As scientists continue to race toward their goal of mapping all of the genes in a human being, more and more people are asserting that the repercussions of the genetic revolution will outstrip the effects of the industrial, atomic, and computer revolutions combined. This belief stems from the reality of our newly found ability to deliberately and specifically change the fundamental qualities of a living organism by simply adding to, subtracting from, or rearranging its genetic structure. This power is expected to extend to human beings in ways previously hardly even imagined.

As our knowledge of human genes and the proteins they code for becomes more complete, our awareness of just how much our individual genetic codes matter in defining our strengths and weaknesses will increase. This awareness will intensify the pressure to predetermine or alter our individual gene sequences. Many parents will feel compelled to do what they can to ensure that their children have the best genetic health possible and also may likely choose gene therapy for themselves to stave off the onset or progression of a genetically-based illness.

While the interface between genetic technology and health is itself fraught with many ethical challenges, the prospect of genetically engineering other "desirable" traits into human beings is perhaps the messiest quagmire of all. Most people are comfortable with using genetic engineering to combat the effects of a deadly genetic disease, but few would believe that we should allow the indiscriminate use of genetic technology to suit a personal whim. However, this attitude will likely change as genetic technology becomes more familiar.

Simply arriving at a fair and consistent system of where to draw the line will be more difficult than it may seem. It is tempting to suggest that we simply allow genetic engineering for strictly medical, or "therapeutic," reasons and avoid the pitfalls of "designer babies." However, this often-voiced solution would likely be less than
straightforward. For example, to the extent that the medical community regards a learning disability as a medical problem, gene therapy intended to raise a child's IQ might be classified as therapeutic. Would a child's inability to concentrate also fall into this category? What about a difficulty in retaining information? At some point the line where genetic intervention is carried out for the sake of improving health will be crossed, but people will surely disagree about where this line lies. Such a lack of clarity might likely be heightened when parents are faced with making decisions which will affect their own child.

There are a host of other significant problems on the horizon if genetic enhancement is allowed. First, there is the issue of who would pay. If people undergoing such intervention must pay for it themselves, then only those who are rich would be able to afford it. Such a scenario could lead to the creation of separate classes of human beings: the enhanced and the non-enhanced. Second, we would also have to wrestle with the fact that we would often be making irrevocable decisions for our children that would affect them for the rest of their lives. This prospect is particularly poignant when considering the possibility that a single gene may have multiple effects. What if enhancing verbal skills reduces athletic abilities? Could a child sue? Enhanced individuals also face the pressure of exaggerated expectations. The normally produced child of a genius faces pressure enough, but what if the child of a genius has her intellectual gifts even further enhanced? Shouldn't she outperform her father? Might it be best—perhaps ethically required—to make available only to consenting adults any enhancement that a person could conceivably not want?

Eventually we will all be affected by the increasing power of genetic knowledge and technology. Whether we ourselves face genetic technology choices or are asked to vote for candidates who will pass genetic legislation, we need to be able to make informed decisions. Given the enormity and personal nature of the coming genetic revolution, we can no longer afford to be ignorant of these issues.

This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivs 3.0 United States License.

Source URL (retrieved on 08/27/2017 - 04:07): https://cbhd.org/content/genetic-intervention-ethical-challenges-ahead