be in the best feasible state of equality, egalitarians should prefer some

states of inequality to some states of equality (Christiano 2008). Genetic enhancement technologies should be allowed even though they will be available only to some citizens and even though they will give some people even greater competitive advantage over others. Baccarini holds that this unequal distribution of abilities and talents, as well as the resulting unequal distribution of resources, is compatible with the egalitarian project provided that in it the worst-off receive more benefits (more welfare or more primary goods) than they would receive under any feasible equal distribution of abilities and talents.

Baccarini thoroughly discusses several issues related to the application of the difference principle on genetic enhancement technologies. However, his argumentation does not acknowledge any other (potentially more important) egalitarian principles that could regulate the distribution of genetic enhancement technologies. Such (potentially more important) principles are the principle of equal liberty and the principle of fair equality of opportunity (Rawls 2001: 42-43).

RAWLS AND THE LEXICAL ORDER OF PRINCIPLES OF JUSTICE

John Rawls (2001) believes that, in a society understood as a fair system of cooperation between citizens regarded as free and equal, the most appropriate principles to regulate social and economic inequalities are the two principles of justice. He assigns lexical priority to the first principle over the second principle, as well as to the principle of fair equality of opportunity over the difference principle.

"[T]he first principle is prior to the second; also, in the second principle fair equality of opportunity is prior to the difference principle. This priority means that in applying a principle (or checking it against test cases) we assume that the prior principles are fully satisfied. We seek a principle of distribution (in a narrower sense) that holds within the setting of background institutions that secure the basic equal liberties (including the fair value of political liberties) as well as fair equality of opportunity" (Rawls 2001: 43).

"Recall that [the difference principle] is subordinate to both the first principle of justice and the principle of fair equality of opportunity. It works in tandem with these prior two principles and *it is always to be applied within background institutions in which those principles are satisfied*" (Rawls 2001: 61, emphasis added).

Unlike Rawls, Baccarini does not discuss the distribution of genetic enhancement technologies in a society where the first principle and the principle of fair equality of opportunity have already been satisfied. In fact, he discusses the society where the first principle is only partially satisfied (greater wealth of some individuals and groups gives them greater political power and greater value of political liberties), and the principle of fair equality of opportunity is not satisfied at all (there are people who have competitive advantage over others owning to their background and the wealth of their parents). Rawlsians could, therefore, object by claiming that Baccarini applies the difference principle before the prior principles have been fully satisfied. However, Baccarini clearly states that he does not endorse Rawls' justice as fairness as a premise of public justification. Instead, he starts from three basic values and principles characteristic for all eligible liberal conceptions of justice: certain basic rights, liberties and opportunities, the assignment of special priority to them, and measures to ensure the use of them for all citizens (Baccarini 2015: 15).

Since Baccarini does not take justice as fairness as a premise in public justification, his application of the difference principle before the other two principles have been satisfied cannot be seen as a simple mistake. Applying the difference principle before the other two principles have been satisfied is consistent with what Baccarini takes as a premise in public justification. However, Rawls believes that there are good reasons for the lexical ordering of the principles of justice as fairness. Namely, lexical ordering of the principles enables us to (i) protect and promote citizens' self-respect, a very important primary good (Rawls 1999: 477-478), to (ii) ensure the equal liberty of conscience (Rawls 1999: 131), and to (iii) allow free citizens to alter and revise their final ends (Rawls 1999: 132, 476). Something important can be lost if we disregard the lexical ordering of principles and start by applying the difference principle before other principles have been fully satisfied.

ARGUMENTS FOR THE LEXICAL ORDER OF PRINCIPLES OF JUSTICE

Rawls is convinced that there are good reasons for assigning priority to the first principle over the second principle, and within the second principle, for assigning priority to the principle of fair equality of opportunity over the difference principle.

(i) Self-respect is, according to Rawls, perhaps the most important primary good (Rawls 1999: 386). Only citizens whose social bases of self-respect have been secured can "have a lively sense of their worth as persons and be able to advance their ends with self-confidence" (Rawls 2001: 59). Our self-respect is

threatened in a society characterized by severe inequalities. Since we cannot avoid or eliminate all inequalities, we should at least ensure substantial (and not merely formal) political equality. However, in order to ensure political equality, we must first ensure equality in the provision of basic liberties - equal and publicly affirmed distribution of fundamental rights and liberties represents the basis for self-respect in a just society (Rawls 1999: 477). We cannot opt for unequal distribution of fundamental rights and liberties by appealing to the difference principle and possibly better position of those who are worst-off, since by introducing inequality in the distribution of fundamental rights and liberties we are undermining the social bases of selfrespect².

(ii) Rawls argues that free persons, when they think and deliberate about the basic structure of society behind the veil of ignorance, have certain fundamental aims and interests (e.g. religious interest and the interest in the integrity of the person). In the original position (behind the veil of ignorance) free persons can, given their general knowledge of human psychology, assume that they have such fundamental interests, though they do not know their particular form (Rawls 1999: 131). Since citizens in the original position should not endorse political principles whose outcomes they might not be able to accept, they should assign special priority to the protection of their fundamental interests safeguarded by the first principle of justice. They should not organize the basic structure of society by placing emphasis solely on the difference principle, nor should they allow trade-offs between the two principles of justice.

(iii) Finally, Rawls claims that free persons have highest-order interest in shaping their other interests (including fundamental interests) under conditions of freedom. Since free persons are not bound to any particular form of fundamental interests they might have at any given time, and since they know they can always alter or revise their final ends, they will recognize the lexical priority of the first principle over the second principle of justice (i.e. they will recognize the priority of basic liberties over other primary goods)

² Robert Taylor (2003) argues that Rawls is unsuccessful in defending the lexical priority of the first principle over the second principle by appealing to this argument (though Taylor ultimately believes that the other two arguments are able to establish lexical priority). The appeal to self-respect shows that the first principle is very important, but in does not show that it has lexical priority over the second principle. He asks why "would very small restrictions on the basic liberties threaten the social basis of self-respect, *so long as they were equally applied to all citizens*" (Taylor 2003: 250, emphasis added), and concludes that sometimes small and equal restriction of basic liberties could be justified if this can lead to substantively better position for those who are worst-off. Taylor, however, still holds that *unequal distribution* of basic rights and liberties would undermine the social bases of self-respect.

since it represents a guarantee that they will be able to alter or revise their final ends once the basic institutions of society are in place (Rawls 1999: 32, also Taylor 2003: 254). If citizens assign priority to the difference principle, or if they accept trade-offs between the first and the second principle of justice, they will endanger their highest-order interest, i.e. the interest in shaping their other interests under conditions of freedom.

These three arguments point out that free and equal citizens should recognize and favor lexical priority of the first principle over the second principle of justice. Trade-offs between the principle of equal liberty and the difference principle should not be allowed. We cannot deny equal political liberties to certain groups on the grounds that they might, having received these liberties, become enabled to block policies needed for economic growth and efficiency (Rawls 2001: 47). However, earlier arguments say nothing about assigning the lexical priority of the principle of fair equality of opportunity over the difference principle. It is very difficult to try to apply the same argumentative structure to support the lexical priority of the principle of fair equality of opportunity over the difference principle. Authors such as Andrew Mason (2003: 34-38) and Richard Arneson (1999: 83-89) claim that a persuasive argument from the original position cannot be given in support of the lexical differentiation within the second principle of justice. Furthermore, Arneson (1999: 79-80) also claims that the priority of fair equality of opportunity cannot be argued by the appeal to merit or desert, especially not from a Rawlsian perspective. It is, however, important to emphasize that this is not Rawls' intention.

There are two argumentative strategies that can be employed to demonstrate this lexical priority. They are compatible and both can be used simultaneously. The first strategy points out that the primary role of fair equality of opportunity is to secure social and economic conditions in which the principle of equal liberty can take place. Since huge inequalities in wealth and property can endanger political equality, we need the fair equality of opportunity to counter the economic (and political) domination of some citizens over the others and to specify how can social and economic institutions be organized in way that secures the principle of equal liberty from one generation to the next. According to this strategy, Rawls sees principle of fair equality of opportunity as a realization of equal liberty (i.e. the first principle of justice). All similarly endowed citizens should have the same prospects of success, regardless of their social class and origin. Rawls considers the principle of fair equality of opportunity as a safeguard for the first principle of justice. To accomplish its aims, certain requirements must be imposed on the basic structure beyond those of the system of natural liberty. A free market system must be set within a framework of political and legal institutions that adjust the long-run trend of economic forces so as to prevent excessive concentration of property and wealth, especially those likely to lead to political domination. Society must also establish, among other things, equal opportunities of education for all regardless of family income (Rawls 2001: 44).

The second argumentative strategy claims that the priority of fair equality of opportunity over the difference principle lies in the very idea of society understood as a *fair* system of cooperation between *free* and *equal* citizens over time, *from one generation to the next*.

"We see the basic structure of society as having two coordinate roles, the first principle applying to one, and second principle to the other. In one role the basic structure specifies and secures citizens' equal basic liberties and establishes a just constitutional regime. In the other role it provides the background institutions of social and economic justice in *the form most appropriate to citizens seen as free and equal*" (Rawls 2001: 48, emphasis added).

Even if equal liberty (i.e. first principle of justice) is fully satisfied, the difference principle alone cannot regulate inequalities and shape the society as a fair system of cooperation. To be more precise, the difference principle cannot secure that the society *remains fair over time, from one generation to the next.* Accumulated inequalities can create a privileged group of people and, even though generous welfare provisions are directed towards those who are worst-off, the existing inequalities are carried from one generation to the next. Fair equality of opportunity serves to secure fair social cooperation over time. Consider Rawls' example:

"The draft rule in professional sport such as basketball ranks teams in the opposite order from their standing in the league at the end of the season: championship teams go last in the draft of new players. This rule provides for regular and periodic changes in the roster of teams and is designed to ensure that teams in the league as more or less evenly matched from year to year, so that *in any given season each team can give any other a decent game*". (Rawls 2001: 51, emphasis added)

To sum up: the lexical priority of the principle of equal liberty over the difference principle is established by appeal to the three above-mentioned arguments. Fair equality of opportunity is seen as a principle regulating the distribution of property and wealth (i.e. the distribution of economic power) and safeguarding the principle of equal liberty, which can be threatened if wealth and property are concentrated in the hands of a small group of people.

The difference principle does not adequately prevent the concentration of economic power in the hand of the few, since such distributive model might be consistent with the greatest benefit for the worst-off³. Therefore, the difference principle is subordinate to both the first principle of justice and the principle of fair equality of opportunity. Even if we might try to implement the difference principle before the other two have been fully satisfied, we can never try to implement it when it comes in conflict with the other two principles (Hirose 2015: 156-157).

In the rest of this paper I try to demonstrate how privately funded genetic enhancement technologies endanger the principle of equal liberty and the principle of fair equality of opportunity, both of which have lexical priority over the difference principle. However, before I can proceed and argue that privately funded genetic enhancement (available only to a few wealthy individuals) endangers two important principles of justice, I have to give an account of human capital and explain how inequalities in the distribution of human capital increase existing inequalities in a contemporary societies.

GENETIC ENHANCEMENT AND THE DISTRIBUTION OF HUMAN CAPITAL

I have claimed that significantly unequal distribution of human capital can lead to even greater social inequalities, including the accumulation of economic and political power in the hands of a few. Furthermore, huge inequalities in the distribution of human capital might endanger the idea of society as a fair system of cooperation. Some might not agree with these claims: they believe that, though considerably unequal distribution of *wealth and property* can result with the accumulation of political power in the hands of the few, as well as endanger fair equality of opportunity, the distribution of *human capital* plays a minor role in this process. We should not be worried about the unequal distribution of human capital (and the results of genetic enhancement technologies), but should instead focus on social and economic

³ One might also argue that the difference principle itself can block the concentration of wealth and property, since the substantial increase of inequalities might undermine the social bases of self-respect for some citizens. I agree with this conclusion and consider this interpretation (one that omits the fair equality of opportunity, but puts strong limitations to the concentration of wealth and property under the difference principle) as the other side of the same coin.

inequalities caused by considerably unequal distribution of wealth and property⁴.

Of course, inequalities caused by unequal distribution of wealth and property can indeed play a major role, but we should not neglect the important role that human capital plays in the distribution of resources. This is clearly emphasized by Nobel Prize-winning political economist James Meade:

"Earning power depends upon education and training, and education and training involve the investment of scarce resources in those who are educated or trained. This represents an important part of capital, [...] and a considerable part of the earnings of the educated and trained is in fact a return on the capital invested in their education" (Meade 1964: 30)

Meade does not, however, give precise information regarding the composition of incomes of those who are most advantaged, nor does he make a comparative analysis how did this composition change in the past century, with projections regarding how will it change in the future. To answer these questions, we must turn to Piketty.

Thomas Piketty gives us a comprehensive analysis of the structure of economic inequalities for the past 150 years. Though he admits that inequalities of capital ownership and the income from capital have always been higher than inequalities of labor income (one related to specific skills, abilities and talents of citizens), Piketty points out that, even among the wealthiest 10 percent of citizens, labor income represents the greatest share of their total income. Capital income outweighs the labor income only in top 0,1 percent of wealthiest citizens (Piketty 2014: 312).

⁴ This might be argued by Lindsay (2005) when he focuses on the distribution of wealth instead on the distribution of human capital.



FIGURE 8.4. The composition of top incomes in France in 2005

We should not end up thinking that inequalities in capital ownership are the central cause of social inequality: though they certainly play a significant role, we must realize that nine out of ten citizens from the wealthiest 1 percent of population still earn most of their income as workers, and not as owners of capital. Genetic enhancement aims to further increase skills and abilities of citizens it is applied upon, and since only the wealthiest citizens will (at least for some time, before it becomes available to everyone) be able to benefit from it, we can expect that it will further increase the existing social inequalities, having in mind that the vast majority of citizens (99,9 percent) earn most of their income because of their abilities and skills as workers.

Piketty (2014: 337-340) sees United States as a perfect example of labor income inequality: though huge inequalities in labor income are present in all western countries, the rise of super-managers can be best described when analyzing the labor income inequality in United States and United Kingdom.



FIGURE 8.5. Income inequality in the United States, 1910–2010

Piketty links the rise of labor income inequality in United States in 1980s and 1990s with the rise of tuition fees and the failure of government to invest in higher education. These new labor income inequalities are the result of unequal access to education: with the sudden rise of tuition fees, many families were no longer able to give sufficient training to their children. He points out that the abovementioned labor income inequalities were much smaller in France or Germany, where the strong public education system secured that higher education remains available to children coming from middle and lower class families, and were even smaller in Sweden and Finland.

"In the long run, the best way to reduce inequalities with respect to labor as well as to increase the average productivity of the labor force and the overall growth of the economy is surely to invest in education. [...] Over the long run, education and technology are the decisive determinants of wage levels" (Piketty 2014: 347)

"By the same token, if the United States invested more heavily in highquality professional training and advanced educational opportunities and allowed broader segments of the population to have access to them, this would surely be the most effective way of increasing wages at the low to medium end of the scale and decreasing the upper decile's share of both wages and total income. All signs are that the Scandinavian countries, where wage inequality is more moderate than elsewhere, owe this result in large part to the fact that their educational system is relatively egalitarian and inclusive" (Piketty 2014: 348)

There are important similarities between education and genetic enhancement. Both aim towards the increase on one's skills and abilities, and both increase one's competitive advantage over others. There are good reasons to believe that, unless genetic enhancement system becomes egalitarian and inclusive, it will lead to the increase in labor income inequalities. Furthermore, there are good reasons to believe that, as long as genetic enhancement technologies are privately funded, they will be available only to a small number of citizens, thus increasing the existing inequalities.

I end this part of the paper by concluding that privately funded genetic enhancement technologies will result with the increase of existing inequalities within contemporary societies. Now I address whether this increase of economic inequalities endangers the principle of liberal equality and the principle of fair equality of opportunity, both of which have lexical priority over the difference principle.

DO GENETIC INTERVENTIONS ENDANGER THE PRINCIPLE OF EQUAL LIBERTY?

Though Baccarini does not proceed by endorsing Rawls' lexical ordering of the principles of justice, he seems to endorse the idea that some basic rights and liberties should have special priority over others. Namely, following Jonathan Quong's (2010) interpretation of Rawls' (1993) work, Baccarini takes as a premise in public justification the set of eligible liberal conceptions of justice, characterized by (i) certain basic rights, liberties and opportunities, (ii) the assignment of special priority to them, and (iii) measures to ensure the use of them for all citizens.

Is it possible to defend genetic interventions by describing them as basic rights and liberties? I do not believe it is: since basic rights and liberties have a special priority over others, we should count among them only truly essential liberties (Rawls 2001: 112). Basic rights and liberties are those essential for the development and exercise of citizens' two moral powers. It is difficult to see how can genetic interventions and cognitive enhancement of one's children be considered as something essential for one's development and one's exercise of two moral powers. Both Rawls and Baccarini do not take the right to private property in natural resources and means of production as a basic right, and neither of them should recognize the right to genetic enhancement as a basic right (i.e. one protected by the first principle of justice, or by the first feature of the set of eligible liberal conceptions of justice). The right to genetic enhancement may still be justified, just like the right to private property, but this should be done at the legislative stage, and not at the stage of constitutional convention⁵.

The right to genetic interventions can be justified at the legislative stage where it is (just like the right to private property) regulated by the second principle of justice. Recall that the role of the principle of fair equality of opportunity is to safeguard the principle of equal liberty from the concentration of economic power in the hands of the few. It regulates social and economic inequalities in background institutions in order to ensure that equal political liberties, *and only these liberties*, are guaranteed their fair value (Rawls 1999: 197, 2001:149).

Baccarini acknowledges that there already are considerable inequalities present in contemporary societies and argues that they should be removed. "Instead of worrying about what the society would look like where actual inequalities will be strengthened by new inequalities, we could do better to remove current inequalities" (Baccarini 2015: 80). However, when he applies the difference principle and argues in favor of regulation, it seems that he has in mind a future society that is already characterized by some inequalities, at least to the extent that some (few) citizens are able to provide genetic enhancement for their children, and some are not (Baccarini 2015: 69, 72, 80-81). He builds a defense of genetic enhancement financed by private funds in an unequal society. However, privately funded enhancement available only to a small group of wealthy individuals will undoubtedly increase the existing inequalities. Of course, we can expect that with time some genetic enhancement procedures will become available to all citizens, yet there are good reasons to think that the newest and best procedures will remain available only to few. Even if genetic procedures would not create huge inequalities, they would still increase the existing inequalities by introducing another socially affected variable into the 'success calculus'. If one's prospect of success is determined by one's natural endowments (something we cannot change at the moment), as well as one's education and one's inherited wealth and property (things that in an unequal society are affected by one's social class of origin), then by introducing privately funded genetic enhancement technologies one's natural endowments would also be affected by one's social class of origin, thus increasing the existing inequalities.

The first principle of justice requires more than a formal equality of basic rights and liberties - it requires substantial equality (or fair value) of basic rights and liberties. Very large inequalities in the ownership of capital

⁵ The differentiation between the stage of constitutional convention, the legislature and the judiciary is explained in *A Theory of Justice* (Rawls 1999: 171-176)

(productive assets and natural resources, but human capital as well) give the control of the economy and much of political life to a small group of people⁶. Wealthy citizens, those who can give large contributions to political campaigns, who own media houses or factories that employ hundreds of people, have greater political influence than citizens coming from the lower class. They can indirectly influence the outcome of the elections, but they can also use their economic power to shape laws and policies in their favor. In order to ensure the fair value of equal basic rights and liberties for all citizens, the background institutions of a society must "put in the hands of citizens generally, and not only of a few, sufficient productive means (human as well as real capital) for them to be fully cooperating members of society on a footing of equality" (Rawls 2001: 140). However, privately funded genetic enhancement technologies do not tend to ensure the equal distribution of human capital (including abilities, skills and talents) - instead, they tend to increase the existing inequalities (those caused by unequal access to education) in the distribution of human capital. If we want to protect the substantial equality (or fair value) of basic rights and liberties, we should be cautious with regard to technologies and procedures that will further increase existing inequalities within our society⁷.

DOES GENETIC ENHANCEMENT ENDANGER THE PRINCIPLE OF FAIR EQUALITY OF OPPORTUNITY?

The lexical priority of the principle of fair equality of opportunity over the difference principle has been argued both for its role as a safeguard for the principle of equal liberty and for its necessity for the realization of the idea of society as a fair system of cooperation over time. Having already claimed in the previous section that privately funded genetic enhancement technologies endanger the principle of equal liberty, I want to focus here on its second role.

⁶ The influence that economic power of individuals can have on their political power is often analyzed through funding of elections and campaign contributions (Campante 2011, Rosenstone and Hansen 1996). However, this influence can be seen at many different stages of a decision-making process (Piketty 2014).

⁷ Some might argue that existing (and future) inequalities in the distribution of productive assets and human capital do not necessary endanger the first principle of justice. It can be satisfied even in a society characterized by huge inequalities in the distribution of productive assets and human capital, as long as certain mechanisms (e.g. regulation of the funding of political campaigns) are in place (O'Neill 2012). However, informal public political sphere is very diverse and the necessary regulations would hardly be able to counter all possible interactions between economy and politics (Estlund 2008).

Is stable and fair social cooperation possible in a world characterized by huge inequalities in talents and abilities, where some citizens are, and some are not genetically enhanced (Lindsay 2005)? Baccarini believes that is possible:

"What does cooperation mean between such different beings? My answer is that it has exactly the meaning of cooperation between Einstein, Jordan and Callas and average people in the actual world. The most talented are (or were) able to do things that average people are / were not able to do. But they need(ed) somebody to provide them food, to build houses in which they live(d), policemen who care(d) about their security, etc. All these people are able to understand the reasonable terms of social cooperation and to cooperate in such an order, provided others reciprocate. I see no reason to be skeptical about the possibility of a system of social cooperation between super Michael Jordans, or super Einsteins, and people with actual average features capable of sense of justice, ruled by terms of egalitarian justice" (Baccarini 2015: 79)

But can stable and fair cooperation be possible over time, from one generation to the next? Let us again use the analogy with education⁸. Imagine a system in which higher education is available only to children of the wealthiest citizens. Having received this education and acquired certain skills and abilities, these young people are able to earn significantly more than other citizens, thus enabling them to pay expensive education for their children, and so on. Though generous welfare provisions enable the children of lower and middle class citizens to receive elementary or even better education (and to live decent lives), it is very unlikely (if not impossible) that a child coming from a lower class family will receive higher education and be able to earn as much as citizens coming from the upper class. Can this be regarded as a fair system of social cooperation? I believe it cannot, just like the draft rule in professional sport (such as basketball) that would enable the best teams to go first in the draft of new players at the end of the season cannot be regarded as fair. Unequal access to education produces inequality of status leading to the erosion of self-respect of those who are not able to receive education. Fair system of cooperation cannot be reduced to helping those who are worst-off - it should instead promote fair equality of opportunity, i.e. "put all citizens in a position to manage their own affairs on a footing of a suitable degree of social and economic equality" (Rawls 2001: 139). Privately funded genetic enhancement, available only to a small number of wealthy citizens, would

⁸ Similar analogy is used by Martin O'Neill (2012: 88).

severely undermine economic equality, and with it the idea of society as a fair system of cooperation between free and equal citizens.

CONCLUSION

This paper does not argue that genetic enhancement technologies should be prohibited. They are valuable tool that can be used to counter existing inequalities, as well as to improve the well-being of citizens in a political community. However, if they are privately funded and made available only to a small group of wealthy citizens, they can lead to the increase of existing inequalities, thus endangering the principle of equal liberties and the principle of fair equality of opportunity. I think that we cannot argue in favor of privately funded genetic enhancement technologies by appealing only to the difference principle: we have to give everyone equal access to these technologies if we are to organize our basic institutions in accordance with the idea of citizens as free and equal, and the idea of society as a fair system of cooperation over time, from one generation to the next.

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