The Choice of Pre-Birth Genetic Modification

Through Kant's Ethics in the 21st Century

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Abstract

This essay discusses, departing from Kant's deontological ethics, and deals with the question of which types of pre-birth genetic modification are acceptable from the perspective of Kant's ethics theory? The conclusion is that Kant's ethics can be in line with certain therapeutic interventions. Yet the same ethics disapproves with any sort of pre-birth modification based on personal design, preferences and commodification of the process.

Limiting the Limitless Potential

In my paper I will focus on pre-birth genetic modification, genetic selection and genetic enhancement. Pre-birth genetic analysis could prevent hard suffering for the future individual.[1] Dan Brock writes about how any harmful behaviour that the parents, especially mothers to be, are conscious of is likely to be stopped, like drinking alcohol, smoking and such. While on the other hand starting with beneficial habits like taking folic acid or other supplements. All that will lessen the harm and increase the wellbeing of the child to be born.[2] He further states that parents do not typically wish for their children to have serious disabilities after birth that could have been prevented.

> *So parents' negative attitude towards the possibility of serious disability in their child, as well as actions to try to prevent that outcome, are common and widely viewed as acceptable, indeed desirable.*[3]

Julian Savulescu stretches this point of the wellbeing for newborn babies to where parents ought to, if it becomes possible, to take away their bad genes and take the good genes from other parents. In order to maintain procreative beneficence.[4]

Using Kant's ethics and focusing on his theory about Humanity as a *means to an end* versus that of *an end within itself*.[5] I will discuss whether and to what extent pre-birth genetic modification treatment is legitimate from a Kant's ethics perspective. Kant's definition of humanity is a conceptual and predispositional one of rational beings, and not only anthropomorphic. Meaning that this law applies to all rational beings everywhere, human

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[1] There are always exceptions to every action and thought in Humanity. Because there are abnormalities like cannibalism or parents that do not care about their children for various mental issues. That does not make it an exception to the rule as much as it simply a tragic habit or event. Taking care of ones children is an everlasting characteristic in all mammal animal life.

[2] Savulescu, Bostrom, *Human Enhancement*, "Is Selection of Children Wrong?", p 252.

[3] Ibid, p 252-253.

[4] Savulescu, Sparrow, *Making Better Babies, Pro and Con*, p 12.

[5] Kant, *Groundwork for the Metaphysics of Morals*, p 19.

and nonhuman. Where lies the limit to the inclination of *"I want"* in regards to bringing about a human life? Can pre-birth genetic engineering be considered as a commercial act, where lives of children are commodified and thus consumed as commodities[6] that are obtained thanks to the available medical technology? My stipulative use of commodity in the paper is that the child can be regarded as a purchase; as the medical procedure is an act of supply and demand. Compared to a child that is begotten in the natural biological sense.[7] Elizabeth Anderson has written about surrogate motherhood and sees the process as having the underlying explicit value that the child to be born is a property - in the same manner as this computer I am typing on.[8]

> *Free markets are wonderful institutions in their place. But they are objectionable when allowed to govern spheres of life that should not be commodified.*[9]

Robert Nozick called this the *genetic supermarket* at a time when pre-birth embryo or genetic modification was decades away in the eyes of the public and current availability.[10] Is this through Kant's ethics only a wish that can be fulfilled through medical treatment - or an act of consumption where the commodity is obtained thanks to the available medical treatments. None of these medical technologies were available in Kant's days and that makes for an interesting ground regarding something being *a means to an end* or as *an end in itself*. Such choices might violate The Second Formula of the moral law in Kant's ethics; which goes as follows.

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[6] My stipulative use of commodity and commodification of children, when discussing and attributing this in the paper, is that any offspring that has been made through IVF is a commodity that has been wished for by a consumer and provided by a seller on an open market.

[7] The procedure of IVF is medically engineered through a process of quality and control offered by the available medical professionals, where defect embryos are eliminated. There is a use of selection that is not present in begotten children. Begotten is the natural procreative act between a woman and a man. These are two ways of having children, there is no moral judgment in this. But for the sake of definition and argument it is meaningful to bring up.

[8] Anderson, *Health Care Analysis*, "Why Commentarial Surrogate Motherhood Unethically Commodifies Women and Children", p 1.

[9] Ibid, p 25.

[10] Nozick, *Anarchy, State and Utopia*, p 315.

> *Act so that you use humanity, as much in your own person as in the person of every other, always at the same time as end and never merely as means.*[11]

An immediate problem in using Kant's ethics will be how to interpret Kant and how exactly to apply his moral structure on the discussion regarding very modern bio-technological possibilities, and some of it not even being a real possibility as of today. I find it nonetheless interesting and want test with the most rigorous moral philosophers ideas, with a discussion on how much Kant's ethics allows for genetic modification of life before it has even been born. Would it see the possibility as beneficial to parents so that they can modify traits in their offspring or have children when they otherwise cannot? Or are these technologies more akin to treating the child as *a means to an end* - thus a satisfaction for human inclination outside of morally justified parameters in line with Kant's ethics?

Can Kant's ethics be stretched so far as to accept and be in line with a never ending chase for perfection, or custom genetic design wishes from parents regarding their offspring? Are there morally relevant differences between avoiding certain genetic disorders and the quest to have certain traits in an offspring and avoiding genetic disorders? Or are all sorts of in vitro fertilisation (IVF), preimplantation genetic diagnosis (PGD) and pre-birth genetic modifications unethical according to Kant? He lived in an age where none of this was possible, and unaware other likely benefits for people's lives. This meeting makes the melting ground for my paper. I therefore narrow down my research question to this.

> *Which types of pre-birth genetic modification are acceptable from the perspective of Kant's ethics theory?*

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[11] Kant, *Groundwork for the Metaphysics of Morals*, p 46-47.

Even our natural and historical choice of partners has aspects of selection to it.[12] We choose someone out of love but we also love that which can guarantee our needs and expectations – it is a mutual way of women and men getting together and procreating. We sympathize with each others best wishes for our offspring. Much of the discussion and literature regarding pre-birth genetic selection focuses on whether it is morally right or wrong. Further biological, medical and technological development will ensure even better implementation of IVF and PGD in designing pre-selected genetic traits for the baby to be. We should start envisioning the future society where it will be widely implemented and imagine how it will be implemented, from what values, to whom, and so on. Countries will differ in legislation, where some countries take market shares and are destinations for people seeking certain procedures, which is already occurring and known as fertility tourism or reproductive tourism (sort of like the procedure of euthanasia already is). Another, seemingly unrealistic, prospect is that some countries could make pre-birth genetic engineering mandatory. But not unrealistic if economic thinking is allowed to dominate even more with the effect of using the economical motivation regarding healthier populations that will reduce future health costs. Or adopted as a bonus in already strong welfare based societies.

There is a wide range of topics to be dealt with, spanning from the genetic enhancement of humans, to who- and how these possibilities should be distributed. In my paper I will discuss *which types of pre-birth genetic modification are acceptable from the perspective of Kant's ethics theory*?

The tip of Kant's moral pyramid is made out of the categorical imperative - it is the highest principle of the moral and the will. He explains it in three principles that also make clear the difference in an action motivated by inclinations (attachments, self-service and the *I*

[12] Savulescu, Bostrom, *Human Enhancement*, Is Selection of Children Wrong?, p 252.

want factor) and actions motivated by the respect for the moral law. Moral laws according to Kant are something we can act against, something that we are not forced to do but have the rational choice of doing. Therefore it is something in the realm of *laws of freedom*, as opposite of *laws of nature* that we have no choice nor control of.[13] Kant's ethics are deontological and have a constant implicit *ought* motivated by maxims. Our rationality is there to guide us away from inclinations and to produce a pure good will, otherwise we would have been completely governed by instincts.[14] This good will only exists when its maxim is applicable to become a universal law.[15]

Duty is a concept Kant uses to differ between actions motivated by self-service, inclinations and attachments from the actions motivated by the good will.[16] He does this by framing three propositions. The first proposition is that only actions motivated by duty have moral value.[17] The second proposition states that an action from duty has moral value in the maxim it represents, and not by the results intended nor the outcome of the actions, but solely in the maxim acted upon.[18] The third proposition defines motivation by the moral law that one is rationally motivated by duty. Which in Kant's ethics is the only morally correct way to act - and what ought to govern the *laws of freedom*.[19] The highest principle of the will and morality are the one and same. Only a will that is *a priori* can be regarded as pure and thus drive forth correct moral actions according to Kant.[20]

Using Kant's Second Law of humanity about *means to an end* versus that of *an end within itself* I will discuss where the border can be set on where the commodification, using Eliza-

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[13] Kant, *Groundwork for the Metaphysics of Morals*, p 3.

[14] Ibid, p 10 - 12.

[15] Ibid, p 64.

[16] Ibid, p 14.

[17] Ibid, p 15.

[18] Ibid, p 15.

[19] Ibid, p 16.

[20] Ibid, p 16.

beth Anderson's definition, of pre-birth genetic modification goes.[21] Is it there already in pre-birth diagnostics we have today?

The focus of Kant's ethics is always on the right rational action that sets it in harmony with ideal duty. Kant lays aside all actions, no matter for what purpose, that do not spring out from the sense of duty.[22] Kant also lays aside actions done supposedly from duty but that are in one way or another manipulated for self-serving inclinations and goals. This is relevant here because the rational being cannot be someone who is an embryo, fetus, newborn, child or even adult who in some way lack the intellectual faculties necessary. Kant does not throw away these aspects as not being important. But the focus is on those who can do the rational decision making. In this case what the parents, doctors, legislators etcetera do in regards to the potential human. It does not matter at what stage a new human life is in, be that as an embryo or fetus. An embryo or fetus cannot take part in moral decisions as the responsibility lies in the responsible adults who can. It is not a matter of when and how an embryo or fetus becomes a human being, but Kant's ethics in this case are razor sharp and deal with the rational beings who are responsible and have a moral concern, in regards to the entity that cannot (but will eventually bloom into the role of having).[23] Kant deals with this in *The Philosophy of Law* (also known as *The Metaphysics of Morals*) rather directly where he defines how the direction of responsibility ought to flow between parents and children.

> *For what is thus produced is a Person, and it is impossible to think of a Being endowed with personal Freedom as produced merely by a physical process. And hence, in the practical relation, it is quite a correct and even a necessary Idea to regard the act of generation as a process by which a Person is brought without his consent into the world, and placed in it by the responsible free will of others. This act, therefore, attaches an obligation to the*

[21] Kant, *Groundwork for the Metaphysics of Morals*, p 46-47.

[22] Ibid, p 13.

[23] Kant, *Philosophy of Law*, p 114.

> *Parents to make their Children - as far as their power goes - contented with the condition thus acquired.*[24]

Kant says that it is not merely enough, nor limited to, humans to be rational beings. Parents are in this case responsible as only they can make reality of that freedom of being moral persons according to Kant. Hence, to have a discussion on when a human fetus or child evolves into a rational human being, is the wrong end to begin with. The extreme consequence of that could lead to regarding humans with disabilities and citizens who are condemned as dissidents or heretics as subjects of no rational moral freedoms. Thus falling into a category where these subjects can be treated anyhow. Kant wrote that parents have a duty, to support and be responsible for their children's health, education, cultivation and development until they are capable of being self-sustained and understanding.[25]

To answer the question as to "*Which types of pre-birth genetic modification are acceptable from the perspective of Kant's ethics theory?*" we have to look at what Kant's idea was on what drives the will to modify something, to improve it or to act good generally. He starts off the *First Section* in the book *Groundwork for the Metaphysics of Morals* very clear and without any loose ends.

> *There is nothing it is possible to think of anywhere in the world, or indeed anything at all outside, that can be held to be good without limitation, excepting only a good will.*[26]

With this statement I might consider my question already answered - the good will is all there is to anything and everything. But as Kant goes on the good will is not that obvious and easy to nourish ones actions from, there are illusions as to what is a genuine good will. After that opening quote he immediately writes that talents of the mind, as courage, per-

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[24] Kant, *Philosophy of Law*, p 114-115.

[25] Ibid, p 116.

[26] Kant, *Groundwork for the Metaphysics of Morals*, p 9.

sistence in intention, resoluteness and other qualities like that are simply qualities of the temperament.[27] Meaning that just because there is a determination, a good intention and a quality among people to achieve something - it does not automatically correspond to a genuine good will. My question lives on as the act of genetically modifying a living being, born or yet to be born, even if it means to improve some traits; does not imply a good will within the framework of Kant's ethics. In contrast, he writes that all these qualities of temperament can become extremely evil and harmful.[28]

When we look at the possibilities that bio-tech advancements will be able to offer in the future, we must keep in mind they are very long-lasting. It might improve a human life for decades, cure diseases and such - just to remind us about that perspective in time. Especially when we think about the statement Kant made that the good will in itself is what is most important, not what results it brings forth.[29] This gets obvious when Kant mentions suicide but in this day and age we have the opposite wonder of bringing life easier and in a broader way to make lives much easier regarding physiology and genetics. Plastic surgery can fix defects that a human was either born with or injured with later in life. We can prolong life, fix our teeth and the list could go on.

[27] Kant, *Groundwork for the Metaphysics of Morals*, p 9.

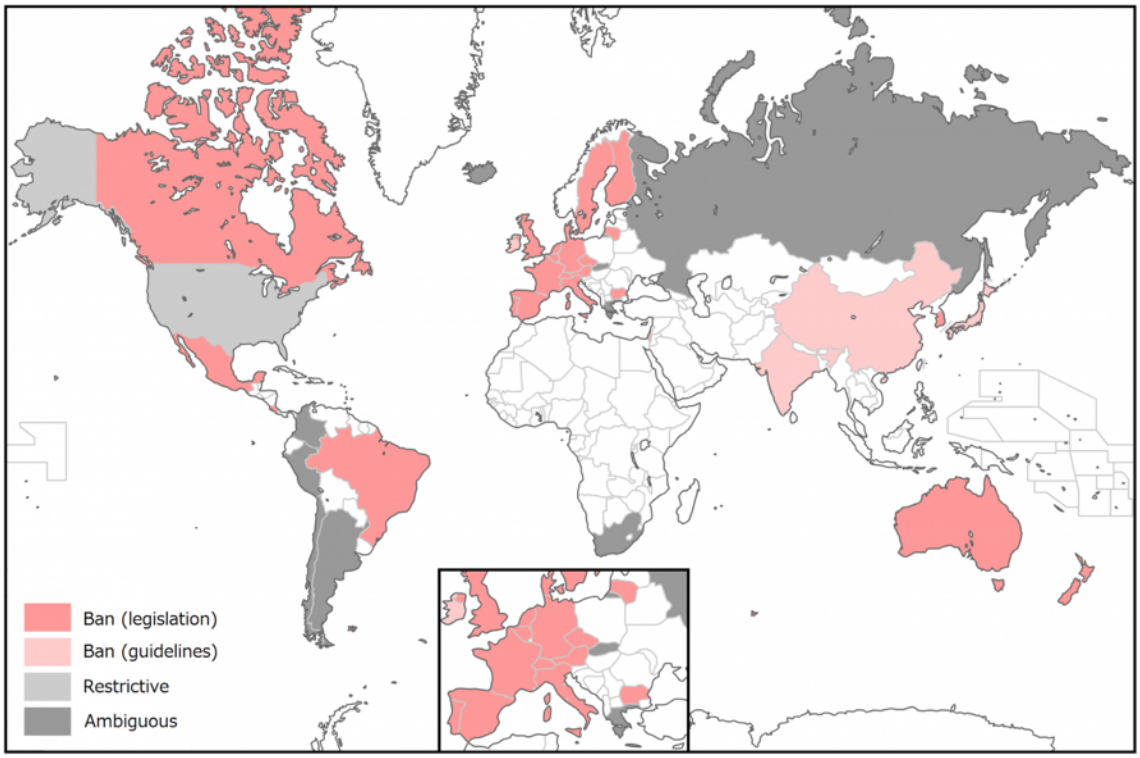
[28] Ibid, p 9.

[29] Ibid, p 10.

Perspectives

Already in selecting genetic traits from embryos we encounter a Kantian issue. In a genetic selection that is done post-conception, where embryos not chosen to proceed with are either defect, dead or destroyed. This can also apply to IVF and PGD where there is a selection of embryos to proceed with. In both cases there is a control over what embryo (or embryos) will survive and thus what individual will eventually live. During this stage parents can select gender and in the future even more traits than that.

Germline genetic modification[30] is mostly forbidden by law even in countries that allow for more or less embryonic stem cell research.[31] However, just like warfare and other vanguard technologies under development, these laws might change both nationally and internationally. Here is a map that illustrates the regulation tendencies and approximate data.[32]



[30] Germline genetic modification involves change in sperm, egg and early embryos.

[31] Araki Motoko, Ishii Tetsuya, *Reproductive Biology and Endocrinology*, "International regulatory landscape and integration of corrective genome editing into in vitro fertilization", p 1.

[32] Ibid, p 9.

This map illustrates that biotechnologies are regulated differently around the globe for the time being. There are a myriad of legislative decisions to be made regarding this globally, as it can be used medically, commercially and in biological warfare. This is common with any major technology that has had great impact on humanity.

Genetic Determinism

We live in the "gene-age" according to Dan Brock, where much weight is on us as a collective and on individual basis is explained by genes.[33] That is why, according to him, the potential enhancement of our genes, or the selection of our better genes is one of the most ultimate future investments. This focus, or perspective, is something he refers to as *genetic determinism*. He means critically that too much focus is given on our genes and improving them, regarding general improvement of human life. In another sense that many other factors are left behind which are crucial to human well-being and improvement.

If genes were indeed the definitive aspect of how a person would develop in all aspects of life, then genetic selection would be a definitive decisive and controlling treatment. But that seems unlikely. For all experience and the social environment we live in do have an impact on our morals, behaviour and how we are. Julian Savulescu stresses the potential of genetic modification to be of future potential in altering the way we interact and react upon our environment, experience and how we behave. If it is possible to alter certain genes, then there is a chance to make great impact on the global population. If intelligence can be increased by a small fraction, that would generate a huge intelligence boost globally. Julian Savulescu also points out aspects like altruism[34], referring to the variations of the

[33] Savulescu, Bostrom, *Human Enhancement*, "Is Selection of Children Wrong?", p 255.

[34] I use altruism and empathy here as describing a higher motivation and action from selflessness, without expecting or calculating something in return.

COMT[35] gene that affect our empathy and altruistic feelings - and how if that could be altered we might (if we want to) modify future generations into being more empathic and altruistic; which could result in a more peaceful global society.[36]

Dan Brock contrasts this *genetic determinism* and the explicit enthusiasm about genetic modification by stressing that not only the immediate socio-cultural context, but also other cultures we perceive and how they interact and describe each other, impact our perception and behaviour.[37] It is not perhaps any different to select children through ones social, cultural and economic preference compared to genetic selection. In my imagination I conjure up a reality where genes are no longer individual but available for anyone to customize their offspring with. The implications are huge and the variations on how genetic modification can be implemented many. That is why I am interested in looking at this though Kant's ethics.

It is argued by Dan Brock that negative selection of traits can victimise groups that suffer from those traits that are unwanted. Selecting away disabled fetuses would reduce the number of disabled people in the world and thus the support and general accepting attitude toward them.[38] This argument I see as a derivate from reasoning that *interest is gathered by numbers*, meaning that there is an interest in not letting the number of disabled people getting too low due to interests of financial aid for an example.

Among the papers in the book *Human Enhancement*, besides Dan Brock, Susumu Shimazono also brings forth the arguments of the eugenic character, where disorders are to be wiped out from mankind in one way or another. It really does not matter if this was to come about from some sort of centralized authority or through the individual choice of the

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[35] Reuter, Frenzel, Walter, Markett, Montag, Social Cognitive and Affective Neuroscience, "Investigating the genetic basis of altruism", p 1. The report does not state that this gene is solely responsible for altruism, but has a predispositional effect to it.

[36] Savulescu, Sparrow, *Making Better Babies, Pro and Con*, p 5.

[37] Savulescu, Bostrom, *Human Enhancement*, "Is Selection of Children Wrong?", p 255.

[38] Ibid, p 257.

parents. The acceptance of eliminating genetic disorders is, in what Susumu Shimazono writes, an explicit and implicit eugenics project - as it constitutes a norm that genetic disorders are unwanted.[39] Thus he implies that the definition of eugenics can be stretched to the area of individual choice - by what he regards as implicit medical pressure. He views eugenics as something negative but the positive aspects could be argued for also. Let us imagine that science can correlate a certain genetic trait with intelligence, empathy; then why not increase that if it was a safe procedure? Julian Savulescu is among those who does not use eugenics as something to invoke negative associations, but the opposite, as a duty and something trivially in the truth that parents want the best and better for their children.[40] He argues caution but promotes the idea that traits we think are good ought to be improved, if they can be improved safely that is. He includes traits such as intelligence, good looks, long life etc.[41] The line of argument here is that since we already look to educate and keep our children healthy and such - then biological technology can help us, whereby we ought to accept that as long as it is safe.

To an extent Julian Savulescu is right I think, because if we nitpick our current day healthcare and promotion of certain ideas like health and education - we might go along the lines of thought that Susumu Shimazono proposes and call all of it eugenics of some sort, in a negative and implicit manner. This perspective is one I will not focus on and leave behind in the paper. For the reason that (basically any activity with something wished for) even aspect of healthcare could be applied to this perspective - someone could argue that the promotion of being physically active implicitly makes for a case where being overweight and unhealthy is unwanted - and thus a hostility towards that group. Also looking at the history of mankind, we do take care of our sick, injured and helpless, for we did not abandon or turn our backs on them, even with the last hundred of years of medical healthcare improvement. Instead technology is continuously being developed to ease the life of

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[39] Savulescu, Bostrom, *Human Enhancement*, "Reasons Againts the Selection of Life", p 295.

[40] Savulescu, Sparrow, *Making Better Babies, Pro and Con*, p 10.

[41] Ibid, p 10.

injured or disabled people. Phillip Kitcher uses the example of how cases of thalassemia[42] were reduced in a Cyprian program by the Greek Orthodox Church. After that, the people who were still suffering got it better because they could enjoy more resources needed spread out on less patients.

> *As the increase of thalassemia has diminished, help for the afflicted has increased: because there is now less demand for blood transfusions and other treatments, the lives of thalassemia sufferers are now better than they were.*[43]

Parents wish their child to be healthy and happy - as illustrated that does not mean parents and society will not give all opportunities and help for people who cannot function normally, who have suffered heavy injuries. The stigmatisation that Dan Brock and Susumu Shimazono lays forth is therefore not defendable.

If technology allows for avoiding genetical disorders, just as medicines and treatments we take for granted ensure our longer and healthy life; how could we deny parents genetic modification?

There are stages in where this genetic pre-birth choice may take place: *preconception testing*[44] or *post-conception testing*[45] analysis and *killing of the fetus*[46]. There is nothing inherent or judgmental against disabled individuals, even though fetuses with disorders get selected away and killed.[47]

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[42] Genetical disorder that causes reduced production of hemoglobin.

[43] Philip Kitcher, *The Lives to Come*, p 85-86.

[44] Medical genetic testing of the woman and/or man before conception.

[45] Medical genetic testing of the embryo and/or fetus after conception.

[46] Killing of the embryo or fetus.

[47] Savulescu, Bostrom, *Human Enhancement*, "Is Selection of Children Wrong?", p 262.

The *playing God* argument is another of what I would call "yes or no" argument that lead to no practical discussion on how to apply future policies.[48] It asserts that we ought not to do that which we were not meant to by nature. Often it indicates something on the latest science vanguard and how it is wrong for us to change what Mother Nature or God already gave us. So where is this line drawn? We as humans were not made for flying yet we do it, we have good treatments that improve our life, like dental care - and the examples in this manner are endless. The essence of this type of argument is an aversion due to some preconceived conviction or belief.[49] This argument is used by religious people, theists and atheist alike. A secular version of this argument is that we ought to accept everyone for what they are - and not undermine that by imposing positive or negative changes in our genetic nature.[50] Regarding pre-birth genetic modification, one aspect this argument often falls back on is the assumed pressure and expectations offspring will have that were more or less custom designed by their parents. Resulting in a possible obsession for perfection and the control of it (as in the film *Gattaca*[51]).[52]

The definition of who is perfect cannot be made - and "perfect" cannot be perfect everywhere nor at all times. Mikael Sandel describes the danger of getting caught in an endless pursuit of perfection, and the will it springs out from.

> *…banish our appreciation of life as a gift, and to leave us with nothing to affirm or behold outside of our will.*[53]

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[48] Savulescu, Sparrow, *Making Better Babies, Pro and Con*, p 24.

[49] Savulescu, Bostrom, *Human Enhancement*, "Is Selection of Children Wrong?", p 267.

[50] Ibid, p 268.

[51] The story is about a man deemed inferior in the society portrayed in the film, and how he assumes a role to infiltrate and become an astronaut. Something forbidden for the people of his status.

[52] Savulescu, Bostrom, *Human Enhancement*, "Is Selection of Children Wrong?", p 271.

[53] Savulescu, Bostrom, *Human Enhancement*, "Parental Choice and Human Improvement", p 279.

Where does the limit of enhancement stop? Peter Singer argues along the lines mentioned above, that this could open a black hole of a never ending will to perfection. If the wishes of parents can be commodified and for an example offspring become generally taller, smarter and so on - that would kill the diversity and generally make all those taller and smarter people average again. As the old desires fulfilled become the new average standard.

If everyone gains a positional good, no one is better off.[54]

This could also lead to a breakaway civilization, that sees the wealthy population having more means to put into the improvement of their offspring than poorer people.[55] Peter Singer outlines two possible ways of dealing with this breakaway civilization or a *Brave New World*[56] type of society. One is to tax the enhancement from the people who can afford it and have a government run lottery, which he says would even out the equality a bit by letting everyone get their chance.[57] Singers further stretches out this argument that even by solving this problem nationally (somehow let us assume it is done that way), what about the poor countries? This could be solved according to him by the rich countries paying the enhancement for the poor. He divides enhancement in two types, one is the *intrinsically good enhancements* and the other is the *positionally good enhancements*.[58] Intrinsically good enhancements are the ones regarding health and intelligence, while positionally good enhancements are attributes like height, hair color and such. Peter Singer means that governments only ought to promote the intrinsically good enhancements.

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[54] Savulescu, Bostrom, *Human Enhancement*, "Parental Choice and Human Improvement", p 282.

[55] Đumišić, *The Choice of Enhancement*, p 4. Savulescu, Bostrom, *Human Enhancement*, "Parental Choice and Human Improvement", p 283.

[56] Reference to Aldous Huxley's book Brave New World 1932, that plays out in AD 2450. It deals with population control, genetic modification, order of society and is one of the most eminent works of dystopian sci-fi.

[57] Savulescu, Bostrom, *Human Enhancement*, "Parental Choice and Human Improvement", p 286.

[58] Ibid, p 286.

I believe this naive sort of egalitarian lottery presented by Peter Singer will never work, as we do not have this today. Imagine having a house, two cars, university fee money and such things randomly put out on lottery. It would not be fair for the poor nor for the rich, and just imagine the corruption that it would involve. In other words, Peter Singers is talking about some almighty governmental power that will decide nationally and internationally. To ease this argument and its totalitarian implication, in my interpretation, he says that governments should promote intrinsically good enhancements and not positionally good enhancements.[59] One point Singers does have, and most can acknowledge, is that in the same manner we invest in education today, we could invest in enhancing intelligence in the future.[60] Which could become a reality in the distant future in ways we cannot foresee today.

Julian Savulescu is explicitly pro genetic enhancements as he sees it as something morally obligatory.[61] He regards this as just another possible way of making lives better for children, just like parents always seek the best they can offer.[62] He is also for a free market regarding genetical pre-birth modification. He sees the future of all these biotechnologies as a duty towards improving our traits.[63] When he says that bio-technology does matter, he is promoting honesty regarding the discussion - for if it was not possible for genes to be tampered with today, and even more in the future, we would not be discussing the ethical aspects of it. But as it goes, genes are beyond a certain predisposition not the sole factor that determinate what and who we become. Although they do lay down the potential predisposition we have towards intelligence, physical attributes and diseases. As mentioned earlier he openly promotes a "good" and foresighted eugenics.

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[59] Savulescu, Bostrom, *Human Enhancement*, "Parental Choice and Human Improvement", p 286.

[60] Ibid, p 288.

[61] Savulescu, Sparrow, *Making Better Babies, Pro and Con*, p 3.

[62] Ibid, p 6.

[63] Ibid, p 4.

> *Eugenics literally means wellborn, it means selecting genes that are better for your children. So too is genetic testing for Down Syndrome, Cystic Fibrosis, Thalassemia, and in fact all of the genetic tests that are allowed already under current legislation.*[64]

One of the main hopes and arguments in the argument that is pro genetic enhancement (enhancement according to our current understanding) is control - meaning to control our genetic fate and well-being for humanity in the future. Contrasting viewpoints are expressed by people like Robert Sparrow who maintain that we ought to use biotech to ensure healthy births rather than to try to improve them beyond the species-typical traits.[65] When Julian Savulescu openly says that he encourages positive eugenics, Robert Sparrow opposes that as it according to him sets the goals of the society prior to the individual welfare.[66] Robert Sparrow refers to the same reasons eugenics was opposed in the 1930's in Europe and North America. Our current perception of what would breed a better human future could be wrong as the European eugenics projects from the 1930's was. As mentioned earlier, something good and perfect is never good and perfect in all time and context. The eugenic goals are often outlined in longer life expectancy or medically documented and better health - not by what the individual actually experiences, feels or gives back to society, which is a point that Robert Sparrow stresses. It is all about the measurable goals instead, according to Robert Sparrow, that override the individual.[67] He compares it to a sacrifice, where we ought to have (give) babies that are genetically enhanced - because it is better for our country (or some other institutionally set goal).

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[64] Ibid, p 6.

[65] Savulescu, Sparrow, *Making Better Babies, Pro and Con*, p 8.

[66] Ibid, p 9.

[67] Ibid, p 11.

The Evasive Good Will

Kant's ethics never sought out to maximize happiness nor to reduce suffering. He did not approve of murder nor suicide - so why should he have disapproved of genetic modification today? As it works towards the goal of *humanity in itself*? Being a rational choice of improving the predisposition of human life quality by genetically enhancement. In answering my question "*Which types of pre-birth genetic modification are acceptable from the perspective of Kant's ethics theory?"* there are two major aspects that must be dealt with. Departing form Kant's deontological view on the *good will* and *duty* one of the two major fronts is the point of view of when a subject becomes a rational being, and second where the line is drawn on how much, and whether at all, genetic enhancement would bee seen as morally right.

On the first aspect I have reached the conclusion that the moral responsibility is to be laid on the people who bear these best according to Kant, that is the parents and on a wider scope the doctors, legislators and such. The right action according to Kant is to treat the embryo as a potential human being and respect it as such. Thus overcoming the issue of deciding where exactly a rational human being is created. If this was not the case, then the arguments that treat embryos and fetuses as non-sentient things, could be stretched to people who due to birth-defects or later injures are not rationally independent, would thus be seen as those same embryos and fetuses - as something disposable just in a later stage of human life. This is definitively treating someone as *a means to an end* and not also as *an end in themselves*. As the example given with disability we can see that society, at least in the Western World, has improved and still improving the life quality of those people. The example of this was given with the thalassemia example earlier. They are included in society, just as the potential life at the stage of embryos or fetuses ought to be. Kant promotes the idea of parents offering the best for their children, thus the rational responsibility lies with parents and indirectly also with the medical professionalism that is available.

On the limits to genetic enhancements according to Kant's ethics I come to the conclusion that it is permissible, to some extent. Kant argues for the responsibility of taking care of children, and that does automatically include the current medical advancement of a given society at a certain time. The limits, if we can call it like that, is set on whether the child is begotten or constructed. I conclude that in this day and age it would be in line with Kant's arguments to focus on the impossible, the motive, desire and inclination that couples have when they make babies. As there is no, not even theoretical, way of making sure everyone has a good will in accordance to Kant's ethics in their path to becoming parents, we are left with ideas, concepts and hypothetical assumptions. That even at that form still shine a light on this moral topic. A constructed baby, a designer baby is what can be offered by what was earlier mentioned as the *genetic supermarket* by Robert Nozick. Kant's arguments interfere here as the free market is not appropriate for the essential building blocks of human life, our genes. In an eventual scenario like the *genetic supermarket*, according to Kant's ethic, life in all of its stages would be treated as a means to an end - and that end would see variations as their are people and money to be spent on them. With that said, Kant has strong ideas of taking care of children and I reason that his ethics would not interfere with a couple that is morally adapt to have babies and need medical intervention for that. This leaves us with the grey zone of when those couples who do IVF can be offered genetic intervention as well, and if we lay some attribution-selection to that intervention, we have a situation where genetic enhancement will happen anyway.

On this last conclusion about the grey zone I reason that there is no certain answer but a myriad of ideas. I see that as the potential dividing factor in the policy making of genetic enhancements in the future, on a global scale. As euthanasia is today. Some countries allow for that while others enforce palliative care, in what could be argued only for the sake of not breaking the medical codex of life preservation.

In regards to Kant and to my question "*Which types of pre-birth genetic modification are acceptable from the perspective of Kant's ethics theory?*". I come to the conclusion that Kant's ethics would allow for the medical intervention to procreation and preventive solutions to

stop an embryo from developing heavy disabilities. Meaning certain types of therapeutic interventions. The limit is thus set on anything that includes a choice based on inclinations and that disapproves of anything involving consumption in regards to genes and designing babies at a pre-birth stage.

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