

Title:

The Promise and Peril of Genetic Manipulation

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564

Summary:

Genetic manipulation, while a distant possibility given the current limitations of technology and human understanding, is something that is already being opposed. This is partially the fault of science fiction, which can sometimes feature genetically superior humans in large numbers, often with ideals and ethics that put them at odds with normal humans.

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sexual health

Article Body:

Genetics (and, by extension, genetic manipulation) is a field of science that has the potential to stir more controversy and protest than any medical issue that came before it. This is because understanding the principles and controlling the variables of genetics opens up the possibility of humanity taking the reins of its own evolution from nature. The ability to alter genetics and "design" future generations, however, can pose consequences that may be unknown to current scientific thought such as the fictional "genetic saturation" seen in the anime series "Gundam SEED." In the series, genetically upgraded humans, while possessing mental and physical abilities surpassing their genetically "pure" counterparts suffered problems related to their sexual health.

A few episodes of the series noted that genetic superiority came at a cost that none of them had anticipated: sterility. Their physical capability to engage in sexual intercourse was not compromised, but their sexual health suffered in the sense that those who didn't have genetically "pure" parents could not sire offspring. The problem, according to dialogs on the show itself and background information released by the creators of the series, was that the upgraded genes had "saturated" the gene pool, to the point that combining one's upgraded DNA with others who had genetic upgrades effectively "shut down" the ability to procreate naturally. The only solution found within the series that did not involve sacrificing genetic superiority was to add further alterations to the human genome. This was stated to be little more than a stop-gap measure, a short-term fix for a dangerous sexual health problem. According to the follow-up

series, "Gundam SEED Destiny," further changes to human DNA would only compound the problem within "two or three generations."

Of course, sexual health is rarely considered to be an aspect of human existence that would be compromised by artificial genetic upgrades. In most science fiction shows that exhibit it, writers seem to be more concerned with the moral and cultural implications of being "genetically superior." One such example can be found in Gene Roddenberry's "Andromeda," where a human sub-race known as Nietzscheans had drastically opposite values from normal humans. The Nietzscheans, as a race, take pride in their genetic superiority and will go to great lengths to both ensure that they pass on their genes and prove that they have superior genetics. This extends not only to unaltered humans, but also to their fellow Nietzscheans. This takes the form not only of physical conflict, but also in political, social, and physical backstabbing, betrayal, manipulation, and competition. To the typical Nietzschean mentality, passing on superior genes is the best way to ensure that the entire race is made stronger with each successive generation, ensuring their continued survival and superiority over the much more numerous ordinary humans.

The pursuit of genetic superiority, however, has fueled a phenomenon in science fiction that has a frighteningly realistic parallel. Even with just the prospect of manipulating genetics looming somewhere on the horizon, there are already groups opposing studies going into that area. There are clear benefits aside from genetic superiority, such as the possibility of ridding humanity of diseases with genetic links. However, there are several groups that are throwing religious and theoretical arguments against genetic manipulation. Science fiction has echoed this sentiment in several stories, with most sci-fi worlds that have genetically superior humans being opposed by armed, militant groups of the "genetically pure."