



THE STOIC PHILOSOPHER

A STOIC APPROACH TO GENETICALLY MODIFIED ORGANISMS



WHEN SHOULD A STOIC TINKER WITH NATURE?

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Introduction

Every organism on earth has deoxyribonucleic acid (DNA). These molecules contain regions called genes that direct the production of proteins. Proteins then become part of the organism, directing other chemical reactions in the cell, and triggering other cellular processes, etc. During the late 20th and early 21st century, a massive expansion of science and technology has enabled researchers to alter the DNA of an organism and even add genes from another species. These Genetically Modified Organisms (GMOs) are especially prevalent in the fields of food production and manufacturing. Among the potential benefits of this technology are organisms that can now produce human insulin, provide vitamins essential for human health, or can grow in soils without the need for expensive herbicides or pesticides.

However, GMOs may not be a panacea; many critics of genetic modification believe the technology promotes a form of monoculture that benefits large corporations while creating unhealthy food and possibly harming the environment. (e.g. Grain.org). How a Stoic should act in light of such information is a complex question which depends on an individual's

role and other factors. In this essay I will argue that a Stoic practitioner who is living their life according to the Stoic virtues (wisdom, justice, temperance, and fortitude) in the 21st century would use/promote genetically modified organisms (specifically crop plants in this essay), but only in certain circumstances.

Background

The Stoic view is that God is immanent in all things and governs the Cosmos with divine reason, making the universe benevolent and providential in nature. While every rock, hill, and tree is imbued with some aspect of this divinity, humans have the additional spark of divine reason. This divine reason unites all humans in a family with the divine and can be cultivated and honed over time. As a Stoic matures, they begin to have sympathies beyond themselves, to their parents, families, and with practice, all mankind (Schofield 243-244) and possibly with all of life on earth (Whiting et al. 2018).

Human excellence (areté) or virtue is key to making the most of our divine reason. In order to live well in this world, we must make use of wisdom, justice, temperance, and fortitude. Stoic practice can be divided into three domains: judgment, desire, and impulse toward action. Judgment requires objectivity in decision making, desire requires one to accept things as they are, and impulse toward action requires the

practitioner to exercise justice toward others (Hadot, 44).

The Stoics see virtue as the only true moral good and vice as the only true evil. Everything else falls into the category of externals/indifferents. Externals can have value (axia) as they are the medium by which one can exercise virtue. From a moral standpoint, externals have no effect on the wellbeing of a Stoic, however, the way the Stoic interacts with them, the choices she makes regarding them, the actions she takes etc. do have a moral implication.

"If good health, rest, freedom from pain are not likely to hinder virtue, shall you not seek these?"

Steve lives with his wife and son in central Arkansas, where he is a university biology lecturer. He discovered Stoicism in 2016, and it has influenced his roles as a father, husband, and teacher immensely.



Yes a stoic should seek these, not because they are goods, but because they are according to nature and they can be acquired by the exercise of good judgements on my part. But the only good in them is that it is a good thing to choose them. It is not the clothes I wear, or the dinner I ate that are good, but my deliberate choice that conforms to reason that is good. Choosing to dress neatly is a good. Not because dressing neatly is a good but the quality of the selection is good. If given a choice I will choose health and strength, but the good involved is my judgment regarding these things, not the things themselves” (Seneca Moral Letters 92).

Externals are divided into three basic categories, those that are worth pursuing are called preferred indifferent, those worth avoiding are dis-preferred indifferent, while items that are not in either category are neutral indifferent (Sellars 2006, pp. 111-112). Wealth, a healthy environment, a good reputation, etc. would fall into the category of preferred indifferent while illness, poverty or polluted oceans would fall into the category of dispreferred indifferent. Whether the number of stars is odd or even would fall into the third category. These indifferent externals however do not guarantee a virtuous or happy life, therefore they are not considered to be good, as only virtue is good in the Stoic system.

Ultimately, virtue is the one thing that has value in and of itself and is worth choosing for its own sake. If externals are indifferent and virtue is the only true good, how can a Stoic avoid inaction and how can they decide what is worth pursuing and what is worth avoiding? The goal of the stoic is a flourishing life (eudaimonia) and can be summed up as: “If you want to be happy and to live well, then you should try to become virtuous, for only virtue can bring you happiness” (Sellars 2006, p. 123).

The Stoic maxim is to “live according to Nature”. This means that one must live

according to their own nature and to follow the nature of the Cosmos (see Sellars, 2006 p. 125). It may be easier to think about this in terms of the roles we have in life; we are part of the Cosmos (Cosmopolitanism), we are part of society, and we have our own individual characteristics and duties (see Johnson, 2014). To live according to the nature of the divine Cosmos, we must not expect the impossible and we must accept and expertly navigate whatever fate has in store for us. To live according to our own nature, we must first realize that we are social beings, each containing a divine spark of reason given to us by God.

Thus, we are part of the whole and every human being is our cousin. We therefore are called by reason to employ the virtue of justice in all that we do. We each also have individual characteristics that give us unique strengths, weaknesses, and duties. We each must know ourselves so that we do not take on roles that are beyond our capabilities. Once we have been assigned or taken on some role (parent, husband, teacher, CEO, etc.) we must employ virtue to play these roles to the best of our ability.

For example, Arian records a lecture of Epictetus where he describes a conversation with a father. The father was distraught when his daughter was ill, so he fled his home and asked to be alerted when her condition changed. It is acknowledged that to have concern for his daughter’s well-being was “according to nature” however, to flee his daughter’s bedside was not what a father should do and was not a virtuous action. To know what the most virtuous action might be in a given situation, a Stoic can ponder what a sage in their position might do. Though no sage has ever known to actually exist, they are the epitome of the wise person, one whose life and choices are entirely aligned with nature and consistent. The sage is the role model by which a practicing Stoic measures their progress.

The Stoics utilize a form of virtue ethics in which, unlike Aristotelian virtue ethics,

virtue plays the only role to the exclusion of externals (Gavin). In essence a Stoic must “Act as a virtuous person would act in your situation” (IEP). In other words, a Stoic can reflect on what a sage in their position would do. This means there is not a clear-cut list of commandments that a Stoic is to follow, instead, they are to use reason to tackle the specific contingencies of their situation.

When it comes to food, there are some (somewhat contradictory) guidelines for action provided in ancient texts. Chrysippus, the third head of the Stoic school is reported to have thought that God provided life to pigs in order to preserve their meat (Cicero On the Nature of The Gods 64). Meanwhile the teacher Musonius Rufus argues that the best diet for a Stoic is one that is natural, vegetarian, easy to find, and easy to prepare (Fragments of Musonius Rufus pp 113-121). Current Stoics have a lot of ethical choices to work through (if their circumstances permit) when making dietary choices. Including whether to be omnivorous or vegan, what is the source of the food, is it organic, is it a GMO?

A Stoic must consider the source of their food, how ethically it was produced, transported and sold, etc. The virtue of Justice may well also require 21st century Stoics to take the well-being of the organism they are consuming and the environment into consideration (Whiting et al. 2018, 2020). These choices also apply to how a Stoic might vote, how they may make choices regarding their business and even in the choices they make when helping others.

The Problem

At the time of Zeno, it likely would not have been wise to grow and promote GMO crops if they had been available at that time. The entire world population was between ~150 and ~200 million people (Census.gov) at that time; and there was sufficient land available to grow food without causing irreparable harm to the environment.

Things have changed in the last 2200 years. Over 40% of the earth's surface is now devoted to agriculture (Owen, 2005). The earth is heavily affected by the mechanized agriculture needed to feed the current population of almost 8 billion people (Census.gov), the amount of cleared land, along with pesticides, herbicides and fertilizer utilized in modern agriculture all contribute to environmental degradation and impact human health.

Genetically modified crops offer the possibility of reducing the amount of chemicals that need to be applied to crops. Meanwhile, the alternative, organic farming, also suffers from issues involving chemical runoff and utilizes more land than conventional farming (De Lury 2019). GMO crops offer the possibility of using less land to grow more food while utilizing fewer pesticides and even providing nutrients that are lacking in impoverished diets (e.g., Tang et al. 2009).

GMO organisms however pose the risk of spreading their genes to other domestic crops or wild organisms which may pose potential health or environmental risks; there are also major ethical concerns with GMO crops regarding intellectual property rights held by many large corporations that possess copyrights on biological organisms that they have modified (Bawa and Anilakumar, 2012).

Discussion

To the Stoic, Nature is providential and rational. God permeates all things and nothing happens in the natural world that is ultimately bad. Only our own choices fall into the realm of good and evil. The Stoic must be wise, moderate, and just when making decisions regarding GMOs. If GMOs were to be utilized pell-mell, we may be able to feed more people in the present but at the cost of the future generation's ability to grow healthy food and have a healthy natural environment. This is a form of "temporal justice" that I believe a Stoic must consider. Temporal justice is

taking into consideration how current actions may benefit a few now, but negatively impact many later. That being said, the current methods of industrial farming and even large-scale organic farming are not always a wise solution.

A Stoic cannot proceed towards becoming a sage while decimating the environment. The Natural world is an external and therefore an indifferent, but it would be unjust to cause irreparable harm as the natural world is the foundation of all biological life, including the lives of future generations. As stated above, our actions are within the realm of good and evil. Therefore, in circumstances when a crop is available that would benefit society as a whole (not just the corporation producing the product) and is not likely to spread its genes to other crops or the natural world, a Stoic would likely choose to utilize genetically modified crops. In other circumstances they may choose wiser and just methods of feeding the world population.

Perhaps one day, the world will become populated by sages, in this case everyone would act wisely and the world population growth that we have seen for the last several thousand years would decline to a sustainable level. Until then, we have to make the best of the situation as it presents itself, by informing ourselves of the risks and benefits of various agricultural solutions and choosing the best path forward based on our current available evidence. We cannot control the outcome of our choices, but we can make the best decisions possible by utilizing wisdom and justice. This no doubt may also require fortitude and self-control, but it can be done!

Based on the above information, I believe that a Stoic in the 21st century would only utilize genetically modified organisms in very specific circumstances, when the use of GMO technology seems to be more rational and just than any of the alternatives.

Personal Reflection

GMOs are an excellent example of an indifferent. They could theoretically help or hurt a great number of people depending on how they are used. Before studying biology and becoming a lecturer, I occasionally helped out on my family's 120 acre farm in western Ohio. We grew GMO crops (roundup resistant soybeans and corn that produced its own pesticide). The genes inserted from other organisms made our job easier, and so long as fate was willing and the rain fell, they grew well. The downside of these crops was that, due to copyright laws, we had to buy fresh seeds each year from the producer (e.g. Monsanto). Unlike farmers from ages past, we could not legally plant seeds produced from the plants we had grown. This is a major downside of GMOs from a farmer's perspective.

However, my biggest concern with GM organisms is misuse of the technology. With new techniques such as CRISPR gene editing technology (e.g. Gao, 2018) becoming widely available, the real possibility of unregulated, or worse, nefarious use of this technology is quite possible. While I am in favor of the targeted use of this technology, I fear making it widely available and easy to use is risky. This leads to the question: As GMO techniques become cheaper and easier to use, who should be allowed to design unique life forms, and who should be excluded?

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