

We Cannot Transcend Evolution

Blithering Genius

2014 February 23

Contents

1 What Is Evolution?	1
2 Modern Civilization Does Not Transcend Evolution	2
3 Modern Civilization Is Dysgenic	3
4 Genetic Engineering Does Not Transcend Evolution	3
5 Birth Control Does Not Transcend Evolution	4
6 The Solution Is Eugenic Reproduction Control	4
7 If We Choose To Fight Nature, We Will Lose	5

Many people believe that we have transcended evolution, due to modern technology and the welfare state. This belief is false. We have not transcended evolution, and we will never transcend evolution.

1 What Is Evolution?

Evolution is a process that operates on a population of organisms, or (more broadly) on reproducing units.

Evolution has three basic components:

- **Reproduction:** Organisms can create copies of themselves, or split into new copies. Reproduction implies the capacity for exponential increase.
- **Mutation:** Occasionally, heritable information is randomly changed, creating variation within the population.
- **Selection:** Organisms need resources to survive and reproduce. There are also environmental hazards, including other organisms. Some forms are better at reproducing than others. Forms that are better at reproducing will become more common.

When you have these three components, you have an evolutionary process.

Although selection can be positive or negative, we can think of it as a purely negative force: resistance to reproduction. Selection includes all the challenges that have to be overcome for an organism to reproduce. Positive selection is just reproduction.

There is a dynamic balance between these components:

- Reproduction adds organisms to the population.
- Mutation adds information to the population.
- Selection removes both organisms and information from the population.

If you remove any of the three components, the process is no longer balanced.

- Without excess reproduction, the population would shrink, because some individuals die young, and new mutations make some individuals unfit. Replacement-level reproduction would eventually lead to extinction.
- Without mutation, no new information would be added to the population, and it couldn't improve its fitness or adapt to a changing environment.
- Without selection, both population size and disorder would increase without limit. Selection is necessary to remove the excess copies and information added by the other two components.

Reproduction and selection create order out of chaos. Information is added randomly, but if it is copied many times by reproduction, then it has been selected to contribute to reproduction, and it is no longer random. Acting on variation, reproduction and selection generate recurring forms that have functions.

2 Modern Civilization Does Not Transcend Evolution

Why do some people believe that we have escaped from the constraints of evolution? Their argument is something like this:

Modern civilization has eliminated or drastically reduced the major causes of death, such as war, disease and famine. We use technology and altruism to help the weak. Thus, evolution has been eliminated.

This view is wrong.

Modern society has not eliminated selection. That is a misconception. It has merely changed the selective forces on the population. It is true that people are not dying in large numbers from war, disease and famine, at least in the developed world. Most people live to a ripe old age. So, it is true that modern society has eliminated the major selective forces that shaped human nature in the past. But that doesn't mean we have transcended evolution.

Evolution is not really the survival of the fittest. It is the reproduction of the fittest. Survival is just a means to reproduction. Fitness is the ability to reproduce. Selection operates through both death and birth. For most species, premature death is the main form of selection. Competition for mates can also be important, especially for males. For modern humans, selection operates mainly through fertility. Genes that correlate with high fertility are positively selected. Genes that correlate with low fertility are negatively selected.

Selection cannot be eliminated, because it is necessary to maintain the size of the population and the order of the genome. Most people understand the need for population control, but few understand (or accept) that selection is also necessary to maintain the order of the genome. Without selection, mutation increases disorder in every generation.

The evolutionary process is not just a way of generating new forms. It is also necessary to maintain existing ones. Evolution is not like an elevator that you can get off when you reach a certain level. It is more like a bird that has to keep flapping its wings to stay in the air.

3 Modern Civilization Is Dysgenic

Modern civilization enables all of its members to survive and reproduce, even if they make no contribution to society. Everyone is allowed to have children, and the state takes care of all children, even if their parents cannot support them. This seems like a nice thing to do. But what are the consequences of this reproductive altruism?

In the modern welfare state, the most effective reproductive strategy is to go on welfare and have lots of children. Genes that lead to this behavior will be positively selected. Unproductive and irresponsible people will have the most children. Over time, the population will become unproductive and irresponsible. The welfare state has a dysgenic effect on the population. It promotes reproductive “free riders” who reproduce at the expense of society.

To persist, a society needs productive and responsible members. Unproductive and destructive people are social parasites. They benefit from the labor of others, without making a positive contribution to society. A society is a cooperative system of individuals, working together for their mutual benefit. Internal conflict can destroy a society, and so can internal altruism.

There is no free lunch. Collectivizing the forces of selection does not make them disappear. It just transfers the selective forces from the individual to the society. Just as individuals can be more or less fit, a society can be more or less fit. An unfit society will eventually be destroyed by the forces of selection.

So, the conditions created by modern civilization are not sustainable. If we do not impose eugenic selection on our population, then our civilization will eventually collapse, and its population will be exposed to harsh selective forces again.

4 Genetic Engineering Does Not Transcend Evolution

Some people believe that we can transcend evolution with genetic engineering. Instead of relying on natural selection to eliminate the disorder created by mutation, we can use engineering to remove mutations. This is a more sophisticated view. It does not take the order of the genome for granted. However, it is also naive. Genetic engineering does not transcend evolution.

First, genetic engineering does not eliminate selection. It just replaces natural with artificial selection. And artificial selection is always constrained by natural selection. Life forms have to extract potential energy from the environment to maintain their order. To maintain a functional population, artificial selection would have to mimic natural selection to some extent.

Second, it is impractical to identify and fix all mutations that occur in a population. Would we create all offspring in test-tubes from approved genes? Who would approve them? How would we know

what variations might be adaptive without testing them?

Third, genetic engineering does not necessarily select for traits that are beneficial to society. If parents are selecting designer children, they would probably select for traits that we find attractive, such as beauty and intelligence. Those traits are not necessarily what society needs. A society needs people with different abilities, including different levels of intelligence. It doesn't need every man to be tall and handsome, and every woman to be stunningly beautiful. Parental selection could become a zero-sum competition for social status, with no benefit to society.

Currently, genetic engineering is used to create new variants, not to maintain the order of an existing genome. Typically, it involves adding a new gene to create a new variant of an existing type. The new type is then tested extensively. If it has the desired properties, it is grown as a monoculture in a controlled environment. This is far removed from the ability to remove harmful mutations from an existing diverse population.

People often appeal to hypothetical technological solutions when a problem seems intractable within their moral framework. This is a way of ignoring the problem, not solving it. Technology is not a *deus ex machina* that can solve any problem.

5 Birth Control Does Not Transcend Evolution

Some people believe that we have transcended evolution with modern birth control, such as the birth control pill and the latex condom. In most of the world, birth control has eliminated the first component of the evolutionary process: reproduction in excess of replacement. Many people view this as progress. They believe that we can eliminate the competition for resources with voluntary low fertility.

Can the population be limited by voluntary low fertility?

Not in the long run, because whatever traits make someone choose not to reproduce will be selected out of the population. The genes and culture of people who choose not to have children will simply be replaced by the genes and culture of those who do have children. Less fertile people will be replaced by more fertile people, one way or another.

Voluntary low fertility is a type of reproductive altruism. The welfare state is top-down reproductive altruism: society subsidizing the reproduction of the unproductive. Voluntary low fertility is bottom-up reproductive altruism: individuals not reproducing to the fullest extent possible, and thus leaving resources to be used by the children of other people. Both types of altruism are self-eliminating.

Overpopulation is a problem, but voluntary low fertility is not the solution.

6 The Solution Is Eugenic Reproduction Control

A sustainable civilization requires selection to regulate the size of its population and the order of its genome. Birth control could replace high child mortality as the mechanism of selection.

For this to work, birth control cannot be voluntary. Society must impose eugenic reproduction control on the population. This could be done simply by making the right to reproduce conditional on the obligation to be a productive and responsible member of society. Before having a child,

potential parents should have to demonstrate their social responsibility and productivity. In practice, this would mean not allowing criminals or people on welfare to have children.

Eugenic reproduction control would regulate the size of the population. During periods of scarcity, fewer people would have the means to support children, so fewer children would be permitted. During periods of abundance, more people would be allowed to have children. By setting an economic threshold for having a child, we could sustain a level of prosperity and comfort indefinitely.

Eugenic reproduction control would also regulate the order of the genome. It would directly select for productivity and responsibility. It would also maintain the health and vigor of the population. Healthy people are more economically productive, generally speaking, and so they would be able to have more children.

Eugenics has a bad name, but it shouldn't. It is necessary and inevitable.

The type of eugenics that I propose is not based on the idea of a master race. It allows for genetic diversity. It appeals to a basic principle of social organization: that rights and responsibilities should be balanced. Because selection would take place mostly through birth, rather than death, it would allow for some degree of charity and welfare. Without reproductive altruism, the welfare state would be sustainable.

We could have a sustainable civilization in which almost everyone has a comfortable and dignified life. On the other hand, if we do not build this regulatory feedback loop into our civilization, it will eventually collapse.

In the long run, population control and eugenics are necessary for maintaining civilization. If we are going to eliminate war, disease and famine (and I think that we should), then we have to replace those selective forces with other forms of selection.

7 If We Choose To Fight Nature, We Will Lose

We cannot transcend evolution, because we can never escape from the evolutionary process that creates and maintains human nature. We can change the environment in which this process operates (in fact, we have always done so), but we cannot change the process itself.

Evolution didn't end when we discovered stone tools. It didn't end when we started using fire. It didn't end when we developed agriculture. It won't end because of the industrial revolution.

No matter what we do, we will never transcend evolution.