

# Master race dystopia is closer than we think

We'll soon be able to select embryos for their IQs, just as Stephen Hawking and Aldous Huxley warned

Ben Macintyre



@BENMACINTYREI

Many years ago, I travelled to Paraguay to try to find a lost tribe of white Aryans, deep in the jungle.

The people of Nueva Germania (New Germany) had been brought to Paraguay in 1886 by Elisabeth Nietzsche, the ghastly antisemitic sister of the philosopher Friedrich Nietzsche. In a precursor of the Nazi eugenics programme, Elisabeth imported several dozen peasant German families with the aim of building an Aryan republic where Germans of "pure blood" would breed a master race in the South American wilderness.

It was a mad idea. And it failed spectacularly. Elisabeth Nietzsche swiftly abandoned the experiment and returned to Germany to look after her now-insane brother and hijack



Embryos could soon be screened for intelligence, echoing the Nazis' attempt to breed a master race



his writings for the Nazi cause. But as I discovered in 1990, the remnants of the colony were still there, five or six generations later, still speaking German, intermarrying, living off their ever-diminishing genetic capital. As a result, many suffered from inherited disabilities, physical and mental, the direct consequence of in-breeding.

New Germany was living proof that breeding a master race was impossible. Until now.

Times 17.11.2018

An American company has recently developed a technique for screening embryos to calculate their likelihood of developing a wide range of diseases, including breast cancer and diabetes; it can also test for "intellectual disability".

Genomic

Prediction will enable parents using IVF to select their children, at least partly, on the basis of intellectual ability. Although the company is not offering this, a technology that can identify abnormal lack of intelligence will also be able to pick out embryos with a predisposition for unusually high IQ.

We are not there yet. The genetic and other variants that affect intelligence are still being explored, and selecting embryos on this basis may have unintended consequences, as artificial breeding frequently does. Cognitive disability is a genuine health problem, and arguably

parents should be able to screen for it as they already can for other chromosomal conditions, such as cystic fibrosis. So-called polygenic scores — identifying conditions attributable to many genes rather than just one — suggest that particular variants may decrease or increase IQ, but quite how remains unclear.

For the first time, though, science offers the opportunity to select offspring on the basis of brain power, as well as eye colour, pigmentation, height, gender and longevity. Offered the opportunity to choose an embryo with a potentially higher IQ, few parents would hesitate. "I think people are going to demand that," Stephen Hsu, co-founder of Genomic Prediction, told *New Scientist*. "If we don't do it, some other company will."

In an essay published posthumously, Stephen Hawking warned that advances in genetic science would eventually create a generation of superhumans able to redesign and improve themselves by manipulating the genetic make-up of their offspring. "I am sure that during this century, people will discover how to modify both

intelligence and instincts such as aggression... Some people won't be able to resist the temptation to improve human characteristics, such as memory, resistance to diseases and length of life."

In Hawking's nightmarish vision, there will be stark genetic division in society: a biologically improving elite and a mass of "unimproved humans" without the power or resources to edit their genetic inheritance. "Once such superhumans appear, there will

## Twisted by the Nazis, Nietzsche's concepts inspired the Holocaust

be significant political problems with unimproved humans, who won't be able to compete."

Many people already consistently improve themselves and their offspring, when they can, with private education, cosmetic surgery and advanced healthcare. If there is the opportunity to rig the science of reproduction in favour of an improved outcome, those who can afford it, will. The survival of the

But what constitutes "welfare"?

Most parents would feel that choosing an embryo likely to produce a more intellectually able child, despite creating a societal division with another child for whom that choice was unavailable.

Aldous Huxley's *Brave New World* evoked the dystopia of improved humans manufactured by science. But like all scientific breakthroughs, polygenic screening and gene editing have the potential for huge benefits, as well as harm. One or two babies in every hundred are born with genetic disease; millions inherit higher risks of cancer and dementia. Set against that is the grim spectre of a world in which part of the race is biologically self-improving, while leaving behind the genetic have-nots.

In *Thus Spake Zarathustra*, Nietzsche introduced the concept of the Superman, the *Übermensch*, an ideal human as humanity's goal, in which each generation aspired to improve the next. Twisted by the Nazis, it helped to inspire the Holocaust.

More than a century after Nietzsche's sister tried, and failed, to create a master race in the jungle, the science of the Superman has arrived.

fittest occurs naturally; now it may be possible to control the same evolutionary process artificially.

Henry Greely, professor of law and genetics at Stanford, predicts that 20 to 40 years from now a majority of babies will be born by IVF, after being screened to ensure their embryos are the healthiest their parents could produce.

Earlier this year, the Nuffield Council on Bioethics concluded that it was "morally permissible" for parents to use gene-editing technology that can snip out bad DNA and replace it with healthy code, in order to "influence the genetic characteristics of their child". Aimed at preventing inherited genetic diseases, such intervention was permissible, the council ruled, only if the intent was "to secure, and be consistent with, the welfare of the future person" and did not "increase disadvantage, discrimination, or division in society".