

A recent study found the following: “46 percent of adults approved of genetic modification of babies to reduce the risk of serious diseases”; however, 83 percent disapproved of using genetic modification to make a baby smarter, saying it would be “taking medical advances too far.”¹

No: Current efforts suggest that such technology will be prohibitively expensive. For instance, a type of gene therapy that addresses hereditary eye disease currently costs \$850,000.² Accordingly, the result of GE will be “a dystopia of super-people and designer babies for those who can afford it.”³ Giving additional advantages to the ultra-rich—such as a dramatically increased IQ and the ability to work on three hours of sleep⁴—will only exacerbate wealth inequality. At present, the top 10% have more than three times the bottom 90% combined.⁵ As research demonstrates, such wealth inequality is inversely correlated with both socioeconomic mobility and democracy.⁶ At our current level of inequality, for instance, the economic elite have % more political influence than the average American.⁷

Yes: The opposition assumes that GE will be available only to the rich. Like any public service, however, it can be regulated and subsidized by the government. By removing variations in the genetic lottery, GE could actually help to reduce rather than increase inequality. Rather than only a few being born with superior intelligence, aptitude, and looks, everyone could be a genetic “winner.” Even if such technology remains in the hands of private enterprise, however, it would still be worth developing. The intellectual history of the world repeatedly demonstrates one maxim: an extremely small minority of people have produced the overwhelming majority of intellectual discoveries. If we could regularly produce super geniuses we might solve many of the world’s current problems: the cancer epidemic, climate change, global poverty, etc.

<https://docs.google.com/document/d/1BKlAXyHyggczlfsiDYCns-dC54Rs5DdH6tEq9ld2e40/edit?usp=sharing>>Find Out More

<https://www.engadget.com/2018/01/03/gene-therapy-treatment-eye-disease-cost-850000/>

Should genetic engineering on humans be allowed? (v 1.0)

Note: “Why is America no longer a democracy?” is required reading before this prompt.

To a certain degree, each of us is the product of a genetic lottery: certain traits like eye and hair color had little room for variation, but others such as intelligence, personality, and interests were the product of chance. Hopefully, the results were favorable because the genetic lottery can be played only once. But what if we could ensure that the roll of the wheel from zero to a million landed on a million every time? What could possibly be bad about this idea? Surprisingly, the overwhelming majority of Americans do not support this idea. A recent study by the Pew Research center, found that while “46 percent of adults approved of genetic modification of babies to reduce the risk of serious diseases” 83 percent disapproved of using genetic modification to make a baby smarter, saying it would be “taking medical advances too far.”[1]

The fear, according to some sources, is “a dystopia of super-people and designer babies for those who can afford it.”[2] Until we consider the history of inequality, particularly in America, this fear seems overblown. The primary concern is that the technology will deepen the already stark divide between upper and lower classes. As “why is America no longer a democracy?” demonstrates this move will only further concentrate economic and political power into the hands of the few, giving them unprecedented control over the masses. Imagine, for instance, taking the wealthiest Americans – those who already have the best opportunities that money can buy – and doubling their IQ, giving them the ability to effectively work on 3 hours of sleep a night (there is really a gene for this), steeling them with near super-human endurance, and making them immune to all genetic predispositions towards things like depression, heart-conditions, obesity etc. The potential difference between a genetically modified human (once the technology is matured) and an unmodified one brings to mind Darwin’s evolutionary model. It may not be a stretch to suppose that this is the next step in human evolution. Yet, if this is the next step, then only the rich will be taking it. It may, therefore, not be hyperbolic to evoke Darwin’s concept of the survival of the fittest: if we assume that this new superclass is only concerned about its own well-being – and what superclass has not been? – then this new class might outcompete the underclass for all of the available resources. With each passing generation, then, the superclass will expand its power and the underclass will become more destitute, slowly dying away. There is an equally dark alternative: the superclass enslaves the underclass. This much has been depicted in movies like the matrix, where one race controls another through its superiority. The difference is that while computers have not yet had a chance to demonstrate their willingness to enslave people, humans have; and history demonstrates that as soon as the *appearance* of inequality can be given as justification, humans will either marginalize, oppress, or enslave the weaker group. In this dystopia, then, genetic engineering might lead to the eventual enslavement or outcompeting of non-genetically modified humans.

Does it have to be this way, though? It would be creating a strawman of the opposition to frame their argument like this: we shouldn’t have something good, because it could be misused. Rather, opponents are arguing that the probability of its misuse multiplied by the damage of misuse is greater than the probability of correct use multiplied by the benefit of correct use. Understood in this way, advocates have recourse to two arguments: the opposition is exaggerating the likelihood or damage

of misuse; the opposition is downplaying the likelihood or benefit of appropriate use. Each will be briefly examined:

1. The likelihood of genetic engineering creating a dystopia or a utopia is not primarily dependent upon human nature, which is unchangeable, but upon politics, which is changeable. Assuming that genetic engineering will be prohibitively expensive for most, the primary question is: will it be subsidized, like other public services such as roads and education, or will it be completely open to free-market forces? Conservatives will push for corporations to dictate the pricing of genetic engineering: they ought to be able to charge as much as people are willing to pay without government interference. This, of course, will leave the door wide-open for the dystopia that opponents are concerned about. Liberals, particularly democratic socialists (i.e. followers of Bernie Sanders) will argue that genetic engineering – like medical insurance – ought to be available to everyone. They will want the government to set price caps and provide subsidies to people who can't afford it. This would ensure that, far from being a polarizing force, genetic engineering would be an equalizing one. Because of chance, there are necessarily “winners” and “losers” in the genetic lottery; if genetic engineering were equally accessible to all, however, it would make everyone a genetic “winner.” The problem with this argument is that FDR's New Deal is the closest thing we've had to democratic socialism in America; Sanders overwhelmingly lost the election, failing to make even make it past the primaries, and America is currently dominated by Republicans in every branch of government. It seems likely, then, that in societies without very liberal governments, genetic engineering will only increase inequality.

2. The opposition's argument works only because it assumes that genetic engineering will produce tremendous and unfair benefits for the genetically modified. Let us suppose, for the sake of argument, that genetic engineering will only be available for a select number of people and thus will create inequalities. Will it be worth it? Yes, but only if two conditions are met: the genetic engineering must focus on increasing intelligence; and the modified person must use that intelligence for public good, not private gain. The intellectual history of the world repeatedly demonstrates one maxim: a small minority of people have produced the majority of significant intellectual discoveries. Imagine a world without Einstein, Newton, Shakespeare, Bill Gates or Freud. As a society we have derived disproportionate benefit from the work of a few people and it would be preposterous to deny humanity the chance to do so on a consistent basis: we have yet to cure cancer, colonize mars, find renewable energy, solve the epidemic of depression and suicide, or contact extraterrestrial life (if there is any). We might speed up this process exponentially if we could regularly produce geniuses of Einstein's caliber.

Develop one of the following positions:

1. Genetic engineering of humans should be prohibited.
2. Genetic engineering of humans should be allowed with or without restrictions.

[1] <https://www.nytimes.com/2017/08/04/science/gene-editing-embryos-designer-babies.html#>

[2] <https://www.technologyreview.com/s/535661/engineering-the-perfect-baby/>